RESEARCH REPORTS

Understanding Supervisor-Targeted Aggression: A Within-Person, Between-Jobs Design

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The authors investigated predictors of supervisor-targeted workplace aggression among 105 "moonlighters" (employed adults who work 2 jobs, each with a different supervisor), as a way of examining the relative role played by within-subject situational differences and between-subjects individual differences. Individual difference variables (self-esteem, history of aggression) explained a similar level of variance in aggression across both jobs, whereas situational factors (interactional injustice, abusive supervision) were job specific and explained proportionally more variance than did individual differences.

Keywords: aggression, workplace, moonlighters, situational characteristics, individual differences

Although aggression by employees against their work supervisors is by no means a new phenomenon, research examining the predictors of supervisor-targeted aggression has only emerged relatively recently (Barling, 1996). Much of this research (e.g., Folger & Baron, 1996; Tepper, 2000) has demonstrated the importance of employees' interpersonal treatment by their supervisors as a predictor of supervisor-targeted aggression. Although the majority of research on supervisor-targeted aggression has focused on the examination of the workplace experiences that predict aggression (e.g., Baron, Neuman, & Geddes, 1999; L. Greenberg & Barling, 1999; Neuman & Baron, 1998), recent research by Douglas and Martinko (2001) has examined the impact of individual difference factors on workplace aggression and suggests that these factors also have a significant role in the prediction of workplace aggression. As such, it is possible that supervisor-targeted aggression is not exclusively situation specific but may also depend on the employee's general behavioral tendencies.

Consistent with both lines of research, it seems reasonable to suggest that both employees' work experiences and personal characteristics are related to the likelihood of becoming aggressive toward their supervisors. However, workplace aggression research that solely examines either situational factors or individual difference factors ignores the potential impact of the other, providing

both an "unfair comparison" (Cooper & Richardson, 1986) of the relative impact of these factors on aggression and potentially exaggerating the predictive capacity of either situational factors or individual differences. A more comprehensive understanding of the prediction of workplace aggression requires that both situational factors and individual difference factors be investigated simultaneously.

A few studies have examined the impact of both situational factors and individual differences on workplace aggression. For instance, Baron et al. (1999) examined the influence of the situational factor of organizational injustice and the individual difference of Type A personality and found that both higher levels of perceived injustice and Type A personality increase the likelihood of workplace aggression. Another study by L. Greenberg and Barling (1999) looked at the interactions between various situational factors (e.g., surveillance, injustice) and individual differences (e.g., alcohol consumption) on workplace aggression. They found that procedural injustice interacted with history of aggression and alcohol consumption and that job security interacted with both history of aggression and alcohol consumption to predict aggression toward a subordinate.

We attempt to expand these findings on supervisor-targeted aggression in two ways. First, we provide an explicit test of the traditional assumption that supervisor-targeted aggression is situation-specific. Second, we simultaneously test the relative impact of situational factors and individual differences in predicting supervisor-directed aggression by examining these relationships among workers who hold two jobs at the same time and report to a different supervisor in each job.

Situational Factors and Workplace Aggression

An established practice in workplace aggression research is to examine the situational factors in the workplace that predict employee workplace aggression (e.g., Neuman & Baron, 1998; Robinson & O'Leary-Kelly, 1998). There is evidence that employee aggression tends to arise in work contexts in which employees

experience interpersonal mistreatment. Indeed, in a theoretical examination of the etiology of aggression, Anderson and Bushman (2002) suggested that interpersonal provocation is perhaps the single most important cause of human aggression. This notion is consistent with a central premise of social interaction theory, which suggests that aggressive behavior is purposive and goal-directed (Tedeschi & Felson, 1994). When the source of aggression is a work supervisor, the individual may be likely to target aggression toward that supervisor. However, not all research supports the notion that aggression is context-specific. Spillover effects occur when an individual is unable or unwilling to retaliate against the source of their frustration and opts instead to aggress against a more easily accessible or less threatening target, particularly one that resembles the source of the frustration (Marcus-Newhall, Pedersen, Carlson, & Miller, 2000). As a result, individuals who have been mistreated by a supervisor in one job may be more likely to aggress against their supervisor in another job.

Consistent with this, we address two specific factors in this study that have been found to be linked to supervisor-directed aggression, namely interactional injustice and abusive supervision. It is important to note that our focus is on the employees' perceptions of their supervisors' behaviors. Although it is reasonable to suggest that workplace aggression is an interpersonal process whereby employees may possibly act in ways that encourage this treatment by the supervisor, we focus specifically on aggression toward supervisors by employees in the present study, in an attempt to examine the perceptions that may elicit aggression.

Interpersonal Injustice

When employees believe that they have been treated unfairly, they may be motivated to reestablish a sense of fairness (J. Greenberg, 1993), and one strategy they may use to do this is aggressive retaliation (Aquino, Tripp, & Bies, 2001; Cropanzano & Folger, 1989; Folger & Baron, 1996). Employees assess organizational fairness on a number of dimensions (Cohen-Charash & Spector, 2001; Colquitt, Conlon, Wesson, Porter, & Ng, 2001). They make judgments about distributive justice (i.e., the fairness of the outcomes they receive; Homans, 1961), procedural justice (i.e., the fairness of the organization's formal procedures for dealing with employees; Folger & Greenberg, 1985), informational justice (i.e., the extent to which explanations for outcomes were reasonable and timely), and interactional justice (i.e., the extent to which employees perceive themselves to be treated with dignity in their interpersonal interactions, such as being treated with politeness and the absence of improper remarks or prejudicial statements; Colquitt, 2001). Although previous research suggests the salience of procedural injustice as a predictor of counterproductive behavior (Cohen-Charash & Spector, 2001), we chose to focus on interactional injustice for three reasons. First, this focus is consistent with findings on aggression that identify the importance of interactional provocation on aggression (Anderson & Bushman, 2002). Second, the experience of interactional injustice has been found to be strongly and consistently associated with supervisor-directed workplace aggression in past research (e.g., Baron et al., 1999; Dupré & Barling, 2001). Third, interactional injustice is arguably the most deeply personal type of injustice an employee may confront. Whereas other forms of injustice may be more systemic or apply more consistently across employees, interactional injus-

tice is uniquely interpersonal in nature (Cohen-Charash & Spector, 2001). Taken together, therefore, interactional injustice may be the most appropriate construct among the multiple dimensions of organizational injustice to understanding the etiology of workplace aggression.

Abusive Supervision

Abusive supervision is a further source of potential discontent among employees (Folger & Baron, 1996). Employees who experience abusive treatment by their supervisors may suffer a number of negative consequences, including negative thoughts and feelings (Ashforth, 1997; Frone, 1999; Keashly, Trott, & MacLean, 1994) and adverse health consequences (Duffy, Ganster, & Shaw, 1998). Research has long shown that one negative behavioral outcome of abusive supervision is employee aggression against the supervisor, carried out as a way of coping with the abuse (Day & Hamblin, 1964). Although both abusive supervision and interactional injustice are examples of supervisor mistreatment, interactional injustice relates specifically to the feeling or perception that the supervisors' treatment is unfair. In contrast, supervisory behaviors become abusive when they include a sustained display of hostile verbal and nonverbal behaviors (Tepper, 2000).

Individual Differences and Workplace Aggression

Research examining the impact of employees' personal characteristics on aggression suggests that some people have a greater propensity to act in aggressive ways than do others. We focus here on two individual differences that have been found to be strongly linked to aggressive behavior in prior research: an individual's history of aggression (e.g., L. Greenberg & Barling, 1999) and self-esteem (Oates & Forrest, 1985).

History of Aggression

There is evidence that individuals with a history of vicarious and personal aggression in their earlier development are more likely to behave aggressively in subsequent social situations, including marital and dating relationships (Anderson & Bushman, 2002; Huesmann, Moise-Titus, Podolski, & Eron, 2003; Makepeace, 1983; Malone, Tyree, & O'Leary, 1989; Riggs, O'Leary, & Breslin, 1990). In the organizational domain, L. Greenberg and Barling (1999) showed that a history of prior aggression moderates the relationship between adverse working conditions and workplace aggression. One possible explanation for the stability of aggression over time is provided by social learning theory (Bandura, 1979, 1982), which posits that individuals can learn vicariously that aggression is an appropriate response to interpersonal mistreatment, and the use of aggression then remains in the individuals' behavioral repertoire over time. This assertion is supported by research that suggests that an individual's tendency to be aggressive tends to be relatively stable across time (e.g., Huesmann, Eron, Lefkowitz, & Walder, 1984) and is an important predictor of subsequent acts of aggression (Riggs & O'Leary, 1989).

Self-Esteem

Another individual difference that has been associated with aggression is self-esteem. Although research has identified clear

links between self-esteem and aggression, the way in which self-esteem exerts its effects is less certain. A large body of literature suggests that people with relatively lower levels of self-esteem are at greater risk of behaving aggressively (Oates & Forrest, 1985) because people with low self-esteem may attempt to enhance their self-perception by denigrating or dominating others (Toch, 1993). Conversely, however, much compelling evidence exists to suggest that people with high self-esteem are at greater risk for aggressive or violent behavior because they are motivated to protect their self-perception and therefore are more sensitive to others' criticisms (Shrauger & Lund, 1975) or that they are likely to experience inconsistencies between their own and others' views of themselves and therefore become defensive (Bushman & Baumeister, 1998; Papps & O'Carroll, 1998). In the same vein, research suggests that aggression is most likely to be evoked when an individual's self-esteem is threatened, that is, when favorable self-perceptions are challenged by another person (Baumeister, Smart, & Boden, 1996). In an attempt to resolve these inconsistencies, one empirical study has suggested that any extreme form of self-esteem, whether intensely positive or negative, may encourage aggression (Papps & O'Carroll, 1998).

Summary and Hypotheses

There are two main purposes of the present study. First, we test whether supervisor-targeted aggression is situation-specific, that is, whether it is directed specifically at supervisors who are perceived to be abusive or unfair. Second, we examine the relative impact of situational factors and individual differences on supervisor-targeted aggression.

One way of investigating both the situational or target specificity of workplace aggression and the relative impact of situational factors and individual differences on aggression is with a research design that allows a simultaneous assessment of within-subject situational factors and between-subjects individual differences. Individuals who engage in "moonlighting" provide a robust naturalistic context in which to conduct this study. *Moonlighting* occurs when individuals hold a primary, or full-time, job and choose to seek secondary employment over and above their primary job. Moonlighters have two separate jobs in two separate organizations and work for two separate supervisors, enabling an assessment of the extent to which workplace aggression is predicted by concurrent, within-subject situation factors relative to between-subjects individual differences.

With this as background and consistent with existing research (e.g., Anderson & Bushman, 2002; L. Greenberg & Barling, 1999) described above, we predicted the following:

Hypothesis 1. Supervisor-targeted aggression is context-specific, that is, it will be more strongly predicted by primary job situational factors (interactional injustice and abusive supervision) than by secondary job situational factors.

Hypothesis 2A. Supervisor-targeted aggression in both the primary and secondary jobs will be predicted by history of aggression. Specifically, we expect that greater levels of personal history of aggression will be positively associated with supervisor-targeted aggression both in employee's primary and secondary jobs.

Hypothesis 2B. We also expect that supervisor-targeted aggression in both the primary and secondary jobs will be predicted by self-esteem. Specifically, greater levels of self-esteem will be positively associated with supervisor-targeted aggression both in employee's primary and secondary jobs

Hypothesis 3. Individual difference factors (history of aggression and self-esteem) will moderate the relationships between situational factors (interactional injustice and abusive supervision) and supervisor-directed aggression. Specifically, we expect that the relationships between interactional injustice and aggression and abusive supervision and aggression will be exacerbated at high levels of history of aggression and self-esteem.

Method

Participants and Procedure

Approximately 5%–6% of people in Canada and the United States moonlight, or hold more than one job simultaneously (Jamal, Baba, & Riviere, 1998; Stinson, 1997). Consequently, sampling such a group poses logistical challenges, and to access a sufficient number of moonlighters, we cast our net widely. Participants were recruited via a mass mailing of 3,000 questionnaires to nonfaculty staff and continuing education students at two Canadian universities. It was not known ahead of time whether any of these people held more than one job. However, given that only approximately 6% of the workforce holds a second job, we expected that distributing 3,000 questionnaires could potentially yield approximately 180 participants (i.e., 6% of 3000) if our response rate was perfect. From the 3,000 surveys we sent out, responses were received from 105 employees (78 women; 27 men) working in two jobs, with a different supervisor in each job. On this basis, we calculated an approximate response rate of 58.3% (i.e., 105 respondents from a plausible population of 180 moonlighters).

The average age of workers in this sample was 37 years ($SD = 2.5$ years) and the modal respondent had completed a "few years" of postsecondary education, with the range of education extended from completing some high school courses to completion of a doctoral degree. There were no significant differences between the characteristics of participants' primary and secondary places of employment with respect to the length of time employees had been working in each job, the length of time they intended to remain in each job, or their hourly income. However, as expected, employees reported working for a greater number of hours per week in their primary jobs than they did in their secondary jobs. Results of these comparisons can be seen in Table 1.

Study Measures

As a part of the mass mailing, participants received a package containing a questionnaire, letter of introduction, consent form, envelope in which to seal the consent form, and separate self-addressed stamped envelope for the questionnaire to be returned. As a token of appreciation, respondents were informed that there would be a drawing for five prizes, each valued at $50.00 (U.S. $40).

The questionnaire was divided into three main sections. In the first section, participants were asked a series of demographic questions, including their gender and age.

The second section asked participants about each of their workplaces. Participants were requested to think about their primary workplace first and to answer all of the subsequent questions with that workplace in mind. When all the questions regarding the primary place of employment were completed, participants were presented with an identical series of questions and scales but were asked this time to answer the questions with their

Table 1
Differences in Work Experiences Across Primary and Secondary Jobs

Variable	Primary job		Secondary job		Difference test
	M	*SD*	*M*	*SD*	
Hours worked on job	30.66	10.76	14.62	9.33	*t*(101) = 13.27**
Time at each job (years)	4.45	4.63	3.70	4.06	*t*(103) = 1.16
Years intend to remain at job	7.46	8.46	6.38	7.77	*t*(54) = 0.37
Hourly income (dollars)	18.78	11.45	18.21	14.35	*t*(90) = 0.51
Workplace aggression	2.20	4.42	1.32	3.22	*t*(103) = 1.82
Interactional injustice	2.74	1.22	2.45	1.21	*t*(101) = 1.65
Abusive supervision	1.43	0.70	1.31	0.59	*t*(102) = 1.37

** $p < .01$

secondary job in mind. To avoid confusion, we presented the items pertaining to the primary place of employment on a different colored paper than that used for the identical items pertaining to the secondary place of employment, with a reminder of which job was being rated printed in bold across the top of each page. To begin, participants were asked to report the length of time they had been at that job, how much longer they intended to work at that job, the number of hours they worked per week, their hourly wage, and how long they had worked for their present employer. Following this, participants completed the scales of abusive supervision, interactional injustice, and workplace aggression with reference to the primary place of employment. Subsequently, participants completed the scales of abusive supervision, interactional injustice, and workplace aggression with reference to the secondary place of employment.

The third and final section of the questionnaire assessed the participants' personal characteristics with respect to their history of aggression and self-esteem. This section was separated from the preceding sections by instructions that informed the participant that the questions pertained to them personally (and not to their relationship to either of their supervisors) and was printed on a different color paper.

Workplace aggression. Workplace aggression was then assessed with the 25-item Guttman-type Workplace Aggression Scale (L. Greenberg & Barling, 1999), measuring the frequency with which respondents have engaged in a series of aggressive behaviors at work. Respondents report the number of times they engaged in each behavior over the past 12 months on a 6-point scale (0 = *never*, 6 = *more*). This scale assesses acts of aggression (15 items) and violence (10 items) in order of increasing severity. The aggression and violence items can be grouped into separate subscales, and this was done in the present study because there were no reports of violence, whereas there were reports of aggression. Therefore, the present study focuses on supervisor-targeted aggression rather than violence. As this is an index with items representing causal (rather than effect) indicators of workplace aggression (Bollen & Lennox, 1991) and a Guttman-type scale, traditional measures of internal consistency are not reported.

Interactional justice. Participants were then asked to respond to questions about their interpersonal experiences at work. The scale of interactional justice consists of 13 questions adapted from Donovan, Drasgow, and Munson (1998), designed to assess the extent to which employees feel that they are treated in a fair and dignified manner by their supervisor and organization. Unlike the original scale, in which participants indicated whether each of a series of events had occurred (0 = *no*, 1 = *not sure*, 3 = *yes*), for the purpose of the present study, participants rated their agreement on a 7-point Likert-type scale (1 = *strongly disagree*, 7 = *strongly agree*), in which high scores reflect a greater degree of perceived interactional injustice. The internal consistency reliability of this scale was high in the present sample ($\alpha = .91$ and $\alpha = .92$ for primary and secondary job, respectively).

Abusive supervision. Tepper's (2000) Abusive Supervision Scale examines the extent to which supervisors are perceived to attempt to harm the employee. This scale consists of 15 items, each rated on a 5-point Likert scale (1 = *I cannot remember him/her ever using this behavior with me*, 5 = *he or she uses this behavior very often with me*). High scores reflect abusive supervision. The internal consistency reliability was again high for both the primary and secondary job (both αs = .94).

History of aggressive behavior. A 12-item scale (Malone et al., 1989) was used to assess respondents' history of aggressive behavior. This scale assesses the frequency of engaging in a series of aggressive behaviors during and subsequent to high school. Participants are asked to indicate the frequency with which they engaged in each act of aggression against their family members and against others outside of their family during high school and following high school (1 = *Never*, 5 = *Very Frequently*, N/A = *Not Applicable*). Research suggests that these behavior patterns are predictive of aggression in subsequent years (Malone et al., 1989). High scores reflect high levels of a history of aggression, and in the present sample, the internal consistency reliability for this scale was high ($\alpha = .81$).

Self-esteem. Finally, the 10-item Rosenberg Self-Esteem Scale (Rosenberg, 1965) is designed to assess respondents' feelings and thoughts about their own perceived worth. Respondents are asked to rate the extent to which they agree with a series of 10 statements on a 5-point scale (1 = *strongly disagree*, 5 = *strongly agree*). The internal consistency reliability of this scale was high in the present sample ($\alpha = .86$).

Results

Means and standard deviations for all between-subjects variables are presented in Table 1. Mean levels of aggression for the moonlighting sample ($M = 2.20$, $SD = 4.42$, in the primary job; $M = 1.32$, $SD = 3.21$ in the secondary job) suggest relatively consistent levels of aggression relative to comparison populations of nonmoonlighting adults ($M = 2.06$, $SD = 9.29$; Dupré & Barling, 2003). Descriptive statistics and intercorrelations for all variables are presented in Table 2. From these data, we examined whether there was a relationship between participants' aggression in their primary and secondary jobs. Bivariate correlations revealed no significant relationship between workplace aggression across the two workplaces ($r = .15$, *ns*).

Given that the participants in the present study were asked to respond to a number of items twice, once for each of their workplaces, we attempted to recognize the nonindependence of the data through multilevel modeling (Raudenbush & Bryk, 2002). We specified that the overall data for participants constitute the higher level of analysis and that the data obtained for each of the participants' two workplaces constitute the lower level of analysis. This strategy allows for the examination of the effects of participants' overall (mean) scores on workplace aggression as well as the effects of participants' aggression scores for each of their two

Table 2
Descriptive Statistics and Intercorrelations of All Study Variables

Variable	1	2	3	4	5	6	7	8	9	10
1. Age	—									
2. Sex	.13	—								
3. Self-esteem	−.07	.05	—							
4. History of aggression	−.40**	−.04	.27*	—						
5. Injustice—primary	−.20*	−.20*	.05	.05	—					
6. Abusive supervision—primary	−.32**	−.27**	.07	.19	.65**	—				
7. Injustice—secondary	−.08	−.09	.08	.17	.15	−.06	—			
8. Abusive supervision—secondary	−.18	−.08	−.04	.16	.22*	.12	.59**	—		
9. Aggression—primary	−.25**	−.17	.20*	.20*	.52**	.71**	−.05	−.01	—	
10. Aggression—secondary	−.21*	−.15	−.01	.29*	.05	−.01	.46**	.52**	.15	—

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

workplaces. To estimate the effects of the individual's overall scores on aggression, we estimated a null multilevel random coefficient model. Variance components of this model were used to calculate intraclass correlation coefficients. The intraclass correlation coefficient for overall supervisor-targeted aggression was .16 and nonsignificant. This means that only 16% of the variance in the individual's aggression score depends on person-level effects.

As the effect of each participant's overall score was not significant, we opted to conduct separate multiple regression analyses to examine the impact of situation factors and individual differences on supervisor-targeted aggression in each job. Similar strategies were used in both multiple regression analyses. Specifically, in both multiple regression analyses, demographic variables that have been found in past research to impact on aggression (i.e., age and gender; Baron et al., 1999) were controlled on the first step. On the second step, situational experiences (interactional injustice and abusive supervision) from the secondary job were controlled. The individual-differences variables (history of aggression and self-esteem) were entered on the third step. Finally, situational experiences from the primary job, namely interactional injustice and abusive supervision, were entered on the fourth step.

As illustrated in Step 2 of Tables 3 and 4, in neither the primary ($\Delta R^2 = .01$, *ns*) nor secondary job ($\Delta R^2 = .02$, *ns*) did the situational experiences in the secondary job predict aggression in the primary job. This is consistent with the prediction of Hypothesis 1.

Primary Job

Results from the regression analyses predicting supervisor-directed aggression in the primary job appear in Table 3. After we controlled for the demographic factors and the situational variables from participants' secondary job, the situational factor of abusive supervision ($\beta = .65$, $p < .01$), but not of interactional injustice ($\beta = .09$, *ns*), significantly predicted supervisor directed aggression in the primary job. Neither the individuals' history of aggressive behavior ($\beta = .06$, *ns*) nor self-esteem ($\beta = −.12$, *ns*) predicted aggression in the primary job. Situational factors accounted for 55.4% of the variance in supervisor-targeted aggression; individual differences accounted for 14.2% of the variance in supervisor-targeted aggression in the primary job.

Secondary Job

Results from the regression analyses predicting supervisor-directed aggression in the secondary job appear in Table 4. As compared with the primary job, a slightly different pattern of results emerged with the secondary job. After we covaried the effects of the demographic variables as well as situation factors from the primary job, abusive supervision in the secondary job predicted aggression against the supervisor in the secondary job ($\beta = .37$, $p < .01$); however, interactional injustice in the secondary job ($\beta = .19$, *ns*) did not predict aggression in the secondary job. With respect to individual differences, history of aggression ($\beta = .19$, $p < .05$) predicted supervisor-targeted aggression in the secondary job; in contrast, self-esteem was not a significant predictor of aggression in the secondary job ($\beta = −.04$, *ns*). Work-

Table 3
Predicting Workplace Aggression in Primary Job

Step and predictor variable	Step 1	Step 2	Step 3	Step 4
Step 1				
Demographic variables				
Age	−.249*	−.256*	−.204	−.010
Gender	−.156	−.163	−.179	−.007
Step 2				
Secondary job workplace variables				
Interactional injustice		−.070	.110	.036
Abusive supervision		−.021	−.003	−.139
Step 3				
Individual differences				
Self-esteem			.172	−.124
History of aggression			.085	.064
Step 4				
Primary job workplace predictors				
Interactional injustice				.096
Abusive supervision				.647***
ΔR^2	.094	.007	.041	.413
Total R^2	.094	.101	.142	.555
ΔF	5.019**	0.370	2.207	42.132***
Significance of ΔF	.008	.692	.116	.000
Regression *df*	2	2	2	2
Residual *df*	97	95	93	91

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

Table 4
Predicting Workplace Aggression in Secondary Job

Step and predictor variable	Step 1	Step 2	Step 3	Step 4
Step 1				
Demographic variables				
Age	−.190	−.229*	−.117	−.088
Gender	−.129	−.155	−.158	−.126
Step 2				
Secondary job				
workplace variables				
Interactional injustice		.126	.174	.024
Abusive supervision		−.219	−.262	−.126
Step 3				
Individual differences				
Self-esteem			−.067	−.040
History of aggression			.290**	.192*
Step 4				
Primary job workplace				
predictors				
Interactional injustice				.188
Abusive supervision				.374***
ΔR^2	.058	.023	.064	.227
Total R^2	.058	.081	.145	.372***
ΔF	2.967	1.201	3.499*	16.458***
Significance of ΔF	.056	.305	.034	.000
Regression df	2	2	2	2
Residual df	97	95	93	91

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

place characteristics accounted for 37.2% of the variance in aggression in the secondary job; individual differences explained 14.5% of the variance in aggression in the secondary job.

The Impact of Situational and Individual Difference Variables

To further examine the claims that situational variables contribute more variance to workplace aggression than do individual difference variables, we examined whether the multiple correlation squared change was significant at Steps 3 and 4 of the model, when individual difference and situational factors were entered into the regression, respectively. In the primary place of employment, the addition of the individual difference factors to the model did not contribute a significantly greater portion of the variance in aggression in the primary job ($\Delta R^2 = .04$, *ns*). However, the addition of the situational factors did contribute a significantly greater portion of the variance in aggression in the primary job ($\Delta R^2 = .41$, $p < .01$). In the secondary place of employment, the addition of both the situational ($\Delta R^2 = .06$, $p < .05$) and individual difference ($\Delta R^2 = .23$, $p < .01$) factors to the model contributed a significantly greater portion of the variance in aggression in the primary job.

In partial support of Hypothesis 2A, history of aggression predicted supervisor targeted aggression only in the secondary job. In contrast, Hypothesis 2B was not supported: Self-esteem did not predict supervisor targeted aggression in either job.

Situation Factors × Individual Difference Interactions

Although self-esteem was not a significant predictor of supervisor-targeted aggression in either the primary or secondary job, and history of aggression only predicted aggression in the secondary job, the possibility existed that these individual difference variables may have moderated the effects of workplace experiences on supervisor-directed aggression. This necessitated computing four different analyses, two for each of the situational factors (abusive supervision and interactional injustice) in each of the primary and secondary jobs. To this end, we entered the four demographic variables in the first step and the relevant situational factor and individual difference variable on the second step, and we entered their interaction on the third step. Higher-order variables were entered in deviation-score form to minimize multicollinearity and maximize interpretability (Aiken & West, 1991).

In the primary place of employment, history of aggression moderated the effects of neither situational factor on supervisor-directed aggression (abusive supervision: $\Delta F = 0.01$, *ns*; interactional injustice: $\Delta F = 1.27$, *ns*). Similarly, self-esteem did not moderate the effects of either workplace experience on supervisor-directed aggression (abusive supervision: $\Delta F = 2.90$ *ns*; interactional injustice: $\Delta F = 0.61$, *ns*).

In the secondary place of employment, history of aggression moderated the effects of both situational factors on aggression (abusive supervision: $\Delta F = 15.22$, $p < .01$; interactional injustice: $\Delta F = 9.02$, $p < .01$). When history of aggression was high, abusive supervision and interactional injustice were strongly associated with workplace aggression. In contrast, when history of aggression was low, both interactional injustice and aggression and abusive supervision and aggression showed a positive but much weaker relationship. However, in the secondary place of employment, self-esteem failed to moderate the effects of interactional injustice ($\Delta F = 1.27$, *ns*) or abusive supervision ($\Delta F = 9.91$, *ns*) on aggression.

Hypothesis 3, therefore, was partially supported. History of aggression, but not self-esteem, moderated the impact of the situational factors on aggression, but only in the primary place of employment.

Discussion

Previous research on supervisor-targeted aggression has largely examined separately the role of situational factors and individual differences in predicting of workplace aggression. The aim of this study was to advance prior research in two main ways. In the first instance, we sought to test the situational specificity of workplace aggression. Consistent support emerged across two of our findings to suggest that aggression against a supervisor was situation specific: There was no significant zero-order correlation between workplace aggression in the primary and secondary jobs. Perhaps more important, situational factors in each job predicted aggression within jobs but did not predict aggression across jobs. These findings extend prior research by addressing the question of whether situational factors in the context of one job can influence employee behavior in another job. It appears that employees' aggressive behavior is contingent on the quality of their experiences in that particular workplace, rather than experiences outside of that workplace.

Two possible explanations for differences between the primary and secondary job factors may be suggested. First, research on strong versus weak situations may suggest that a secondary job constitutes a weaker situation than a primary job, and as such,

there may be a greater likelihood that one's individual differences will be expressed. For example, Beaty, Cleveland, and Murphy (2001) have shown that the impact of individual differences on intention to behave differed between strong and weak situations. Only in weaker situations did individual differences play a role in behavioral intentions. In the present study, the finding that situational factors exert a greater effect in the primary than in the secondary job provides preliminary empirical support for the notion that the primary job represents a stronger situation than does the secondary job. Taken together with the findings from the present study that (a) workplace aggression in the primary job was more closely associated with negative work experiences and (b) both situational and individual characteristics played a role in aggression in the secondary job, future research might benefit from a greater focus on the subjective salience of the job as a moderator of the relationship between workplace experiences and supervisor-targeted aggression. Indeed, despite the differential effects of situational and individual difference factors on aggression, it is notable that the individual difference factors exerted a consistent but relatively low-level effect on aggression across contexts, whereas the more salient situational experiences exerted context-specific effects.

The second plausible explanation resides in the reasons for the participant holding each job. Although there are different motivations for working, including financial responsibilities, personal fulfillment, and purely normative reasons, people primarily take on a second job for financial reasons (Amirault, 1997). Research suggests that when people express strong financial reasons for taking a particular job, the relationship between negative treatment by a work supervisor and supervisor-targeted aggression is exacerbated (Dupré, Inness, Connelly, Barling, & Hoption, 2002). People working for financial reasons, or who are working in a job for reasons other than personal fulfillment, may feel that they do not have the option of exiting their job, may feel the need to try to resolve problematic situations with their supervisors, and may view aggression against their supervisors as one way of resolving the problem.

We suggest that the results from both the primary and the secondary jobs may have important implications for organizational interventions. Within-company attempts to reduce workplace aggression seem to focus on ensuring that potentially aggressive individuals are excluded from the workplace (see Braverman, 1999). Yet, situational factors accounted for more variance in aggression than did individual differences in both the primary and secondary jobs. On the basis of these results, preventive efforts within organizations might instead focus on reducing inappropriate situational factors rather than exclusively focusing on profiles of individual differences.

For any comparison between situational and individual variables to be meaningful, it is critical that a "fair comparison" (Cooper & Richardson, 1986) be conducted. A fair test of the joint effects of situational and individual difference requires that (a) the same number of potential predictors are operationalized to assess situational factors and individual differences, (b) they are measured with equal fidelity, and (c) they are of equal conceptual importance. We fulfilled the first criterion by comparing the same number of situational factors and individual differences. The second criterion was met, as all four predictor variables had high internal consistencies (all αs > .80). The third criterion is satisfied

because both interactional injustice (e.g., Folger & Baron, 1996; Skarlicki & Folger, 1997) and abusive supervision (e.g., Tepper, 2000; Tepper, Duffy, & Shaw, 2001) have attracted considerable empirical attention. Likewise, both self-esteem (D'Zurilla, Chang, & Sanna, 2003; Miyamoto et al., 2000) and one's history of aggression (L. Greenberg & Barling, 1999; Malone et al., 1989) have been studied as predictors of aggression. Thus, we suggest that a fair comparison of the relative effects of two situational factors and two individual differences on workplace aggression has been conducted.

Another notable point about the present study is that we recognize that there are some employees who may behave aggressively even to a nonabusive supervisor. In some cases, employee aggression may be the result of other, more instrumental motivations. However, the present study examines employee aggression in the context of their interpersonal experiences with their supervisor, perhaps encouraging a focus on reactive aggression, whereas we did not examine more instrumental motives for aggression. However, as our findings suggest, employee's perceptions of their supervisor's treatment of them plays an important role in employee aggression. Although we have not examined all motivations for employee aggression, the results suggest that interpersonal treatment plays a clear role and that abusive, provocative behavior may be exchanged between supervisors and employees.

As with any research, there are certain limitations to this study that should be addressed in future research. First, the nature of the sample warrants attention. In particular, women were overrepresented in our sample. However, the characteristics of our sample parallel characteristics of moonlighters in general, who are somewhat more likely to be women (Amirault, 1997). In addition, although men are generally more likely to respond aggressively than are women (Anderson & Bushman, 2002), women may respond more strongly to interactional mistreatment than may men (Kruttschnitt, 1994). As such, we did not expect that gender would play a very strong role in aggression in the present study. Nevertheless, given research that suggests that there are gender differences in aggression, we controlled for gender in our analyses as a means of minimizing the possibility of gender differences.

Second, all data in the present study are self-reported. However, given the importance of the individual's perceptions on his or her decision to become aggressive, this is a typical method of data collection in research on workplace aggression (e.g., see L. Greenberg & Barling, 1999; Schat & Kelloway, 2003). In terms of verifying whether the respondent had engaged in aggressive or violent behavior, we expect that if there were any discrepancies between the respondent's actual and self-reported behavior, it would be more likely that the individual would underreport rather than overreport aggressive behavior. As such, we believe that, if anything, our results may be conservative estimates of the relationships between the individual's experiences and aggression. Finally, the nonstratified nature of our sample may limit the generalizability of our findings. Nevertheless, although we may expect that spillover effects are particularly applicable to moonlighters, there is little conceptual or empirical reason to expect that situational factors or individual difference factors have a unique impact on moonlighters.

In conclusion, we have extended prior research by demonstrating (a) that an employee's aggression toward a supervisor is situation specific; (b) that both situational factors and individual

differences influence the likelihood of workplace aggression, although situational factors have a substantially stronger influence; and (c) that individual differences (history of aggression) exacerbated the relationship in the primary job between abusive supervision and interactional injustice, on the one hand, and workplace aggression, on the other. In doing so, we also present a methodology that may be useful in contrasting cross-situational consistency and individual differences (e.g., on research on occupational injuries or absenteeism). Finally, we suggest that relationships among constructs may be different for secondary jobs, as compared to primary jobs, and this is important given that most research in the area of workplace aggression is based on individuals' primary or sole place of employment and may not necessarily generalize to different forms of employment. Although these findings await replication with longitudinal data and different samples, they are important because they illustrate the relative roles of situational factors and individual differences in predicting one form of workplace aggression.

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