Psychosocial Predictors of Supervisor-, Peer-, Subordinate-, and Service-Provider-Targeted Aggression

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The authors investigate whether known person predictors (trait anger, trait aggression) and situational predictors (perceived interpersonal mistreatment, perceived organizational sanctions against aggression) of supervisor-targeted aggression also predict employee's aggression toward other workplace targets, namely peers, subordinates, and customers' aggression toward service providers. The authors also investigate the moderating impact of situational factors on the relationship between person factors and aggression. Participants ($N = 308$) were asked whether they had a conflict with their supervisor, a subordinate, a work peer, and/or a service provider in the past 6 months. Different patterns of main and interaction effects emerged across the 4 targets, suggesting the importance of accounting for the target of aggression in workplace aggression research.

Keywords: workplace aggression, targets of aggression, predictors of aggression, multiple job holders

In recent years, the frequency and severity of workplace aggression has been brought to the fore. Advances have been made in understanding antecedents and outcomes of workplace aggression, with both person and situation predictors identified (e.g., Bowling & Beehr, 2006; Douglas & Martinko, 2001; Hershcovis et al., 2007). With few exceptions (e.g., Aquino, Tripp, & Bies, 2006; Bowling & Beehr, 2006; L. Greenberg & Barling, 1999; Hershcovis et al., 2007; Inness, Barling, & Turner, 2005), the possibility that the predictors of workplace aggression differ depending on the target of aggression (e.g., one's supervisor, peer, subordinate, or a service provider with whom one might interact as a customer) has been ignored, despite suggestions that accounting for target is critical in studies of workplace aggression (Hershcovis et al., 2007). Among those studies that have accounted for the target of aggression, most have continued to examine aggression toward one's supervisor, with relatively fewer studies examining the predictors of aggression toward other workplace targets such as peers, subordinates, or service providers (Barling, Dupré, & Kelloway, in press).

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In the present study, we redress this in two ways: First, we examine whether two person factors (trait anger and trait aggression) and two situation factors (perceived interpersonal mistreatment and perceived sanctions against aggression) predict aggression against four different workplace targets: one's supervisor, peers, subordinates, and service providers with whom one would interact as a customer. Second, we examine possible Person × Situation interactions across these four targets to better understand how workplace experiences exacerbate or buffer any effects of the person variables and whether these effects differ by target.

The present study has the potential to advance understanding of workplace aggression in several ways. First, if the prediction of aggression is target specific, more nuanced models of workplace aggression that account for differences across targets will be needed. Conversely, if predictors are not target specific, it will be possible to generalize existing findings on the predictors of aggression toward one target to other workplace targets. Second, psychosocial predictors of aggression targeted toward peers, subordinates, and service providers remain relatively underexamined and less well understood despite high rates of aggression toward these groups (see Schat, Frone, & Kelloway, 2006). Third, a more refined understanding of the psychosocial predictors of aggression against different workplace targets might facilitate preventive initiatives.

The Role of the Target in Workplace Aggression

Aggression is defined as behavior that is performed by one individual with the intent of causing harm to another (Anderson & Bushman, 2002). Preliminary theoretical and empirical findings have suggested that workplace aggression may be target specific. For example, several taxonomic frameworks describe the variety of forms workplace aggression can take (e.g., R. A. Baron,

Neuman, & Geddes, 1999; S. A. Baron, 1993; Fox & Spector, 1999; Robinson & Bennett, 1995), including one framework that categorizes aggression by target (Merchant & Lundell, 2001). In addition, the relational model of aggression (Hershcovis & Barling, 2007) posits that the impact of workplace aggression is influenced by the relationship between an aggressor and target, such that more detrimental outcomes may result when aggression emanates from someone with greater legitimate power, or when one's relationship with the aggressor is ongoing.

Numerous empirical studies have identified psychosocial predictors of supervisor-targeted aggression, including situation factors such as poor or abusive supervision, interactional injustice, interpersonal conflict, and perceived organizational sanctions as well as person factors such as trait anger and trait aggression (see Barling et al., in press). A few studies have examined predictors of aggression toward peers and/or subordinates. For example, research on social undermining has suggested that person factors such as high self-esteem and neuroticism relate to attempts to undermine peers (Duffy, Shaw, Scott, & Tepper, 2006). Research on abusive supervision has suggested that organizational factors such as procedural injustice may impact on supervisors' mistreatment of subordinates (Tepper et al., 2006).

To our knowledge, only one study simultaneously examined the psychosocial predictors of peer-, subordinate-, and supervisor-targeted aggression. L. Greenberg and Barling (1999) showed that there were different predictors of aggression across targets. Specifically, supervisor-targeted aggression was predicted by situation factors (procedural injustice, workplace surveillance). Peer-targeted aggression was predicted by person factors (alcohol consumption, history of aggression), and by the Person × Situation interaction between level of alcohol use and procedural injustice. Subordinate-targeted aggression was predicted by interactions between procedural injustice and both alcohol consumption and history of aggression as well as between job security and both alcohol consumption and history of aggression.

Psychosocial predictors of aggression by customers toward service providers remain to be studied. Research on service provider-targeted aggression has focused primarily on identifying industries (e.g., health care) and activities (e.g., working with unstable populations) that increase the risk of experiencing workplace aggression (e.g., LeBlanc & Kelloway, 2002; Schat et al., 2006). However, anecdotal evidence has suggested that customers may become aggressive toward service providers in response to perceived mistreatment, such as when they attempt to set limits on client behavior (e.g., Boyd, 1995; National Institute for Occupational Safety and Health [NIOSH], 2002) or deny services or resources (Hearnden, 1988). Overall, these findings have suggested that target-specific factors may be implicated in workplace aggression, resulting in recent calls for empirical research on workplace aggression to specify the target being examined (Hershcovis et al., 2007).

Predictors of Workplace Aggression

We examine the impact of two situation factors (perceived interpersonal mistreatment and perceived organizational sanctions against aggression) and two person factors (trait anger, trait aggression) that are known predictors of supervisor-targeted aggression. In developing our predictions, we draw on both empirical findings and theoretical work including the literature on emotional reactivity (Zillmann, 1988), fairness theory (Folger & Cropanzano, 2001), identity threats (Baumeister, Smart, & Boden, 1996), and social learning theory (Bandura, 1977).

Person Factors

There is a long history of research examining the link between person factors and aggression (e.g., Dengerink, O'Leary, & Kasner, 1975), and both trait anger and trait aggression have been found to predict aggression against a supervisor. Trait anger reflects an individual's propensity to respond to situations with anger (e.g., Douglas & Martinko, 2001; Martinko, Douglas, & Harvey, 2006; Spielberger, 1988). Trait aggression refers to the extent to which individuals have engaged in aggression in earlier stages in their development. Individuals higher in trait anger (e.g., Douglas & Martinko, 2001) or trait aggression (e.g., Huesmann, Moise-Titus, Podolski, & Eron, 2003; Riggs & O'Leary, 1989) are more likely to behave aggressively across different social situations and over time. The literature on emotional reactivity (e.g., Averill, 1983) has offered insight into how aggression may become a relatively stable behavior. Specifically, individuals experience emotional excitation any time they perceive that their well-being is under threat. This excitation elicits an immediate flight or fight response that may be attenuated or exacerbated by more deliberative cognitive appraisals. If the threat is appraised as being real and an unjustified, voluntary misdeed by another person, the individual may respond with aggression (Averill, 1983). Over time, the aggressive response may become habitual (as in the case of trait aggression), or the individual may consistently interpret threats to well-being in a way that provokes anger (as in the case of trait anger; Zillmann, 1988). Given the relative stability that characterizes trait aggression and trait anger, we expect the following:

> *Hypothesis 1:* Trait anger and trait aggression will impact on aggression toward all targets.

Situation Factors

Situation factors reflect experiences that are unique within a given context. One situational factor that predicts supervisor-targeted aggression is interactional injustice (e.g., R. A. Baron et al., 1999; Dupré & Barling, 2006; Inness et al., 2005), that is, individuals' perceptions that a person in authority (such as a supervisor) has treated them with a lack of respect and dignity (Colquitt, Conlon, Wesson, Porter, & Ng, 2001). Given that we are examining the impact of undignified and disrespectful treatment by various perpetrators, not just authority figures, we use the more general term *mistreatment* herein.

Fairness theory (Folger & Cropanzano, 2001) suggests that when individuals perceive that they have been treated unfairly they are motivated to hold someone accountable. Judgments of accountability are made by assessing whether the behavior was a discretionary act and whether it violated expected norms of conduct. If so, the individual may be motivated to retaliate against the source of this mistreatment. Research has suggested that one means of retaliation against mistreatment is through aggression (Skarlicki & Folger, 1997). Similarly, research on identity threats (e.g.,

Baumeister et al., 1996) has suggested that when individuals believe they have been mistreated, their personal identity as someone deserving of dignity and respect and in a work context, their position as a valued organizational member may be threatened. In response, these individuals may retaliate to reaffirm their identity and re-establish their sense of justice.

While both fairness theory and the literature on identity threats would suggest that any person who compromises another's dignity may become a target for retaliation, empirical findings have suggested that injustice might have a different effect depending on the relative power of the aggressor and target (Aquino et al., 2006). This research has suggested that lower-power persons are more likely to exact revenge against higher-power persons when the procedural justice climate in the organization is low, and higher-power persons tend to exact revenge when procedural justice climate is high. This supports the notion that power differences may play a role in retaliation, but the exact nature of that role in the context of mistreatment remains an empirical question. Overall, given that theoretical perspectives suggest that individuals may retaliate against any source of mistreatment, and since few studies have examined the role of the target, we expect the following:

> *Hypothesis 2a:* Perceived mistreatment by a supervisor, peer, subordinate, or service provider will predict aggression against that target.

We also suggest that there will be an interaction between mistreatment and the person factors (trait anger, trait aggression), but only for supervisor- and subordinate-targeted aggression. Specifically, we expect that when mistreatment emanates from someone in a higher or lower position of power (i.e., subordinate or supervisor), individuals may not retaliate as readily given that norms of organizational conduct dictate not abusing power over subordinates and being deferential to supervisors, respectively. Under such conditions, only individuals with high levels of trait anger or trait aggression will act aggressively in response to mistreatment in these more proscribed relationships. Thus, we expect the following:

> *Hypothesis 2b:* In response to perceived mistreatment by a supervisor or subordinate, individuals with high levels of trait anger and/or trait aggression will be aggressive.

While interpersonal mistreatment and certain individual differences may increase aggression, identifying factors that inhibit aggression are critical for prevention. Consistent with social learning theory (Bandura, 1977), which suggests that individuals tend to refrain from behavior associated with negative personal consequences, research has shown that when an organization has established and is perceived to be willing to invoke sanctions against aggression (Dupré & Barling, 2006) or sexual harassment (Dekker & Barling, 1998), both are effectively deterred. As yet, no studies have examined whether sanctions can inhibit aggression directed at peers, subordinates, and/or service providers. However, we do not expect similar effects for organizational sanctions across all four targets. Specifically, organizational members are likely more aware than are members of the public of organizational sanctions against aggression. Likewise, the ability of the organization to impose sanctions or punishments against its own members will be greater than its corresponding ability against members of the public. Thus, we predict the following:

> *Hypothesis 3a:* Sanctions will be negatively related to supervisor-, peer-, and subordinate-targeted aggression but will not be related to service-provider-targeted aggression.

Consistent with the moderating role of perceived organizational sanctions (Dupré & Barling, 2006), we predict that sanctions will moderate the relationships between both trait aggression and individuals' aggressive behavior and trait anger and individuals' aggressive behavior, especially when the organization's ability or willingness to invoke sanctions against aggression might be perceived to be greatest (i.e., against organizational insiders—supervisors, subordinates, and peers). Specifically, for aggression targeted toward organizational insiders, significant relationships between both trait aggression and trait anger and workplace aggression will emerge when organizational sanctions are perceived to be low but will revert to non-significant when organizations are perceived to be willing to invoke sanctions for workplace aggression. Consistent with this notion, organizational sanctions will not moderate any effects of personal factors on aggression against service providers because of the relative inability to punish organizational outsiders. As such, we expect the following:

> *Hypothesis 3b:* Sanctions will buffer the impact of trait anger and trait aggression for supervisor-, peer-, and subordinate-targeted aggression but not service-provider-targeted aggression.

Method

Participants and Recruitment

The present study was advertised to 1,200 employed individuals via StudyResponse, an online service that connects researchers to people who are interested in study participation (see The Study-Response Project, Stanton et al., n.d., for details). At the time of recruitment, StudyResponse had a roster of over 90,000 members, reflective of the larger population of the United States in terms of racial/ethnic background, education, and array of occupations. Other studies (e.g., Piccolo & Colquitt, 2006; Lievens, Anseel, Harris, & Eisenberg, 2007) have used StudyResponse as an approach to sampling.

An e-mail advertisement described the present study and requested participation by people who (a) were currently employed and (b) recalled a conflict with at least one, but possibly more than one, of the following targets—their supervisor, peer, subordinate, and/or a service provider—within the past 6 months. Three hundred and eight people (55.9% women, 44.1% men; M age = 36.69 years, SD = 11.36) participated (25.66% response rate); their job tenure averaged 5.38 years (SD = 6.35), they worked an average of 38.52 hr/week (SD = 10.47), and most had partially completed college or university. Their jobs covered all 23 major occupational groups of the Standard Occupational Classification.

Procedure

Participants were first asked whether they had "experienced conflict (i.e., a negative interaction) with any of the four targets (i.e., supervisor, peer, subordinate, and/or a service provider) in the

past six months." Like previous studies (Aquino, Tripp, & Bies, 2001), participants who had experienced a conflict were asked to describe the incident as well as to answer questions addressing perceived mistreatment, sanctions, and their aggression toward that target. The same items were used for all four targets with slight wording changes to be appropriate to the target. Participants who did not have a conflict with a particular target were not asked any questions pertaining to that target. All participants also completed questionnaires on trait anger and trait aggression. To confront possible order effects, questions about each target were presented to half of the sample in the following order: supervisor, subordinate, peer, and/or service provider. For the other half, this order was peers, service providers, supervisor, and/or a subordinate. No order effects were found for any of the predictors or outcome variables.

Measures

Workplace aggression. Workplace aggression was assessed with L. Greenberg and Barling's (1999) 25-item scale, which measures the frequency with which respondents have engaged in a series of aggressive behaviors toward a particular target in the past 6 months. This measure is an index of various behaviors ranging from milder forms of psychological aggression to extreme forms of physical aggression. Respondents were asked to report the number of times that they enacted each behavior, for example, yelling (at a supervisor, peer, subordinate, or service provider) during and following their conflict with that target, by using a 6-point scale ranging from 0 (*never*) to 6 (*more than 20 times*). Because this scale is a formative indicator (MacKenzie, Podsakoff, & Jarvis, 2005), internal consistency reliability is neither appropriate nor expected. However, prior studies have demonstrated the validity of inferences based on this scale (e.g., Inness et al., 2005).

Interpersonal mistreatment was measured with 13 items from Donovan, Drasgow, and Munson's (1998) scale of interactional injustice which assessed the extent to which respondents perceived that they were treated in an undignified manner by the target person (e.g., perceiving that their supervisor—or peer, subordinate, or service provider—did not treat them with respect). The items remained identical across targets, but the instructions were appropriate to the target. Unlike the original 3-point scale, we used a 5-point Likert-type scale (1 = *strongly disagree,* 5 = *strongly agree*) to attain greater variance. The internal consistency reliability of this scale was high (αs = .87, .86, .86, and .84 for the supervisor, subordinate, peer, and service provider, respectively).

Perceived sanctions. A 4-item scale measuring perceived sanctions for behaving aggressively toward a particular target was developed for this study (see the Appendix); the wording of the scale reflected the context-specific nature of the relationship between the aggressor and the target, for example, "In this organization there would be negative consequences for someone who behaved in a verbally aggressive or threatening manner towards (a supervisor; peer; subordinate; service provider)." Items were rated on a 5-point scale (1 = *strongly disagree;* 5 = *strongly agree*). The internal consistency reliability of this scale was moderate (α = .78, .70, .71, and .71 for the supervisor, subordinate, peer, and service provider, respectively).

Trait anger. Trait anger was assessed with Spielberger's (1988) 24-item scale. Participants report on a 4-point scale (1 =

infrequently; 4 = *frequently*) how often they experience and express anger (e.g., lose their temper when angry). The internal consistency reliability of this scale was high (α = .83).

Trait aggression. The 12-item History of Aggressive Behavior Scale (Malone, Tyree, & O'Leary, 1989) assesses the frequency with which an individual has been aggressive to friends and family during and following high school (1 = *never,* 5 = *very frequently;* N/A = *not applicable;* e.g., frequency with which the respondent hit his or her parents during high school). Research has suggested that these behavior patterns predict subsequent aggression (Malone et al., 1989). The internal consistency reliability of this scale was high (α = .83).

Results

Descriptive statistics and intercorrelations for all variables appear in Table 1. Following L. Greenberg and Barling (1999), four separate linear multiple regression analyses were conducted—one for each target of aggression examined in the present study. In each analysis, control variables were entered on the first step, including age and gender, as these variables have been associated with aggression in past research (R. A. Baron et al., 1999; Schat et al., 2006), along with the number of targets with whom respondents reported having a conflict in the past 6 months, to reflect within-person factors. Centered person predictors (trait aggression, trait anger) were entered on the second step, and centered situational predictors (mistreatment, sanctions) were entered on the third step. On the last step, centered deviation scores were calculated (Aiken & West, 1991), and Person × Situation interaction terms were entered.[1]

Predictors of Supervisor-Targeted Aggression

One hundred twenty two participants reported a conflict with their supervisor and were included in this analysis. Main effects emerged for sanctions ($B = -.20$, $p < .01$) and trait aggression ($B = .24$, $p < .01$). Sanctions also interacted with both trait aggression and trait anger: Aggression levels were highest when sanctions were low and trait aggression was high ($B = -.40$, $p < .05$; see Figure 1), and when sanctions were low and trait anger was high ($B = -.42$, $p < .01$; see Figure 2). The variables in this analysis accounted for 29.6% of the variance in supervisor-targeted aggression (see Table 2).

Predictors of Peer-Targeted Aggression

One hundred and three participants reported a conflict with a peer. Main effects emerged for the impact of mistreatment ($B = .24$, $p < .05$), accounting for 15.8% of the variance in peer-targeted aggression (see Table 3).

Predictors of Subordinate-Targeted Aggression

Ninety-nine participants reported a conflict with a subordinate. Significant main effects emerged for trait anger ($B = .49$, $p < .05$)

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[1] We followed a reviewer's suggestion to examine interaction effects. In these analyses, we test for significance by using an alpha level of .10, a strategy advocated by several authors (Bing, LeBreton, Davison, Migetz, & James, 2007; Champoux & Peters, 1980; Finn & Frone, 2004).

Table 1
Descriptive Statistics and Intercorrelations of All Study Variables

Variable	M	SD	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1. Aggression—supervisor[a]	8.05	17.74	—															
2. Aggression—subordinate[b]	8.65	20.17	.93***	—														
3. Aggression—peer[c]	10.26	20.79	.70***	.80***	—													
4. Aggression—service provider[d]	6.42	16.51	.66***	.59***	.88***	—												
5. Mistreatment—supervisor	2.90	1.11	.16	.11	.14	.09	—											
6. Sanction—supervisor	4.10	0.83	-.31***	-.32***	-.26	-.17	-.11	—										
7. Mistreatment—subordinate	2.70	1.03	.19	.17	.16	.17	.32***	.03	—									
8. Sanction—subordinate	3.77	0.87	-.32**	-.35***	-.23**	-.11	-.14	.64***	-.13	—								
9. Mistreatment—peer	3.08	1.09	.16	.34	-.13	.13	.09	.09	.66***	-.08	—							
10. Sanction—peer	3.81	0.88	-.18	.40	.14	-.14	-.19	.40**	-.35	.68***	.13	—						
11. Mistreatment—service provider	3.27	1.07	.08	-.05	.02	.12	.21	.14	.16	-.23	.45***	.07	—					
12. Sanction—service provider	3.58	0.82	-.15	-.12	.35***	-.08	.00	.20**	-.08	-.10	.26**	.09	.09	—				
13. Trait anger[e]	3.79	0.41	.24***	.34***	.51***	.23***	.12	-.08	.04	.20**	.13	-.34***	.05	-.02	—			
14. Trait aggression[f]	1.14	0.75	.29***	.45***	-.10	.50***	-.04	-.04	.03	-.21**	.24	-.19	.17	-.10	.31***	—		
15. Age	37.21	11.51	-.08	-.01	.19	-.18	-.05	-.16	.07	.04	.08	.14	.08	-.06	-.13***	-.18***	—	
16. Gender[g]			.23***	.14	.09	-.00	-.01	-.13	-.09	.03	-.18	-.05	.00	-.14	-.03	.04	.09	—
17. Number of conflicts	1.65	0.79	.23*	.33***		.04	.16**		.08	-.26**	.04	-.08	.12	-.03	.03	-.03	.01	.07

[a] Supervisor. [b] Subordinate. [c] Peer. [d] Service provider. [e] Trait anger. [f] Trait aggression. [g] Males more aggressive than females.
* p < .05. ** p < .01. *** p < .001.

Interaction

Chart — y-axis: 0, 5, 10, 15, 20, 25; x-axis: Low Trait Aggression, High Trait Aggression; Legend: Low Sanctions (diamond), High Sanctions (square).
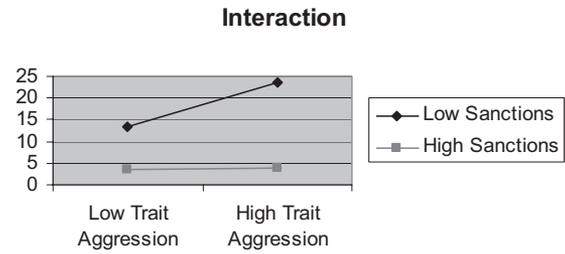
Figure 1. Predicting supervisor-targeted aggression: Trait Aggression × Sanctions.

and sanctions ($B = -.25$, $p < .05$). A significant interaction emerged between trait anger and sanctions: Aggression was highest when trait anger was high and sanctions were low ($B = -.61$; $p < .05$; see Figure 3). The variables in this analysis accounted for 47.8% of the variance in subordinate-targeted aggression (see Table 4).

Predictors of Service-Provider-Targeted Aggression

One hundred eighty nine participants reported a conflict with a service provider. A main effect emerged for trait aggression ($B = .43$, $p < .05$), and trait aggression interacted with sanctions: Aggression was highest when trait aggression was high and sanctions were low ($B = -.40$, $p < .10$; see Figure 4). The variables in this analysis accounted for 11.4% of the variance in service-provider-targeted aggression (see Table 5).

Comparing the Magnitude of Relationships Across Targets

By using multiple regression analyses, we compared the magnitude of the relationships between each predictor and aggression across targets (comparing two at a time). Mistreatment had a greater effect on subordinate-targeted aggression than on supervisor-targeted aggression ($B = -.23$, $p < .05$). Sanctions were a stronger buffer of supervisor-targeted aggression than of either peer-targeted aggression ($B = .44$, $p < .05$) or service-provider-targeted aggression ($B = .87$, $p < .01$). Trait aggression had a greater impact on service provider-targeted aggression than on supervisor-targeted ($B = -.80$, $p < .01$), peer-targeted ($B = -.85$, $p < .01$), or subordinate-targeted ($b = -.76$, $p < .001$) aggression. Trait aggression also had a greater impact on peer-targeted aggression than on supervisor-targeted aggression ($B =$
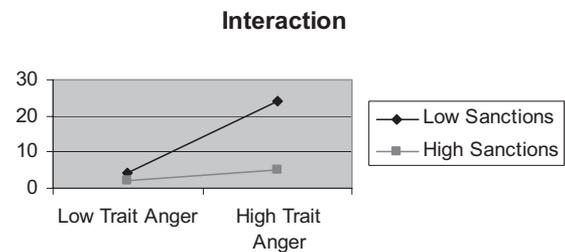
Interaction

Chart — y-axis: 0, 10, 20, 30; x-axis: Low Trait Anger, High Trait Anger; Legend: Low Sanctions (diamond), High Sanctions (square).

Figure 2. Predicting supervisor-targeted aggression: Trait Anger × Sanctions.

Table 2
Predictors of Supervisor-Targeted Aggression

Step and predictor variable	Step 1		Step 2		Step 3		Step 4	
	B	β	B	β	B	β	B	β
Step 1: Demographic variable								
Age	−.01	−.16	−.01	−.11	−.00	−.09	−.01	−.14
Gender	.18	.14	.18	.14	.14	.11	.09	.07
No. of targets with whom participant had conflict	.09	.15	.09	.14	.07	.11	.08	.12
Step 2: Person predictor								
Trait aggression			.21**	.24**	.24***	.26***	.26***	.26***
Trait anger			.01	.01	.07	.04	.04	.12
Step 3: Situation predictor								
Mistreatment—supervisor					.05	.09	.03	.04
Sanctions—supervisor					−.19***	−.23***	−.20***	−.24***
Step 4: Person × Situation interaction								
Trait Aggression × Mistreatment							.03	.02
Trait Aggression × Sanctions							−.40**	−.20**
Trait Anger × Mistreatment							.03	.03
Trait Anger × Sanctions							−.42***	−.37***
ΔR^2	.064		.054		.063		.115	
Total R^2	.064		.118		.181		.296	
ΔF	2.45		3.09		3.80		3.98	
Significant ΔF	.068		.050		.026		.005	
df Regression	3		5		7		11	
df Residual	119		117		115		111	

* $p < .10$. ** $p < .05$. *** $p < .01$.

−.44, $p < .001$). Trait anger had a lesser impact on service-provider-targeted aggression than on supervisor-targeted ($B = .80$, $p < .001$), peer-targeted ($B = .73$, $p < .01$), or subordinate-targeted ($B = .77$, $p < .01$) aggression (see Table 6).

Discussion

The goals of the present study were to examine the main and moderating effects of known person predictors (trait anger, trait

Table 3
Predictors of Peer-Targeted Aggression

Step and predictor variable	Step 1		Step 2		Step 3		Step 4	
	B	β	B	β	B	β	B	β
Step 1: Demographic variable								
Age	−.01	−.07	.00	.00	−.00	−.02	−.00	−.02
Gender	.29	.10	.18	.07	.30	.11	.25	.09
No. of targets with whom participant had conflict	.09	.07	.03	.05	.02	.03	.03	.04
Step 2: Person predictor								
Trait aggression			.44*	.20*	.33	.16	.23	.11
Trait anger			.24	.08	.15	.05	.10	.03
Step 3: Situation predictor								
Mistreatment—peer					.21**	.23**	.24**	.26**
Sanctions—peer					−.13	−.12	−.15	−.14
Step 4: Person × Situation interaction								
Trait Aggression × Mistreatment							.14	.09
Trait Aggression × Sanctions							−.12	−.04
Trait Anger × Mistreatment							.03	.01
Trait Anger × Sanctions							−.42	−.18
ΔR^2	.019		.059		.053		.027	
Total R^2	.019		.078		.131		.158	
ΔF	.648		3.13		2.90		.75	
Significant ΔF	.586		.048		.060		.562	
df Regression	3		5		7		11	
df Residual	100		98		96		92	

* $p < .10$. ** $p < .05$. *** $p < .01$.
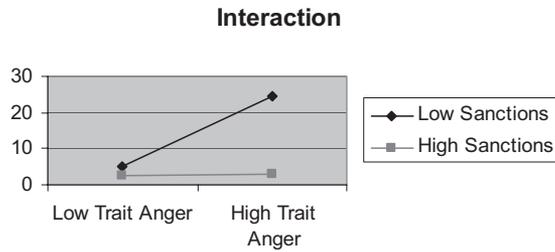
Interaction

Figure 3. Predicting subordinate-targeted aggression: Trait Anger × Sanctions.

Interaction

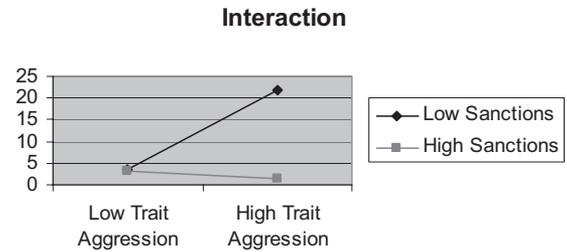*Figure 4.* Predicting service-provider-targeted aggression: Trait Aggression × Sanctions.

aggression) and situation predictors (mistreatment, perceived sanctions) of workplace aggression across four targets: supervisors, peers, subordinates, and service providers. The results provide partial support for the hypotheses and suggest that there are somewhat different patterns of predictors across the four targets of aggression. We address each hypothesis in turn.

Partially supporting Hypothesis 1, trait aggression predicted aggression against supervisors and service providers, but not peers or subordinates, suggesting that target does influence the expression of trait aggression. In comparing the magnitude of effects across the four targets, trait aggression had a greater impact on aggression toward service providers than on organizational insiders, suggesting that individuals may be motivated to control their habitual aggressive impulses in their work relationships. Although trait aggression was not a significant predictor of peer-targeted aggression, it had a relatively greater impact on peers than on supervisors, indicating that other factors (i.e., mistreatment) have a dominant effect on peer aggression. These findings suggest that habitual aggression can be controlled given sufficient motivation,

such as when sanctions are present, when dealing with someone in power, or in an ongoing relationship.

A main effect for trait anger only emerged in the context of subordinate-targeted aggression, suggesting that individuals are either more likely to interpret subordinates' behavior in a way that elicits frustration and anger or that anger is more readily expressed to subordinates. In comparing the magnitude of effects, trait anger had a greater impact on aggression targeted toward organizational insiders than on service providers suggesting that frustration and anger may be particularly likely in the context of ongoing relationships. Overall, these findings support prior research identifying the direct effects of person factors in workplace aggression (see Barling et al., in press).

Partial support was provided for Hypothesis 2a: Mistreatment predicted aggression against peers, but not supervisors, subordinates, or service providers. One explanation for these findings lies in the unique nature of peer relationships. Peers often have ongoing contact with each other, and the hierarchical nature of organizations may make peers feel closer to one another than to supervisors or

Table 4
Predictors of Subordinate-Targeted Aggression

Step and predictor variable	Step 1		Step 2		Step 3		Step 4	
	B	β	B	β	B	β	B	β
Step 1: Demographic variable								
Age	.00	.01	.01	.07	.00	.05	.00	.04
Gender	.20	.10	.07	.04	.13	.06	.06	.03
No. of targets with whom participant had conflict	.36***	.32***	.30***	.27***	.24**	.21**	.25***	.23***
Step 2: Person predictor								
Trait aggression			.42***	.34***	.38***	.31***	.20	.16
Trait anger			.49**	.20**	.44**	.18**	.49**	.20**
Step 3: Situation predictor								
Mistreatment—subordinate					.11	.11	.09	.10
Sanctions—subordinate					−.21**	−.19**	−.25**	−.22**
Step 4: Person × Situation interactions								
Trait Aggression × Mistreatment							.10	.09
Trait Aggression × Sanctions							−.22	−.23
Trait Anger × Mistreatment							.05	.02
Trait Anger × Sanctions							−.61**	−.23**
ΔR^2	.118		.189		.046		.124	
Total R^2	.118		.308		.354		.478	
ΔF	4.30		12.85		3.26		5.22	
Significant ΔF	.007		.000		.043		.001	
df Regression	3		5		7		11	
df Residual	96		94		92		88	

* $p < .10$.   ** $p < .05$.   *** $p < .01$.

Table 5
Predictors of Service Provider-Targeted Aggression

Step and predictor variable	Step 1		Step 2		Step 3		Step 4	
	B	β	B	β	B	β	B	β
Step 1: Demographic variable								
Age	−.01	−.09	−.00	−.01	−.00	−.02	.00	.01
Gender	−.01	−.22	−.07	−.02	−.08	−.03	−.08	−.02
No. of targets with whom participant had conflict	.10	.09	.06	.06	.05	.04	.06	.06
Step 2: Person predictor								
Trait aggression			.44***	.21***	.40**	.20**	.43**	.21**
Trait anger			.09	.02	.09	.03	.03	.01
Step 3: Situation predictor								
Mistreatment—service employee					.09	.10	.10	.10
Sanctions—service employee					−.09	−.08	−.09	−.07
Step 4: Person × Situation interaction								
Trait Aggression × Mistreatment							.20	.10
Trait Aggression × Sanctions							−.40*	−.18*
Trait Anger × Mistreatment							.18	.07
Trait Anger × Sanctions							−.14	−.04
ΔR^2	.015		.044		.014		.042	
Total R^2	.015		.058		.072		.114	
ΔF	.930		4.25		1.33		2.13	
Significant ΔF	.427		.016		.268		.079	
df Regression	3		5		7		11	
df Residual	186		184		182		178	

$^*p < .10.$ $^{**}p < .05.$ $^{***}p < .01.$

subordinates. Thus, peers may have greater expectations of positive interactions, and mistreatment by one's peers may be particularly salient. However, while this explanation can account for the main effects of mistreatment on peer-targeted aggression, it cannot account for the failure to uncover similar effects for the other targets (and the failure to completely support Hypotheses 2a and 2b), an issue to which we will return shortly. It is notable that mistreatment exerted a greater effect on subordinate-targeted aggression than on supervisor-targeted aggression, suggesting that individuals may be more tolerant of mistreatment by someone with higher power than by someone with lower power.

Hypotheses 3a and 3b predicted that sanctions would reduce aggression and would moderate the influence of person factors, respectively, on aggression targeted toward organizational insiders. Because customers are likely less aware of organizational sanctions, and organizations have little formal power over them, we did not expect sanctions to impact on service-provider-targeted aggression. Hypotheses 3a and 3b were partially supported: As expected, sanctions exerted a main effect on supervisor-targeted

and subordinate-targeted aggression (but not peer-targeted aggression). Sanctions also buffered the effect of trait anger on both supervisor-targeted and subordinate-targeted aggression, and they buffered the effect of trait aggression on supervisor-targeted aggression. It is possible that given power differences in a relationship (i.e., with one's supervisor or subordinate), only those people with high levels of trait anger or trait aggression will enact aggression. The fact that sanctions were found to be a stronger buffer of supervisor-targeted aggression than either peer-targeted or service-provider-targeted aggression further supports this explanation. Contrary to our predictions, however, sanctions also moderated the relationship between trait aggression and service-provider-targeted aggression. It is possible that in the absence of explicit information, customers might make the assumption that the organization will take action against such aggression.

Nevertheless, the general finding that sanctions buffered the impact of person factors on aggression highlights the critical role of sanctions in reducing organizational aggression. In addition, we suggest that organizational sanctions may also play a preventive role: In the

Table 6
Differences in the Relationship Between Each Predictor and Aggression Across the Four Targets

Predictor variable	Supervisor-targeted aggression	Peer-targeted aggression	Subordinate-targeted aggression	Service-provider-targeted aggression
Mistreatment	.03$_a$	.24	.09$_a$	.10
Sanctions	−.20$_{b,c}$	−.15$_b$	−.25	−.09$_c$
Trait aggression	.24$_{d,e}$	.23$_{d,f}$	.20$_g$	.05$_{e,f,g}$
Trait anger	.20$_h$	.10$_i$	.49$_j$	.43$_{h,i,j}$

Note. All values represent B. Bs with the same subscript differ significantly at the following p levels: a and b differ at $p < .05$; c, e, f, i, and j differ at $p < .01$; d, g, and h differ at $p < .001$.

instances in which sanctions exerted either main or moderating effects (supervisor-targeted, subordinate-targeted, and service-provider-targeted aggression), mistreatment did not exert a significant effect, contrary to Hypotheses 2a and 2b.

Despite the impact of sanctions, however, person factors still predicted aggression against several targets, indicating that there is a need for organizations to find additional strategies for reducing aggression. While it may be tempting to select employees with certain traits, this practice is questionable given the moderate magnitude of trait effects and its inappropriateness for use with customers (Barling et al., in press). Training employees to respond constructively to conflict might be a more appropriate strategy.

Certain limitations in the present study need to be addressed in future research. Like most research investigating predictors of workplace aggression (Barling et al., in press), the present data are based on self-reports, and mono-method bias may threaten the validity of the findings (although this threat may be minimal; Spector, 2006). Second, individuals' personal characteristics might impact on perceptions of sanctions and mistreatment. To address this, in future research it would be useful to obtain third-party measures of situational factors and enacted aggression (e.g., organizational records). Third, while interdependencies within these data ought to be addressed, doing so was beyond the ability of the current data: Only 11 participants reported conflict with all four targets, yielding a data set inappropriate for hierarchical linear modeling. Finally, the present data are correlational, and there remains a need for research that permits causal interpretations.

In conclusion, several findings are of conceptual and practical importance. First, the different patterns of predictors across the different targets emphasize the importance of accounting for target in future workplace aggression research. Second, these findings call for a more nuanced examination of predictors of aggression against different targets. Understanding the predictors of workplace aggression will arise from examinations of the characteristics of different workplace relationships, such as normative expectations, power differences, or permanence. Third, to our knowledge, this is the first study to examine psychosocial predictors of aggression against service providers, and we encourage future research to examine other possible predictors. Finally, the present findings highlight a possible preventive role of organizational sanctions.

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Appendix

Perceived Sanctions Scale Items

The items for the perceived sanctions scale were as follows:

    a. In this organization there would be negative consequences for someone who behaved in a physically aggressive or threatening manner towards ___. ('their supervisor'; 'their peer'; their subordinate; 'a service provider'.)

    b. In this organization there would be negative consequences for someone who behaved in a verbally aggressive or threatening manner towards _____.

    c. In this organization an individual would be sanctioned or reprimanded for behaving aggressively towards _____.

    d. In this organization, an individual could get away with being aggressive towards_____ (reverse scored).