

Do Victims of Supervisor Bullying Suffer from Poor Creativity? Social Cognitive and Social Comparison Perspectives

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Abstract This study explores the *dark* side of leadership, treats creative self-efficacy as a mediator, and frames supervisor bullying and employee creativity in the context of social cognition and social comparison. We theorize that with a high social comparison orientation, the combination of high supervisory abuse toward themselves (own abusive supervision) and low supervisory abuse toward other team members (peer abusive supervision) leads to a double whammy effect: When employees are “singled out” for abuse, these victims suffer from not only *low* creative self-efficacy due to supervisory abuse but also *low* supervisory creativity ratings. Results based on our two-wave data collected from multiple sources—253 employees and their 77 immediate supervisors—support our theory. The significant three-way interaction effect reveals that when

social comparison orientation is high and peer abusive supervision is low (Time 1), own abusive supervision (Time 1) creates the strongest negative impact on creative self-efficacy (Time 2), which is significantly related to supervisory low creativity rating (Time 2). Our discoveries of egregious bullying offer provocative theoretical, empirical, and practical implications to the fields of leadership, abusive supervision, creativity, and business ethics.

Keywords Bullying · Leadership · Creativity · Intrinsic motivation · Prospect theory/risk averse/seeking · Leader-member exchange/LMX · Abusive supervision/own/peer/supervisor · Creative self-efficacy · Social comparison orientation · Protestant work ethic · The Matthew effect · The Nobel Prize · Apple · Steve jobs

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Introduction

Jobs (February 24, 1955–October 5, 2011) has been widely referred to as a “legendary,” “futurist,” “visionary,” and “master of innovation.” On the bright side, most leaders and innovators try to emulate Jobs because Apple’s innovative design, user interface, and ecosystem have made it a titan of American industry. Although Jobs had little involvement in the engineering and technical side of his over 450 patents, he was directly involved with product design, the look and feel of the product, and marketing. We have learned a great deal from his inspirational quotes: “Innovation distinguishes between a leader and a follower” and one of the mantras: “Focus and simplicity.”

On the dark side, others argue that we should not idolize Jobs (Wessel 2011) because his demanding personality has been widely publicized as one of Silicon Valley’s leading egomaniacs. According to Myers–Briggs Type Indicator,

Steve Jobs, a rationalist with ENTJ personality type (extraverted thinking with introverted intuition), did not deal well with inefficiency and loathed incompetence. Pfeffer (2011), a management guru at Stanford, wrote about Jobs' management style: One day, Jobs fired a person in management—this was called “being Steved” at Apple. As that manager was cleaning out his office later that day, “Jobs came by and asked him what he was doing. ‘Preparing to leave,’ was the reply. ‘Oh’ said Jobs, ‘I did not really mean it, I was just upset. You’re rehired.’” Did Jobs use sarcasm to increase creativity for both expresser and recipients (Huang et al. 2015)? Was Jobs' provocative episode (Isaacson 2012) a real example of abusive supervision (Tepper 2000)? Was it ethical for employees to have a constant fear of losing jobs? Did it hurt victims and teammates' feelings and creativity? The present study explores these issues.

Multi-national corporations, such as: Apple Computer, Facebook, Google, GE, and Johnson & Johnson, are increasingly interested in competitiveness which depends on not only efficiency (economies of scale) and effectiveness but also global integration and local responsiveness. For several decades, the speed of globalization has accelerated more than ever by eliminating trade barriers to international movements of products, services, capital, technology, and human resources. Managing the value chain and distributing value activities around the world require both configuration and coordination. Globalization and the 2008 financial crisis have created uncertainty and stress for organizations, executives, and employees (Giorgi et al. 2015, 2016a, b; Mucci et al. 2016; Tang et al. 2017; Tang et al. 2016).

In the wake of globalization, organizations rely on individual creativity to develop novel products and services, gain competitive advantage, satisfy all stakeholders, expand access, develop the recognition and reputation of its brands, and maintain sustainability in the markets. Due to leaders' position, power, influence, and major interpersonal, informational, and decisional roles in organizations (Gong et al. 2009; Lee et al. 2013; Mintzberg 1971), prior research has predominantly centered around the “bright side of leadership” on employee creativity (George and Zhou 2001; Zhou 2003).

The bright side of the Matthew effect¹ (Merton 1968) in leadership suggests that moral leadership enhances employee creativity (Gu et al. 2015). Further, treating employees well has long-term positive impacts on corporate financial success—stock returns (Edmans 2011). The

bright side of leadership has attracted a lot of attention in the literature. Since bad is more powerful than good (Baumeister et al. 2001), researchers have called for exploring the “dark side of leadership” (Jiang and Gu 2016; Liu et al. 2012) and its impacts and boundary on employee creativity (Aryee et al. 2007; Griffin and Lopez 2005; Lee et al. 2013; Priesemuth et al. 2014).

Although organizational leaders attempt to provide employees with a conducive and ethical work environment, they continue to struggle with ethical issues stemming from interpersonal mistreatment (Mackey et al. 2016). Workplace bullying, a widespread and prevalent phenomenon on the dark side of leadership, has come to the forefront. Bullying refers to the repeated *unethical* and unfavorable treatment of one person by another in the workplace (Boddy 2011). Following our opening story of Steve Jobs, bullying causes fear, stress, anxiety, and depression, which may lead to many negative consequences, e.g., turnover (Cooper-Thomas et al. 2013; Khan et al. 2015; Stouten et al. 2010), poor interpersonal relations (Warszewska-Makuch et al. 2015), burnout (Giorgi et al. 2016a; Maslach et al. 2001), safety and health issues, and other outcomes (Arenas et al. 2015; Gentina et al. 2016; Giorgi et al. 2016b). About 75% of workplace bullying are perpetrated by supervisors against subordinates (Mitchell and Ambrose 2007; Tepper 2007). Abusive supervision undermines not only leader's effectiveness but also followers' attitudes and behaviors (Han et al. 2015).

According to Kahneman (2011), a 2002 Nobel Laureate in Economic Sciences, “the *fourfold pattern* of preferences is considered one of the core achievement of prospect theory” (p. 317)—risk averse in the domain of gains and risk seeking in the domain of losses with high probability (certainty effect); risk seeking in the domain of gains and risk averse in the domain of losses with low probability (possibility effect). Employees may become risk averse or risk seeking depending on the context (Deaton and Stone 2016) created by their leaders (abusive supervisors vs. moral leaders). Specifically, if there is a constant *fear* of large losses (getting fired for low creativity, possibility effect), employees may become *risk averse* which hinders their intuition, fast thinking, and creativity. On the other hand, creativity involves a high degree of risk and uncertainty (Dewett 2007). If there is a *hope* of large gains (winning the Nobel Prize, possibility effect), *risk seeking* becomes a dominating force. Employee creativity soars quickly. Creating an ethical, safe, and secure environment may greatly excite creativity and help organizations improve performance, competitiveness, corporate financial success (Edmans 2011; Zhou et al. 2017).

Both academic studies and popular press have addressed the concerns that subordinates are often victims of

¹ To anyone who has, more will be given and he will grow rich; from anyone who has not, even what he has will be taken away (Matthew 13: 12). The Matthew effect is a double-edged sword, creating the bright side (the rich get richer) and the dark side (the poor get poorer).

supervisors' demeaning and egregious acts, termed abusive supervision (Mitchell et al. 2015; Tepper 2000). Abusive supervision is based on "subordinates' perceptions of the extent to which supervisors engage in the sustained display of hostile verbal and nonverbal behaviors, excluding physical contact" (Tepper 2000, p. 178). Examples of abusive supervision may include intimidation, e.g., using threats of job loss, ridiculing someone in front of others, withholding needed information, and applying aggressive eye contact and/or the silent treatment (Aryee et al. 2007). Abusive supervision, or bullying, is one of the most stressful phenomena in the workplace, creates a dysfunctional and toxic relationship, and has detrimental effects on an individual's physical and psychological health (Giorgi et al. 2016a, b). Employees with high task performance and high helping behaviors have low own abusive supervision and low peer abusive supervision (Peng et al. 2014). That is, those who have done well and been active in organizations are less likely to become victims of supervisory abuse. We look at the other side of the same coin and propose that some supervisors (e.g., Steve Jobs) may single out specific employees as targets for abuse due to their poor creativity. Although abusive supervision has detrimental consequences for creativity (Liu et al. 2012; Zhang et al. 2014), results are mixed. For example, Lee et al. (2013) advocated a curvilinear (inverted U) relationship between abusive supervision and employee creativity. Several lines of research delineate the possible inconsistency of these findings.

First, are there mediating mechanisms from abusive supervision to employee creativity? Drawing from social cognitive perspective, efficacy beliefs nourish intrinsic motivation by enhancing individual perceptions of self-competence (Bandura 1986; Ryan and Deci 2000). Unfortunately, scholars focus on the positive effects of supervisory behaviors on self-efficacy (Gong et al. 2009), neglecting its negative roles (Priesemuth et al. 2014). Employees who witness other coworkers' experiences of supervisory abuse may be affected by such actions (Greenbaum et al. 2013; Mitchell et al. 2012). What is less clear, though, is how own and peer abusive supervision influence employee creativity. We select creative self-efficacy—individuals' belief that they have the skills and knowledge to produce creative outcomes—as a promising mediator between own and peer abusive supervision and employee creativity (Gong et al. 2009; Tierney and Farmer 2002, 2011).

Second, considering inconsistent findings of relationships between abusive supervision and employee creativity in the literature (Lee et al. 2013; Liu et al. 2012), it is imperative to investigate the boundary conditions between abusive supervision and employee creativity. Following social comparison theory (Festinger 1954; Hu and Liden

2013), individuals are likely to compare themselves with others, those closely related members in the same team, in particular (Thau et al. 2007). Supervisory abuse occurs in a social context. Team members also tend to compare supervisory abuse toward themselves with supervisory abuse toward their peers (Peng et al. 2014). Perceptions of how the same leader (supervisor) abuses others may influence individuals' responses to their own supervisory abuse (Duffy et al. 2006). Consequently, abusive supervision directed toward themselves (own abusive supervision) and toward their peers in the same work unit (peer abusive supervision) may both influence employee's reactions to supervisors. Clearly, the formation of self-efficacy does not occur in complete isolation. In fact, it depends on evaluations of one's capability through comparisons with others (Hu and Liden 2013). Researchers, however, have not explored the combined effects of own abusive supervision and peer abusive supervision on employee creative self-efficacy. We posit that peer abusive supervision influences relationships between own abusive supervision and creative self-efficacy as well as supervisor's evaluation of creativity.

Third, according to social comparison theory (Festinger 1954), some individuals compare themselves with others, whereas others do not (Gibbons and Buunk 1999). To completely understand the interaction between own and peer abusive supervision on creative self-efficacy, we must include individuals' social comparison orientation (SCO) into our theoretical model (Tse et al. 2013). We combine social cognitive and social comparison perspectives and propose a novel three-way interaction effect of own abusive supervision, peer abusive supervision, and social comparison orientation on employee creative self-efficacy.

Our theoretical model (Fig. 1) goes above and beyond existing theories in three significant ways. First, we treat creative self-efficacy as a mediator of the negative relationship between own abusive supervision, peer abusive supervision, and supervisor's evaluation of employee creativity, significantly extending the emerging literature on abusive supervision's cognitive and behavioral effects (Priesemuth et al. 2014). Own and peer abusive supervision can harm employee creativity through their cognitive evaluations. Second, we examine the extent to which peer abusive supervision moderates the relationship between abusive supervision and creative self-efficacy. Third, we investigate the cognitive process involving effects of own abusive supervision, peer abusive supervision, and social comparison orientation on creative self-efficacy and employee creativity (Gibbons and Buunk 1999; Tse et al. 2013). Grounded firmly in social cognitive theory and social comparison perspective, we demonstrate workplace bullying's double whammy effect—victims of poor

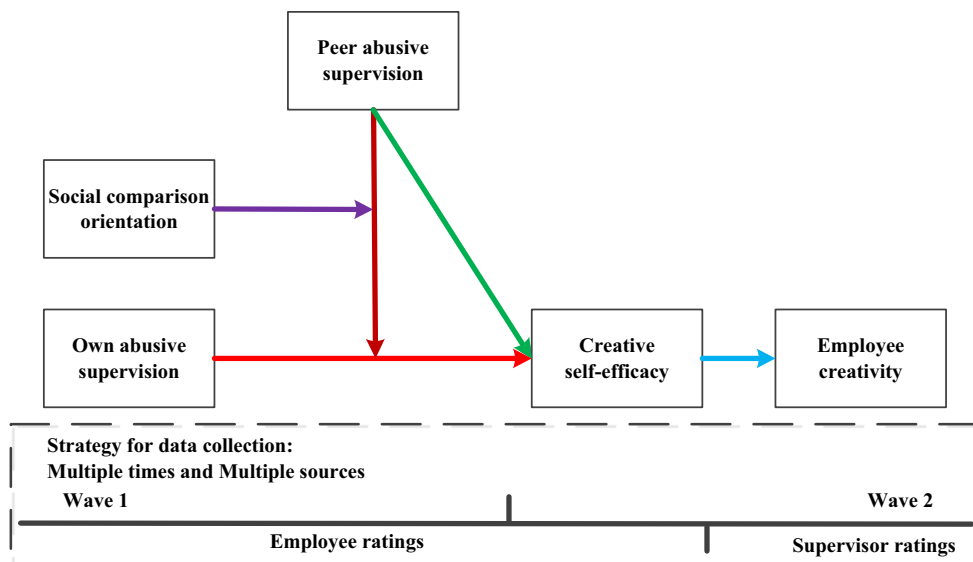


Fig. 1 Conceptual model

creative self-efficacy due to supervisor's isolated abuse are also victims of supervisor's poor evaluations on creativity—and provide novel theoretical and practical implications to the literature.

Theory and Hypotheses

Creativity

Creativity is the development of useful and novel ideas of products, practices, or procedure and improves organization vital innovation, productivity, and survival (Amabile et al. 1996, 2005; Hennessey and Amabile 2010; Mumford et al. 2002; Shalley and Gilson 2004; Woodman et al. 1993; Zhou 2003). Creativity is a social process and consists of three major components: (1) expertise, (2) creative-thinking skills, and (3) motivation (Amabile 1998). Environmental factors, such as encouragement of creativity, autonomy or freedom, and resources on the bright side and pressures and organizational impediments to creativity on the dark side, affect creativity (Amabile et al. 1996). When work environment stimulants to creativity decrease and work environment obstacles increase, innovation suffers (Amabile and Conti 1999). Creativity also involves rule-breaking, challenging the status quo, and rocking the boat (Gino and Wiltermuth 2014; Grant 2013, 2016).

Having relatively unstructured, unpressured time to create and develop new ideas may lead to creativity (Amabile et al. 2002). When external (time) pressure

increases, originality decreases (Grant 2016), “when creativity is under the gun, it usually ends up getting killed” (Amabile et al. 2002, p. 52). Fast-paced knowledge economy in the global competitive market has heightened the critical importance of employee creativity.

Own Abusive Supervision, Peer Abusive Supervision, and Creativity

A growing body of research has demonstrated that abusive supervision leads to subordinates' unwillingness to perform behaviors that benefit organizational effectiveness (Liu et al. 2012; Zhang and Bednall 2016). Abusive supervision minimizes feelings of meaningful contributions to and interests in their jobs and opportunities for professional and career success (Rafferty and Restubog 2011). Worse, abused employees suffer from psychological burnout, depression, emotional exhaustion (Maslach et al. 2001; Zhang and Bednall 2016), and low commitment (Srivastava and Tang 2015). Intrinsic motivation helps employees identify and define the problem, challenge the status quo, create useful and novel ideas and innovative goals, identify solutions to problems, and promote effective and efficient creativity and performance (Deci and Ryan 2008; Zhou and George 2001).

The reduction in self-determination and sense of competence, however, may kill employee intrinsic motivation and creativity (Amabile 1998; Tang 1990). Following the notion of “creativity under the gun” (Amabile et al. 2002), when the supervisor uses severe, unethical, and hostile

verbal and nonverbal attack, pressure, or embarrassment to bully employees, employee creativity also ends up getting killed. They hold creativity and originality back for severe self-doubt and fear of rocking the boat (Grant 2016). They withdraw their free choice (Grant 2016; Tang and Baumeister 1984), or intrinsic motivation (Deci and Ryan 2008). Due to the positive effects of intrinsic motivation on employee creativity (Deci and Ryan 2008; Liu et al. 2012), we propose:

Hypothesis 1 Own abusive supervision is negatively related to employee creativity.

Individuals do not experience negative treatments in a vacuum but rather form judgments based on the experiences of those around them (Duffy et al. 2006). Compared to own abusive supervision, peers supervisory abuse in the same unit (i.e., peer abusive supervision) refers to the extent to which coworkers are abused by the same leader (Peng et al. 2014). Research suggests that employees who witness other coworkers' experiences of supervisory abuse may be affected by such actions, even though they are not personally abused themselves (Greenbaum et al. 2013; Mitchell et al. 2012; Priesemuth et al. 2014).

Drawing from social cognitive perspective, the sense-making process by which employees interpret the meaning of external environmental cues is the core to the creative process (Drazin et al. 1999). Employees closely align social cognitions with that of their leaders' (Gioia and Chittipeddi 1991), which will guide the interpretation of expectations and behaviors. Social cues from leaders make specific aspects of the job more salient to employees and shape their perceptions of the organization's orientation toward creativity (Dunegan et al. 1992; O'Reilly and Caldwell 1985). Even employees are not directly abused by leaders, peer abusive supervision makes them feel that leaders lend less support to and patience for employee creativity. The lack of expectation for creativity and innovation undermines intrinsic motivation and reduces novel and useful ideas in the workplace.

Affective events theory (Ashton-James and Ashkanasy 2008) suggests that when the immediate work environment includes other people, carries important social cues, or provides social comparison information, it has a salient impact on the individual's emotional experiences (Tse et al. 2013). Observing other peers being abused by supervisors creates strong feelings of negative emotions in that they may be the next one in line for being abused. The next-in-line effect creates social anxiety (Bond and Omar 1990). Following the notion of emotional contagion through social networks, people may experience the same emotions without their awareness (Kramer et al. 2014).

When employees witness other coworkers' sufferings of supervisory abuse, they may realize that leaders do not respect employees' contributions to organizations (Rafferty and Restubog 2011). These negative feelings (pressure and fear) associated with abusive supervisors undermine employee creativity. Based on the arguments above, we propose the following:

Hypothesis 2 Peer abusive supervision is negatively related to employee creativity.

Creative Self-Efficacy as a Mediator

Social cognitive theory suggests that individuals seek opportunities and resources in the social environment to succeed in their endeavors (Bandura 1986). Supervisors shape employee' efficacy beliefs and provide positive impacts on creative self-efficacy. Some examples may include transformational leadership and leader creativity expectations (Gong et al. 2009; Tierney and Farmer 2011). To the best of our knowledge, very limited research has examined the dark side of supervisor behaviors on employee creative self-efficacy. Intrinsic motivation partially mediated the influence of abusive supervision on employee creativity (Zhang et al. 2014). Following these suggestions, we explore creative self-efficacy as a mediator (Shalley et al. 2004) of the relationship between own abusive supervision and employee creativity. Following social cognitive theory (Bandura 1986), ones' beliefs of being creative through social persuasion of trust, confidence, and praise may be instrumental in shaping creativity-related efficacy beliefs (Tierney and Farmer 2002, 2011). Moreover, mastering experiences gained through creative task engagement and aversive physiological arousal influences creative self-efficacy (Gong et al. 2009). Abusive supervision may aggravate employees in three areas: social persuasion, physiological state, and mastery experience. We discuss them, next.

First, social persuasion refers to the use of others' verbal encouragements to confirm their ability to accomplish tasks. When employees lack sufficient information to succeed, supervisors' verbal persuasion may provide employees with additional feedback to assess their self-efficacy (Bandura 1986). Convincing employees through verbal expressions of trust, confidence, and praise may be instrumental in shaping creativity-related efficacy beliefs (Ryan and Deci 2000). However, abusive supervisor's beliefs of employees' incompetence and public criticisms of their failures (Tepper 2000) significantly undermine employees' assessments of their own ability and creativity.

Second, aversive physiological and emotional arousals (anxiety, fear, and fatigue) inhibit the development of self-efficacy (Bandura 1997). Abusive supervisors' derogatory,

demeaning, excluding, or rude and hostile behaviors (Tepper 2000) often lead to employees' emotional exhaustion, depression, anxiety, and alienation (Jiang et al. 2016; Tepper et al. 2004). In such a distressed psychological state, abused employees may have little chance of developing positive, emotive, and affective reactions amenable to strong efficacy beliefs (Duffy et al. 2002). Employees' creative self-efficacy declines substantially.

Third, mastery experiences and past successful task accomplishments (Liao et al. 2010) are the most influential sources of efficacy information. Instead of affirming employees for being courageous and acting in accord with creative beliefs, abusive supervisors remind employees of their previous mistakes and failures (Tepper 2000). Employees abused by leaders may doubt whether they are competent enough to fulfill supervisors' creativity expectations (Tepper et al. 2011). Such mistreatments from supervisors are likely to damage their subordinates' perceptions of mastery experiences and, then, impede the formation of employee creative self-efficacy. Employees with high creative self-efficacy proactively initiate creative solutions, enjoy creative activities, and maintain their creativity (Gong et al. 2009; Tierney and Farmer 2002, 2004). Hence, employees abused by supervisors have low creative self-efficacy and subsequently exhibit low creativity. Based on these three arguments, we propose the following:

Hypothesis 3 Creative self-efficacy mediates the negative relationship between own abusive supervision and employee creativity.

Through observations and nonverbal communications, employees are aware of the quality of their leader-member exchange (LMX) relationships (Graen and Uhl-Bien 1995; Tse et al. 2013). Awareness of how peers are being treated by leaders influences employees' attitudes and behaviors in the environment (Hannah et al. 2013). Based on social cognitive theory, vicarious experiences influence individual self-efficacy through a social comparison process (Bandura 1986, 1997). Individuals gain vicarious experiences by observing and learning from social models that are similar to them (e.g., peers) (Liu et al. 2012). As it happens, peers' successes foster observers' self-efficacy beliefs, whereas failures undermine it (Bandura 1986, 1997). Witnessing other coworkers' experiences of abusive supervision contributes to the feelings that they are not competent enough to succeed in creative activities (Tepper 2000), damaging creative self-efficacy.

Positive social information enhances employee feelings of competence, self-efficacy (Gist and Mitchell 1992), and performance expectations. Specifically, perceived leader creativity expectation may promote employees' assessments of their own ability to succeed in creativity and

subsequent attributions to creativity efficacy beliefs (Jiang and Gu 2015; Tierney and Farmer 2011). Nevertheless, reminding employees of previous mistakes and failures, withholding credit for positive performance, and expressing beliefs of employee incompetence (Tepper 2000) and low trust in subordinates (Liu et al. 2012; Priesemuth et al. 2014) lead to a weakened creative self-efficacy, as a consequence (Tierney and Farmer 2004). We posit that creative self-efficacy is a mediator of the relationship between peer abusive supervision and employee creativity.

Hypothesis 4 Creative self-efficacy mediates the negative relationship between peer abusive supervision and employee creativity.

Peer Abusive Supervision as a Moderator

In a work team, members with same status have similar team resources and work interdependently on relevant tasks (Liao et al. 2010). As social comparison theory contends, people inevitably compare themselves with their team members in their work context, in order to better understand their own knowledge, skills, and abilities (KSA), the possibility of performing tasks well, their acceptance or respect displaced by team members, and their relative standing in the group (Darley 2004; Hu and Liden 2013; Wood 1996). Specifically, individuals process external informational cues to form self-efficacy in part via comparative evaluations of their own situation, relative to those of others (Bandura 1997; Blanton et al. 1999; Gist and Mitchell 1992; Liao et al. 2010). This is in line with the social comparison element of the social cognition process (Bandura 1986).

Following social comparison theory, individuals are likely to compare themselves with others who are better off (upward comparison, Festinger 1954) or worse off (downward comparison, Hakmiller 1966; Hu and Liden 2013). Those who make upward comparisons discover that they are of lower standing, relative to others, which reduces their positive self-image and decreases self-efficacy (Hu and Liden 2013; Maslach 1993). Abusive supervisors tend to send signals to individuals whom they don't like (e.g., Steve Jobs in our opening story). Supervisors provide a nudge by sending a negative message to certain employees at the bottom of their performance level. The aim is to challenge these employees, keep them on their toes, move them upward, and increase their creativity (Huang et al. 2015; Tang 1990).

If supervisors do not abuse other members of the team, then those who experience supervisory abuse tend to think they must be at the bottom of the team's totem pole. Suffering more verbal ridicule, yelling, or other forms of negative mistreatment from the supervisor than other team members may lead to feelings of self-doubt concerning

their own capabilities to pursuit creative goals (Hu and Liden 2013) and decreases of positive emotive reactions. As a consequence, they feel incompetent in fulfilling supervisor's creativity expectations (Tierney and Farmer 2004; Tepper et al. 2011) and, thereby, drop their creative self-efficacy substantially (Tepper 2000). They lost their confidence in their expertise, creative-thinking skills, and motivation (Amabile 1998).

Conversely, those who engage in downward comparisons experience positive feelings and have high confidence about themselves (Hakmiller 1966). Specifically, when their coworkers are also abused by the same supervisors, then they are "not" at the bottom of the team's totem pole. They are likely to perceive the supervisory abuse as a consistent pattern with high consensus (Peng et al. 2014). Thus, own abusive supervision will not have as strong as an effect on their self-efficacy due to high perceived peer supervisory abuse. Overall, we postulate that peer abusive supervision buffers the impact of own abusive supervision on creative self-efficacy. The higher (lower) the peer supervisory abuse, the lower (higher) the impact of own supervisory abuse on their creative self-efficacy beliefs:

Hypothesis 5 Peer abusive supervision moderates the relationship between own abusive supervision and creative self-efficacy. Specifically, the negative relationship between own abusive supervision and creative self-efficacy is stronger when peer abusive supervision is lower rather than higher.

Own and Peer Abusive Supervision and Social Comparison Orientation

According to social comparison theory (Festinger 1954), individuals who are uncertain about themselves tend to value their peers' opinions, attitudes, and behaviors (Gibbons and Buunk 1999; Thau et al. 2007). Although social comparison is inevitable (Hu and Liden 2013), individuals' tendency to compare themselves with others may vary (Thau et al. 2007). In line with this theoretical perspective, a more complete understanding of the interaction effect of own and peer abusive supervision on creative self-efficacy requires additional consideration of the individuals' social comparison orientation (SCO) (Tse et al. 2013). Social comparison orientation, a disposition, represents individuals' tendency to compare their accomplishments, experiences, and situations with those of others (Gibbons and Buunk 1999). By combining social comparison perspective with abusive supervision and creative self-efficacy, we expect a three-way interaction effect of own abusive supervision, peer abusive supervision, and social comparison orientation on employee creative self-efficacy.

In particular, employees with a low level of social comparison orientation have relatively high self-esteem and strong self-consciousness (Brockner 1988; Tang and Reynolds 1993; Tang and Smith-Brandon 2001). High self-esteem individuals have very little motivation to compare themselves with coworkers, have high level of performance on various tasks (Tang and Baldwin 1991; Tang et al. 1987a, b), and are less likely affected by the situational contexts (Brockner 1988; Tang and Reynolds 1993). They do not rely on social comparisons to obtain a good self-understanding (Buunk and Gibbons 2007; Buunk et al. 2005) and are less likely to compare supervisory abuse with coworkers.

On the contrary, individuals with a high level of social comparison orientation are sensitive to others' behaviors and interested in enhancing their self-concept (Buunk and Mussweiler 2001; Gibbons and Buunk 1999). They usually have weak self-consciousness and low self-esteem and are more inclined to engage in comparison with others. Employees with high social comparison orientation are more likely to experience emotional reactions to peer abusive supervision than those without because they are more sensitive to their relative abusive supervisory in relation to that of other coworkers (Buunk and Gibbons 2007).

First, the negative link between own abusive supervision and creative self-efficacy is the strongest for employees with a high level of social comparison orientation because they are more sensitive to information about their comparative standing in the work group. Second, for high social comparison orientation employees, low peer abusive supervision has an exacerbating effect on the negative relationship between own abusive supervision and creative self-efficacy because they are singled out for abuse. Third, taken together, we assert that employees' creative self-efficacy is seriously damaged by their high-level social comparison orientation, high own abusive supervision, but low perceived peer abusive supervision. We propose the following hypothesis:

Hypothesis 6 The negative relationship between own abusive supervision and creative self-efficacy is strongest when subordinates have high social comparison orientation and low peer abusive supervision.

Methods

Sample and Procedure

Following institutional review board procedures, we collected data, using a two-wave design, from a sample of full-time employees and their immediate supervisors who performed core sales and administrative work in a

pharmacy chain located in northern China. As customer demands are increasingly diverse, creative sale personnel must develop novel strategies to increase efficiency, effectiveness, and local responsiveness in order to meet customer expectations and enhance their service satisfaction, performance quality, and sales revenue (Eisingerich et al. 2014). Salespeople in a pharmacy chain must apply their executive cognitive functions, practice mentalizing and mindfulness, and think/stand in customers' shoes (Auh et al. 2014). It is, therefore, reasonable and appropriate to measure their creativity in a pharmacy chain.

We conducted meetings to inform employees and their immediate supervisors about our research procedure before distribution of survey questionnaires. A cover letter explained objectives of the survey and assured voluntary participation and confidentiality. We marked each questionnaire with one unique code so that we could match questionnaires from two waves. Time separation between our measures of predictors and criteria reduces demand characteristics and consistency motifs associated with the common method variance (CMV) bias (Mitchell et al. 2015; Podsakoff et al. 2012). At Time 1, employees reported their perceived abusive supervision, peer abusive supervision, and social comparison orientation. At Time 2, approximately 6 months later, employees who had returned the complete first-wave questionnaires were asked to rate their creative self-efficacy and provide demographic variables. To further alleviate possible influences of the common method bias (Podsakoff et al. 2003), we asked the immediate supervisor to rate employees' creativity levels. We obtained multi-wave data from multiple sources.

In the first wave, we distributed questionnaires to 408 employees and 334 of them returned their survey (response rate = 81.86%). In the second wave, we contacted 334 employees who completed the first-wave questionnaires. Among them, 253 completed the second survey (response rate = 75.75%). Among subordinates, 83.0% were female. Participants were 28.38 years old ($SD = 6.08$) with an average organizational tenure of 3.67 years ($SD = 4.20$). We included participants' education: (1) high school diploma (3.2%), (2) 3-year college degree (91.3%), and (3) 4-year bachelor degree or higher (5.5%).

In the second wave, we received employee creativity ratings from 77 supervisors. Supervisors (80.3% female) were 35.80 years old ($SD = 7.87$) with an average organizational tenure of 10.74 years ($SD = 8.26$). Regarding education, 3.9% had high school diploma, 77.6% had 3-year college degree, and 18.4% had 4-year bachelor degree or higher.

Measures

We employed several focus groups and asked them to translate all original English measures into Chinese using the translation and back-translation procedure (Brislin 1986). We employed a 5-point Likert scale with *strongly disagree* (1) to *strongly agree* (5) as scale anchors.

Own Abusive Supervision

We adopted Mitchell and Ambrose's (2007) 5-item scale, which was a shortened version of Tepper's (2000) abusive supervision measure. Respondents indicated their agreement with each item. Here is a sample item: "My supervisor tells me that my thoughts or feelings are stupid." In the present study, the Cronbach's alpha (α) for this scale was .92.

Peer Abusive Supervision

Following Peng et al.'s (2014) suggestion, we obtained an alternative index of peer abusive supervision—participants' self-reports of the extent to which they perceived their team peers experienced supervisory abuse. We modified the 5-item scale of "own abusive supervision" (Mitchell and Ambrose 2007) to measure "perceived peer abusive supervision" ($\alpha = .91$). We instructed participants to "answer the following questions regarding your immediate supervisor's abuse toward other team members, not the abuse toward you."

Social Comparison Orientation

The 11-item social comparison orientation (SCO) scale (Gibbons and Buunk 1999) measures the extent to which individuals make comparisons between abilities, opinions, and general aspects of themselves and that of other individuals ($\alpha = .96$). Here is a sample item: "I always pay a lot of attention to how I do things as compared to how my coworkers do things."

Creative Self-Efficacy

We used a 3-item questionnaire (Tierney and Farmer 2002) to assess perceived self-efficacy in solving problems, in producing ideas, and in elaborating or improving upon others' ideas. We list a sample item as follows: "I have confidence in my ability to solve problems creatively." The Cronbach's α was .83.

Table 1 Comparison of measurement models

Model	Factor	χ^2	<i>df</i>	$\Delta\chi^2$	RMSEA	IFI	TLI	CFI
Baseline model	Four factors	695.08***	246		.08	.92	.91	.92
Alternatives								
1	Three factors: Own abusive supervision and peer abusive supervision combined into one factor	1125.06***	249	429.98***	.12	.84	.82	.84
2	Three factors: Creative self-efficacy and social comparison orientation combined into one factor	1015.34***	249	320.26***	.11	.86	.85	.86
3	Two factors: Own abusive supervision and peer abusive supervision combined into one factor; creative self-efficacy and social comparison orientation combined into one factor	1445.33***	251	750.25***	.14	.78	.76	.78
4	One factor: All variables combined into one factor	2787.74***	252	2092.66***	.20	.54	.49	.54

*** $p < .001$

Employee Creativity

Supervisors rated each employee's creativity using Baer and Oldham's (2006) 4-item scale which was adapted from Zhou and George's (2001) employee creativity scale. Sample items include: "This employee is a good source of creative ideas," "This employee often comes up with creative solutions to problems at work," and "This employee suggests new ways of performing work tasks" (Baer and Oldham 2006). The Cronbach's α was .86.

Although our model was conceptualized at the individual level, the supervisors in our sample rated multiple employees' creativity (average number of employees per supervisor = 3.29). We conducted further analyses to check for the presence of nesting effects (Bliese 1998; Scott et al. 2013; Tangirala et al. 2013). First, one-way analysis of variance (ANOVA) across supervisors indicated no significant between-group differences in employee creativity [$F(76, 176) = .25, ns$]. Second, a small ICC value indicated a weak clustering effect with considerable individual variability within groups (Bliese 1998). ICC1 value demonstrated the proportion of variance in ratings due to team membership, while ICC2 value showed the reliability of team mean differences (Bliese 2000). In our study, ICC1 and ICC2 of employee creativity were .09 and .24, respectively. The ICC1 value was below the median .12 that is often observed in organizational field samples (Kirkman et al. 2009). The ICC2 value was much lower than .70, the criterion recommended by Bliese et al. (2002). Insufficient between-group variance and unreliable differentiation at the group level suggested that the nesting effect did *not* significantly influence our results.

Control Variables

We controlled for age, gender, education, and organizational tenure, following suggestions in the literature (Hirst

et al. 2009; Zhang and Bartol 2010). These variables were statistically controlled in several studies on abusive supervision (Aryee et al. 2007; Peng et al. 2014). Age and organizational tenure were measured in years. We dummy coded gender (male = 0, female = 1).

Results

Confirmatory Factor Analysis and Descriptive Results

We used the following criteria for configural invariance (passing 4 out of 5 criteria): (1) $\chi^2/df < 5$, (2) incremental fit index, IFI $> .90$, (3) Tucker–Lewis Index, TLI $> .90$, (4) comparative fit index, CFI $> .90$, (5) root-mean-square error of approximation, RMSEA $< .10$ (Vandenberg and Lance 2000). Metric invariance is achieved when the differences between unconstrained and constrained multi-group confirmatory factor analyses (MGCFAs) are not significant ($\Delta CFI/\Delta RMSEA \leq .01$, Cheung and Rensvold 2002).

To evaluate the distinctness of our four constructs (own abusive supervision, peer abusive supervision, social comparison orientation, and creative self-efficacy), we conducted a series of confirmatory factor analysis (CFAs) (Table 1). Results showed that the hypothesized four-factor model (baseline model) provided an excellent fit between our measurement model and data ($\chi^2 = 695.08, df = 246, \chi^2/df = 2.83, IFI = .92, TLI = .91, CFI = .92, RMSEA = .08$). The baseline model was significantly better than the other four alternative models, providing support for the discriminant validity of our four main constructs (Fornell and Larcker 1981).

Common Method Variance

Common method variance (CMV) (Podsakoff et al. 2003) is a potential threat to the validity of research findings.

Table 2 Descriptive statistics, zero-order correlations, and alpha reliability coefficients

Variable	<i>M</i>	<i>SD</i>	1	2	3	4	5	6	7	8	9
1. Age	28.38	6.08									
2. Gender	.83	.38	-.09								
3. Education	2.02	.30	-.02	-.07							
4. Tenure	3.67	4.20	.54***	-.09	.06						
5. Own abusive supervision	1.73	.59	.12	.05	-.01	-.04	(.92)				
6. Peer abusive supervision	1.72	.57	.08	.08	.01	-.17**	.60***	(.91)			
7. Creative self-efficacy	3.67	.45	.06	-.09	.16*	.17**	-.39***	-.35***	(.83)		
8. Social comparison orientation	3.02	.91	-.12	-.07	-.09	.15*	-.01	-.24***	.12	(.96)	
9. Employee creativity	4.02	.59	.08	-.11	-.04	.04	-.49***	-.39***	.31***	.20**	(.86)

* $p < .05$; ** $p < .01$; *** $p < .001$

Following suggestions in the literature, we explore concerns for CMV in two steps. First, we used Harman's (1967) single-factor test to examine exploratory factor analysis (EFA) using all items of four main variables in this study. Our results yielded four (4) factors with eigenvalue greater than one. The total amount of variance accounted for was 75.71%. Clearly, a single factor (first factor 37.28% < 50%) did *not* account for the bulk of the variance.

Second, we compared (1) the measurement model with the addition of an unmeasured latent CMV factor ($\chi^2 = 507.07$, $df = 222$, $\chi^2/df = 2.28$, $IFI = .95$, $TLI = .94$, $CFI = .95$, $RMSEA = .07$) with (2) the same measurement model *without* the CMV factor ($\chi^2 = 695.08$, $df = 246$, $\chi^2/df = 2.83$, $IFI = .92$, $TLI = .91$, $CFI = .92$, $RMSEA = .08$) (Bagozzi and Yi 1990). Following suggestions in the literature (Cheung and Rensvold 2002), our results revealed one potential difference in CFI between these two MGCFAs ($\Delta CFI = .95 - .92 = .03 > .01$), but not in RMSEA ($\Delta RMSEA = .08 - .07 = .01 \leq .01$).

We offer a brief discussion regarding CMV, below. First, we collected data from multiple sources (employees and supervisors) and at multiple times (Time 1 and Time 2). Second, we performed both Harman's (1967) single-factor test and compared two measurement models with and without the latent CMV variable (Cheung and Rensvold 2002; Podsakoff et al. 2003). Third, we present a novel and sound theoretical model in a very complex manner involving these four constructs (see Fig. 1). We argue that "a complex relationship is, in all likelihood, not part of the respondents' theory-in-use" (Chang et al. 2010, p. 180). This will greatly reduce the CMV issue. "In the end, sound theory that directs design and method is, of course, the bottom line that characterizes all good research, be it survey-based or not" (Chang et al. 2010, p. 180). Following these three arguments, we concluded

that CMV was not a concern in our present study (Malhotra et al. 2006; Spector 2006). These findings offer us confidence and allow us to test our hypotheses below.

Testing Our Hypotheses

Table 2 presents the mean, standard deviation, and correlations of all measured variables. Results showed that own abusive supervision and peer abusive supervision were negatively related to creative self-efficacy, respectively ($r = -.39$; $r = -.35$, $p < .001$). Creative self-efficacy—provided by employees, was positively related to employee creativity—provided by supervisors ($r = .31$, $p < .001$) (Baron and Kenny 1986). Thus, the mediating role of creative self-efficacy received initial support.

We conducted a series of hierarchical regression analyses to test our hypotheses. We tested the mediating hypotheses following the causal steps (Baron and Kenny 1986). Table 3 shows that own abusive supervision and peer abusive supervision were negatively related to employee creativity ($\beta = -.39$, $p < .001$; $\beta = -.16$, $p < .05$) and creative self-efficacy ($\beta = -.30$, $p < .001$; $\beta = -.15$, $p < .05$). Thus, Hypotheses 1 and 2 were supported. When we entered creative self-efficacy, the relationship between own abusive supervision, peer abusive supervision, and employee creativity became less significant ($\beta = -.34$, $p < .001$; $\beta = -.14$, *ns*), whereas creative self-efficacy was still positively related to employee creativity ($\beta = .16$, $p < .05$). Thus, Hypotheses 3 and 4 were supported.

Due to potential shortcomings using Baron and Kenny (1986), we adopted bootstrapping to test mediating effect (Edwards and Lambert 2007; Preacher and Hayes 2008) and Hypotheses 3 and 4. We applied bootstrapped bias-corrected confidence intervals (CIs) method, based on 1000

Table 3 Regression results

Variable	Creative self-efficacy					Employee creativity		
	1	2	3	4	5	1	2	3
Control variable								
Age	-.02	.08	.10	.11	.14*	-.15*	-.04	-.05
Gender	-.07	-.04	-.04	-.04	-.05	-.02	.02	.03
Education	.14*	.15**	.13	.14*	.17**	-.06	-.05	-.07
Tenure	.16*	.08	.06	.05	.03	.12	.02	.01
Main variable								
Own abusive supervision		-.30***	-.34***	-.34***	-.32***		-.39***	-.34***
Peer abusive supervision		-.15*	-.15*	-.14	-.14		-.16*	-.14
Mediator								
Creative self-efficacy								.16*
Moderators								
Social comparison orientation				.03	-.02			
Two-way interactions								
Own abusive supervision × peer abusive supervision			.17**	.16*	.01			
Own abusive supervision × social comparison orientation					-.04			
Peer abusive supervision × social comparison orientation					-.03			
Three-way interaction								
Own abusive supervision × peer abusive supervision × social comparison orientation					.24**			
R^2	.06	.22	.24	.24	.27	.02	.26	.28
ΔR^2	.06**	.16***	.02**	.00	.03**	.02	.24***	.02*
F	3.63**	11.16***	11.14***	9.74***	7.93***	1.23	14.03***	13.21***

* $p < .05$; ** $p < .01$; *** $p < .001$

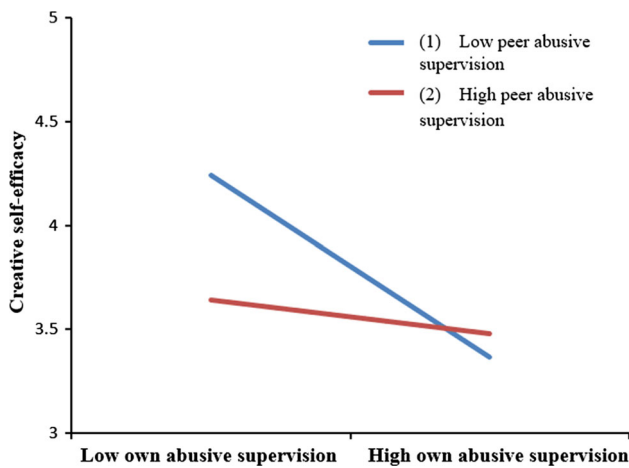


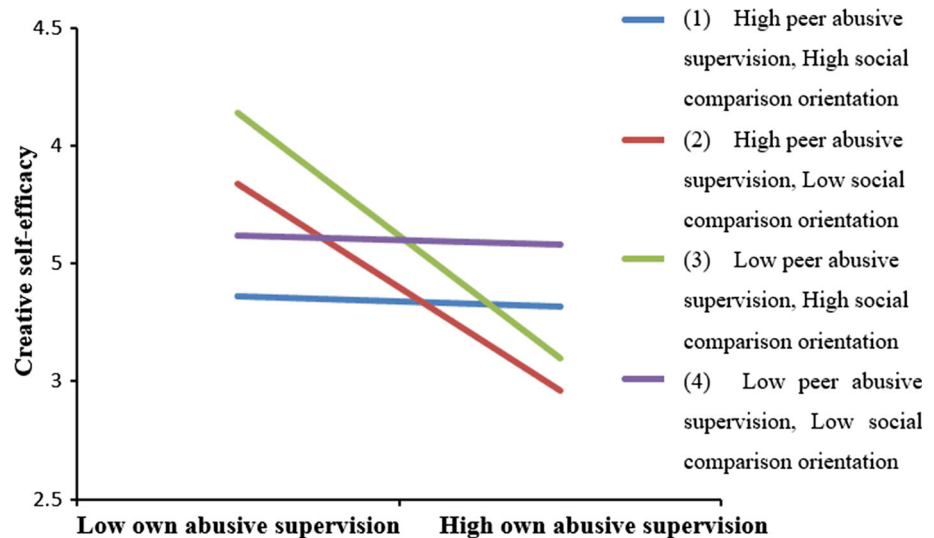
Fig. 2 Two-way interaction predicting creative self-efficacy

random samples (MacKinnon et al. 2004), and tested the indirect effect. Results demonstrated that own abusive supervision had a significant indirect effect on employee

creativity through creative self-efficacy ($\gamma = -.06$; $p < .05$; 95% confidence interval $CI = [-2.31, -.09]$). In addition, peer abusive supervision had a significant indirect effect on employee creativity via creative self-efficacy ($\gamma = -.07$; $p < .01$; 95% confidence interval $CI = [-2.85, -.02]$). Since confidence intervals did not include zero (0), results supported our Hypotheses 3 and 4.

Table 3 shows that the interaction between own abusive supervision and peer abusive supervision significantly predicted creative self-efficacy ($\beta = .17$, $p < .01$). Figure 2 suggests that there was a stronger negative relationship between own abusive supervision and creative self-efficacy when peer abusive supervision is low, supporting Hypothesis 5.

Table 3 presents the results of the hierarchical multiple regression analyses. Specifically, the three-way interaction effect of own abusive supervision, peer abusive supervision, and social comparison orientation on creative self-efficacy was significant ($\beta = .24$, $p < .01$) and provided additional variance explained ($R^2 = .03$,

Fig. 3 Three-way interaction predicting creative self-efficacy**Table 4** Three-way moderated mediation test

Interactions	Indirect effect	CI
Low peer abusive supervision, low social comparison orientation	-.03	[-.12, .01]
Low peer abusive supervision, high social comparison orientation	-.08**	[-.19, -.02]
High peer abusive supervision, low social comparison orientation	-.04*	[-.10, -.01]
High peer abusive supervision, high social comparison orientation	-.02	[-.11, .01]

CI confidence interval

* $p < .05$; ** $p < .01$

$p < .01$). Figure 3 shows that the negative relationship between own abusive supervision and creative self-efficacy was the strongest when social comparison orientation was high and peer abusive supervision was low, supporting Hypothesis 6.

Table 4 provides the results of our moderated mediation analyses. We tested the moderated mediation effect with bootstrapped confidence intervals, on the basis of 1000 random samples. The indirect effect of own abusive supervision on employee creativity through creative self-efficacy was the strongest for individuals under the condition of low peer abusive supervision and high social comparison orientation ($\beta = -.08$, $p < .01$) than for those under the other conditions (low peer abusive supervision and low social comparison orientation: $\beta = -.03$, ns; high peer abusive supervision and low social comparison orientation: $\beta = -.04$, $p < .05$; high peer abusive supervision and high social comparison orientation: $\beta = -.02$, ns), supporting Hypotheses 5 and 6. The results clearly demonstrate that the indirect effect of own abusive supervision on employee creativity is the strongest for those with low peer abusive supervision and high social comparison orientation.

Discussion

Bullying (supervisors to employees or other coworkers) in the workplace has existed for a long period of time. There is no indication that the frequency and intensity of bullying, an interesting and unethical phenomenon, will diminish soon (Harvey et al. 2009). Our primary objective for this study was to better understand how and when own and peer abusive supervision harm employees' creative self-efficacy and creativity. We specifically select social cognitive theory and social comparison theory as the predominant theoretical lens and find that creative self-efficacy mediates the negative relationship between own abusive supervision, peer abusive supervision, and employee creativity. Moreover, the significant three-way interaction of own abusive supervision, peer abusive supervision, and social comparison orientation on creative self-efficacy indicates that the negative relationship between own abusive supervision and creative self-efficacy is the strongest when social comparison orientation is high and peer abusive supervision is low. We offer some interesting theoretical and managerial implications.

Theoretical Implications

Our findings contribute to the abusive supervision, creativity, and social comparison literature in four major ways. First, this current study enhances our understanding of the *dark* side of leadership by investigating the negative effects of abusive supervision on creative self-efficacy. Previous studies of leadership and self-efficacy have largely focused on the leaders' positive roles on employee creative self-efficacy and identified leader behaviors include transformational leadership (e.g., Gong et al. 2009) and leader creativity expectations (Tierney and Farmer 2004). However, the dark side of leader behaviors on employee creative self-efficacy has generally been left unexplored. Our study suggests that abusive supervision has a negative effect on employee creative self-efficacy. We answered Priesemuth et al.'s (2014) call to investigate the role of abusive supervision on self-efficacy. This finding also contributes to the abusive supervision literature by broadening the range of individual outcomes, resulting from abusive behaviors to follower cognitive beliefs.

Furthermore, previous studies on abusive supervision have mainly concentrated on abusive supervision toward oneself, and few studies investigated the effect of abusive supervision toward others on individual beliefs by integrating both perspectives of social cues and abusive supervision. This study extends the abusive supervision literature by pointing out that peer abusive supervision has a negative effect on employee creative self-efficacy. Consequently, our work demonstrates the importance of considering the larger social environment in which abusive supervision occurs. We uncover the relationship between peer abusive supervision and employee creative self-efficacy, which contributes to extant abusive supervision literature.

Second, although creative self-efficacy is a key cognitive belief linking leadership and creativity, previous studies have inferred, but not examined the mediating role of creative self-efficacy (Liu et al. 2012; Tierney and Farmer 2002, 2004; Zhang et al. 2014). Our study answered the call of Liu et al. (2012) to examine the specific cognitive mechanisms between leader abusive supervision and employee creativity. We demonstrate creative self-efficacy as an important social cognitive mechanism—linking own abusive supervision, peer abusive supervision, and employee creativity, which adds to the abusive supervision and creativity literature. Further, social cognitive theory makes a notable contribution to the abusive supervision literature.

Third, regarding the mitigating effect, the power of own abusive supervision on employee behaviors depends on abusive supervision toward other team members (peer abusive supervision). Employee creative self-efficacy suffers more when they are abused personally by the

supervisor, while supervisor behaves less abusively toward their peers. Employee awareness of how peers are being treated by leaders influences their attitudes and behaviors (Hannah et al. 2013). This study also extends social cognitive theory which is useful in understanding the formation of employee self-efficacy and offers researchers the opportunity to obtain a comprehensive understanding of abused victims' reactions to peer abusive supervision.

Finally, our novel three-way interaction provides important boundary conditions for both abusive supervision and social comparison literature. We provide unique contributions to the literature regarding social comparison orientation and its influence on employees' reactions to abusive supervision. Social comparison is not only a social process but also a perception of differences in individuals' sensitivity to the behaviors of others (Gibbons and Buunk 1999).

Managerial Implications

We provide several important implications to the fields of leadership, human resource management, and creativity in organizations. First, supervisors must understand that their mistreatment of employees in the team may harm employee creative self-efficacy and creativity. Even if they are not directly abused by leaders, those who witness other coworkers' experiences of supervisory abuse may also have low creative self-efficacy and creativity.

Research suggests that firms that treat their employee well² do better financially and outperform their peers by 2.35–3.8% per year (Edmans 2011). However, it takes about 5 years to realize the benefits. Cumulatively, over a period of 28 years, it reaches 89–184% in long-run stock returns. The Matthew effect (Merton 1968) in corporate social responsibility (CSR) suggests that a high level of CSR excites *exponential* organizational pride, job satisfaction, and affective commitment (Zhou et al. 2017). In managing creative self-efficacy and creativity, moral leaders must clearly articulate a *vision* for all stakeholders, act like cheerleaders, coaches, and nurturers of champions, rather than as cops, experts, and naysayers.

Why is this study related to business ethics? Following the opening story of Steve Jobs, it is *legal* for a leader to sarcastically fire an employee in a large meeting and allow other coworkers to publicly witness this dramatic event. Clearly, abusive supervision inflicts serious injuries on not only the creativity of *individuals*—victims and their teammates but also the *creative culture* of these *organizations*. Organizations rely on employee creativity to develop novel products and services, gain competitive advantage, and maintain sustainability in the global

² Love one another (John 13: 34). Should anyone press you into service for one mile, go with him for two miles (Matthew 5: 41).

markets. Balancing the rewarding benefits of creativity against expansive costs of abusive supervision, is it *ethical* for leaders to bully employees and hurt organization's creativity, survival, and its long-term bottom line? Besides creativity, is it ethical to ignore victims' feelings and emotional reactions? Can we afford to allow bullying to exist in organizations?

Second, a few employees, sometimes, do need a push, nudge, or KITA (Herzberg 1987) infrequently, to move them out of the comfort zone and get projects done. Tang (1990) explored effects of Protestant work ethic and random bogus (positive vs. negative) performance feedback on intrinsic motivation among Chinese students in laboratory experiments (one participant per experiment). Intrinsic motivation was measured by the amount time a participant spent on the same task—given free choice—recorded behind the one-way mirror. After data collection, participants were assigned to three groups using a three-way split of their work ethic endorsement. Those with *high* work ethic displayed the same level of intrinsic motivation regardless of feedback. Those with *average* work ethic, however, showed significantly higher intrinsic motivation under positive feedback than those under negative feedback conditions. These reactions fit most research findings. Interestingly, after receiving a negative feedback, low work ethic participants faced the challenge and spent the highest amount time on the same task—a sign of increased intrinsic motivation. We offer important implications, below.

A bogus negative performance feedback, presented privately to individuals with low work ethic, creates the strongest intrinsic motivation. Giving free choice, Chinese participants demonstrate that they want to do an excellent job and have the courage to challenge their negative feedback. Clearly, negative feedback must be delivered “privately” in order to save face and avoid embarrassment in front of their peers. “Face” is particularly important to people in the Chinese culture (Hwang 1987). Losing face, publicly, undermines intrinsic motivation, creative efficacy, and creativity for not only the target employees but also those who observe the event. On the other hand, recognitions for great achievement and success must be done on stage in front of their peers—in a public ceremony—to improve self-esteem and creative self-efficacy (Brockner 1988; Tang et al. 1987a, b; Tang and Reynolds 1993).

Third, following Herzberg's (1987) motivator-hygiene theory, using negative physical and/or psychological “KITA” (e.g., sarcasm, Huang et al. 2015), is not the best way to motivate people. At the minimum, executives must offer creative people not only a supportive and conducive work milieu with a high level of job security (Pfeffer 1998), fair pay, and good company policy but also low levels of time pressure, stress, and poor supervision (e.g.,

Amabile et al. 2002). Removing factors causing dissatisfaction in the work environment does *not* enhance employees' intrinsic motivation (Herzberg 1987).

Fourth, intrinsic motivation truly reflects individuals' internal desire, passion, interest, labor of “love”—impelled by curiosity, drive, challenge, and the urgency to crack a problem that no one else can. “People will be most creative when they feel motivated primarily by the interest, satisfaction, and challenge of the work itself—and not by external pressures” (Amabile 1998, p. 79; Tang 2010). Organizations must foster a corporate culture that rewards and celebrates creativity and frequent small successes, focuses on achievements and recognition, and offers creative people high status, challenging responsibility, interesting work, and further opportunities for promotions. This conducive culture is, clearly, incompatible with abusive supervision.

Leaders must not only refrain from abusing employees but also serve as creative role models, creating the positive self-fulfilling prophecy or the Pygmalion Effect (Howard et al. 2015; Tang and Liu 2012). Moreover, top-level managers' frequent visits to problem-solving meetings (meeting attendance) do help teams solve problems, enhance members' engagement, reduce the amount of time needed to identify solutions, and increase the creativity/productivity in problem-solving teams (Tang et al. 1987a, b, 1989; Zhou 2003). Higher rates of problem-solving success increase team commitment, teams' overall success ratio, satisfaction, organization citizenship behavior (Foote and Tang 2008), and cohesiveness, and prevent membership fall out and dismemberment of teams (Tang et al. 1993, 1996).

Social comparisons may exacerbate effects of supervisory abuse on employee creative efficacy and creativity. Executives must create a fair, safe, and relaxed organizational culture and a positive, affective climate (Tse et al. 2013), develop leader affective trust (Gilbert and Tang 1998; Newman et al. 2014, 2015; Zhu et al. 2013), alleviate employee fear and anxiety, and boost employees' creative self-efficacy (Gong et al. 2009). Besides removing harmful effects of perceived unfairness within the workplace (Khan et al. 2015), organizations must establish an ethical, conducive, and psychologically safe and relaxed climate to enhance autonomy, collaboration, trust, creative efficacy, and also creativity.

Fifth, interestingly, only a few selected universities (Harvard, Columbia, Chicago, MIT, Berkeley, Stanford, Yale, Cornell, and Princeton) have produced the most Nobel laureates in the USA. It creates the Matthew effect in science (Merton 1968): Nobel laureates provide an outstanding role model, instill a creative and venturesome fortitude, develop a warm working relationship, bestow a supportive culture with respect and resources, encourage

them to take risks, and inspire other scientists around them to become Nobel Prize Winners.

Following prospect theory, individuals' *risk taking* behaviors (creativities) soar in a safe-and-secure setting (possibility effect). The action–outcome linkage is tortuous, slow, and long (Dewett 2007) and with a high degree of uncertainty (no guarantee for success). Speed and flexibility are the key ingredients for success in the race of creativity. Organizations must focus on agility and absorption so that they can be flexible in making changes, meeting the needs and demands of the customers quickly, seize opportunities, and thrive in turbulent markets (Mishra et al. 2009). About 93% of all successful innovations started off in the wrong direction (Mangelsdorf 2009). In a safe environment, fail quickly and reverse the course are of critical importance (Xia and Tang 2011).

If moral leaders and employees at Apple were able to develop mutual trust (Newman et al. 2014, 2015) and employees' jobs were secure (Pfeffer 1998), then "being Steved" (getting fired) by Steve Jobs would not be so bad after all. Moral leaders must understand employees' personal background, stand in their shoes, exercise negotiation skills, practice the Golden Rule, be slow to anger, rich in kindness, and not only "love your neighbor," but also "love your enemies."³ Here was a true but sad example of getting one employee fired. Managers must carefully avoid all *unethical* consequences in the real world of work. David Burke's retaliation for "the loss of his job" was responsible for the crash of Flight 1771, the death of Thompson, himself, and 41 other passengers caught up in the act of revenge (Gentina et al. 2016):

A 35-year-old USAir ticket agent was caught for stealing \$69 from flight cocktail receipts and was fired by his supervisor Raymond Thompson, a customer-service manager for the same airline. Noticed that his boss would be aboard the Pacific Southwest Airlines (PSA) Flight 1771 from Los Angeles to San Francisco, on December 7, 1987, David Burke purchased a one-way ticket for the flight, and slip through security bearing a Smith & Wesson .44 magnum revolver, using his un-surrendered USAir credentials. He shot five people to death, including the two pilots, before the plane crashed near Cayucos, California. FBI evidence included the gun with six empty casings and a threatening note written on an airsickness bag which read, "Hi Ray. I think it's sort of ironical that we end up like this. I asked for some leniency for my family. Remember? Well, I got none and you'll get none".⁴

³ Do to others whatever you would have them do to you (Matthew 7: 12). Psalm 103: 8. Matthew 5: 43–44.

⁴ Flight attendant Debra Neil told the cockpit crew: "We have a problem." David Burke shot the flight attendant, announced "I'm the

Limitations and Future Research Directions

Despite these contributions, there are several limitations. Our data were collected from employees of one pharmacy chain in one city of China. Future studies should benefit from expanding our theoretical model to other settings and populations and determine whether the pattern of our findings is generalizable to other professions and other contexts, cultures, and countries (Newman et al. 2015). Two subordinates may differ in their evaluations of the same supervisor's abusive behavior (Tepper 2000). Multi-source data from both supervisors and subordinates are unlikely to suffer from common method variance (Podsakoff et al. 2003). Further, supervisory evaluations and subordinate perceptions of abusive supervision are subject to contextual and personal biases (Landy and Farr 1980).

Due to lack of objective measures in this study (e.g., upper-level management's meeting attendance, teams' speed, productivity, success ratio, quantity of performance, and commitment of various teams, see practical implications; Foote and Tang 2008; Tang et al. 1987a, b, 1989; Zhou 2003), future research may incorporate these and additional measures (e.g., research reports, journal publications, creative performance bonuses, awards, and patents) to avoid personal biases (Oldham and Cummings 1996; Taggar 2001; Tierney et al. 1999). Obviously, these long-term measures are *not* easily available and very difficult to collect. These variables may *not* be applicable to participants in some studies.

We investigate social comparison orientation as an individual difference variable in our model. Other factors, such as organizational trust, may also regulate how employees communicate with others and respond to supervisory abuse (Gilbert and Tang 1998; Newman et al. 2014). Further research may consider additional moderators of the relationships between abusive supervision and creative self-efficacy as well as creativity.

Conclusion

Workplace bullying, a complex organizational phenomenon, has many critical and ethical implications. Our two-wave data collected from multiple sources examine how and when own and peer abusive supervision jointly harm employees' creative self-efficacy and creativity. We

Footnote 4 continued
problem," and killed the pilots and the PSA's Chief Pilot in LA. David Burke had seven children by different women, but was never married. Some described him as a violent man. An episode of the Canadian TV series, *Mayday*, featured this incident, entitled: "I'm the problem." "Murder on board" was the title for the UK version of *Air Crash Investigation*.

demonstrate an intricate, significant three-way interaction effect, which has not been explored before: The negative relationship between own abusive supervision and creative self-efficacy is the strongest when social comparison orientation is high and peer abusive supervision is low. This study enhances our understanding of the dark side of leadership on employee creativity via creative self-efficacy. Our discoveries extend social cognitive theory, illustrate a critical boundary condition of the effect of abusive supervision on creative self-efficacy from social comparison perspective, and make unique contributions to the fields of leadership, abusive supervision, creativity, the Matthew effect, and business ethics.

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Compliance with Ethical Standards

Conflict of interest Authors declare no conflict of interests.

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

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

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