

Abusive Supervision and Organizational Deviance:  
A Mediated Moderation Model

by  
Huiwen Lian

A thesis  
presented to the University of Waterloo  
in fulfillment of the  
thesis requirement for the degree of  
Doctor of Philosophy  
in  
Psychology

Waterloo, Ontario, Canada, 2011

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## Abstract

In the current dissertation I investigated how abusive supervision promoted subordinate organizational deviance, by integrating and extending past work on mixed relationships (relationships characterized by both conflict and support) and self-determination theory. Past work on mixed relationships has suggested that positive and negative characteristics can co-exist within the same supervisor-subordinate relationship. Based on this, I argued that abusive supervisory behaviors would occur within high quality supervisor-subordinate relationships (i.e., high leader-member exchange, or LMX). Moreover, as mistreatment within a high quality relationship is likely to violate expectations and thus be experienced more intensely, I hypothesized that the effects of abusive supervision were more pronounced within a high quality supervisor-subordinate context. Beyond testing this interaction, I also examined the underlying psychological mechanisms through which abusive supervision and its interaction with LMX affected subordinate organizational deviance. Applying self-determination theory, I hypothesized that subordinate basic need satisfaction mediated the effects of abusive supervision and its interaction with LMX on subordinate organizational deviance.

These hypotheses were tested in three multi-wave studies. In Study 1, data from 268 full-time employees were collected across two waves. Confirmatory factor analysis demonstrated that abusive supervision and LMX were two independent constructs. In addition, hierarchical regression analysis demonstrated that LMX moderated the relation between abusive supervision and subordinate organizational deviance, such that the relationship was exacerbated when LMX was high rather than low.

To replicate these findings and investigate the mediating role of needs, I conducted a

follow up study. Data from 256 full-time employees were collected across three waves. Using Edwards and Lambert's approach to test mediated moderation models, I demonstrated that: 1) LMX moderated the relation between abusive supervision and subordinate basic need satisfaction, such that high LMX exacerbated the negative relation; and 2) basic need satisfaction mediated the moderating effect of LMX on the abusive supervision and organizational deviance relation, such that the mediating effects of basic need satisfaction was stronger when LMX was high rather than low.

One limitation of Study 2 was that commonly investigated mediators of the relation between abusive supervision and organizational deviance were not controlled. To address this issue, I conducted a constructive replication of Study 2, including two alternative mediating mechanisms: justice perceptions and organizational social exchange. In Study 3, data from 260 full-time employees were collected across three waves. The results replicated Study 2 and demonstrated that when alternative mediators were included, basic need satisfaction remained the only significant mediating mechanism. The results from these three studies were discussed in terms of their theoretical implications to the abusive supervision and mixed supervisor-subordinate relationship literature. As well, the practical implications of the mediated moderation model tested in the current dissertation were discussed.

## Acknowledgements

I would like to acknowledge many people who have generously assisted and supported me during my PhD studies. First, I would like to send my sincere thanks to my committee members: Doug Brown, Ramona Bobocel, Lisa Keeping, Nick Tuner, and Theresa Libby. I really appreciate all their critical but constructive comments, which have helped me improve my dissertation significantly. Second, I would like to thank my supervisor Doug. I feel so lucky to have Doug as my PhD supervisor. His genuine interests in research, insights on various research questions, knowledge and understanding of theories, and attitudes towards research and life in general have inspired me in every single way. I thank Doug for all his encouragement and support in the past five years. Third, I am also very grateful to have Ramona, Wendi, and John as professors for my PhD studies. Their wisdom, unique perspectives and generous sharing of their knowledge have helped me learn a lot. Forth, I would like to thank Lance, who is not only a great friend who I can always count on, but also a great mentor I can always look up to. His sense of humor makes working with him full of joys. His dedication to work and work efficiency also motivate me to work harder. I also want to thank Jennifer, Shawn, Katrina, and all my friends for their support and care. They are like a family to me and they make my life full of fun. Last but not the least, Tiantian, thank you for your inspiration, understanding, patience and love.

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## CHAPTER 1 INTRODUCTION

“...I pour water in the gas tank, which makes the van stall...I can get a flat by punching the tire into a curb. I can break the radio by disconnecting the wires, and someone has to come fix it...”

– *An airport shuttle driver*

“...Mostly, I stuck to soda, ice cream, beef jerky and that kind of thing. I made sure to swipe plenty of oil, transmission fluid and whatnot. One kid working there would program the pumps so that the price per gallon was one cent, and all his friends would come in and fill up for free...”

– *A gas station attendant*

“...In the last four years, I have written a novella, a workbook for a major publishing company’s science textbook, two travel narratives, and countless smaller things. I have explored computer music, art, and animation at work and have even written a computer game. I have spent at least a couple thousand hours of company time on my projects, and at a pretty good salary.”

– *A technical writer*

The above anecdotes recorded by Sprouse (1992) illustrate *organizational deviance*, or counter-normative behaviors initiated by employees which target employers (Bennett & Robinson, 2003). Recently, more and more academic research has been devoted to examine this organizational phenomenon, as it has a crippling effect on organizations worldwide. Employee theft is increasing yearly, with costs associated with fraud increasing 40% from 2005 to 2007 (Needleman, 2008). As well, unauthorized web surfing has been estimated to cost upwards of \$600 million dollars in lost productivity yearly (Taylor, 2007). Organizational

deviance also extracts a significant human cost: employee performance, morale, and well-being are all impacted by such deviant behaviors (Robinson & Greenberg, 1998).

Understandably, these costs are a major concern to organizations, and researchers have in turn focused on the antecedents of organizational deviance. In particular, numerous authors have proposed that supervisory leadership should play a very significant role in affecting organizational deviance (Hershcovis et al., 2007; Tepper, 2007).

The topic of supervisory leadership has a long history in organizational research. Ever since the scientific investigation of leadership began in the 1920s, scholars have attempted to discern the determinants of supervisory effectiveness. Literally, thousands of studies have been conducted which have examined how supervisors interact with subordinates and the consequences that such interactions have on the subordinate, the workgroup, and the organization (Bass & Bass, 2008). Large numbers of trait, behavioral, and situational leadership theories have been proposed in an attempt to distill the key competencies that are associated with a supervisor's ability to effectively motivate subordinates, assist groups in achieving their goals, and elevate subordinates' attitudes toward the job and organization (Yukl, 2006). Overall, the significant empirical and theoretical efforts that have been made to understand effective supervision have helped improve management practices around the world (Bass & Bass, 2008).

Despite the dominant paradigm and approach to isolate effective supervisory behaviors, in recent years it has been increasingly acknowledged that supervisors can be extremely destructive organizational forces who act abusively towards their subordinates. Rather than representing an isolated, rare event, such destructive behaviors appear to be relatively commonplace in many organizations around the world. For instance, in one recent national

survey, the Workplace Bullying Institute and Zogby International (2007) reported that 37% of U.S. workers have experienced workplace abuse and 72% of the workplace abuse originates from supervisors. Paralleling these findings Pizzino (2002) found that supervisors were responsible for 20% of all of the aggressive behaviors reported by Canadian unionized workers. Research based on a representative sample of Australian employees also found that 31% reported being verbally abused by at least one supervisor (Sutton, 2007).

In recognition of this phenomenon, within the past decade, researchers have turned their attention to the dark side of supervisory behavior. Although different labels such as petty tyranny (Ashforth, 1997), supervisor aggression (Schat, Desmarais, & Kelloway, 2006), and supervisory undermining (Duffy, Ganster, & Pagon, 2002) have been used to refer to destructive behaviors exhibited by supervisors, most research has been conducted under the heading of abusive supervision. Abusive supervision is defined as “subordinates’ perceptions of the extent to which their supervisors engage in the sustained display of hostile verbal and nonverbal behaviors, excluding physical contact” (Tepper, 2000, p. 178), reflecting perceived supervisory behaviors such as yelling, improperly blaming subordinates, public humiliating subordinates, and engaging in angry outbursts. Researchers have reported that these behaviors can result in substantial organizational costs, as victims of such destructive supervisory behaviors report decreased well-being and work quality/productivity (Schat et al., 2006). The resulting absenteeism, health care costs, and lost productivity that stem from managerial hostility has been estimated to cost U.S. corporations \$23.8 billion annually. Perhaps one of the most troubling outcomes that is associated with abusive supervision is subordinates’ tendency to engage in organizational deviance. Previous studies have shown that a relatively common

and normal reaction to being victimized by an abusive supervisor is to engage in deviant behaviors such as theft, fraud, or working slower than usual (Tepper et al., 2009).

Recently, researchers have moved beyond simply demonstrating that abusive supervision is related to organizational deviance to better understand why and when this relationship might hold. In particular, by integrating social exchange (Tepper, Henle, Lambert, Giacalone, & Duffy, 2008) and justice (Tepper, 2000; Thau, Bennett, Mitchell, & Marrs, 2009) theories, researchers have demonstrated relevant mediators (e.g., affective commitment, and justice perceptions), and moderators (e.g., authoritarian management style, and negative reciprocity beliefs) on the relation between abusive supervision and organizational deviance. Together, the examination of moderators and mediating mechanisms is important insofar as such knowledge refines our theory of abusive supervision and suggests leverage points for practitioners to influence and mitigate the negative effects of abusive supervision (Kenny, 2008). In line with this recent focus, the current dissertation tests a moderated mediation model.

To begin, in this dissertation I test a potential boundary condition on the relation between abusive supervision and organizational deviance: *leader-member exchange* (LMX), or subordinates' perception of the quality of their relationship with their supervisors. In particular, I argue that abusive supervisory behaviors may occur within high quality supervisor-subordinate relationships (i.e., high LMX), similar to how negative interpersonal behaviors (e.g., yelling, ostracism) can occur even in otherwise supportive relationships (e.g., spouse, sibling, parents; Berscheid & Regan, 2005). Although one might expect high LMX to mitigate the impact of abusive supervision, I make the counter-intuitive claim that the impact of abusive supervision on organizational deviance is *exacerbated* when it occurs in the context

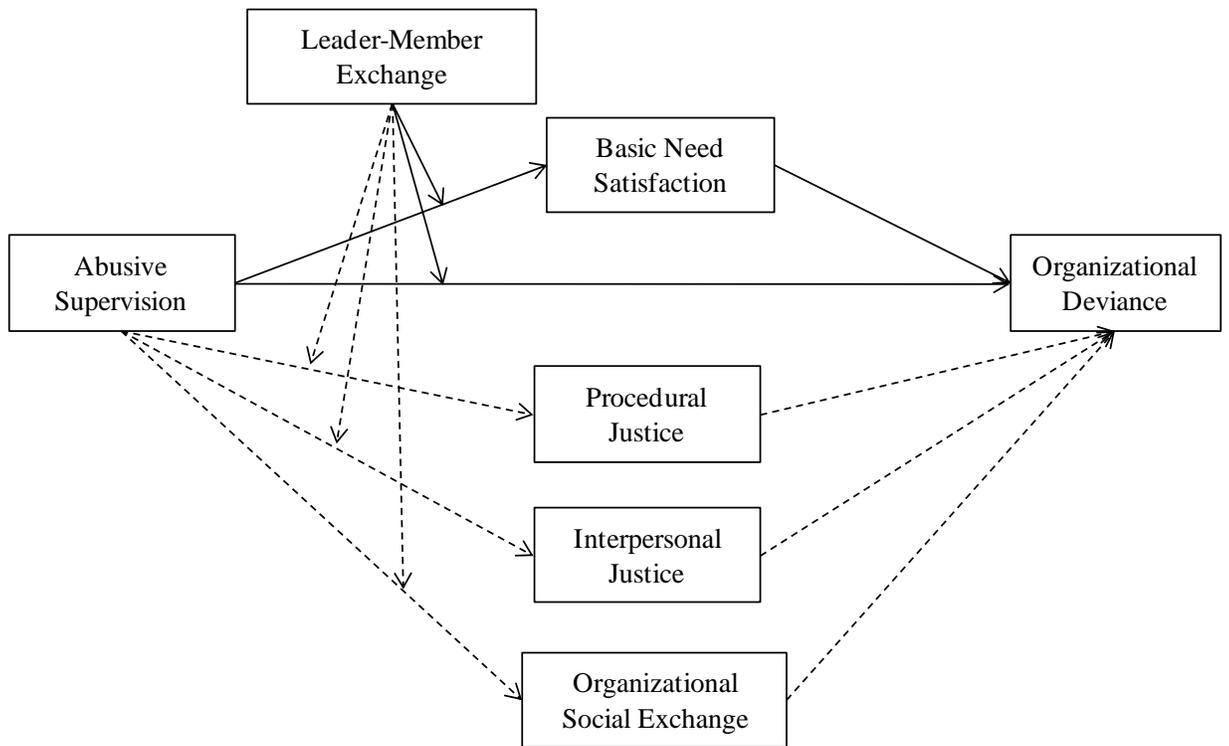
of high LMX. This prediction is grounded in work on mixed relationships, or relationships that are composed of both positive and negative aspects (Major, Zubek, Cooper, Cozzarelli, & Richards, 1997; Hobman, Restubog, Bordia, & Tang, 2009). Work on mixed relationships suggests that not only are positive and negative aspects of relationships distinct, but that conflicts occurring within highly supportive relationships are detrimental to individuals.

Second, the current dissertation also provides the first empirical tests of the mediating role basic psychological needs play in terms of understanding the effects of abusive supervision on organizational deviance. It has recently been suggested that the satisfaction of *basic human needs*, or essential conditions for psychological growth and well-being (Ryan, 1995), may be the primary underlying psychological mechanism that explains why abusive supervision relates to negative organizational outcomes such as deviance (Aquino & Thau, 2009). Such a proposition is intriguing in that it situates the abusive supervision literature within a well-established needs-based motivational theory (Deci & Ryan, 2000), thereby addressing recently raised concerns that abusive supervision research risks becoming atheoretical (Tepper, 2007). By applying self-determination theory (Deci & Ryan, 2000), the current dissertation provides an empirical test of the mediating role basic psychological needs play in the effects of abusive supervision and its interaction with LMX on organizational deviance.

Figure 1 illustrates the mediated moderation model that forms the foundation of this dissertation and provides an overview of the studies conducted to test this model. As shown in Figure 1, I suggest that abusive supervision can thwart subordinates' basic need satisfaction, resulting in organizational deviance. In addition, I suggest that LMX moderates the relationship between abusive supervision and need satisfaction. Overall, I propose that

subordinates' basic need satisfaction mediates the moderating effect of LMX on the relation between abusive supervision and organizational deviance. To test this model, three independent studies were conducted. In Study 1, I focused on examining whether LMX exacerbates the negative relation between abusive supervision and subordinate organizational deviance. In Study 2, I aimed to replicate the interaction between abusive supervision and LMX, and explain such an interaction by investigating the mediating role of basic need satisfaction. In Study 3, I tested the novel needs-based mechanism relative to two commonly investigated mediators, social exchange and justice, in order to establish that basic need satisfaction contributes above and beyond these previously theorized and demonstrated mediators.

To present my dissertation, I begin by reviewing the literature on abusive supervision, followed by a review of LMX and mixed relationships, which comprises the theoretical argument for the interactive effects between abusive supervision and LMX. Next, I apply self-determination theory to understand the effects of abusive supervision and its interaction with LMX on organizational deviance. Then I present the three studies described above, which are designed to test theoretically derived hypotheses on the relation among abusive supervision, LMX, need satisfaction, and organizational deviance. Finally, I conclude with a discussion of the implications of my dissertation for the abusive supervision literature.



*Figure 1.* The mediated moderated relationship between abusive supervision and organizational deviance. Alternate pathways tested are illustrated with dashed lines.

## CHAPTER 2 LITERATURE REVIEW

Despite the fact that the majority of the supervisory leadership literature has focused on the positive aspects of supervisors, more recent research has found that abusive supervision, characterized by ridiculing and humiliating subordinates publicly, improperly blaming subordinates, and invading subordinates' privacy (Tepper, 2000) may impact between 10 to 16 percent of American workers (Namie & Namie, 2000). Abusive supervision has significant negative ramifications for a wide range of relevant organizational outcomes, including job attitudes (Tepper, 2000), job and contextual performance (Harris, Kacmar, & Zivnuska, 2007; Zellars, Tepper, & Duffy, 2002), and supervisor-directed aggression (Inness, Barling, & Turner, 2005). Perhaps one of the most troubling outcomes associated with abusive supervision is the positive relation between abusive supervision and subordinates' organizational deviance, or deviant behaviors intended to harm the organization. Previous studies have shown that in reaction to abusive supervision, employees will engage in deviant behaviors such as theft, fraud, or working slower than usual (Tepper et al., 2009).

### The Moderating Role of LMX

Unlike abusive supervision, which represents specific supervisor behaviors that can occur at any time, LMX represents the quality of the relationship developed over time between a supervisor and a subordinate (Dansereau, Graen, & Haga, 1975), with high LMX representing high levels of supervisory support and guidance (Graen & Uhl-Bien, 1995; Gerstner & Day, 1997). More specifically, when subordinates report high levels of LMX, they perceive their supervisors are satisfied with their work, understand their job problems and needs, recognize their potential, and are willing to help them solve work-related problems (Graen & Uhl-Bien, 1995). Consequently, subordinates feel as though they are liked, respected,

and trusted, and are likely to reciprocate with their loyalty, obligations, and trust directly to their supervisor, or indirectly to their organization (Gerstner & Day, 1997). Consistent with these theoretical arguments, empirical studies have found positive relations between LMX and job satisfaction, satisfaction with supervisors, organizational commitment, job performance, and organizational citizenship behaviors (Gerstner & Day, 1997; Ilies, Nahrgang, & Morgeson, 2007).

When subordinates feel acknowledged, supported, and trusted by their supervisors (i.e. high LMX), one may expect that they will be exempted from the mistreatment from their supervisors. However, I suggest that one may experience abusive supervision within a high quality exchange relationship with one's supervisor. Although this may seem contradictory on the surface, previous research in the area of close relationships has shown that high quality relationships include both positive and negative interpersonal behaviors (Braiker & Kelly, 1979; Fincham & Linfield, 1997). These negative and positive aspects of a relationship typically form related, but distinct, factors; that is, they do not represent opposite endpoints on a continuum where a lack of positive aspects implies the presence of negative aspects, or vice-versa (Baumeister, Bratslavsky, Finkenauer, & Vohs, 2001). For example, by videotaping married couples' interactions in the laboratory and at home, Gottman and Krokoff (1989) found that both support and conflict existed in a couple's relationship and they independently predicted marital satisfaction. Similarly, Major and colleagues (1997) found that both negative and positive exchanges from mothers, partners, and friends were perceived by women who had an abortion; these negative and positive aspects have unique effects on women's postabortion adjustment.

Similar to how past work has shown negative instances occur within otherwise supportive relations for spouses, friends, and parents, I argue that abusive supervision can represent negative instances within the context of otherwise supportive supervisory relationships. Abusive supervision represents *specific* supervisory behaviors which can occur at any time and need not reflect an ongoing relationship (Tepper & Henle, 2011); LMX, however, indicates a general relationship which develops over a longer period of time. Thus, although one may have an overall positive relationship with one's supervisor, this does not rule out the possibility that one's supervisor may occasionally engage in negative behaviors. For example, although people may generally feel that their supervisor "understands their problems and needs" and believe that their supervisor is "very likely to be helpful" (both items taken from LMX scales; Scandura & Schriesheim, 1994), they may also recall occasional incidents of mistreatment such as being "given the silent treatment" or "not being given credit for their work" (both items taken from the abusive supervision scale; Tepper, 2000). Consistent with this, research has provided preliminary evidence that LMX and abusive supervision are empirically distinguishable (Burris, Detert, & Chiaburu, 2008).

Upon acknowledging abusive supervision and LMX represent two conceptually distinguishable constructs, one might expect high LMX to mitigate, not exacerbate, the effects of abusive treatment. In particular, one might expect that high LMX provides a respite against the negative impact of abusive supervision (Lepore, 1992) or provides individuals with resources to deal with negative treatment (Hobfoll, 1989). However, there is also reason to believe that negative treatment will be *more* impactful when the abuse occurs within the context of a supportive relationship, when one considers the enhanced negative effects of expectancy-violating behaviors (Bartholow, Fabiani, Gratton, & Bettencourt, 2001).

Research on interpersonal perceptions has found that individuals form expectations about other people's behaviors. Such expectations are functional as they allow people to process expectancy-congruent information more efficiently, to avoid harm from potentially threatening others and to approach help from potentially trustworthy others (Jones, 1990). As a result, individuals are very sensitive to expectancy-incongruent information (Olson, Rose, & Zanna, 1996), especially, when one behaves in ways that violate expectations in a negative way. When this occurs, perceivers pay extra attention, engage in more cognitive processing, and react more negatively to those behaviors (Bartholow et al., 2001; Hamilton, & Sherman, 1996; Stern, Marris, Millar, & Cole, 1984).

By applying the expectancy-violation literature to understand the effects of abusive supervision, I suggest that high LMX may exacerbate the negative effects of abusive supervision on organizational deviance. In particular, subordinates within a high quality relationship with their supervisors may form the expectation that their supervisor will treat them with respect. Negative treatment from their supervisor should then be surprising and violate subordinates' positive expectations. As a result, more attention, consideration, and extreme reactions are evoked by negative supervisory treatment in a high LMX relationship, as it signals to the individual that something is unusual or amiss with the situation (Kanouse & Hanson, 1972). In contrast, in the context of a typically unsupportive relationship (e.g., low LMX), such abusive behaviors will be more consistent with subordinates' expectations and less surprising, and hence less likely to be interpreted as a signal that something unusual is occurring. Instead, such information is likely to be discounted or attributed to the supervisor's unkind motives (Halperin, Snyder, Shenkel, & Houston, 1976). As such, the impact on an individual is minimized. Taken together, this suggests that the negative effects of abusive

supervision on subordinates' organizational deviance are likely to be *exacerbated*, not mitigated, when one has a typically good relation with one's supervisor (as indexed by high LMX levels). More formally, I propose:

*Hypothesis 1: LMX will moderate the positive relationship between abusive supervision and subordinates' organizational deviance, such that the relationship will be stronger when LMX is high rather than low.*

To this point I have suggested that LMX moderates the effect of abusive supervision on organizational deviance. Although this proposition has yet to be empirically tested, it is consistent with the mixed relationship literature (Major et al., 1997) and the expectancy-violation literature (Hamilton, & Sherman, 1996). In the following, I also sought to extend these predictions by applying self-determination theory and the concept of basic need satisfaction to understand the relation between abusive supervision and its interaction with LMX and organizational deviance.

#### Self-Determination Theory and Basic Need Satisfaction

Dating back to McDougall (1908), Murray (1938), and Maslow (1954), psychological needs theories have had a considerable influence in psychology. Arguably the most prominent modern needs-based theory of human motivation is self-determination theory (Deci & Ryan, 2000). While previous psychological needs theories considered any individual want, desire, or goal to represent a need, self-determination theory holds that only those elements whose absence produces marked declines in psychological functioning and well-being should be considered basic psychological needs (Ryan, 1995). From this perspective, needs are not individual-variant and learned but universal and innate, as basic psychological needs must be satisfied in order for all individuals to thrive (much like how plants need key nutrients - i.e.,

soil, water, and sun - to grow healthy; Deci & Ryan, 2000). As such, something like the desire for wealth is not regarded as a need by self-determination theory, as it is not universal and inherent; moreover, even when satisfied, it may not produce (and may even hinder) psychological well-being (Greguras & Diefendorff, 2009; Kasser & Ryan, 1993).

Self-determination theory thus advocates that humans possess three innate psychological needs whose absence are universally detrimental to humans: a need for competence, a need for relatedness and a need for autonomy. The *need for competence* refers to the desire to attain valued outcomes and succeed at challenging tasks (Skinner, 1995; White, 1959); the *need for relatedness* refers to the desire to feel a sense of connection and mutual respect with others (Baumeister & Leary, 1995); the *need for autonomy* refers to the desire to initiate one's own action and choose activities consistent with one's integrated sense of self (Ryan & Connell, 1989). Numerous studies have shown that satisfaction of these needs is linked directly to well-being (e.g., Deci & Ryan, 2000; Kasser & Ryan, 1999). Moreover, relative to other theorized psychological needs (e.g., security, self-actualization, meaning, influence), satisfaction of the needs for competence, relatedness, and autonomy contribute the most to people's feelings of fulfillment in various events (Sheldon, Elliot, Kim, & Kasser, 2001). Notably, while the three needs are distinguishable conceptually, thwarting of any need produces similar negative outcomes (Deci & Ryan, 2000) and the three needs overlap considerably in naturalistic settings (e.g., Baard, Deci, & Ryan, 2004; Sheldon & Niemiec, 2006; Uysal, Lin, & Knee, 2010; see Appendix A for more details). Consequently, prior empirical studies have modeled need satisfaction as an overall construct (e.g., Baard et al., 2004; Gagné, 2003; Van den Broeck, Vansteenkiste, De Witte, & Lens, 2008).

By regarding these needs as inherent to human nature, self-determination theory does not focus on individual differences in need strength or the extent to which individuals value particular needs. Instead, self-determination theory focuses on examining satisfaction of these needs in specific situations, with past research outlining the negative consequences associated with thwarted need satisfaction (Deci & Ryan, 2000). More specifically, self-determination theory suggests that need satisfaction facilitates self-regulatory processes and adjustment (Kuhl, 2000), while thwarted need satisfaction undermines self-regulation and causes suboptimal performance (Deci & Ryan, 2000). In line with this proposition, research has found that need satisfaction is associated with better job performance (Greguras & Diefendorff, 2009), being more engaged at work, and better psychological adjustment (Deci et al., 2001). In contrast, thwarted need satisfaction is related to behavioral disregulation and aggression (Shields, Ryan, & Cicchetti, 2001) and health-undermining behaviors such as drug use (Williams, Cox, Hedberg, & Deci, 2000).

Self-determination theory thus represents a comprehensive theory of human motivation and adjustment, wherein need satisfaction leads to human thriving, and need thwarting leads to maladjustment and impaired regulatory functioning. Building on this theoretical perspective, it has recently been suggested that one of the reasons individuals may react negatively to mistreatment at work is due to the impact of such mistreatment on psychological needs (Aquino & Thau, 2009). More specifically, it has been suggested that being the target of abusive supervision may thwart subordinates' feelings of belongingness, worthiness, and ability to predict and control their environment, which ultimately harms subordinates' psychological well-being (Aquino & Thau, 2009).

## The Mediating Role of Basic Need Satisfaction and a Mediated Moderation Model

Based on a self-determination theory perspective, the negative effects of abusive supervision on organizational deviance should lie in the ability of abusive supervision to threaten the fundamental psychological needs of the subordinate. By definition, abusive supervision encompasses behaviors which are likely to negatively impact an individual's basic psychological needs. For example, abusive supervision comprises behaviors such as belittling subordinates and emphasizing their shortcomings through negative evaluations, lying to subordinates, and threatening, excluding, or otherwise behaving rudely to subordinates. Being belittled or having one's competence assailed calls into question one's abilities and achievements, and thus can negatively affect one's sense of competence. Negative evaluations and threats also shift one's perceived locus of causality from internal to external sources (Deci & Cascio, 1972; Lepper & Greene, 1975). Employees subsequently begin to behave in line with what they believe their supervisor desires to avoid being subjected to abuse. As a result, one's sense of autonomy is undermined. Finally, excluding, belittling, and rude behaviors communicate to an individual that he or she is not a well-respected member of the group, reducing one's sense of belonging and relatedness (Ferris, Brown, Berry, & Lian, 2008; Tyler, DeGoey, & Smith, 1996). Based on this, and consistent with my previous proposition on the moderating effect of LMX, I propose that abusive supervision negatively impacts the overall basic need satisfaction of subordinates, and such a negative impact is moderated by LMX.

*Hypothesis 2: Abusive supervision is negatively related to subordinates' basic need satisfaction.*

*Hypothesis 3: LMX will moderate the negative relation between abusive supervision and subordinates' basic need satisfaction, such that the relation will be stronger when LMX is high rather than low.*

The impact of abusive supervision on subordinates' basic need satisfaction can explain why abusive supervision ultimately results in subordinates' organizational deviance. When subordinates' basic need satisfaction is blocked by an abusive supervisor, subordinates may develop the desire to retaliate against the supervisor. Retaliation refers to behavior with the purpose of punishing an offender because of the perceived harm caused by the offender (Bies & Tripp, 1996; Skarlicki & Folger, 2004). Notably, experiencing threats to basic psychological needs is inherently harmful - decreased need satisfaction is experienced as painful and frustrating, causing anxiety, depression, somatic symptoms and insomnia to individuals (for a review, see Deci & Ryan 2000). To relieve these aversive experiences, individuals may retaliate against the wrongdoer (Berkowitz, 1989). These acts of revenge may deter the possibility of future threats to one's basic needs (Baumeister, Smart, & Boden, 1996) as well as feel good in and of themselves (Carlsmith, Wilson, & Gilbert, 2008).

In some cases however, supervisors may not be available to retaliate against (Dollard, Doob, Miller, Mowrer, & Sears, 1939) or retaliating directly against supervisors may logically provoke an escalation in supervisor hostility and further abuse from a supervisor (Aquino & Thau, 2009; Tepper et al., 2009). In addition, given that supervisors control desirable resources (e.g., salaries, benefits, promotions, expertise), retaliating against a supervisor may have more widespread negative repercussions for the individual (Aquino, Tripp, & Bies, 2001; Thau & Mitchell, 2010). As a result, abused subordinates are likely to redirect their retaliation towards organizations given it is more convenient and less likely to cause further harm to them

(Mitchell & Ambrose, 2007). Moreover, as supervisors represent agents of the organization, subordinates may hold organizations accountable for supervisors' needs-thwarting behaviors and thus target the organization in an effort to retaliate against the supervisor (Ambrose, Seabright, & Schminke, 2002).

Although organizational deviances such as sabotaging equipment, ignoring one's supervisor, daydreaming, or being late or absent can satisfy one's desire to retaliate against abusive supervision, they also generate serious costs to subordinates' basic psychological need satisfaction. For instance, leaving early and coming in late may evoke resentment among others in the workplace, as they may need to work harder to cover for the individual, thwarting satisfaction of one's relatedness need. Such behaviors may also cause peers and supervisors to form negative perceptions of the work ethic of the individual, resulting in closer supervision, provision of low-priority assignments, or negative feedback which ultimately thwarts needs for autonomy and competence. In this sense, deviant behaviors are *self-defeating* insofar as while they satisfy the desire to retaliate, they come at the expense of undermining the attainment of the nutrients that individuals require to thrive (Thau, Aquino, & Poortvliet, 2007). As such, rather than satisfying basic psychological needs, engaging in organizational deviance ultimately thwarts the attainment of such needs, trapping individuals in a cycle of continued need thwarting.

The above argument is premised on the notion that subordinates develop a desire to retaliate and thus engage in organizational deviance after their basic needs are thwarted by abusive supervision. An alternate explanation suggested by self-determination theory is that thwarted basic need satisfaction impairs individuals' abilities to regulate their behaviors (Deci & Ryan, 2000). In particular, it has been suggested that when basic needs are thwarted,

individuals have fewer emotional and cognitive resources to self-regulate their behavior by following norms and acting rationally (Kuhl, 2000). Accordingly, subordinates' organizational deviance may also reflect a form of behavioral dysregulation following thwarted basic need satisfaction. Although the retaliation and regulation perspectives offer slightly different suggestions on why need thwarting results in organizational deviance, both perspectives converge on the notion that decreased need satisfaction is likely to result in increased organizational deviance. Based on the above, I hypothesize the following:

*Hypothesis 4: Basic need satisfaction is negatively related to organizational deviance.*

In summary, I propose a model (see Figure 1) in which abusive supervision negatively relates to subordinates' basic need satisfaction, and this negative relationship is moderated by LMX; decreased basic need satisfaction in turn relates to increased organizational deviance. This model is consistent with what Edwards and Lambert (2007) refer to as a mediated moderation framework, in that the effect of an interaction term (i.e., LMX's interaction with abusive supervision) is mediated through a third variable (i.e., need satisfaction). Therefore, I further propose the following hypothesis:

*Hypothesis 5: Basic need satisfaction will mediate the moderating effect of LMX on the relation between abusive supervision and organizational deviance, such that the indirect positive effect of abusive supervision on organizational deviance is stronger when LMX is high rather than low.*

Although I promote a self-determination theory explanation of the relation between abusive supervision and organizational deviance, particularly within the context of high levels of LMX, I would like to rule out alternative explanations as well. More specifically, previous

research has suggested that social exchange or justice perceptions may account for the relation between abusive supervision and organizational deviance. According to social exchange theory, employees develop a reciprocal interdependent relationship with their organizations and their organizational behaviors are contingent on the treatment they receive from their organizations (Cropanzano & Mitchell, 2005). When supervisors, who represent agents of the organization, treat them poorly, employees may feel that they are not valued and respected by their organizations and therefore engage in organizational deviance to get even (Tepper et al., 2009; Thau et al., 2009). According to a justice perspective, abusive supervision may decrease subordinates' perceptions of interpersonal justice; moreover, it may also reflect organizations' lack of procedures to restrain abusers and thus result in decreased procedural justice perceptions (Tepper, 2000). Empirically, it has been found that abusive supervision negatively influences procedural and interpersonal justice (Aryee, Chen, Sun, & Debrah, 2007; Tepper, 2000). More specifically, as perceptions of injustice increase, individuals are more likely to retaliate against their organizations by engaging in organizational deviance (Robinson & Greenberg, 1998).

As self-determination theory, social exchange theory, and a justice perspective may all provide useful explanations, it is essential to include these mediating mechanisms to further understand the process through which abusive supervision and its interaction with LMX impact on organizational deviance. Therefore, in my third study, I assessed procedural justice, interpersonal justice and employee-organization social exchange quality as alternative mediators.

## CHAPTER 3 THREE STUDIES EXAMINING ABUSIVE SUPERVISION AND ORGANIZATIONAL DEVIANCE

### Study 1: Abusive Supervision, LMX and Organizational Deviance

Study 1 was conducted to examine the moderating role of LMX on the relation between abusive supervision and subordinate organizational deviance. Building upon past work on mixed relationships and the expectancy-violation literature, I predicted that:

*Hypothesis 1: LMX will moderate the positive relationship between abusive supervision and subordinates' organizational deviance, such that the relationship will be stronger when LMX is high rather than low.*

#### *Method*

##### *Procedure*

Participants were recruited through recruitment advertisements posted to popular online forums in North America. Although internet recruitment methods differ from more traditional recruitment methods such as college students or samples drawn from specific organizations, their use has been endorsed by the American Psychological Association's Board of Scientific Affairs' Advisory Group (Kraut, Olson, Banaji, Bruckman, Cohen, & Couper, 2004) and been shown to produce data of equal quality to more traditional recruitment methods, with the added benefit of being more diverse and hence more likely to generalize (Gosling, Vazire, Srivastava, & John, 2004).

The recruitment advertisements invited employed individuals to participate in a study on workplace attitudes and behaviors, and described participation procedures (e.g., completing two on-line surveys) and remuneration (\$10 and a chance to win one of two \$100 prizes). Interested individuals were directed to complete an online pre-screen questionnaire, where

demographic information was assessed (to ensure participants were full-time workers) as well as how frequently they interacted with other people at work (to ensure participants interact regularly with other organizational members). The first survey included measures of abusive supervision and LMX and the second survey, sent out approximately two weeks after completion of the first survey, assessed organizational deviance. In order to maximize response rates, I sent reminder emails to individuals who had not completed the survey (Dillman, 2000).

### *Participants*

I obtained 569 individuals who completed the pre-screen questionnaire; 398 fulfilled the pre-screen requirements and were sent emails with a unique identifier code and links to the online surveys at two points in time. Out of the 398 invites emailed to potential participants, 297 individuals responded and completed the first survey (75% response rate) and 268 completed the second survey (90% retention rate). Participants (46% male) came from a diverse set of occupations (e.g., clerk, technician, manager, accountant, consultant) and were employed in a variety of industries, including computers and mathematics (16%), business and finance (13%), sales and related (10%), education (8%), and administrative support (7%). The mean age of participants was 31.62 years ( $SD = 8.16$ ) and the average hours worked per week was 39.58 ( $SD = 5.04$ ). Participants reported being employed in their current organization an average of 3.99 years ( $SD = 4.89$ ), having worked in their present position for 2.84 years ( $SD = 3.78$ ), and with their current supervisor for 2.12 years ( $SD = 2.61$ ).

### *Measures*

*Abusive supervision.* Tepper's (2000) 15-item abusive supervision scale was used (see Appendix B). Sample items include "My supervisor does not allow me to interact with my coworkers" and "My supervisor reminds me of my past mistakes and failures." Participants

indicated the frequency with which their supervisors performed each behavior on a 5-point Likert scale (1 = I can't remember him/her ever using this behavior with me and 5 = he/she uses this behavior very often with me;  $\alpha = .95$ ).

*Leader-member exchange.* The seven-item LMX-7 scale (Scandura & Schriesheim, 1994) was used (see Appendix C). Participants responded using a 4-point Likert scale (1 = not at all and 4 = completely;  $\alpha = .91$ ) to questions such as “Do you usually feel that you know where you stand with your supervisor?”

*Organizational deviance.* Bennett and Robinson's (2000) 12-item organizational deviance scale was used to measure deviant behaviors (see Appendix D). Participants indicated the frequency with which they engaged in a variety of behaviors over the past year (e.g., “Come in late to work without permission”) on a 7-point Likert scale (1 = never and 7 = daily;  $\alpha = .90$ ).

#### *Data Analysis*

Hypothesis 1 was tested using hierarchical multiple regression. The main effects (abusive supervision and LMX) were entered in the first step. Subsequently, the two-way interaction between abusive supervision and LMX was entered in the second step. Lower-order terms were centered to reduce multicollinearity.

## *Results*

Table 1 presents the means, standard deviations, reliabilities, and correlations of the measured variables; the means of the focal variables were comparable to those previously reported (Ferris et al., 2008; Tepper et al., 2008). The zero-order correlations were also similar to past findings, with organizational deviance being significantly related to abusive supervision ( $r = .38, p < .01$ ), and LMX ( $r = -.14, p < .05$ ).

Table 1

*Study 1 Descriptive Statistics, Zero Order Correlations, and Reliabilities*

	Mean	SD	1	2	3
1. Abusive Supervision	1.69	.75	<b>.95</b>		
2. Leader-Member Exchange	2.73	.64	-.48**	<b>.91</b>	
4. Organizational Deviance	2.01	.98	.38**	-.14*	<b>.90</b>

*Note.* The numbers in bold on the diagonal are Coefficient alphas. \*  $p < .05$ ; \*\*  $p < .01$ .

To provide evidence that abusive supervision and LMX assessed on the survey represent two distinct latent constructs, I conducted a confirmatory factor analysis on abusive supervision and LMX. Following Hu and Bentler (1999), model fit was assessed using the comparative fit index (CFI) and standardized root-mean-square residual (SRMR). Satisfactory model fit is indicated by CFI values close to .95, and SRMR values no higher than .10. The fit indices suggest that the 2-factor measurement model provides a good fit to the data, with all fit indices approaching or surpassing conventional cutoff values ( $\chi^2 = 580.38$ ,  $df = 208$ ,  $p < .01$ ,  $CFI = .91$ ,  $SRMR = .07$ ). To show that abusive supervision was distinct from LMX, I tested a model where the abusive supervision and LMX items were set to load on a single factor. The fit indices showed that the hypothesized 2-factor measurement model provided a better fit to the data compared to a 1-factor model in terms of the fit statistics and when directly contrasted using a change in chi-square test ( $\chi^2 = 1346.71$ ,  $df = 209$ ,  $\Delta\chi^2 = 766.33$ ,  $p < .01$ ,  $CFI = .73$ ,  $SRMR = .13$ ).

To test Hypothesis 1, in which I argued that LMX would moderate the relation between abusive supervision and organizational deviance, I used hierarchical multiple regression analyses. As can be seen in Table 2, consistent with Hypothesis 1, the interaction between LMX and abusive supervision significantly predicted organizational deviance ( $\beta = -.35$ ,  $p < .01$ ), and the additional proportion of the variance in organizational deviance explained by the interaction term was also significant ( $\Delta R^2 = .04$ ,  $p < .01$ ).

Table 2  
*Study 1 Abusive Supervision and LMX Interaction on Organizational Deviance*

Variable	OD <i>Step 1</i>	OD <i>Step 2</i>
Intercept	2.01**	2.09**
Abusive Supervision	.53**	.62**
LMX	.10	.09
$\Delta R^2$	.14**	
Abusive Supervision x LMX		.35**
$\Delta R^2$		.04**
Overall $R^2$		.18**

*Note.*  $N = 268$ . LMX = leader-member exchange. OD = organizational deviance. Values are unstandardized regression coefficients. \*  $p < .05$ . \*\*  $p < .01$ .

Figure 2 depicts the relation between abusive supervision and subordinates' organizational deviance at both low and high levels of LMX. As seen in Figure 2, in support of Hypothesis 1, the relationship between abusive supervision and organizational deviance was stronger when LMX was high rather than low. Simple slope tests showed that the relation between abusive supervision and organizational deviance was significant for subordinates with high levels of LMX ( $\beta = .84, p < .01$ ) and for those with low levels of LMX ( $\beta = .40, p < .01$ ).

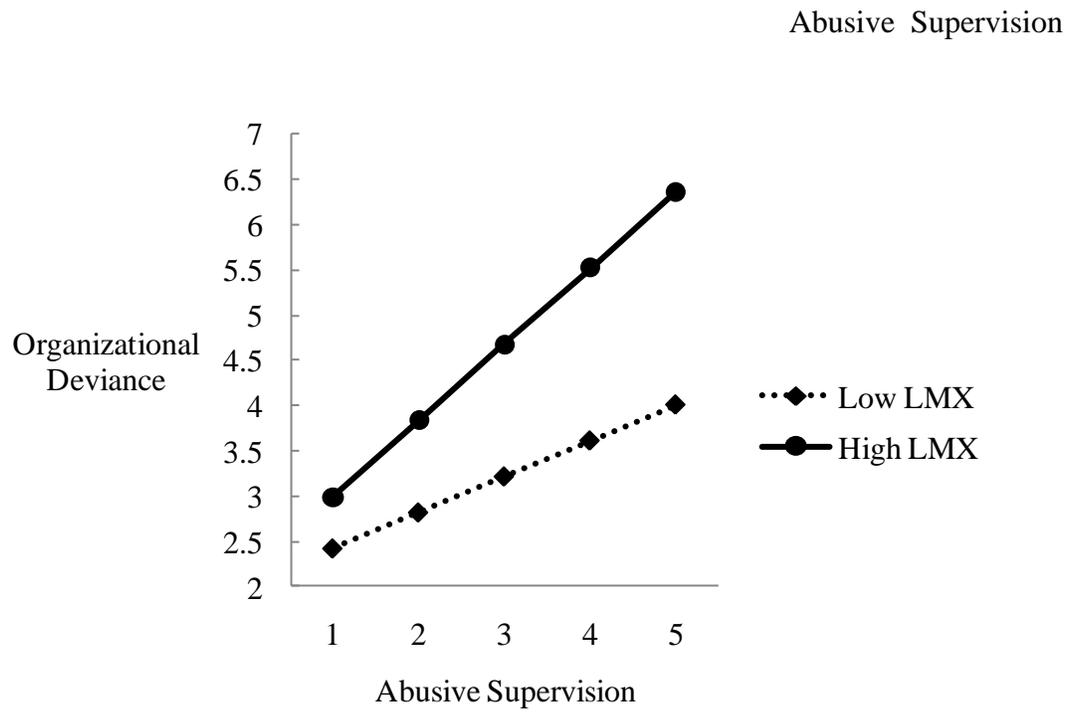


Figure 2. Study 1 Interaction between abusive supervision and LMX on organizational deviance.

*Discussion*

Study 1 contributes to the abusive supervision and deviance literatures by empirically examining a moderator of the relation between abusive supervision and organizational deviance: LMX. In contrast to the intuitive thinking that high levels of LMX can buffer against the detrimental effects of supervisor abuse, the results showed that high levels of LMX magnify the effects of abusive supervision and result in more organizational deviance.

Consistent with the existing work on mixed relationships and the expectancy-violation literature, Study 1 provides support for the exacerbating effect of LMX in explaining the relation between abusive supervision and organizational deviance. However, more work is needed to examine the psychological mechanism underlying the effects of abusive supervision and its interaction with LMX on organizational deviance. More specifically, a recent review of the literature has suggested that basic need satisfaction may account for the relation between abusive supervision and organizational deviance (Aquino & Thau, 2009). Such a proposition allows the application of self-determination theory to further our understanding of the abusive supervision literature. Therefore, I conducted a second study wherein I assessed the mediating effect of basic need satisfaction.

Study 2: Abusive Supervision, LMX and Organizational Deviance: A Self-Determination Theory  
Perspective

An important goal of Study 2 was to examine the psychological mechanism underlying the effects of abusive supervision and its interaction with LMX on organizational deviance. By applying self-determination theory (Deci & Ryan, 2000), I predicted that:

*Hypothesis 2: Abusive supervision is negatively related to subordinates' basic need satisfaction.*

*Hypothesis 3: LMX will moderate the negative relation between abusive supervision and subordinates' basic need satisfaction, such that the relation will be stronger when LMX is high rather than low.*

*Hypothesis 4: Basic need satisfaction is negatively related to organizational deviance.*

*Hypothesis 5: Basic need satisfaction will mediate the moderating effect of LMX on the relation between abusive supervision and organizational deviance, such that the indirect positive effect of abusive supervision on organizational deviance is stronger when LMX is high rather than low.*

*Method*

*Procedure*

Participants were recruited using advertisements placed in commuter areas (e.g. bus stops), newspapers, and other public places (e.g., coffee shops). The recruitment advertisements indicated that employed individuals were needed for a study on workplace attitudes and behaviors, and provided general details about what participation entailed (e.g., completing three surveys) and compensation (\$10 and a chance to win one of two \$200 prizes). The recruitment

advertisement directed interested individuals to complete an online pre-screen questionnaire. Of the 489 individuals who completed the pre-screen questionnaire, 77 (16%) were not working at least 30 hours per week and 27 (5%) did not interact with other people at work, four (1%) were self-employed and nine (2%) did not provide accurate email addresses, so I was not able to contact them. Finally, 372 fulfilled the pre-screen requirements and were sent emails with a unique identifier code and links to the online surveys at three points in time.

The first survey included measures of abusive supervision and leader-member exchange; the second survey, sent out approximately one week later, assessed basic need satisfaction. Approximately one week after completing the second survey, participants were sent a link to the third survey, which assessed organizational deviance. In order to maximize response rates, I sent reminder emails to individuals who had not completed the survey after one week; I sent a second reminder two weeks later (Dillman, 2000).

### *Participants*

A total of 295 individuals completed the first survey (79% response rate); 271 individuals completed the second survey (92% retention rate) and 256 individuals completed the third survey (94% retention rate). Participants (54% male) came from a diverse set of occupations (e.g., consultant, office clerk, graphic designer, systems analyst, operations manager) and were employed in a variety of industries including business and finance (15%), sales and related (15%), computers and mathematics (9%), education (9%), and government (7%). The mean age of participants was 32.62 years ( $SD = 9.45$ ) and the average hours worked per week was 41.25 ( $SD = 5.55$ ). Participants reported being employed in their current organization an average of 4.43 years ( $SD = 5.66$ ), having worked in their present position for 3.27 years ( $SD = 4.84$ ), and with their current supervisor for 2.54 years ( $SD = 3.68$ ).

*Measures*

Abusive supervision, LMX, and organizational deviance were measured with the same scales as used in Study 1.

*Basic need satisfaction.* The 21-item basic need satisfaction scale (Deci, Ryan, Gagne, Leone, Usunov, & Kornazheva, 2001; see Appendix E) was used to assess the extent to which participants experience satisfaction of their basic needs – autonomy, competence, and relatedness – at work. Participants responded on a 7-point Likert scale (1 = not at all true and 7 = very true;  $\alpha = .91$ ). Sample items include “Most days I feel a sense of accomplishment from working” (for competence), “People at work are pretty friendly towards me” (for relatedness), and “I feel like I can pretty much be myself at work” (for autonomy). Consistent with previous studies and self-determination theory, which suggests that thwarting any one of the three needs leads to negative consequences, I calculated an overall average of need satisfaction (e.g. Baard et al., 2004; Deci & Ryan, 2000; Vansteenkiste, Neyrinck, Niemiec, Soenens, De Witte, & Van den Broeck, 2007; see Appendix F for results with separated need satisfaction).

*Data Analysis*

I tested the mediated-moderation model I using Edwards and Lambert’s (2007) approach. By integrating the principle of simple slopes from moderated regression analysis with the terms of direct, indirect and total effects from path analysis, the incorporated framework tests mediated moderation by showing that moderation occurs between the independent variable and the mediating variable (i.e., between abusive supervision and basic need satisfaction) and that mediating effects vary according to the level of the moderator (i.e., LMX; Edwards & Lambert, 2007). Accordingly, I used two multiple regression models with SPSS 18.0. The first model tested whether LMX moderated the relation between abusive supervision and basic need

satisfaction (Edwards & Lambert, 2007, Equation 5). The second model included abusive supervision, LMX, the interaction between the two, and basic need satisfaction in the regression equation (Edwards & Lambert, 2007, Equation 6). Abusive supervision and LMX were centered prior to computing the abusive supervision by LMX interaction variable. Integrating these two multiple regression models (Edwards & Lambert, 2007, Equation 19), I used simple effects analyses to calculate the strength of the indirect effects of basic need satisfaction at both high and low levels of the moderator (i.e., LMX).

I adopted a bootstrap approach to test the significance of the mediating effects (i.e., indirect effects) and the differences of the mediating effects between high and low levels of the moderator (i.e.,  $\pm 1 SD$  around the mean of LMX). The bootstrap approach is chosen over the conventional Sobel (1982) approach, because the latter suffers from a high Type I error rate due to its violation of normal distribution assumptions (Shrout & Bolger, 2002). The bootstrap relaxes prior assumptions by repeatedly estimating the regression coefficients with bootstrap samples. Each bootstrap sample has the same size of the original sample and was created by randomly sampling cases with replacement from the original sample. Regression coefficients estimated from each bootstrap sample are used to compute the indirect effects and differences of the indirect effects between high and low levels of the moderator, yielding a distribution which can be used to determine percentile values for a desired confidence interval (e.g., 2.5 and 97.5 percentile values for a 95% confidence interval). The confidence intervals were further corrected for differences between the indirect effects estimated from the original sample and the median of the indirect effects estimated from the bootstrap sample, resulting in bias-corrected confidence intervals. Following previous recommendations, 1,000 samples were bootstrapped to obtain

bias-corrected confidence intervals in the current study (Edwards & Lambert, 2007; Mooney & Duval, 1993).

*Results*

Table 3 presents the means, standard deviations, reliabilities, and correlations of the measured variables; the means of the focal variables were comparable to those previously reported (Deci et al., 2001; Ferris et al., 2008; Tepper et al., 2008). An examination of the zero-order correlations provides preliminary support for the hypotheses, with basic need satisfaction being significantly related to its hypothesized antecedent, abusive supervision ( $r = -.47, p < .01$ ), and hypothesized outcome, deviant behavior ( $r = -.28, p < .01$ ).

Table 3  
*Study 2 Descriptive Statistics, Zero Order Correlations, and Reliabilities*

	Mean	SD	1	2	3	4
1. Abusive Supervision	1.52	.69	<b>.95</b>			
2. Leader-Member Exchange	2.71	.74	-.57**	<b>.93</b>		
3. Basic Need Satisfaction	3.68	.72	-.47**	.65**	<b>.91</b>	
4. Organizational Deviance	1.96	.88	.32**	-.24**	-.28**	<b>.86</b>

*Note.* The numbers in bold on the diagonal are Coefficient alphas. \*  $p < .05$ ; \*\*  $p < .01$ .

To provide evidence that abusive supervision, LMX, and basic need satisfaction assessed in the study represent distinct constructs, I conducted confirmatory factor analyses. Item parcels were formed to create three indicators for all constructs. Item parcels were appropriate to use because I focused on the relations between latent variables (i.e., whether two latent constructs were distinct from one another; Little, Cunningham, Shahar, & Widaman, 2002). Item parcels also have higher reliability and communality, a larger ratio of common-to-unique variance, and less possibility of violating the normal distribution assumption than single items and thus reduce Type I or Type II errors (Williams & O'Boyle, 2008). They also reduce the sample-size-to-parameter ratio and thus result in more stable estimates (Little et al., 2002). With the exception of basic need satisfaction, I randomly assigned items to parcels as this yields comparable fit to more complex methods (Landis, Beal, & Tesluk, 2000); for basic need satisfaction, I used the means of competence, autonomy and relatedness as the three indicators.

The same model fit indices were followed as in Study 1. The fit indices suggest that the hypothesized 3-factor model provides a good fit to the data, with all fit indices approaching or surpassing conventional cutoff values (see Table 4). I also tested how the data fit more parsimonious models: one with the abusive supervision and LMX parcels set to load on a single factor, and one with the LMX and basic need satisfaction parcels set to load on a single factor. As seen in Table 4, the hypothesized 3-factor model provided a better fit to the data compared to the alternate models in terms of the fit statistics and when directly contrasted using change in chi-square tests. Therefore, I found support for the independence of these constructs.

Table 4  
*Study 2 Construct Distinctiveness Tests*

Models	$\chi^2$	<i>df</i>	$\Delta\chi^2$	CFI	SRMR
Hypothesized 3-Factor Model	68.96**	24	--	.98	.04
2- Factor Model with AS and LMX Combined into One Factor	595.82**	26	526.86**	.61	.16
2- Factor Model with LMX and BNS Combined into One Factor	132.13**	26	63.17**	.95	.06

*Note.* AS = abusive supervision. LMX = leader-member exchange. BNS = basic need satisfaction. CFI = comparative fit index. SRMR = standardized root-mean-square residual. In the 3-factor model, the relationships between the latent constructs were freely estimated. The change in chi-square was calculated by independently contrasting the alternate measurement models against the hypothesized 4-factor measurement model. \*\*  $p < .01$ .

I next assessed the hypothesized mediated moderation model with multiple regression analyses, using Edward and Lambert's (2007) approach. As can be seen in Table 5, in support of Hypothesis 2, abusive supervision was negatively related to subordinates' basic need satisfaction ( $\beta = -.44, p < .01$ ). Consistent with Hypothesis 3, the interaction between LMX and abusive supervision significantly predicted basic need satisfaction ( $\beta = -.26, p < .01$ ), and the additional proportion of the variance in basic need satisfaction explained by the interaction term was also significant ( $\Delta R^2 = .01, p < .05$ ). As presented in Table 5, in support of Hypothesis 4, subordinates' basic need satisfaction was negatively related to organizational deviance ( $\beta = -.19, p < .05$ ).

Table 5

*Study 2 Mediated-Moderation Effects of Abusive Supervision by LMX Interactions and Basic Need Satisfaction on Organizational Deviance*

Variable	<i>BNS</i> <i>Step 1</i>	<i>BNS</i> <i>Step 2</i>	<i>OD</i> <i>Step 1</i>	<i>OD</i> <i>Step 2</i>	<i>OD</i> <i>Step 3</i>
Intercept	4.82**	4.74**	1.96**	2.07**	2.95**
AS	-.26**	-.44**	.35**	.60**	.52**
LMX	.73**	.68**	-.10	-.03	.10
$\Delta R^2$	.48**		.11**		
AS x LMX		-.26**		.37**	.32**
$\Delta R^2$		.01**		.03**	
BNS					-.19*
$\Delta R^2$					.02*
Overall $R^2$		.50			.16

*Note.*  $N = 256$ . AS = abusive supervision. LMX = leader-member exchange. BNS = basic need satisfaction. OD = organizational deviance. Values are unstandardized regression coefficients. \*  $p < .05$ . \*\*  $p < .01$ .

I next calculated simple effects at high and low levels of LMX ( $\pm 1 SD$  around the mean). The path estimates, which are shown in Table 6, indicate that the strength of the relationship between abusive supervision and basic need satisfaction varied depending on LMX levels. In support of Hypothesis 3, for subordinates with high levels of LMX, abusive supervision was more negatively related to basic need satisfaction ( $P = -.63, p < .01$ ) than for those with low levels of LMX ( $P = -.25, p < .05$ ), with the difference being significant ( $[-.63] - [-.25] = -.39, p < .05$ ).<sup>1</sup> Figure 3 depicts the negative relation between abusive supervision and subordinates' basic need satisfaction at both low and high levels of LMX; the relationship was stronger when LMX was high rather than low.

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<sup>1</sup>  $P$  represents path coefficient. The significance of the direct effect of abusive supervision on basic need satisfaction and the differences of the direct effect between high and low levels of LMX (i.e.,  $\pm 1 SD$  around the mean of LMX ) was also tested with the bootstrap approach.

Table 6  
 Study 2 Analysis of Simple Effects

LMX	$P_{MX}$	$P_{YM}$	Direct effects ( $P_{YX}$ )	Indirect effects ( $P_{YM}P_{MX}$ )	Total effects ( $P_{YX} + P_{YM}P_{MX}$ )
High	-.63**	-.19**	.76**	.12**	.88**
Low	-.24*	-.19**	.28*	.05*	.33**
Differences	-.39*	.00	.47*	.07*	.55**

*Note.* LMX = Leader-Member Exchange.  $P_{MX}$  = path from abusive supervision to basic need satisfaction.  $P_{YM}$  = path from basic need satisfaction to organizational deviance.  $P_{YX}$  = path from abusive supervision to organizational deviance. \*  $p < .05$ ; \*\*  $p < .01$ .

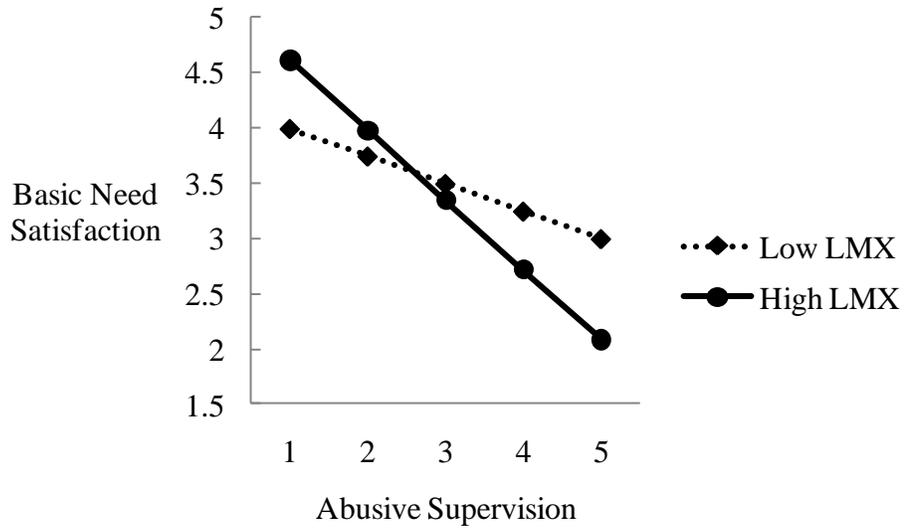
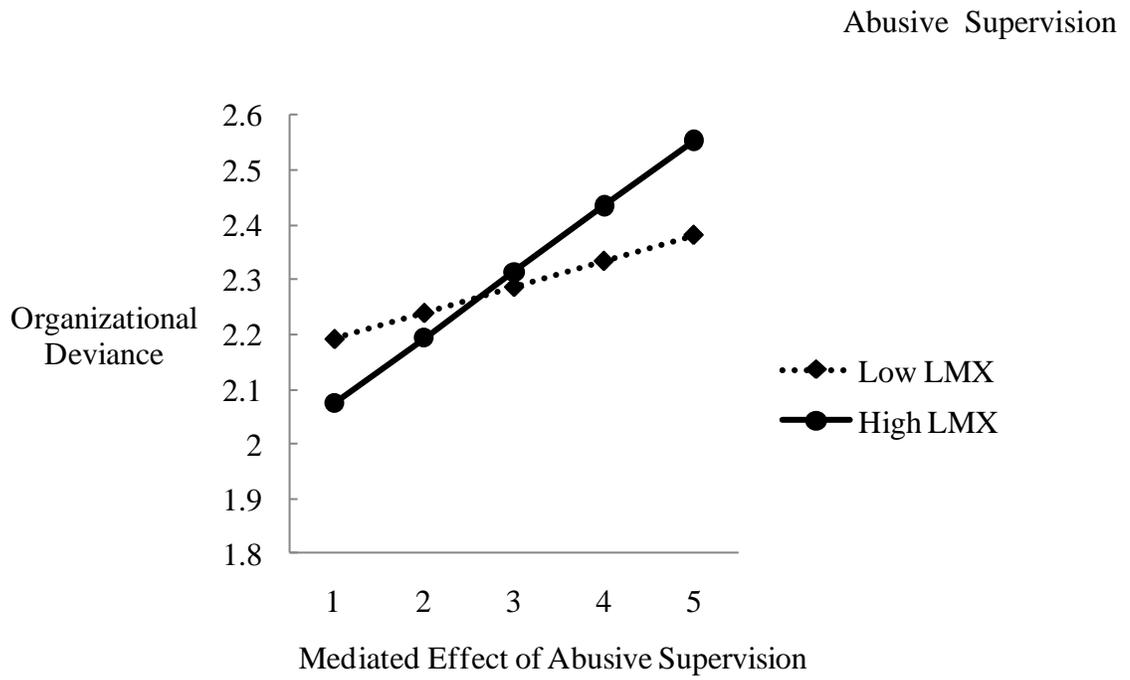


Figure 3. Study 2 Interaction between abusive supervision and LMX on basic need satisfaction.

Table 6 also shows that abusive supervision had a stronger indirect effect on organizational deviance for those who experienced high levels of LMX ( $P = .12, p < .01$ ) than for those who experienced low levels of LMX ( $P = .05, p < .05$ ); the strength of the indirect relationship differed significantly depending on LMX levels ( $[.12] - [.05] = .08, p < .05$ ). Figure 4 depicts the indirect effect of abusive supervision (through basic need satisfaction) on organizational deviance at both low and high levels of LMX; the relationship was stronger when LMX was high rather than low. In summary, I found that LMX moderated the effect of abusive supervision on basic need satisfaction; the mediating effect of basic need satisfaction was stronger at high rather than low levels of LMX. Therefore, the mediated moderation model (i.e., Hypothesis 5, as shown in Figure 1) was supported.



*Figure 4.* Study 2 Interaction between the mediated effect of abusive Supervision through basic need satisfaction and LMX on Organizational Deviance.

*Discussion*

Study 2 contributes to the abusive supervision and deviance literatures by empirically demonstrating an arguably critical mediating mechanism of the abusive supervision and organizational deviance relation: need satisfaction (Aquino & Thau, 2009). Study 2 also replicated the moderating effects of LMX and found that high levels of LMX magnify the effects of abusive supervision on basic need satisfaction, which ultimately results in more organizational deviance.

Although Study 2 provides support for self-determination theory in explaining the relation between abusive supervision and organizational deviance, especially in the context of high levels of LMX, one limitation of the study is that I did not rule out alternative mediators. More specifically, previous research has suggested that social exchange or justice perceptions may account for the relation between abusive supervision and organizational deviance. According to social exchange theory, employees develop a reciprocal interdependent relationship with their organizations and their organizational behaviors are contingent on the treatment they receive from their organizations (Cropanzano & Mitchell, 2005). When supervisors, who represent agents of the organization, treat them poorly, employees may feel that they are not valued and respected by their organizations and therefore engage in organizational deviance as a way to retaliate (Tepper et al., 2009; Thau et al., 2009).

According to a justice perspective, abusive supervision may decrease subordinates' perceptions of interpersonal justice; moreover, it may also reflect an organization's lack of procedures to restrain abusers and thus result in decreased procedural justice perceptions (Tepper, 2000). Empirically, it has been found that abusive supervision negatively influences procedural and interpersonal justice (Aryee, Chen, Sun, & Debrah, 2007; Tepper, 2000); as perceptions of

injustice increase, individuals are more likely to retaliate against their organizations by engaging in organizational deviance (Robinson & Greenberg, 1998).

As self-determination theory, social exchange theory, and a justice perspective may all provide useful explanations, it is essential to include these mediating mechanisms to further understand the process through which abusive supervision and its interactions with LMX impact on organizational deviance. Therefore, I conducted a third study wherein I assessed procedural justice, interpersonal justice, and employee-organization social exchange quality as alternative mediators.

Study 3: Abusive Supervision, LMX and Organizational deviance: Basic Need Satisfaction  
versus Alternative Explanations

The primary purpose of Study 3 was to constructively replicate Study 2 and test the mediating role of basic need satisfaction after including alternative mechanisms suggested by justice perspectives and social exchange theory.

*Method*

*Procedure*

The same procedure that was used in Study 2 was followed, with one exception: I added measures assessing subordinates' perceptions of procedural and interpersonal justice, and organizational social exchange quality to the second survey. Using the same recruitment procedures as Study 2, I obtained 559 individuals who completed the pre-screen questionnaire. Of them, 89 (16%) were not working at least 30 hours per week and 14 (3%) did not interact with other people at work, four (1%) were self-employed and 17 (3%) did not provide accurate email addresses, so I was not able to contact them. Finally, 435 individuals fulfilled the pre-screen requirements and were sent emails with links to the online surveys.

*Participants*

A total of 318 individuals completed the first survey (73% response rate); 285 individuals completed the second survey (90% retention rate) and 260 individuals completed the third survey (91% retention rate). Participants (48% male) came from a diverse set of occupations (e.g., teacher, engineer, financial advisor, cashier, physician) and were employed in a variety of industries including computers and mathematics (15%), business and finance (13%), sales and related (10%), education (8%), and government (8%). The mean age of participants was 34.30 years ( $SD = 9.60$ ) and the average hours worked per week was 41.59 ( $SD = 6.64$ ). Participants

reported being employed in their current organization an average of 5.19 years ( $SD = 6.04$ ), having worked in their present position for 3.73 years ( $SD = 5.19$ ), and with their current supervisor for 2.68 years ( $SD = 3.65$ ).

### *Measures*

Abusive supervision ( $\alpha = .96$ ), LMX ( $\alpha = .89$ ), basic need satisfaction ( $\alpha = .90$ ), and organizational deviance ( $\alpha = .90$ ) were all measured with the same scales as used in Study 2.

*Procedural and interpersonal justice.* Colquitt's (2001) seven-item procedural justice scale and four-item interpersonal justice scale were used to assess participants' perceptions of procedural and interpersonal justice. Participants were asked to respond on a 5-point Likert scale (1 = to a small extent and 7 = to a large extent) to a series of statements such as "You have been able to express your views and feelings during procedures used to arrive at outcomes you receive from your job" (procedural justice;  $\alpha = .88$ ; see Appendix G) and "Your supervisor has treated you with dignity" (interpersonal justice;  $\alpha = .90$ ; see Appendix H).

*Organizational social exchange.* I used Shore, Tetrick, Lynch and Barskdale's (2006) eight-item organizational social exchange measure (see Appendix I). This measure indicates the social exchange quality between employees and organizations by assessing the extent to which employees agreed with a series of statements such as "My organization has made a significant investment in me" and "I try to look out for the best interests of my organization because I can rely on my organization to take care of me" on a 7-point Likert scale (1 = strongly disagree and 7 = strongly agree;  $\alpha = .91$ ).

### *Data Analysis*

I followed the same procedures as discussed in Study 2 to test the hypothesized mediated moderation model, except in the second multiple regression model, I not only included abusive

supervision, LMX, the interaction between the two, and basic need satisfaction in the regression equation as I did in Study 2, but also included procedural justice, interpersonal justice, and organizational social exchange in the regression equation in order to examine the mediating effects of these alternative mediators (Edwards & Lambert, 2007, Equation 6).

*Results*

Table 7 presents the means, standard deviations, reliabilities, and correlations of the measured variables; as in Study 2, the means of the focal variables were comparable to those previously reported (Deci et al., 2001; Ferris et al., 2008; Tepper et al., 2008). Also as in Study 2, the zero-order correlations showed that basic need satisfaction was significantly related to its hypothesized antecedent, abusive supervision ( $r = -.47, p < .01$ ), and hypothesized outcome, organizational deviance ( $r = -.34, p < .01$ ). Consistent with justice and social exchange theories, procedural justice, interpersonal justice and organizational social exchange were significantly related to abusive supervision ( $r = -.32, -.57, \text{ and } -.32$  respectively, all  $p < .01$ ) and organizational deviance ( $r = -.34, -.20$  and  $-.23$ , respectively, all  $p < .01$ ).

Table 7  
*Study 3 Descriptive Statistics, Zero Order Correlations, and Reliabilities*

	Mean	SD	1	2	3	4	5	6	7
1. AS	1.62	.79	<b>.96</b>						
2. LMX	2.82	.59	-.38**	<b>.89</b>					
3. BNS	4.88	.91	-.47**	.53**	<b>.90</b>				
4. PJ	3.49	.80	-.32**	.50**	.56**	<b>.88</b>			
5. IJ	3.98	.90	-.57**	.58**	.58**	.64**	<b>.90</b>		
6. OSE	4.69	1.21	-.32**	.49**	.64**	.69**	.49**	<b>.91</b>	
7. OD	1.87	.94	.45**	-.14*	-.34**	-.20**	-.23**	-.22**	<b>.90</b>

*Note.* AS = abusive supervision. LMX = leader-member exchange. BNS = basic need satisfaction. PJ = procedural justice. IJ = interpersonal justice. OSE = organizational social exchange. OD = organizational deviance. The numbers in bold on the diagonal are Coefficient alphas. \*  $p < .05$ ; \*\*  $p < .01$ .

To provide evidence that the independent variables (i.e., abusive supervision and LMX) and mediating variables (i.e., basic need satisfaction, procedural justice, interpersonal justice, and organizational social exchange) assessed in the study represent distinct latent constructs, I conducted confirmatory factor analyses. The same parceling methods and model fit indices were followed as Study 2, except two rather than three item parcels were formed for interpersonal justice, given it only includes four scale items.

The fit indices suggest that the hypothesized 6-factor model provides a good fit to the data, with all fit indices approaching or surpassing conventional cutoff values (see Table 8). I also tested how the data fit more parsimonious models where parcels of any two of the six constructs were set to load on a single factor. As seen in Table 8, the hypothesized 6-factor model provided a better fit to the data compared to the alternate models in terms of the fit statistics and when directly contrasted using change in chi-square tests. Therefore, I found support for the independence of these constructs.

Table 8  
*Study 3 Construct Distinctiveness Tests*

Models	$\chi^2$	<i>df</i>	$\Delta\chi^2$	CFI	SRMR
Hypothesized 6-Factor Model	225.10**	104	--	.97	.05
5- Factor Model with AS and LMX Combined into One Factor	678.98**	109	453.88**	.85	.15
5- Factor Model with AS and IJ Combined into One Factor	562.24**	109	337.14**	.88	.13
5- Factor Model with AS and BNS Combined into One Factor	494.91**	109	269.81**	.90	.14
5- Factor Model with AS and PJ Combined into One Factor	815.32**	109	590.22**	.81	.19
5- Factor Model with AS and OSE Combined into One Factor	1025.47**	109	800.37**	.76	.19
5- Factor Model with LMX and BNS Combined into One Factor	400.99**	109	175.89**	.92	.08
5- Factor Model with LMX and IJ Combined into One Factor	469.75**	109	244.65**	.90	.06
5- Factor Model with LMX and PJ Combined into One Factor	523.02**	109	297.92**	.89	.07
5- Factor Model with LMX and OSE Combined into One Factor	600.64**	109	375.54**	.87	.10
5- Factor Model with BNS and PJ Combined into One Factor	341.08**	109	115.98**	.94	.06
5- Factor Model with BNS and IJ Combined into One Factor	340.26**	109	115.16**	.94	.06
5- Factor Model with BNS and OSE Combined into One Factor	332.81**	109	107.71**	.94	.08
5- Factor Model with PJ and IJ Combined into One Factor	461.86**	109	236.76**	.91	.07
5- Factor Model with PJ and OSE Combined into One Factor	446.00**	109	220.90**	.91	.07
5- Factor Model with IJ and OSE Combined into One Factor	601.22**	109	376.12**	.87	.11

*Note.* AS = abusive supervision. LMX = leader-member exchange. IJ = interpersonal justice. BNS = basic need satisfaction. PJ = procedural justice. OSE = organizational social exchange. CFI = comparative fit index. SRMR = standardized root-mean-square residual. In the 6-factor model, the relationships between the latent constructs were freely estimated. The change in chi-square was calculated by independently contrasting the alternate measurement models against the hypothesized 6-factor measurement model. \*\*  $p < .01$ .

I next assessed the hypothesized mediated moderation model with multiple regression analyses, using Edward and Lambert's (2007) approach. As can be seen in Table 9, in support of Hypothesis 2, abusive supervision was negatively related to subordinates' basic need satisfaction ( $\beta = -.38, p < .01$ ). Consistent with Hypothesis 3, the interaction between LMX and abusive supervision significantly predicted basic need satisfaction ( $\beta = -.24, p < .05$ ), and the additional proportion of the variance in basic need satisfaction explained by the interaction term was also significant ( $\Delta R^2 = .01, p < .05$ ). Table 9 also shows that the interactive effects of LMX and abusive supervision on procedural justice, interpersonal justice, and organizational social exchange were not significant ( $\beta = .09, .15, \text{ and } -.17$  respectively, all  $p > .05$ ), and the additional proportion of the variance in basic need satisfaction explained by the interaction term was not significant either ( $\Delta R^2 = .00, .01, \text{ and } .00$  respectively, all  $p > .05$ ). As presented in Table 10, in support of Hypothesis 4, subordinates' basic need satisfaction was negatively related to organizational deviance ( $\beta = -.21, p < .05$ ).

Table 9

*Study 3 Abusive Supervision by LMX Interactions on Basic Need Satisfaction, Interpersonal Justice, Procedural Justice and Organizational Social Exchange*

Variable	<i>BNS</i> <i>Step 1</i>	<i>BNS</i> <i>Step 2</i>	<i>IJ</i> <i>Step 1</i>	<i>IJ</i> <i>Step 2</i>	<i>PJ</i> <i>Step 1</i>	<i>PJ</i> <i>Step 2</i>	<i>OSE</i> <i>Step 1</i>	<i>OSE</i> <i>Step 2</i>
Intercept	4.88**	4.84**	3.98**	4.01**	3.49**	3.50**	4.69**	4.66**
AS	-.36**	-.38**	-.46**	-.45**	-.16**	-.15*	-.24**	-.25**
LMX	.63**	.64**	.65**	.64**	.60**	.59**	.88**	.89**
$\Delta R^2$	.36**		.48**		.27**		.26**	
AS x LMX		-.24*		.15		.09		-.17
$\Delta R^2$		.01*		.01		.00		.00
Overall $R^2$		.38		.49		.28		.27

*Note.*  $N = 259$ . AS = abusive supervision. LMX = leader-member exchange. BNS = basic need satisfaction. IJ = interpersonal justice. PJ = procedural justice. OSE = organizational social exchange. OD = organizational deviance. Values are unstandardized regression coefficients. \*  $p < .05$ . \*\*  $p < .01$ .

Table 10

*Study 3 Abusive Supervision by LMX Interactions and Basic Need Satisfaction on Organizational Deviance*

Variable	OD <i>Step 1</i>	OD <i>Step 2</i>	OD <i>Step 3</i>
Intercept	1.88**	1.95**	2.83**
AS	.55**	.59**	.54**
LMX	.06	.05	.16
$\Delta R^2$	.20**		
AS x LMX		.40**	.35**
$\Delta R^2$		.04**	
BNS			-.21*
IJ			.11
PJ			-.11
OSE			.01
$\Delta R^2$			.03*
Overall $R^2$			.16

*Note.*  $N = 259$ . AS = abusive supervision. LMX = leader-member exchange. BNS = basic need satisfaction. OD = organizational deviance. Values are unstandardized regression coefficients. \*  $p < .05$ . \*\*  $p < .01$ .

I next calculated simple effects at high and low levels of LMX ( $\pm 1 SD$  around the mean). The path estimates, which are shown in Table 11, indicate that the strength of the relationship between abusive supervision and basic need satisfaction varied depending on LMX levels. In support of Hypothesis 3, for subordinates with high levels of LMX, abusive supervision was more negatively related to basic need satisfaction ( $P = -.52, p < .01$ ) than for those with low levels of LMX ( $P = -.24, p < .01$ ), with the difference being significant ( $[-.52] - [-.24] = -.28, p < .01$ ). Figure 5 depicts the negative relation between abusive supervision and subordinates' basic need satisfaction at both low and high levels of LMX; the relationship was stronger when LMX is high rather than low.

Table 11  
 Study 3 Analysis of Simple Effects

Mediator	LMX	$P_{MX}$	$P_{YM}$	Direct effects ( $P_{YX}$ )	Indirect effects ( $P_{YM}P_{MX}$ )	Total effects ( $P_{YX} + P_{YM}P_{MX}$ )
BNS	High	-.52**	-.21*	.75**	.11**	.86**
	Low	-.24**	-.21*	.34**	.05*	.39**
	Differences	-.28**	.00	.41*	.06**	.47**
IJ	High	-.36**	.11	.75**	-.04	.71**
	Low	-.54**	.11	.34**	-.06	.28*
	Differences	.18*	.00	.41*	.02	.43*
PJ	High	-.10	-.11	.75**	.01	.76**
	Low	-.20**	-.11	.34**	.02	.36**
	Differences	.11	.00	.41*	-.01	.40*
OSE	High	-.35**	.01	.75**	-.00	.75**
	Low	-.15	.01	.34**	-.00	.34**
	Differences	-.20	.00	.41*	.00	.41*

Note. LMX = Leader-Member Exchange. BNS = basic need satisfaction. IJ = interpersonal justice. PJ = procedural justice. OSE = organizational social exchange.  $P_{MX}$  = path from abusive supervision to the mediator.  $P_{YM}$  = path from the mediator to organizational deviance.  $P_{YX}$  = path from abusive supervision to organizational deviance. \*  $p < .05$ ; \*\*  $p < .01$ .

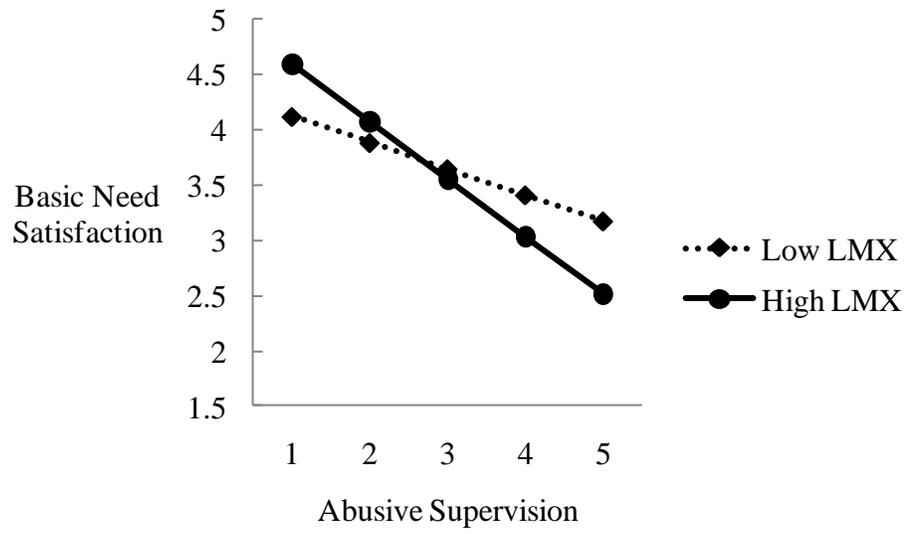


Figure 5. Study 3 Interaction between abusive supervision and LMX on basic need satisfaction.

Table 11 also shows that abusive supervision had a stronger indirect effect on organizational deviance for those who experienced high levels of LMX ( $P = .11, p < .01$ ) than for those who experienced low levels of LMX ( $P = .05, p < .05$ ); the strength of the indirect relationship differed significantly depending on LMX levels ( $[.11] - [.05] = .06, p < .01$ ). Figure 6 depicts the indirect effect of abusive supervision (through basic need satisfaction) on organizational deviance at both low and high levels of LMX; the relationship was stronger when LMX is high rather than low. In summary, I found that LMX moderated the effect of abusive supervision on basic need satisfaction; the mediating effect of basic need satisfaction was stronger at high rather than low levels of LMX. Therefore, the mediated moderation model (i.e., Hypothesis 5, as shown in Figure 1) was again supported.

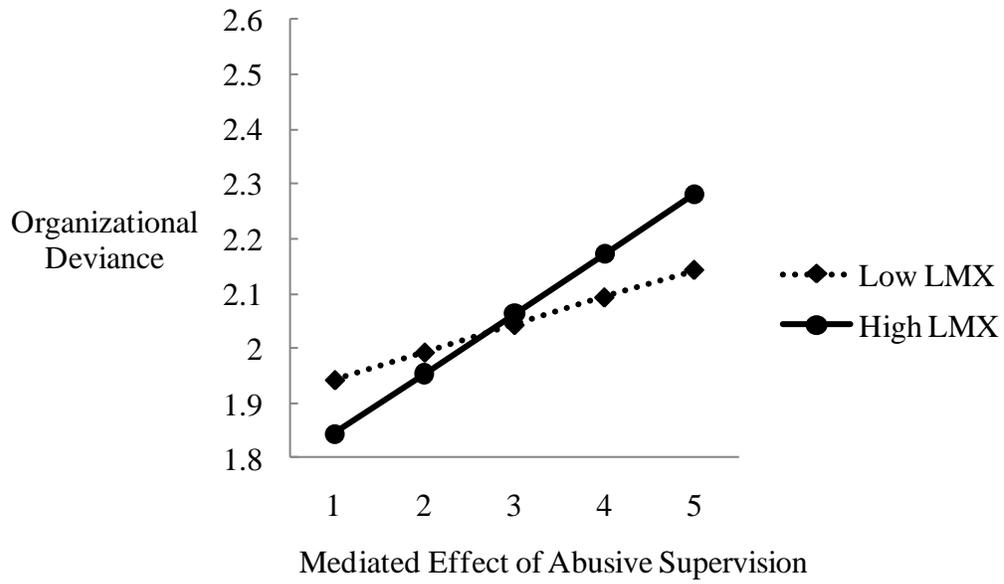


Figure 6. Study 3 Interaction between the mediated effect of abusive Supervision through basic need satisfaction and LMX on Organizational Deviance.

Table 11 also presents the results for alternative mediators: interpersonal justice, procedural justice and organizational social exchange. As shown in Table 11, the strength of the relationship between abusive supervision and interpersonal justice varied depending on LMX levels. For subordinates with high levels of LMX, abusive supervision was less strongly related to interpersonal justice ( $P = -.36, p < .01$ ) than for those with low levels of LMX ( $P = -.54, p < .01$ ); this difference was significant ( $[-.36] - [-.54] = -.18, p < .05$ ). However, the strength of the relationship between abusive supervision and procedural justice/organizational social exchange did not differ significantly between high and low levels of LMX ( $[-.10] - [-.20] = .11$ , and  $[-.35] - [-.15] = -.20$  respectively, all  $p > .05$ ). Moreover, the strength of the indirect relationship through interpersonal justice/procedural justice/organizational social exchange did not differ significantly depending on LMX levels ( $[-.04] - [-.06] = .02$ ,  $[.01] - [.02] = -.01$ , and  $[-.00] - [-.00] = .00$ , all  $p > .05$ ).

### *Discussion*

The results of Study 3 replicated those of Study 2, after including alternative mediators suggested by justice and social exchange theories – procedural justice, interpersonal justice, and organizational social exchange. Such findings provide further support for the argument that basic need satisfaction plays an important mediating role with respect to the abusive supervision/organizational deviance relation, and provide further support that LMX acts as a moderator of this mediated relation. By contrasting the mediating role of basic need satisfaction to that of other variables suggested by social exchange and justice theory, the results of Study 3 provide preliminary evidence that basic need satisfaction acts as a significant mechanism in explaining people’s deviant responses towards abusive supervision, over and above what past research has already shown.<sup>2</sup>

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<sup>2</sup> Researchers have suggested that justice also serves psychological need (Cropanzano, Byrne, Bobocel, & Rupp, 2001). Therefore, rather than contrasting the mediating effect of basic need satisfaction to that of procedural and interpersonal justice, I tested a model where procedural and interpersonal justice mediated the relation between antecedents (i.e., abusive supervision, LMX, and their interactions) and basic need satisfaction. I found that although both procedural and interpersonal justice have significant effects on basic need satisfaction ( $\beta = .33, p < .01$ ;  $\beta = .18, p < .05$  respectively), the relations between other variables remain similar, resulting in the same conclusions. Given past research on abusive supervision tend to regard justice as one of the main mechanisms explaining the relation between abusive supervision and organizational deviance, I chose to report the results contrasting the mediating effect of justice to that of basic need satisfaction in my dissertation.

## CHAPTER 4 GENERAL DISCUSSION

Considerable attention has been devoted to abusive supervision in the workplace, and extant evidence suggests abusive supervision has a positive relation to subordinates' organizational deviance. To further the understanding of the relation between these variables, I applied the literature on mixed relationships and expectancy-violation to examine the moderating role of LMX on this relation. I also applied a self-determination theory framework and tested the proposition that need satisfaction may play an important role in the hypothesized relation between abusive supervision and its interaction with LMX and organizational deviance. Using multi-wave designs, I conducted three studies which supported the moderating effects of LMX (Study 1) and the mediated moderation framework, as the interaction between LMX and abusive supervision was mediated by basic need satisfaction in predicting organizational deviance (Studies 2 and 3). Moreover, I found that such a mediated moderation framework was supported after controlling for social exchange and justice mechanisms in the third study.

My work draws upon a self-determination theory framework to examine the important mediating role basic need satisfaction plays in the relation between abusive supervision and organizational deviance; as such, my work contributes to the existing literatures on abusive supervision and deviance. Previous research has primarily focused on justice or social exchange explanations to account for the relation between abusive supervision and organizational deviance, with increased organizational deviance being explained as subordinates' reactions to injustice perceptions or reciprocating behaviors towards the organization (Tepper et al., 2008; Tepper et al., 2009; Thau et al., 2009). By simultaneously including basic needs, social exchange and justice as mediating mechanisms, my findings highlight the role of basic need satisfaction compared to previously established mediators.

My work also extends prior theoretical work on victimization and self-determination theory (e.g., Aquino & Thau, 2009; Deci & Ryan, 2000) by examining the moderating role of LMX on the relation between abusive supervision and basic human needs. In contrast to the intuitive thinking that high levels of LMX can buffer against the detrimental effects of supervisor abuse, my results showed that high levels of LMX magnify the negative relation between abusive supervision and basic need satisfaction. Such findings may come as a surprise to supervisors, who may expect that their “bad” behavior will not matter if they generally behave positively towards subordinates. My results suggest the opposite: good relations strengthen the negative effects of abusive supervision. Subordinates who perceive a high quality relationship with their supervisors may find supervisors’ mistreatment more threatening to their basic needs, ultimately translating into greater organizational deviance.

My results thus highlight the importance of examining relationships in the workplace more comprehensively. To date, most research has focused on positive aspects (e.g., LMX or perceived organizational support) or negative aspects (e.g., undermining, abusive supervision) of relationships exclusively (for exceptions, see Duffy et al., 2002 and Hobman et al., 2009), but my results suggest a more complete picture is obtained when both aspects are examined simultaneously. To my knowledge, my work represents the first to examine a mediator of the interactive effects of positive and negative aspects of workplace relationships, as well as the first to compare different theoretical accounts for such effects. Thus, my work not only documents the effects of this interaction, but also helps to explain the processes underlying such effects. Consistent with my results, I believe that organizational research stands to benefit from taking such a broad perspective when examining relationships at work.

### *Practical Implications*

The results also hold practical implications for organizations wishing to reduce organizational deviance. In particular, the results regarding the exacerbating effects of abusive supervision in the context of high LMX suggest that supervisors should not view a good relationship with a subordinate as an excuse for occasionally mistreating the subordinate, as such subordinates are likely to react more negatively to the mistreatment. Indeed, my findings suggest that reducing abusive supervision should take priority over encouraging supportive supervision as a method to reduce subordinates' organizational deviance: supportive supervisors who still maintain abusive aspects of their supervisory style are apparently no better than supervisors who provide less support. Thus, organizations should focus efforts on reducing, if not eliminating, abusive supervisory behaviors.

Aside from relations with supervisors, my results also point to the important role basic need satisfaction plays in organizational deviance. Indeed, my findings suggest that basic needs have a comparatively stronger relation with organizational deviance than social exchange or justice constructs. Thus, organizations seeking to minimize employee deviance may wish to focus on increasing employee basic need satisfaction through different channels. For example, by increasing feedback to employees, providing a friendly working environment, as well as increasing employees' interactions with customers and colleagues, organizations may be able to foster employees' feelings of competence and relatedness (Gagné & Deci, 2005; Grant, 2007). Similarly, employees' sense of autonomy may also be increased if they are provided with flexible work schedules, opportunities to make decisions, or choices of the manner in which to complete their work (Morgeson & Humphrey, 2006). Thus, there would appear to be a number

of ways in which organizations can influence basic employee needs.<sup>3</sup> However, efforts to apply self-determination theory to organizational contexts are still at an early stage (Ferris et al., 2009; Gagné & Deci, 2005; Greguras & Diefendorff, 2009); as such, I encourage more research to uncover what organizational factors influence employee needs.

#### *Future Directions, Strengths, and Limitations*

To my knowledge, this represents the first study to situate abusive supervision within the self-determination theory framework. Given research is shaped by the theoretical lens with which a construct is viewed, by integrating abusive supervision and self-determination theory, new research directions are suggested. For example, to date few studies have examined the relation between abusive supervision and job performance (Tepper, 2007). Self-determination theory is arguably most known for its differentiation between intrinsic and extrinsic forms of motivation and their effects on performance (Deci & Ryan, 1985). By incorporating abusive supervision within self-determination theory, not only is a relation between abusive supervision and job performance suggested, but a mechanism explaining this relation (intrinsic/extrinsic motivation) is proffered.

Another future research direction involves extending my model to alternative outcomes. Given the substantial costs associated with organizational deviance and its established relation to abusive supervision, my study focused on organizational deviance as an outcome. However, I believe the mediated moderation mechanism tested in the present study may also be applied to

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<sup>3</sup> Other features at work, such as co-workers' support, job autonomy and feedback, may also have effects on basic need satisfaction. Although not included in the main text, I was able to model these variables as antecedents of need satisfaction and examine whether or not abusive supervision (and its interaction with LMX) predicted need satisfaction over and above these variables in Study 3. When including these variables, the results were unchanged: abusive supervision and its interaction with LMX continued to predict need satisfaction. Simultaneously, I also found that these work features had effects on need satisfaction over and above abusive supervision and its interactions with LMX.

the relationship between abusive supervision and other outcomes. As basic need satisfaction is essential for psychological well-being and self-regulation (Deci & Ryan, 2000), I believe that the model tested here may hold considerable explanatory power for other attitudinal, behavioral, and psychological well-being consequences associated with abusive supervision. Moreover, corresponding to calls for more attention to the dynamic supervisor-subordinate relationship development process (Nahrgang, Morgeson, & Ilies, 2009; Gerstner & Day, 1997), the mediated moderation model may also help us understand how abusive supervision can affect the development and maintenance of supervisor-subordinate relationships in general.

In my explanation on the relation between basic need satisfaction and organizational deviance, I suggest that organizational deviance may represent a form of displaced aggression driven by a desire to retaliate, or reflect a consequence of self-regulation impairment. Although both explanations are consistent with the self-determination theory perspective (Deci & Ryan, 2000), future research may differentiate which explanation is tenable by examining moderators of the relation between basic need satisfaction and organizational deviance. For example, if displaced aggression is the main mechanism, an individuals' negative reciprocity beliefs (Cropanzano & Mitchell, 2005) should moderate the relation between basic need satisfaction and organizational deviance, such that those who hold strong beliefs about negative reciprocity should be more likely to engage in deviance when their basic needs are thwarted. On the other hand, if self-regulation impairment is the main mechanism, then individual differences in self-regulation capacity (Ciarocco, Twenge, Muraven, & Tice, 2007) should moderate the relation between basic need satisfaction and organizational deviance, such that those who have more self-regulation capacity should be less affected by thwarted basic needs and thus less likely to engage in organizational deviance. By examining and comparing different moderators

representing different mechanisms, future studies may provide further evidence on which mechanism (displaced aggression or self-regulation impairment) plays a more important role in deciding subordinates' organizational deviance.

Future research may also consider individual differences in need strength as a boundary condition on the relation between situational factors (e.g., abusive supervision) and basic need satisfaction. Past work focusing on individual differences in needs has found that the match between job characteristics and individual differences in need strength promoted positive job attitudes and behaviors (Fried, & Ferris, 1987; Hackman & Oldham, 1976). Accordingly, individuals with weaker needs for relatedness, autonomy and competence should react less negatively to abusive supervision and thus experience less threat to their basic need satisfaction. Such work would serve to further extend self-determination theory, which has primarily focused on need satisfaction, not need strength (Deci & Ryan, 2000).

Finally, extending my model to the group level represents an intriguing future direction. It is quite possible that supervisors may exhibit different levels of abusive behaviors to different group members, and the existence of such differential treatment of group members might have more of an impact on subordinate need satisfaction compared to an abusive supervisor who is equally abusive to all. In particular, as I noted previously, one reason why the interaction of high LMX and high abusive supervision should negatively impact need satisfaction is because abusive supervisory behaviors stand out in the context of high LMX. That is, when a supervisor is typically nice but also directs abusive behaviors towards an individual, these abusive behaviors are more salient, vis a vis a supervisor with whom one does not have a positive relationship. Taking this logic up to the group level, this would lead one to predict that the experience of abusive supervision should similarly be more impactful if it is rendered more salient by the fact

that group-level abusive supervision is low. Additionally, one should also be less able to discount supervisors' mistreatment if such mistreatment is not directed at other group members. Thus, I strongly encourage future research on abusive supervision to consider the effects of group context and examine how within group variability of supervisor treatment affects subordinates' needs satisfaction and behaviors. Such a design is particularly attractive in that data collected from multiple group members may help overcome the limitations of relying on self-report data.

The present study has a number of strengths. As mentioned above, my study is the first to test the notion that basic need satisfaction mediates the relation between abusive supervision and organizational deviance (Aquino & Thau, 2009). Moreover, I extended this notion (and self-determination theory propositions) by examining LMX as a moderator that exacerbates abusive supervision's effect on basic need satisfaction. By testing competing theoretical paradigms in the third study and finding support for the self-determination mechanisms instead of justice/social exchange mechanisms, my study provides a new perspective on the abusive supervision and organizational deviance relationship and extends abusive supervision research in new directions. Methodologically, my research design used a multi-stage survey format; this represents an improvement over cross-sectional survey designs which can artificially increase the size of the relations between variables measured concurrently (Podsakoff, MacKenzie, Lee, & Podsakoff, 2003). By separating in time the measurement of my antecedent, mediator, and dependent variables, such concerns are minimized.

Despite these strengths, limitations should also be noted. First, although a multi-stage study design was used, the data were cross-sectional in nature and no causal relations can be inferred from the findings. Second, all of my data were collected from a single source, raising the possibility of common method variance bias. Yet as noted before, by using a multi-stage study

design I minimized the effects of common method variance (Podsakoff et al, 2003). Moreover, the moderating effects of LMX also argue against the presence of common-method variance, as it is not readily apparent how common method variance may strengthen the relationship between variables only for people experiencing high levels of LMX (Evans, 1985). Aside from these methodological controls, it has also been argued that self-report data are most appropriate for assessing workplace deviance (Aquino & Douglas, 2003) or when assessing perceptual constructs (Chan, 2009), such as abusive supervision, need satisfaction or relations with supervisors. Thus, self-report data seem the most appropriate, given the constructs examined in my study. Finally, whether the comparison between basic need satisfaction and alternative mediating variables (i.e., procedural justice, interpersonal justice, and organizational social exchange) was fair may be a concern given basic need satisfaction is individually-focused, while the other mediators are organizationally- or supervisor-focused. However, it should be noted both basic need satisfaction and alternative mediators were measured with equal fidelity, and are of equal conceptual importance given both have attracted considerable theoretical attention (e.g., Aquino & Thau, 2009; Aryee et al., 2007; Tepper et al., 2008). Thus, comparing the mediating effects of basic need satisfaction, procedural and interpersonal justice perceptions and organizational social exchange fulfilled the criteria of fair comparison (Cooper & Richardson, 1986).

### *Summary*

The present study applies self-determination theory to the abusive supervision - organizational deviance relation, modeling basic need satisfaction as an underlying motivational mechanism. My study also found that the negative effects of abusive supervision were exacerbated by high levels of LMX, and that these moderating effects were mediated by basic

need satisfaction. Furthermore, by concurrently including basic need satisfaction, organizational social exchange, and interpersonal and procedural justice as mediators, my study only found support for the mediating role of basic need satisfaction. In so doing, my findings contribute to the literature on abusive supervision and organizational deviance by modeling a mediated moderation framework, and further the understanding of why subordinates engage in organizational deviance in response to abusive supervision.

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## APPENDIX A: The Correlations among the Satisfaction of the Three Needs: A Meta-Analysis

Despite the fact that the three needs are distinguishable at the conceptual level, the three basic psychological needs are typically highly related in a natural environment (Sheldon & Niemiec, 2006). That is, the three basic needs are usually satisfied or thwarted simultaneously and thus are hard to disentangle, empirically. For example, evidence shows that when people report experiencing more autonomy, they also describe their sense of relatedness and competence more positively (Hodgins, Koestner, & Duncan, 1996; Koestner & Losier, 1996; Tafarodi, Milne, & Smith, 1999). Similarly, when one of the basic needs is thwarted, people often feel simultaneous threats to the other two basic needs. For example, while being excluded by others thwarts individuals' sense of relatedness, it also diminishes their feelings of being valued by others (i.e., feeling less competent) and their sense of control in the situation (i.e., feeling less autonomous; Williams, 2001). Similarly, after being provided with negative performance feedback (i.e., lowering one's sense of competence), individuals not only feel less capable, but also experience more defensive interactions with others and become more likely to comply with external requirements (i.e., lowering one's sense of relatedness and autonomy; Heatherton & Vohs, 2000; Deci & Cascio, 1972).

Given the satisfaction of three basic needs often occurs simultaneously in naturalistic settings, one would expect that they should correlate highly with one another. This is in fact the case in my data: the correlations among the satisfaction of the three needs ranges from .63 to .75. However, it is possible that these high correlations are unique to the current samples. In order to rule this out, and to demonstrate the fact that the needs are highly correlated and thus should be treated as an overall construct, I conducted a meta-analysis.

In particular, I conducted a meta-analysis using the correlations from my studies together with correlations based on another 16 independent samples reported in previously published studies (for a list of the studies used, please see the references below; those marked with an “\*” were used for the meta-analysis). In selecting studies to be included in the meta-analysis, I focused on studies that did not experimentally manipulate the different needs, but instead assessed need satisfaction as it occurred naturally. In particular, I examined studies which used the same measure of need satisfaction as was used in the present studies (i.e., the Deci et al.’s [2001] scale). To find papers that used this scale, I first identified 113 articles that have cited Deci et al. (2001) in PsychINFO (1806-2010). Of these articles, 22 used Deci et al.’s scale, and 13 reported sufficient results to calculate an effect size for the relations among the needs. These 13 studies, together with Deci et al.’s (2001) and my own studies, provide me with 18 independent samples. Employing the Schmidt-Hunter psychometric meta-analysis method (Hunter & Schmidt, 2004), I conducted a meta-analysis on the reported correlations among the needs across these samples. More specifically, I corrected correlations from each individual sample for measurement error using internal consistency reliability reports. The meta-analytical results of the correlations among the three needs are presented in the table below.

Table 12

*Meta-Analysis Results for Correlations among the Satisfaction of the Three Needs*

	<i>k</i>	<i>N</i>	<i>r</i>	$\rho$	$SD_{\rho}$	80% CV		90% CI	
						Lower	Upper	Lower	Upper
Autonomy & Competence	18	4460	.62	.90	.07	.81	.99	.86	.94
Autonomy & Relatedness	18	4460	.55	.74	.10	.61	.87	.68	.80
Competence & Relatedness	18	4460	.57	.78	.08	.68	.88	.74	.82

*Note.* *k* = number of correlations;  $\rho$  = true score correlation;  $SD_{\rho}$  = standard deviation of true score correlation; CV = credibility interval; CI = confidence interval.

As can be seen, the meta-analysis results indicated that the true score correlations among the three subscales of need satisfaction range from .74 to .90. Excluding my own data from the meta-analysis, the range of correlations was .73 to .89. These results suggest two things. First, the correlations among my three need satisfaction variables do not appear to be substantially higher than past studies; indeed, their inclusion or exclusion from the meta-analysis did not appear to materially affect the findings of the meta-analysis. Second, such high intercorrelations provide support to my argument that needs tend to be satisfied or thwarted concurrently. In particular, the correlations are supportive of the notion that need satisfaction should be modeled as an overall construct, given it has been suggested that variables that correlate at a level higher than .70 represent the same construct (Nunnally, 1967).

These results aside, I do not want to give the impression that I do not believe that the needs should ever be treated separately. Indeed, if one has priori theoretical predictions regarding unique predictors of each need, or unique outcomes of each need, then modeling the needs separately may be appropriate (notably, in my study, I do not expect the needs to be differentially predicted by the antecedents, nor to differentially predict the consequences). Moreover, experimental manipulations of the different needs indicate that each can play an important role individually (see Deci & Ryan, 2000, for a review). However, my intention here is to suggest that modeling need satisfaction as an overall variable is both theoretically appropriate in my circumstances, as well as empirically called for based on past studies.

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## APPENDIX B: Abusive Supervision Scale

Instructions: Please indicate your agreement with each of the following statements based on your typical thoughts and feelings about your supervisor. A supervisor is defined as the individual that you report directly to, or who is responsible for assessments of your work.

1	2	3	4	5
I can't remember him/her ever using this behavior with me	He/she very seldom uses this behavior with me	He/she occasionally uses this behavior with me	He/she uses this behavior moderately often with me	He/she uses this behavior very often with me

### 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.

## APPENDIX C: Leader-Member Exchange Scale

Instructions: Please answer the following questions regarding your supervisor. A supervisor is defined as the individual that you report directly to, or who is responsible for assessments of your work.

1. Do you usually feel that you know where you stand with your immediate supervisor?

1	2	3	4
Never know where I stand	Seldom know where I stand	Usually know where I stand	Always know where I stand

2. How well do you feel that your immediate supervisor understands your problems and needs?

1	2	3	4
Not at all	Some but not enough	Well enough	Completely

3. How well do you feel that your immediate supervisor recognizes your potential?

1	2	3	4
Not at all	Some but not enough	As much as the next person	Fully

4. Regardless of how much formal authority your immediate supervisor has built into his or her position, what are the chances that he or she would be personally inclined to use power to help you solve problems in your work?

1	2	3	4
No Chance	Might or might not	Probably would	Certainly would

5. Again, regardless of the amount of formal authority your immediate supervisor has, to what extent can you count on him or her to 'bail you out' at his or her expense when you really need it?

1	2	3	4
No Chance	Might or might not	Probably would	Certainly would

6. I have enough confidence in my immediate supervisor that I would defend and justify his or her decisions if he or she were not present to do so.

1	2	3	4
No Chance	Might or might not	Probably would	Certainly would

7. How would you characterize your working relationship with your immediate supervisor?

1	2	3	4
Less than average	About average	Better than average	Extremely effective

## APPENDIX D: Organizational Deviance Scale

Instructions: Please indicate, using the following scale, how often you have engaged in each of the following behaviors in the last year.

1	2	3	4	5	6	7
Never	Once a year	Twice a year	Several times a year	Monthly	Weekly	Daily

1. Taken property from work without permission.
2. Spent too much time fantasizing or daydreaming instead of working.
3. Falsified a receipt to get reimbursed for more money than you spent on business expenses.
4. Taken an additional or longer break than is acceptable at your workplace.
5. Come in late to work without permission.
6. Littered your work environment.
7. Neglected to follow your boss' instructions.
8. Intentionally worked slower than you could have worked.
9. Discussed confidential company information with an unauthorized person.
10. Used an illegal drug or consumed alcohol on the job.
11. Put little effort into your work.
12. Dragged out work in order to get overtime.

## APPENDIX E: Basic Need Satisfaction Scale

Instructions: The following questions concern your feelings about your job during the last year. (If you have been on this job for less than a year, this concerns the entire time you have been at this job.) Please indicate how true each of the following statements are for you given your experiences on this job. Remember that your boss will never know how you responded to the questions. Please use the following scale in responding to the items.

1	2	3	4	5	6	7
Not at all true			Somewhat true			Very true

1. I feel like I can make a lot of inputs to deciding how my job gets done.
2. I really like the people I work with.
3. I do not feel very competent when I am at work.
4. People at work tell me I am good at what I do.
5. I feel pressured at work.
6. I get along with people at work.
7. I pretty much keep to myself when I am at work.
8. I am free to express my ideas and opinions on the job.
9. I consider the people I work with to be my friends.
10. I have been able to learn interesting new skills on my job.
11. When I am at work, I have to do what I am told.
12. Most days I feel a sense of accomplishment from working.
13. My feelings are taken into consideration at work.
14. On my job I do not get much of a chance to show how capable I am.
15. People at work care about me.
16. There are not many people at work that I am close to.

17. I feel like I can pretty much be myself at work.
18. The people I work with do not seem to like me much.
19. When I am working I often do not feel very capable.
20. There is not much opportunity for me to decide for myself how to go about my work.
21. People at work are pretty friendly towards me.

## APPENDIX F: Analysis with Separate Needs Satisfaction

In the text of my dissertation and in Appendix I, I present the rationale for why need satisfaction should be treated as an overall construct. However, to fully address the question of whether or not the three needs should be differentiated, I would also like to present the results of the mediated moderation model with the three separate need satisfaction constructs as mediators.

To do that, I tested the mediated moderation model with path analysis in AMOS 17.0. I initially tested the most parsimonious model, where the paths from each antecedent (i.e., abusive supervision, LMX and their interactions) to the three needs were constrained to be of an equal magnitude, and the paths from the three needs to organizational deviance were constrained to be of an equal magnitude; I subsequently relaxed these constraints individually and compared the models using a change-in-chi-square test between the constrained and unconstrained models to see which model provided a better fit to the data.

The results indicated that freeing the paths from the three needs to organizational deviance (i.e., the unconstrained model) did not provide a significantly better fit to the data than the constrained model ( $\Delta\chi^2_{[2]} = 3.39$  and  $2.16$  for Study 2 and Study 3 respectively, both non-significant). This suggests that all three needs related to organizational deviance at an equal magnitude. Similarly, the model with unconstrained paths from each antecedent to the three needs did not provide a significantly better fit to the data than the corresponding constrained model:  $\Delta\chi^2_{[2]} = 2.00$ , *ns*,  $\Delta\chi^2_{[2]} = .97$ , *ns*, and  $\Delta\chi^2_{[2]} = 2.14$ , *ns*, for abusive supervision, LMX and their interactions respectively in Study 2;  $\Delta\chi^2_{[2]} = .18$ , *ns*,  $\Delta\chi^2_{[2]} = 3.51$ , *ns*, and  $\Delta\chi^2_{[2]} = 1.96$ , *ns*, for abusive supervision, LMX and their interactions, respectively, in Study 3. These results suggest that each antecedent (i.e., abusive supervision, LMX and their interactions) is related to the three need satisfaction constructs at an equal magnitude. I therefore used the most

constrained model as it provides a more parsimonious and accurate model for the data (Byrne, 2010).

The overall model fit was acceptable ( $\chi^2_{[9]} = 9.42$ , *ns*, CFI = 1.00, SRMR = .01 for Study 2, and  $\chi^2_{[9]} = 17.00$ , *ns*, CFI = 1.00, SRMR = .02 for Study 3). The path coefficients indicated that each need was significantly related to organizational deviance; abusive supervision was significantly related to each need; and the interaction between LMX and abusive supervision significantly predicted each need. When examining simple effects at low and high levels of LMX (+/- 1 *SD* around the mean), I found that the direct relation between abusive supervision and each need was significantly stronger for subordinates with high rather than low levels of LMX, and the indirect relation between abusive supervision and organizational deviance was significantly stronger for subordinates with high rather than low levels of LMX. Notably, these results parallel my findings when using the overall need satisfaction construct.

Thus, the results suggest that when the three needs are modeled separately, each need significantly predicts organizational deviance at roughly the same magnitude and each serves as a mediator to the relation between abusive supervision by LMX interaction and organizational deviance at roughly the same magnitude.

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## APPENDIX G: Procedural Justice Scale

Instructions: The following items refer to the procedures used to arrive at outcomes you receive from your job (e.g., pay, promotions, performance reviews, etc.).

1	2	3	4	5
To a small extent		Neutral		To a large extent

*To what extent:*

1. Have you been able to express your views and feelings during those procedures?
2. Have you had influence over the (outcome) arrived at by those procedures?
3. Have those procedures been applied consistently?
4. Have those procedures been free of bias?
5. Have those procedures been based on accurate information?
6. Have you been able to appeal the (outcome) arrived at by those procedures?
7. Have those procedures upheld ethical and moral standards?

## APPENDIX H: Interpersonal Justice Scale

Instructions: The following items refer to the individual (e.g., perhaps your supervisor) who makes decisions regarding the outcomes you receive from your job (e.g., pay, promotions, performance reviews, etc.).

1	2	3	4	5
To a small extent		Neutral		To a large extent

*To what extent:*

1. Has (he/she) treated you in a polite manner?
2. Has (he/she) treated you with dignity?
3. Has (he/she) treated you with respect?
4. Has (he/she) refrained from improper remarks or comments?

## APPENDIX I: Organizational Social Exchange Scale

Instructions: Please indicate your agreement with each of the following statements based on your typical thoughts and feelings about your organization.

1	2	3	4	5	6	7
Strongly Disagree	Disagree	Slightly Disagree	Neutral	Slightly Agree	Agree	Strongly Agree

1. The organization has made a significant investment in me
2. The things I do on the job today will benefit my standing with the organization in the long run.
3. There is a lot of give and take in my relationship with the organization.
4. I worry that all my efforts on behalf of the organization will never be rewarded.
5. I don't mind working hard today; I know I will eventually be rewarded by the organization.
6. My relationship with the organization is based on mutual trust.
7. I try to look out for the best interest of the organization because I can rely on the organization to take care of me.
8. Even though I may not always receive the recognition from the organization I deserve, I know my efforts will be rewarded.