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You Abuse and I Criticize: An Ego Depletion and Leader–Member Exchange Examination of Abusive Supervision and Destructive Voice

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Abstract

We draw from ego depletion and leader—member exchange (i.e., LMX) theories to provide nuanced insight into why abusive supervision is indirectly associated with supervisor-directed destructive voice. A multi-wave, multi-source field study (n = 219) demonstrates evidence that abusive supervision has a positive conditional indirect effect on supervisor-directed destructive voice through subordinates' relational ego depletion with their supervisors that is stronger for higher LMX differentiation contexts than lower LMX differentiation contexts. We make novel theoretical, empirical, and practical contributions by providing a parsimonious explanation for why relational aspects of supervisory treatment (i.e., abusive supervision and LMX differentiation) drain subordinates' capacities for controlling their volitional actions during interactions with their supervisors (i.e., relational ego depletion) and how this relationship impacts subordinates' supervisor-directed destructive voice. Overall, our study extends the application of ego depletion and LMX theories to the examination of abusive supervision and destructive voice in order to meaningfully inform researchers' attempts to build cohesive streams of research in these areas and practitioners' attempts to promote ethical workplace environments.

Keywords Abusive supervision · Voice · LMX · Ego depletion

Introduction

Research on the destructive side of leadership has burgeoned over the past two decades due to its important implications for leadership and business ethics (Krasikova et al. 2013; Schyns and Schilling 2013). One destructive form of leadership that has received a tremendous amount of scholarly attention is abusive supervision, which is defined as "subordinates' perceptions of the extent to which supervisors engage in the sustained display of hostile verbal and

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nonverbal behaviors, excluding physical contact" (Tepper 2000, p. 178). The harmful effects of abusive supervision on employees' workplace attitudes and behaviors have been widely demonstrated by prior research (Mackey et al. 2017). However, research on subordinates' attempts to speak up against their supervisors is noticeably absent. This gap in prior research is important to address because our knowledge of how and why leaders and followers engage in negative leader—member exchange (LMX) processes is incomplete. We were motivated to build on prior evidence that demonstrates abusive supervision is associated with destructive subordinate responses by providing a stronger understanding of why subordinates and supervisors engage in negative exchanges of non-physical hostility (i.e., abusive supervision and supervisor-directed destructive voice).

Destructive voice is defined as "the voluntary expression of hurtful, critical, or debasing opinions regarding work policies, practices, procedures, and so on" (Maynes and Podsakoff 2014, p. 92). Unlike the widely studied prosocial voice construct that emphasizes the expression of constructive ideas intended to improve the workplace (Van Dyne and LePine 1998), destructive voice is negative in nature and entails an intent to damage its target. We examine



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supervisor-directed destructive voice, which includes subordinates' insulting or overly critical comments about their supervisors' initiatives, objectives, policies, practices, and/ or status quo (Maynes and Podsakoff 2014). We argue that supervisor-directed destructive voice is an indirect means for subordinates to speak up against their supervisors in a seemingly legitimate way (i.e., voice). We chose to examine the indirect relationship between abusive supervision and supervisor-directed destructive voice because they both capture similar types and intensities of perceived interpersonal mistreatment (i.e., non-physical hostility) within leader-follower relationships. Thus, we build on prior research (e.g., Schyns et al. 2017; Zoogah 2014) that argues strategic followership can compel followers to engage in destructive behaviors as a means to strategically impact leader–follower relationships. In this study, we seek to provide a nuanced understanding of the impact of abusive supervision on leader-member relationships by examining supervisor-directed destructive voice as a response to abusive supervision.

We draw from ego depletion theory to theorize that subordinates' relational ego depletion with their supervisors (i.e., the extent to which subordinates' capacities for controlling their volitional actions directed toward their supervisors are drained) mediates the indirect relationship between abusive supervision and supervisor-directed destructive voice. We argue that the depletion of subordinates' egos renders them with insufficient capacities to resist speaking up against their supervisors. Moreover, we draw from LMX theory to argue that supervisors' exchange relationships across subordinates provide a pivotal social context that affects how each subordinate makes sense of and reacts to abusive supervision. We posit that LMX differentiation (i.e., the extent to which leaders differ in the exchange relationships they have with each of their followers; Henderson et al. 2009; Liden et al. 2006) strengthens the association between abusive supervision and relational ego depletion. Overall, we draw from ego depletion and LMX theories to theorize that there is an indirect effect of abusive supervision on destructive voice through ego depletion, and that this indirect effect is stronger within higher LMX differentiation contexts than lower LMX differentiation contexts. Our research model is depicted in Fig. 1.

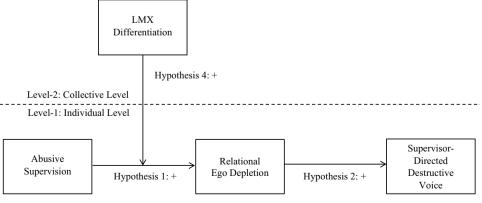
We make three important contributions to theory, research, and practice. First, we draw from ego depletion and LMX theories to make a novel theoretical contribution that explains why relational aspects of supervisor-subordinate interactions affect subordinates' behavioral responses to abusive supervision. Second, we make a theoretical contribution by extending ego depletion theory to account for the nuanced insight that examining relational ego depletion can provide above and beyond simply examining overall ego depletion. Third, we make an empirical contribution to voice research by extending its nomological network to include abusive supervision and relational ego depletion so we can provide nuanced insight into the value of aligning the antecedents of voice with the target of voice. Overall, the purpose of this study is to extend the application of ego depletion and LMX theories to the examination of abusive supervision and destructive voice in order to provide novel insight that meaningfully informs practitioners' attempts to promote ethical workplace environments.

Theoretical Foundations

The Relationship Between Abusive Supervision and Relational Ego Depletion

Abusive supervision is a subjectively experienced phenomenon that reflects subordinates' sustained perceptions of hostile supervisory behaviors. Recent conceptual (e.g., Martinko et al. 2013; Tepper et al. 2017) and meta-analytic (e.g., Mackey et al. 2017; Park et al. 2017) reviews found consistent evidence that abusive supervision has harmful effects on an array of important workplace perceptions and behaviors. Researchers have drawn from ego depletion (e.g., McAllister et al. 2018) and LMX theories (e.g., Pan and Lin

Fig. 1 Hypothesized model



Hypothesis 3 (Indirect Effect): +

 $Hypothesis\ 5\ (Conditional\ Indirect\ Effect):\ +$



2018) to describe why abusive supervision has destructive effects on subordinates' outcomes. We draw from and extend prior research by arguing that abusive supervision is associated with relational ego depletion because it drains subordinates' capacities allocated for controlling their volitional actions directed toward their supervisors.

Ego depletion is defined as "a temporary reduction in the self's capacity or willingness to engage in volitional action" (Baumeister et al. 1998, p. 1253). Ego depletion theory suggests that ego depletion is associated with reductions of self-regulatory capacities because self-control is a limited resource (Baumeister et al. 1998; Muraven and Baumeister 2000). Prior research has shown that interpersonal interaction is a strong context that can deplete individuals' limited self-control capacities (Vohs et al. 2005) because employees tend to inhibit thoughts or behaviors that could adversely impact social relationships (Lian et al. 2017). In our study, we theorize that abusive supervision is positively related to subordinates' relational ego depletion with their supervisors because supervisor-subordinate interactions require the use of subordinates' limited self-control capacities. Specifically, we theorize that subordinates' perceptions of abusive supervision require the use of self-control capacities to regulate subordinates' responses to their supervisors. Attempts to constrain attitudinal and behavioral reactions to abusive supervision perceptions likely deplete subordinates' limited capacities allocated for interacting with their supervisors. Thus, we draw from ego depletion theory to hypothesize that abusive supervision will be positively associated with subordinates' relational ego depletion with their supervisors.

Hypothesis 1 Abusive supervision will be positively associated with subordinates' relational ego depletion.

The Relationship Between Relational Ego Depletion and Supervisor-Directed Destructive Voice

Ego depletion theory suggests that the essence of selfcontrol stems from exercising self-restraint for long-term benefit (Baumeister et al. 1998). However, prior research has demonstrated that ego depletion can result in a variety of destructive behaviors that violate long-term interests (e.g., interpersonal mistreatment). For example, prior ethics research has examined workplace incivility (i.e., rude behaviors with ambiguous intent; Wu et al. 2014), bullying (i.e., systematic attempts to target negative social acts toward coworkers who find it difficult to defend themselves; Mackey et al. 2016), workplace deviance (i.e., detrimental behaviors that break organizational norms; Wang et al. 2015), and violence (i.e., behaviors that intend to harm their targets; Gubler et al. 2018). Accordingly, we theorize that subordinates' relational ego depletion with their supervisors will be positively related to supervisor-directed destructive voice, which includes subordinates' voluntary communications that are critical of their supervisors' workplace policies and practices.

Voice can stem from irrational impulses (Morrison 2011) that result in unexpected challenges to the status quo (LePine and Van Dyne 1998; Ng and Feldman 2012), which likely is especially true for destructive voice because it involves speaking up to challenge prohibitive issues (Maynes and Podsakoff 2014). According to ego depletion theory, ego depletion renders employees susceptible to short-term self-control lapses because they are unable to resist urges when managing thoughts and behaviors. Further, strategic followership requires followers to be active participants in the leadership process who engage in volitional actions intended to contribute to meaningful outcomes for leaders and followers (e.g., Zoogah 2014). Thus, we argue that subordinates' relational ego depletion is positively associated with supervisor-directed destructive voice because subordinates' drained capacities for controlling their volitional actions directed toward their supervisors render them unable or unwilling to inhibit desires to speak up against the source of their depleted egos (i.e., their supervisors).

Hypothesis 2 Subordinates' relational ego depletion will be positively associated with supervisor-directed destructive voice.

The Indirect Effect of Abusive Supervision on Supervisor-Directed Destructive Voice Through Relational Ego Depletion

Prior research has consistently demonstrated that ego depletion plays a key role as the mediator through which abusive supervision is associated with subordinates' destructive behaviors (e.g., McAllister and Perrewé 2016). However, little research has examined why abusive supervision is indirectly associated with voice. This omission is important to address because abusive supervision likely is more closely associated with supervisor-directed destructive voice than other forms of supervisor-directed mistreatment that are more benign (e.g., incivility), premeditated (e.g., bullying), extreme (e.g., deviance), and/or physical in nature (e.g., violence). This distinction is noteworthy because leaders and followers likely engage in exchanges that are similar in nature and intensity. Thus, we examine the indirect relationship between abusive supervision and supervisor-directed destructive voice because they both capture similar types and intensities of perceived interpersonal mistreatment within leader-follower relationships.

Ego depletion theory (Baumeister et al. 1998) identifies egos as a mediating mechanism between employees' conflicting inner (e.g., abusive supervision) and outer (e.g., destructive voice) pressures. We theorize that abusive



supervision is indirectly associated with supervisor-directed destructive voice through relational ego depletion because abusive supervision drains subordinates' capacities for controlling their volitional actions directed toward their supervisors in a manner that renders them susceptible to outer pressures to speak up against their supervisors. Subordinates' ego depleted states likely result in strategic follower attempts to meaningfully affect relational processes with their leaders, such as making critical comments about supervisors' initiatives, objectives, policies, and/or practices. In summary, we draw from ego depletion theory to predict that abusive supervision is positively and indirectly associated with supervisor-directed destructive voice through relational ego depletion.

Hypothesis 3 Abusive supervision will have a positive indirect effect on supervisor-directed destructive voice through subordinates' relational ego depletion.

The Moderating Role of LMX Differentiation in the Relationship Between Abusive Supervision and Relational Ego Depletion

We have drawn from ego depletion theory to argue that abusive supervision is indirectly associated with supervisor-directed destructive voice through relational ego depletion. However, it is also important to consider features of the LMX context that could explain why the effect of abusive supervision on relational ego depletion is stronger for some followers than others. An increasing amount of leadership research has drawn from an interactionist account of organizational behavior (Chatman 1989) to reveal that leaders' influences on followers depend not only upon how followers are treated individually, but also upon the broader social context in which leaders interact with other followers (O'Reilly and Aquino 2011). Typically, research has examined why the influence of leadership behaviors is weakened if leaders treat their followers differently within their follower work groups (e.g., Harris et al. 2014). In contrast, we explore whether the effect of abusive supervision on followers' relational ego depletion is strengthened when leaders treat their followers differently.

We examine LMX differentiation as a moderator of the relationship between abusive supervision and followers' relational ego depletion with their leaders because it accounts for the social context in which leader-follower relationships occur (i.e., how similarly leaders tend to treat followers). Prior research has shown that LMX relationships can impact abusive supervision (e.g., Lian et al. 2012), employees' ego depletion (e.g., Deng et al. 2016), and followers' voice behaviors directed toward their leaders (e.g., Liu et al. 2013). Further, prior research has demonstrated that differences in LMX quality across followers

affect employees' outcomes (e.g., Chen et al. 2018). We build on these prior findings by drawing from ego depletion and LMX theories to argue that high LMX differentiation contexts strengthen the positive relationship between abusive supervision and followers' relational ego depletion with their leaders.

Differential leader treatment across followers in higher LMX differentiation contexts likely strengthens the extent to which followers' capacities allocated for controlling their volitional actions directed toward their leaders are drained. Accordingly, followers likely deplete their relational egos more in higher LMX differentiation contexts than lower LMX differentiation contexts because the interaction between leaders' influences (i.e., abusive supervision) and the social context (i.e., LMX differentiation) exacerbate how adversely subordinates respond to social interactions with their leaders. In contrast, followers in lower LMX differentiation contexts likely experience less relational ego depletion during interactions with their leaders because the social context is less draining. Thus, we expect that there will be relatively stable levels of relational ego depletion as abusive supervision increases within lower LMX differentiation contexts. Ultimately, we draw from ego depletion and LMX theories to hypothesize that LMX differentiation will strengthen the positive relationship between abusive supervision and relational ego depletion.

Hypothesis 4 LMX differentiation will moderate the relationship between abusive supervision and relational ego depletion, such that this positive relationship will be stronger for higher LMX differentiation contexts than lower LMX differentiation contexts.

The Conditional Indirect Effect of Abusive Supervision on Supervisor-Directed Destructive Voice

Finally, we argue that LMX differentiation strengthens the indirect relationship between abusive supervision and supervisor-directed destructive voice through relational ego depletion. We theorize that supervisor-directed destructive voice is a strategic follower exchange response to abusive supervision because it is of a similar nature and intensity as abusive supervision. We suggest that this indirect effect is stronger in higher LMX differentiation contexts than in lower LMX differentiation contexts because leaders' influences (i.e., abusive supervision) and social contexts (i.e., LMX differentiation) create an interactionist context that exacerbates subordinates' relational ego depletion. Thus, followers in higher LMX differentiation contexts may engage in strategic followership approaches as a means to satisfy their shortterm needs to respond to abusive supervision instead of to prioritize the long-term benefits of maintaining high-quality



relationships with leaders. In contrast, followers in lower LMX differentiation contexts likely use different strategic followership approaches that include inhibiting impulses to engage in destructive responses to abusive supervision because they do not experience as much relational ego depletion as others. Thus, we hypothesize:

Hypothesis 5 LMX differentiation will moderate the indirect effect of abusive supervision on supervisor-directed destructive voice through relational ego depletion, such that this positive indirect effect will be stronger for higher LMX differentiation contexts than lower LMX differentiation contexts.

Method

Sample and Procedures

We invited subordinates and supervisors who worked at a large Chinese internet company to participate in this study. The participants worked in a number of job domains and business functions related to the content development, promotion, sales, and maintenance of internet products. We collected survey data across three waves that were separated by approximately 4 weeks each. At Time 1, we invited 1276 employee participants to provide ratings of abusive supervision, LMX, and demographic information. We obtained 703 responses (i.e., response rate of 55.09%). At Time 2, we invited the 703 employee respondents who participated at Time 1 to provide ratings of relational ego depletion. We obtained 336 responses (i.e., response rate of 47.80%). At Time 3, we invited the 88 supervisors of the 336 employee respondents who completed Time 1 and Time 2 surveys to rate their subordinates' supervisor-directed destructive voice. We received a total of 225 responses from 54 managers (i.e., response rate of 61.36%). Overall, our response rates were similar to the expected response rates identified by Anseel et al.'s (2010) meta-analysis of response rates for organizational science surveys that used study designs similar to ours. We likely experienced some respondent attrition because respondents were notified prior to data collection that their participation was voluntary and could be withdrawn at any point during data collection.

We dropped work groups of employees with less than three matched supervisor–subordinate dyads because we needed at least three subordinates from each work group to provide ratings of LMX in order to accurately aggregate values of LMX differentiation at the collective level. As a result of this inclusion criterion, 6 out of 225 dyads (i.e., 2.67%) were excluded from our analyses. Therefore, the final sample consisted of 219 subordinates and their 51 supervisors. The average (*M*) age was 31.05 years (SD = 3.46).

Among the 219 subordinates, 83 (37.90%) were female. The average organizational tenure was 5.23 years (SD = 3.00), whereas the average dyadic tenure between supervisors and subordinates was 3.14 years (SD = 1.48). Non-response bias tests demonstrated that there were no significant differences between respondents in the final sample (n = 219) and Time 1 respondents not in the final sample regarding age [F (1,700) = 0.930, p = 0.335], gender [F (1,700) = 0.636, p = 0.425], organizational tenure [F (1697) = 0.154, p = 0.695], or dyadic tenure [F (1669) = 0.616, p = 0.433].

Measures

We followed standard translation and back-translation procedures (Brislin 1986) to ensure the accuracy and content validity of the translation of all survey materials from English to Chinese. Unless otherwise specified, we used a seven-point agreement scale that ranged from "1 = Strongly Disagree" to "7 = Strongly Agree" to measure the study variables.

Abusive Supervision

We used Mitchell and Ambrose's (2007) five-item measure of abusive supervision ($\alpha = 0.89$). Prior research has demonstrated that this five-item scale is highly correlated with Tepper's (2000) 15-item abusive supervision measure (e.g., r = 0.97; Garcia et al. 2015). A sample item was "This manager puts me down in front of others."

LMX Differentiation

The subordinates in our sample were clustered in work groups, so we obtained a measure of LMX differentiation by examining differences across subordinates' perceptions of LMX within work groups. We measured LMX at the individual level, then we aggregated responses within work groups so we could examine variance in subordinates' ratings at the collective level. We used the LMX-7 scale (Graen and Uhl-Bien 1995) to measure subordinates' perceptions of LMX ($\alpha=0.89$) at the individual level. A sample item was "How would you characterize your working relationship with your leader?" We used a seven-point response scale ranging from "1 = Extremely Ineffective" to "7 = Extremely Effective."

Then, we followed best practice recommendations (e.g., Klein and Kozlowski 2000; Paruchuri et al. 2018) and precedent established in prior LMX differentiation studies (e.g., Chen et al. 2018; Erdogan and Bauer 2010; Li and Liao 2014; Liden et al. 2006; Sui et al. 2016) to examine variance in subordinates' ratings of LMX as the collective level measure of LMX differentiation. Yu et al. (2018) advocated for our approach of using within-group variance in their



meta-analysis of LMX differentiation research because it is an appropriate approach for operationalizing agreement within work groups (Chan 1998). Further, Yu et al. (2018) noted that the majority of LMX differentiation uses our measurement approach, which is important for developing a cohesive stream of research.

Relational Ego Depletion

We measured subordinates' relational ego depletion by adapting four items from Twenge et al.'s (2004) state selfcontrol capacity scale ($\alpha = 0.87$). The validity of this ego depletion scale has been demonstrated in several prior studies (e.g., Christian and Ellis 2011; Lin et al. 2016). Further, researchers have successfully adapted this scale for specific research questions (e.g., morning depletion at work; Lanaj et al. 2014). In the present study, we adapted Twenge et al.'s ego depletion scale to assess subordinates' relational ego depletion with their supervisors instead of overall ego depletion. We used the following items to measure subordinates' relational ego depletion: "I feel mentally exhausted about interacting with this manager," "If I were given a task that requires interacting with this manager, I would give up easily," "I feel drained of interacting with this manager," and "I wish I could just relax for a while without interacting with this manager."

Supervisor-Directed Destructive Voice

We used Maynes and Podsakoff's (2014) five-item destructive voice scale to measure subordinates' supervisor-directed destructive voice ($\alpha=0.94$). The original scale was developed to capture employees' destructive voice targeted toward their organizations. In the present study, we shifted the referent from subordinates' organizations to their supervisors. A sample item was "This employee harshly criticizes my positions on the organization's policies, even though the criticism is unfounded."

Control Variables

We controlled for subordinates' demographic information (i.e., age, gender, organizational tenure, and dyadic tenure with their supervisor) because prior abusive supervision and voice research have demonstrated that these demographics can bias the inferences drawn from results (e.g., Maynes and Podsakoff 2014; Zhang and Bednall 2016). Also, we controlled for subordinate-reported LMX and the work group mean LMX to conform with the precedent established by prior LMX differentiation research (e.g., Erdogan and Bauer 2010; Liden et al. 2006).



We used multilevel modeling in HLM 7 (Raudenbush et al. 2011) to test the hypothesized model. First, we used Mplus 6.1 (Muthén and Muthén 2010) to conduct confirmatory factor analyses (CFA) to assess the validity of the hypothesized four-factor model. We examined Chi-square statistics and the comparative fit index (CFI), Tucker–Lewis Index (TLI), root mean square error of approximation (RMSEA), and standardized root mean square residual (SRMR) as indices of model fit (Hu and Bentler 1999). Then, we compared the fit of the baseline measurement model with that of several alternative models. Next, we followed Bauer et al.'s (2006) guidelines for testing multilevel moderated mediation models in order to test the hypothesized model. Finally, we used the online computational tool developed by Preacher et al. (2006) to test the significance of the moderation slopes.

Results

Means, standard deviations, and zero-order bivariate correlations for study variables are reported in Table 1. The subordinates in our sample reported a low mean for abusive supervision (i.e., M = 2.22), which is consistent with meta-analytic evidence that abusive supervision is a low base-rate phenomenon (Mackey et al. 2017). As expected, abusive supervision was positively associated with subordinates' relational ego depletion (r = 0.31, p < 0.01) and supervisor-directed destructive voice (r = 0.34, p < 0.01). Also, subordinates' relational ego depletion was positively associated with supervisor-directed destructive voice (r =0.33, p < 0.01). Among the demographic variables (i.e., age, gender, organizational tenure, and dyadic tenure), only age was significantly associated with any of the primary study variables (i.e., LMX differentiation: r = -0.15, p < 0.05). Finally, LMX, which was used to obtain LMX differentiation values but was not a focal study variable, was negatively associated with subordinates' relational ego depletion (r =-0.18, p < 0.01) and supervisor-directed destructive voice (r = -0.26, p < 0.01). Therefore, we controlled for age and LMX, but we excluded the other potential control variables from hypotheses testing due to their non-significant associations with the substantive variables (Becker et al. 2016; Bernerth and Aguinis 2016).

Measurement Model Testing

Prior to testing the study hypotheses, we performed a series of CFAs to assess the measurement validity of the hypothesized four-factor model. The CFA results demonstrated that the four-factor baseline measurement model produced good fit with the data: $\chi^2 = 254.70$, df = 183, CFI = 0.98, TLI



Table 1 Descriptive statistics and zero-order bivariate correlations for study variables

Variable	M	SD	1	2	3	4	5	6	7	8	9	10
1. Age	31.05	3.46	_									
2. Gender	1.62	0.49	0.29**	_								
3. Organizational Tenure	5.23	3.00	0.63**	0.14*	_							
4. Dyadic Tenure	3.14	1.48	0.40**	0.11	0.47**	_						
5. Abusive Supervision	2.22	0.86	0.01	0.03	-0.02	0.01	(0.89)					
6. LMX	4.94	1.08	-0.05	-0.00	-0.03	0.06	- 0.32**	(0.89)				
7. LMX Work Group Mean	4.94	0.58	-0.02	-0.08	-0.02	0.01	-0.05	0.54**	_			
8. LMX Differentiation	0.82	0.65	- 0.15*	-0.08	0.00	0.03	0.10	-0.03	-0.06	-		
9. Relational Ego Depletion	3.13	1.18	0.05	0.07	0.06	-0.02	0.31**	- 0.18**	-0.07	0.19**	(0.87)	
10. Supervisor-Directed Destructive Voice	3.28	1.38	- 0.03	0.02	0.04	0.02	0.34**	- 0.26**	0.00	0.12	0.33**	(0.94)

N = 219 for individuals (Level-1: individual level). N = 51 for work groups (Level-2: collective level; LMX Work Group Mean and LMX Differentiation). LMX leader—member exchange. M mean. SD standard deviation. Tenure was reported in years. Gender was coded as 1 = female and 2 = male. Statistical tests were based on two-tailed tests ($\alpha = 0.05$)

= 0.97, RMSEA = 0.04, and SRMR = 0.04. The alternative model with the most favorable Chi-square value and fit indices values was a three-factor model in which we loaded the items for subordinates' relational ego depletion and supervisor-directed destructive voice onto one single latent variable: χ^2 = 656.18, df = 186, CFI = 0.84, TLI = 0.82, RMSEA = 0.11, and SRMR = 0.10. However, the fit indices values were not deemed acceptable (Hu and Bentler 1999). The Chi-square difference test demonstrated that the hypothesized four-factor baseline model demonstrated significantly better fit than the best competing model: $\Delta \chi^2$ (3) = 401.48, critical value = 7.81. Thus, we retained the hypothesized

four-factor model and proceeded to hypothesis testing. The results of hypothesis testing are summarized in Table 2 and Fig. 2.

Hypothesis Testing

Hypothesis 1 predicted that abusive supervision would be positively associated with subordinates' relational ego depletion. As shown in Model 2 of Table 2, the HLM results demonstrated that abusive supervision was positively associated

Table 2 Results of hierarchical linear modeling analyses

	Relational ego depletion				Supervisor-directed destructive voice					
	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	Model 8	Model 9	
Intercept	3.13**	3.13**	3.13**	3.10**	3.28**	3.28**	3.28**	3.26**	3.27**	
Level-1: Individual Level										
Age	0.02	0.02	0.02	0.02	-0.02	-0.02	-0.01	-0.01	-0.01	
LMX	- 0.20**	-0.07	-0.07	0.00	- 0.35**	- 0.22*	- 0.34**	- 0.27**	- 0.27**	
Abusive supervision		0.46**	0.44**	0.38**		0.45**	0.40**	0.35**	0.28**	
Relational ego depletion									0.24**	
Level-2: collective level										
LMX work group mean			0.01	-0.07			0.38*	0.32	0.33	
LMX differentiation			0.30	0.25			0.20	0.17	0.10	
Cross-level interaction										
Abusive supervision × LMX differentiation				0.39**				0.34**	0.25	
Model deviance	674.84	651.33	647.53	633.83	743.73	726.67	720.38	713.42	703.79	

N = 219 for individuals (level-1: individual level). N = 51 for work groups (level-2: collective level). LMX leader—member exchange. Statistical tests were based on two-tailed tests ($\alpha = 0.05$). Standardized effect sizes (γ) are reported

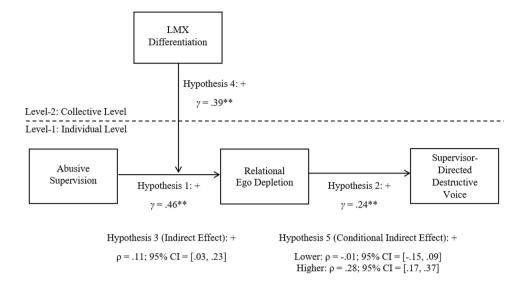


p < 0.05, p < 0.01

p < 0.05, p < 0.01

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Fig. 2 Results of model estimation. *CI* Confidence interval. Standardized effect sizes are reported. Statistical tests were based on two-tailed tests ($\alpha = 0.05$), *p < 0.05, **p < 0.01



with subordinates' relational ego depletion ($\gamma = 0.46$, p < 0.01). Thus, we found support for Hypothesis 1.

Hypothesis 2 predicted that subordinates' relational ego depletion would be positively associated with supervisor-directed destructive voice. As shown in Model 9 of Table 2, the HLM results demonstrated that subordinates' relational ego depletion was positively associated with supervisor-directed destructive voice ($\gamma = 0.24$, p < 0.01). Thus, we found support for Hypothesis 2.

Hypothesis 3 predicted that abusive supervision would have a positive indirect effect on supervisor-directed destructive voice through subordinates' relational ego depletion. We used the PRODCLIN program developed by MacKinnon et al. (2007) to test the indirect effect hypothesis. We found a significant positive indirect effect of abusive supervision on supervisor-directed destructive voice through subordinates' relational ego depletion [$\rho = 0.11$; 95% confidence interval (CI) (0.03, 0.23)]. Therefore, we found support for Hypothesis 3.

Hypothesis 4 predicted that LMX differentiation would moderate the relationship between abusive supervision and subordinates' relational ego depletion, such that the positive relationship between abusive supervision and subordinates' relational ego depletion would be stronger in higher LMX differentiation contexts than lower LMX differentiation contexts. As shown in Model 4 of Table 2, the abusive supervision \times LMX differentiation interaction effect significantly predicted subordinates' relational ego depletion ($\gamma = 0.39, p < 0.01$). We plotted the interaction effect in Fig. 3. Then, we performed simple slopes tests to estimate the significance of

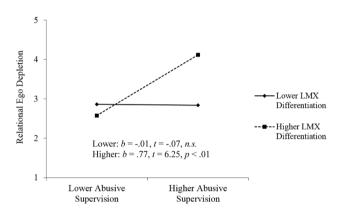


Fig. 3 The moderating effect of LMX differentiation on the relationship between abusive supervision and relational ego depletion

the lower (i.e., one standard deviation below the mean) and higher (i.e., one standard deviation above the mean) LMX differentiation slopes, per Preacher et al.'s (2006) recommendation. The results demonstrated that the higher LMX differentiation slope was significant (b = 0.77, t = 6.25, p < 0.01), whereas the lower LMX differentiation slope was not significant (b = -0.01, t = -0.07, n.s.). Therefore, we found support for Hypothesis 4.

Hypothesis 5 predicted that LMX differentiation would moderate the indirect effect of abusive supervision on supervisor-directed destructive voice through relational ego depletion, such that the positive indirect effect would be stronger in the presence of higher LMX differentiation contexts than lower LMX differentiation contexts. We followed Bauer et al.'s (2006) approach to assess the conditional indirect effect at lower and higher values of LMX



differentiation. We found that the conditional indirect effect was positive for higher LMX differentiation contexts [ρ = 0.28, 95% CI (0.17, 0.37)], whereas it was not significant for lower LMX differentiation contexts [ρ = - 0.01, 95% CI (- 0.15, 0.09)]. Thus, we found that the conditional indirect effect was stronger for higher LMX differentiation contexts than lower LMX differentiation contexts because we found a significant effect for higher LMX differentiation contexts, a non-significant effect for lower LMX differentiation contexts, and the 95% CIs did not overlap across lower and higher LMX differentiation contexts. In summary, we found support for Hypothesis 5.

Discussion

Overall, the results supported the conditional indirect effects model we hypothesized. Abusive supervision had a positive and indirect effect on supervisor-directed destructive voice through subordinates' relational ego depletion with their supervisors that was stronger for higher LMX differentiation contexts than lower LMX differentiation contexts. Specifically, we found evidence that higher LMX differentiation contexts strengthened the relationship between abusive supervision and subordinates' relational ego depletion, but that relational ego depletion levels remained relatively consistent across levels of abusive supervision for lower LMX differentiation contexts. The results held when examining the entire hypothesized model, which rendered the conditional indirect effect of abusive supervision on supervisor-directed destructive voice significant for higher LMX differentiation contexts but not significant for lower LMX differentiation contexts. We describe the important theoretical and practical implications of our results below.

Theoretical Implications

Our findings make three important contributions to theory and research. First, we make a theoretical contribution by drawing from ego depletion and LMX theories to provide a novel explanation for why relational ego depletion and LMX differentiation explain the indirect relationship between abusive supervision and supervisor-directed destructive voice. We included variables in the hypothesized model that captured ego depletion (i.e., relational ego depletion) and LMX (i.e., LMX differentiation) theories in order to clarify why these theoretical frameworks provide nuanced insight into the relational aspects of supervisor–subordinate relationships. We identify relational ego depletion as the theoretical mechanism through which abusive supervision affects supervisor-directed destructive voice and we identify LMX differentiation as the contextual moderator that accounts

for the social context that differentially impacts leader–follower relationships. Our findings extend ego depletion and LMX theories by illuminating why the relational aspects of leader–member relationships explain the strategic exchange of similar types and intensities of perceived interpersonal mistreatment within leader–follower relationships.

Second, our findings contribute to ego depletion theory by demonstrating that supervisor–subordinate interactions provide a critical social context that can deplete subordinates' limited capacities. Our findings demonstrate support for the interactionist approach by demonstrating that subordinates' relational ego depletion is affected not only by leaders' influences (i.e., abusive supervision), but also by the social context in which leaders interact with their followers (i.e., LMX differentiation). Our results validate the mediating role of relational ego depletion in transforming negative perceptions of leadership behaviors (i.e., abusive supervision) into destructive employee behaviors (i.e., supervisor-directed destructive voice). Thus, our examination of the interactive effects of followers' perceptions of leaders' behaviors (i.e., abusive supervision and LMX differentiation) on relational ego depletion and supervisordirected destructive voice improves our understanding of how depleted employees behave in the workplace. Further, we improve our understanding of which followers are likely to engage in strategic followership approaches that involve speaking up against their leaders in order to meaningfully affect relational processes between leaders and followers.

Third, we make an empirical contribution to the voice literature by extending the nomological network of supervisordirected destructive voice to include abusive supervision and relational ego depletion as antecedents. Although voice research has gained much research attention over the past decade, it tends to focus on employees' favorable challenges to the status quo in their organizations (Maynes and Podsakoff 2014). Prevailing wisdom suggests that voice typically attempts to promote constructive change (e.g., Van Dyne and LePine 1998), but we extend ego depletion theory to purposefully include the impact of negative relational exchanges when aligning the source of ego depletion (i.e., abusive supervision) and the target of its consequences (i.e., supervisor-directed destructive voice). Our contribution illuminates the importance of aligning the antecedents of voice with the nature, intensity, and target of voice in order to build a coherent and theory-driven program of voice research (Morrison 2011).

Practical Implications

Our findings have practical contributions that can meaningfully inform practitioners. First, our results demonstrate that supervisor-directed destructive voice behaviors likely

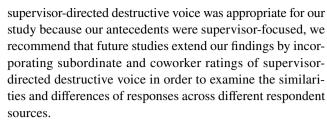


are indicative of damaged supervisor–subordinate relationships. As a result, we encourage managerial awareness that instances of destructive voice may be indicative of poor LMX relationships that are depleting subordinates' capacities for controlling their volitional actions during interactions with their supervisors. Our findings suggest that the conditional indirect effect of abusive supervision on supervisor-directed destructive voice is not significant in lower LMX differentiation contexts. Thus, organizational leaders may be able to reduce instances of supervisor-directed destructive voice by attempting to treat their followers similarly.

Second, we encourage practitioners' awareness of the effects of differential supervisory treatment across subordinates (i.e., abusive supervision, LMX differentiation) on subordinates' workplace behaviors. We found evidence that abusive supervision is associated with subordinates' relational ego depletion and supervisor-directed destructive voice. However, these relationships were stronger for subordinates in higher LMX differentiation contexts than lower LMX differentiation contexts. Additionally, we found that the conditional indirect effect of abusive supervision on supervisor-directed destructive voice was weak and nonsignificant for subordinates in lower LMX differentiation contexts. Thus, it may be helpful for leaders to evaluate the extent to which they treat followers differently in order to manage subordinates' relational ego depletion and their tendencies to engage in supervisor-directed destructive voice. We encourage practitioner awareness of how LMX differentiation manifests in subordinates' internal psychological states (e.g., relational ego depletion), supervisor-directed behaviors (e.g., destructive voice), and perceptions of professional ethical standards (Valentine and Fleischman 2008) in the workplace.

Limitations and Directions for Future Research

Below, we identify our study's limitations and describe opportunities for future research to meaningfully address the limitations while extending our findings. First, there were some features of our study design that limited the inferences we could draw from the results. For example, supervisors rated subordinates' supervisor-directed destructive voice. Meta-analytic evidence demonstrates that self- and other-reported measures of counterproductive work behaviors tend to be moderately-to-highly correlated (Berry et al. 2012), but it is possible that supervisors were not aware of the full range of subordinates' supervisor-directed destructive voice behaviors. For example, prior voice research demonstrates that there can be different antecedents to speaking out to peers versus speaking up toward supervisors (e.g., Liu et al. 2010). Although examining supervisors' ratings of subordinates'



Second, our sample only included Chinese respondents, which limited the external validity of the obtained results. Future research will be needed in order to determine the extent to which cultural values and norms (e.g., collectivism) affected the generalizability of the results we obtained. Future research will also be needed to determine whether there were specific features of the organizational context (e.g., industry, organizational size) that affected the generalizability of our findings. Additionally, we encourage experimental studies to replicate and extend our findings in order to demonstrate evidence of the causal linkages implied in our conditional indirect effects model.

Next, we did not control for theoretical mechanisms other than ego depletion that could predict supervisordirected destructive voice because we were limited by the internet company's request for brief surveys that would limit the impact of data collection on organizational functioning. Further, we restricted our use of control variables to demographic information and LMX in order to ensure that we could interpret the results while testing our hypothesized model (Becker et al. 2016). However, prior abusive supervision research has drawn from displaced aggression (e.g., Mackey et al. 2016), justice (e.g., Park et al. 2017), and social exchange (e.g., Decoster et al. 2013) theoretical frameworks to explain the effects of abusive supervision on subordinates' destructive workplace behaviors. Each of the aforementioned theoretical frameworks could provide nuanced insight into why abusive supervision is associated with supervisor-directed destructive voice. We recommend that additional research examines ego depletion, displaced aggression, justice, and social exchange theoretical mechanisms in tandem to determine which of these theoretical frameworks has the most predictive power when examining the indirect relationship between abusive supervision and supervisor-directed destructive voice.

We also encourage future research to include control variables that assess perceptions of ethicality that could meaningfully inform our findings. Controlling for ethical leadership could isolate the incremental ability of abusive supervision to predict supervisor-directed destructive voice beyond followers' perceptions of their leaders' ethicality. Also, we did not control for important contextual features of ethicality in organizations (e.g., ethical organizational climate) that could affect LMX relationships or the likelihood that followers were willing or able to voice destructive opinions. We encourage future research to investigate features of



employees, leader-follower relationships, and organizations that could have important ethical implications for the relationships we examined.

Finally, it is possible that subordinates may engage in multiple forms of voice when responding to abusive supervision and relational ego depletion. Maynes and Podsakoff (2014) identified four types of voice behaviors: supportive voice, constructive voice, defensive voice, and destructive voice. Chamberlin et al. (2017) demonstrated meta-analytic evidence that promotive (i.e., supportive voice and constructive voice) and prohibitive (i.e., defensive voice and destructive voice) forms of voice tend to demonstrate different relationships with antecedents. We encourage future research to explore the possibility that relational ego depletion more strongly predicts prohibitive forms of voice than promotive forms of voice.

Conclusion

Our results demonstrate that there is an indirect effect of abusive supervision on supervisor-directed destructive voice through relational ego depletion that is stronger for higher LMX differentiation contexts than lower LMX differentiation contexts. We draw from ego depletion and LMX theories to illuminate the value of aligning the source of ego depletion with its consequences. Further, our nuanced perspective highlights the important roles that leaders' influences and social context play in the examination of relational aspects of leader-member relationships. Our findings can help build cohesive streams of abusive supervision and voice research that advance our understanding of why some subordinates speak up against supervisors, whereas others do not. Overall, we hope our novel theoretical, empirical, and practical contributions provide nuanced insight that facilitates researchers' and practitioners' attempts to promote ethical workplaces that deter abusive supervision and destructive voice.

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Compliance with Ethical Standards

Conflict of interest All of the study authors declare that they have no conflicts of interest.

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

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

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