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The Development and Initial Validation of the
Organizational Revenge Scale

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Abstract

Although various typologies and models exist for categorizing aggressive behaviors in organizations, no measure currently exists which assesses the construct of organizational revenge. The primary purpose of the present research was to develop and provide preliminary validation for the Organizational Revenge Scale (ORS). Undergraduates ($N = 353$) completed the ORS, Vengeance Scale (VS), Interpersonal Jealousy Scale (IJS), and a forgiveness measure, the Transgression-Related Interpersonal Motivations Inventory (TRIM). The results indicated that the ORS demonstrated a satisfactory level of internal consistency ($\alpha = .96$), and evidence of construct validity was supported by significant correlations with the VS, IJS, and TRIM. A factor analysis performed on the ORS offered preliminary support for three factors indicating that organizational revenge may be a multidimensional construct. The use of the ORS to assess individual differences in the endorsement of specific acts of revenge resulting from organizational trust violations is discussed.

Development and Initial Validation of the Organizational Revenge Scale

Increasing numbers of aggressive and violent acts in the workplace continue to be reported. For instance, the National Crime Victimization Survey (Bureau of Justice Statistics, 1998) indicated that each year between 1992 and 1996 more than two million people reported being the victim of violent crime at work or on duty such as homicide, rape, robbery, and aggravated assault. A survey conducted by the Northwestern National Life Insurance Company (Bulatao & VandenBos, 1996) in July 1993 found that two million Americans were the victims of physical attacks, six million were threatened, and 16 million were harassed at the workplace during the past year. Bulatao and VandenBos (1996) have discussed that workplace assault victims report crimes less if they have a relationship with the offender, therefore, statistics of nonfatal workplace violence may be substantially understated and underreported to authorities.

Possibly even more alarming are the number of homicide victims reported killed by disgruntled employees. The Bureau of Labor Statistics (1996) reported that in 1995 88 workplace homicide victims were killed by a current or former work associate, almost double the number from 1994. Cases of workplace homicides by former employees have received attention in the popular press. For instance, Hackett and Lerner (1987) reported that a former employee fired a month earlier boarded a flight and shot his former supervisor to death, then the pilots, and ultimately killed all 43 on board. Recent cases of workplace shootings by former employees have also been reported. In April 1998 a disgruntled federal employee shot and killed his supervisor and a union representative (Merl & Corwin, 1998). On November 2, 1999 it was reported that an employee of Xerox shot seven co-workers to death (Arnett & Booth, 1999). On December 31, 1999 a hotel employee shot four of his co-workers to death ("Florida Gunman," 1999). On

January 11, 2000 a cushionmaker, who had been fired that day, returned to the store and shot and killed his supervisor and a co-worker ("Fired employee," 2000). Unfortunately, many more reports of homicides and nonfatal injuries caused by co-workers can be found by searching national and international newspapers and magazines.

Employee fear of workplace homicides or violence has also been reported in the popular press. For example, Jarman (1999) reported that in a survey of Fortune 1,000 companies workplace violence was reported as the most important security threat. In an interview with a receptionist of a manufacturing firm, Sixel (1999) reported that the fear of workplace shootings is something that the receptionist and her co-workers talk about frequently. Sixel also interviewed the president of a company, which specializes in managing high risk behavior. It was reported that although workplace violence is a concern of employees, businesses have not done enough to prevent it.

Much research on workplace aggression has investigated the organizational role in triggering violence and deviance to norms as well as the role that individual differences play in the occurrence of aggressive acts (Barling, 1996; Baxter & Margavio, 1996; Bensimon, 1994; Beugre, 1998; Capozzoli & McVey, 1996; Hurrell, Worthington, Driscoll, 1996; Johnson & Indvik, 1994; Klein, Leong, Silva, 1996; Pearson, 1998; Smith, 1993). Researchers have also investigated aggressive behaviors in the workplace as acts of revenge or retaliation (e.g., sabotage, theft, turnover, interpersonal violence), which occur due to a perceived violation of trust or in response to a perceived organizational injustice (Bies & Tripp, 1996; Bies, Tripp, & Kramer, 1997; Folger & Cropanzano, 1998; Greenberg, 1990, 1993, 1997; Morrison, 1997; Robinson & Bennett, 1997; Robinson & Rousseau, 1994; Skarlicki & Folger, 1997; Skarlicki, Folger, & Tesluk, 1999; Wanberg, Bunce & Gavin, 1999). Although various theoretical models

and typologies exist for categorizing aggressive behaviors in organizations, limited work has been performed to assess an individual's tendency toward organizational revenge. Rather, research has focused on the antecedents, consequences, and measurement of related constructs (e.g., anger, aggression, hostility). Consequently, the purpose of the present study was to develop the Organizational Revenge Scale (ORS).

Typologies of Aggressive Behaviors

Folger and Baron (1996) proposed a model of workplace aggression that examined the interaction of individual differences and different workplace situations. The authors explained that an employee who explodes violently and shoots his supervisor or coworker is like the "first kernel of popcorn to explode" (p.62). Individuals that act violently may all look similar like popped kernels, however, individual differences for the capacity for aggression contribute to the aggressive or violent behavior. This model also asserted that the environment, such as the various conditions existing in the workplace, plays a role as the oil in respect to kernels. The authors explained that as the temperature of the oil is turned up, more kernels are likely to pop. The authors stressed that employees in the current workforce are feeling the heat from downsizing, layoffs, freezes, cutbacks in wages and benefits, increased use of outsourcing, and increasing diversity. Furthermore, the authors illustrated that layoffs, disciplinary actions, or dismissals do not provoke violence by themselves. "Rather, a strong desire for vengeance is spawned by the wounded pride and loss of face that occurs when such actions are conducted in a demeaning manner" (p. 64).

Folger and Baron (1996) studied workplace aggression in the framework as reactions to perceived unfairness. The authors asserted that "feeling treated unfairly, especially in certain

ways, may play a powerful role in the occurrence of many forms of workplace aggression, including workplace violence” (p. 57). The authors described workplace aggression as

any form of behavior by individuals that is intended to harm current or previous coworkers or their organization. Thus, our definition includes instances of workplace violence but also encompasses many other forms of aggression, everything from spreading negative rumors about target individuals or their proteges, through withholding information or resources needed by targets or even purposely failing to return phone calls from them. (p. 52)

The authors explained that people can express aggressive actions in many different ways. They modified Buss’s (1961) model of interpersonal forms of aggression to explain the following different dimensions of aggressive actions in the workplace: physical and verbal, active and passive, and direct and indirect.

Folger and Baron (1996) classified physical aggressive acts in the workplace as direct, active behaviors (e.g., homicide, assault), and direct, passive behaviors (e.g., refusing to provide needed resources, leaving the area when the target enters). Also, physical aggressive acts were classified as indirect, active behaviors (e.g., theft, sabotage, hiding needed resources) as well as indirect, passive, behaviors (e.g., showing up late for meetings, failure to protect targets welfare, delaying work that makes the target look bad). Verbal aggression in the workplace was also classified as active, direct behaviors (e.g., threats, yelling, unfair performance evaluation) and passive, direct behaviors (e.g., failure to return phone calls, giving target the silent treatment). Also, verbal aggression was comprised of active, indirect behaviors (e.g., spreading rumors, whistle-blowing, talking behind target's back) and passive, indirect behaviors (e.g., failure to transmit information, failure to deny false rumors).

Other models to study the different forms of aggression have recently been developed that also categorize aggressive behaviors as passive/active, direct/indirect, and physical/verbal (Allcorn, 1994; Baron & Neuman, 1996; Buss, 1961; Keashley, Trott, & Maclean, 1994; Neuman & Baron, 1997). For example, Robinson and Bennett (1995) in creating their model of workplace deviance explained that employees are motivated to engage in behaviors that are against the norms of the organization either to restore equity or to express feelings of outrage, anger, frustration, or revenge. The authors created a typology of deviant behaviors ranging from minor to serious acts of production deviance (e.g., leaving early, intentionally working slow), property deviance (e.g., sabotaging equipment, stealing), political deviance (e.g., blaming coworkers, showing favoritism), and personal aggression (e.g., sexual harassment, verbal abuse).

Keashly et al. (1994) also found a range of behaviors in response to negative workplace events. The authors conducted a study with 59 students and asked them how they responded to specific positive and negative events that might have occurred to them at their place of work within the 12-month period. Positive events consisted of such events as being praised for accomplishments, given credit for initiative, and being rewarded as a good employee. Negative or hostile events consisted of such events as being sworn at, blamed for other's errors, and given the silent treatment. The authors found that 14 percent of the participants experienced abusive events and that the greater or more frequent the event, the less satisfied the participants were toward their work on the job, supervisors, co-workers, and job in general.

The participants responded to negative workplace events with a range of active, passive, direct, and indirect behaviors (Keashly et al., 1994). The behaviors consisted of actions such as ignoring the event, avoiding the person who caused the negative event, threatening the person who caused the hostile situation to tell others what happened, leaving the organization, taking

sick days, and behaving extra nice to the person who caused the hostile event. This study has found that many people experience abusive or violent situations in the workplace, and indicated that people may respond to these hostile situations with aggressive behaviors as defined by Folger and Baron (1996).

Organizational Justice

Bies and Tripp (1996) found that individuals contemplate revenge and respond aggressively when issues of social and organizational trust are violated. Folger and Baron (1996) explained that under certain conditions, individuals perceive that they have been treated unfairly. When other circumstances also prevail (e.g., when individuals have certain personal characteristics that predispose them to attribute malevolence to others, when they believe that the treatment they have received violates widely accepted norms of fairness or 'fair play,' and when they readily can imagine much better outcomes for themselves that are consistent with such principles), these feelings may translate into strong resentment and a powerful desire for revenge. (p. 61)

The authors explained that if certain outcomes of perceived unfairness such as layoffs and firings are not handled appropriately, then they "can become grounds for resentment depending on whether management impropriety seems to have been involved" (p. 72). If employees feel that they have been treated unfairly by a more powerful source such as their supervisor, then they may resort to using indirect and covert forms of retaliation. The authors suggested that when a violent act does occur from a vengeful employee that it may be the "tip of the iceberg" (p. 66).

Employee judgements about fairness and their behaviors associated with these perceptions have been researched according to the following three dimensions: distributive justice, procedural justice, and interactional justice. Distributive justice is defined as the perceived

fairness in outcome distributions or allocations that an individual receives, or the fairness of the ends achieved (Folger & Cropanzano, 1998; Greenberg, 1990). Procedural justice is defined as the perceived fairness of the process by which an allocation decision was made, or the means used to achieve the ends (Folger & Cropanzano, 1998; Greenberg, 1990). Interactional justice has been defined as the quality of interpersonal treatment received by an individual (Folger & Cropanzano, 1998).

Adams (1965) explained that a perception of inequity would cause tension within the person making the comparisons, and that this tension would be proportional to the magnitude of inequity. The person would then be motivated to eliminate or reduce this tension. Adams identified anger as a response to a perception of disadvantageous inequity (e.g., underpayment). Folger and Cropanzano (1998) explained that anger caused by inequity can manifest itself in a desire for revenge, retaliation, and punishment toward a social target (e.g., another person, the organization). The target of this anger is perceived as being accountable for the injustice and unfair treatment, and expressing reproach or seeking revenge may seem justifiable.

Perceptions in procedural and interactional justice may moderate the intensity of the hostility toward the target and may displace the blame. For example, Greenberg (1993) conducted a study based on equity theory that investigated the role of distributive, procedural, and interactional justice on subjects' reactions to perceived inequities in pay. The results indicated that when subjects perceived an inequity in their pay they took more money than was allotted to them. The author discussed that "underpaid subjects perceived their stealing as being honest, but also completely fair and justifiable" (p. 97). The results also indicated that subjects took more pay than they were permitted most when the information available to them about the decrease in pay was perceived as not valid and when the sensitivity they received from the experimenters was

low. Conversely, theft occurred the least when the information source was perceived as valid, and the subjects perceived as being treated with sensitivity.

Parks (1997) also examined the impact of organizational justice on a person's propensity to commit acts of revenge or retaliation. The author explained that "the more unjust the perceived action, the more likely that retribution will take the form of harming the offender. Retribution for less unjust actions may take the form of withholding help to the offender" (p. 123). Parallel to Greenberg's (1993) results, Parks explained that distributive, procedural, and interactive justice play a moderating role on the intensity of retribution. If a perceived inequity has occurred, an employee might engage in a process of retributive recompense (e.g., theft, vandalism) in order to restore distributive justice. Procedural justice may be restored by employing the use of impression management, and an interactional injustice will encourage retributive retaliation in order to restore self-identity and honor. Retributive retaliation may be expressed through aggression against the organization (e.g., production, political, or property) or through personal aggression.

It should be noted that the above researchers approach to explaining employees' reactions to organizational injustices stressed the importance of the context in which the situation occurred as well as the influence of individual personality factors. In assessing employees' retaliatory behaviors in relation to organizational injustices, Skarlicki and Folger (1997) expressed that "the exact form that retaliation takes may vary according to the nature of, among other things, the specific opportunities for retaliation available in a given context" (p. 439). The authors surveyed 240 manufacturing employees and found that organizational retaliatory behavior (adverse reactions to perceived unfairness by disgruntled employees toward their employer) was predicted by the three-way interaction among distributive, procedural, and interactional justice.

In a follow-up study, Skarlicki et al. (1999) surveyed 240 first-line employees of a manufacturing plant and found that when negative affectivity (NA) was high, the interaction of distributive and interactional justice was associated with greater retaliation. Further, organizational retaliatory behaviors were highest when negative affectivity was high and both distributive and interactional justice were low. The results suggested that personality variables moderated the relationship between fairness and retaliatory behaviors and that a behavioral model of retaliation should include the interaction between the two. Bradfield and Aquino (1999) also found that an employee's reaction of either revenge or forgiveness in response to an organizational injustice was directly influenced by the context of the situation.

Further evidence for the importance of understanding the context in which judgements of organizational justice are made was established by Lowe and Vodanovich (1995). The authors conducted a study of 138 university administrative and support personnel, who had experienced a restructuring of job classifications two months prior. The results indicated that employees' judgements of distributive and procedural justice varied over time. The authors proposed that the degree of temporal proximity to specific organizational events and the intensity of emotional reactions should be considered when investigating judgements of organizational justice.

Several researchers have found procedural and interactional justice to moderate the intensity of the injustice or cause of blame (e.g., Greenberg, 1993; Naumann, Bennett, Bies, & Martin, 1999). Bies and Tripp (1996) also discussed attributional processes to be a crucial element in the manifestation of revenge. Employees were reported to make attributions of responsibility regarding the perpetrator after the infliction of harm. If a personalistic attribution was made (e.g., selfishness of the perpetrator, malevolence of the perpetrator), then the revenge motive was made more salient. People were less likely to make a personalistic attribution if an explanation or

apology was given for the violation of trust. Also, if role expectations (e.g., the moral expectations of others in certain roles) are violated, then the people in these roles may be blamed for the harm and targeted for revenge. A third attribution was system responsibility where people held the organization responsible for hiring the perpetrator or failing to constrain the perpetrator.

Another facet of perceived injustices at work and their outcomes has been explored by Robinson and Rousseau (1994) in the terms of violations of psychological contracts. The authors defined the psychological contract as “beliefs in paid-for-promises or reciprocal obligations” and explained that a violation occurs when one party perceives an unfulfilled obligation by the other party in the relationship (p. 246). For example, “a person promised market wages in exchange for hard work who does not receive them feels wronged” (p. 247). The authors asserted that these broken promises produce anger and erode trust in the relationship. The authors described the violations of the psychological contract as a process that contains elements of unfulfilled promises that deprive employees of desired outcomes (distributive justice) and elements that affect the quality of treatment employees experience (procedural justice).

Robinson and Rousseau (1994) surveyed 128 MBA students, who had already accepted an offer of employment, regarding the formation of psychological contracts three weeks prior to their graduation and then again after two years. The questionnaires assessed respondents’ perceptions of their employer and the employment relationship and mutual obligations. The authors found that 54.8% of the subjects reported that their employer had violated their psychological contract. The results indicated that a violation of an employee’s psychological contract was significantly related to low scores on a measure of the employee’s trust in his or her employer and to low scores on a measure of employee satisfaction. The results also suggested that employees who left the company reported a greater degree of contract violation than those

who had not left their employer. The authors also reported different categories where violations occurred that spanned all areas of employment (e.g., training, compensation, promotion, nature of job, job security, feedback, management of change, responsibility).

Organizational Revenge Behaviors

Bies and Tripp (1996) studied employees' behaviors motivated by thoughts and emotions of revenge in response to situations where trust was perceived to be violated. The authors collected data from 90 MBA students of situations "on the job" where they felt that they wanted to seek revenge or "get even" with the person that had violated their trust. The authors found that the recounted situations could be classified into the following two categories: (a) situations that damaged a sense of 'civic order' (e.g., violation of formal rules, breach of contract, broken promises, abusive authority) or (b) those that damaged one's identity (e.g., public criticism, accused wrongly or unfairly, an insult to self or collective).

Bies and Tripp (1996) reported a range of behaviors in response to trust violations. The responses were organized into the following seven categories: 'revenge fantasies,' do nothing, private confrontation, identity restoration, social withdrawal, feuding, and forgiveness. The authors explained that most people reported revenge as a self-controlled response that manifested in a "cool and calculated" choice from a range of behaviors. The authors also reported that when people perceived that their identities were damaged by a perpetrator's actions that they responded more severely than the harm that was done to them.

Contrary to active forms of vengeance, Neuman and Baron (1997) suggested that an emphasis on the verbal, passive, and indirect forms of workplace aggression must be focused on in order to understand the bigger concept of workplace violence. For example, Skarlicki and Folger (1997) in their investigation of responses to workplace injustices (distributive, procedural, and

interactional) used subject matter experts to identify retaliatory behaviors according to the critical incident technique. The authors reported a range of retaliatory behaviors (e.g., direct and indirect behaviors) in response to perceived injustices (e.g., “spread rumors about coworkers,” “damaged equipment or work process”).

In a similar vein, Bies et al. (1997) discussed revenge in organizations as taking on many forms. The authors suggested that some forms of revenge might indicate a constructive and prosocial element (e.g., private confrontation, forgiveness). Mishra and Spreitzer (1998) also found a range of constructive and destructive behaviors in response to organizational downsizing, which were moderated by the amount of trust that employees reported for top management. Constructive behaviors consisted of optimism and commitment, while destructive behaviors consisted of anger, distrust, retaliation, cynicism, and withdrawal.

Existing Measures

Measures that have been developed to assess an individual’s propensity to commit violent acts include the violence subscale of the MMPI-2 (Hathaway & McKinley, 1991), Buss and Perry’s (1992) Aggression Questionnaire, Stuckless and Goranson’s Vengeance Scale (1992), and violent tendency subscales of honesty tests (e.g., London House’s PDI Employment Inventory (Murphy & Lee, 1994), the Personnel Selection Inventory (e.g., Murphy & Lee, 1994). The violence scale of the MMPI-2 is a subscale of a larger measure of personality. The Aggression Questionnaire contains items that may not be retaliatory or vengeful in nature, and the scale does not assess whether the person feels the need to ‘get even’ with an offender. The Vengeance Scale is designed to measure interpersonal vengeance. Shortcomings of this scale include its global assessment (i.e., no subscale) of vengeance and it does not provide a context for retaliatory behavior. Other related measures of violence and antisocial behavior include the

Conflict Tactics Scales (Schumm & Bagarozzi, 1989), the Antisocial Personality Questionnaire (Blackburn & Fawcett, 1999), the Novaco Anger Scale (Novaco, 1994), the Hostile Automatic Thoughts Scale (Snyder, Crowson, Houston, Kurylo, & Poirier, 1997), and the Risk of Eruptive Violence Scale (e.g., Mehrabian, 1997). These scales focus on dating and marital violence or on criminal populations.

Related measures include the Perceptions of Fair Interpersonal Treatment (PFIT) (Donovan, Drasgow, & Munson, 1998) and The Organizational Trust Inventory (OTI) (Cummings & Bromiley, 1996). The PFIT scale assesses employees' perceptions of the interpersonal treatment in their workplace. The OTI measures trust between units in organizations or between organizations.

Although various typologies and models exist for categorizing aggressive behaviors in organizations, no measure currently exists which assesses the construct of organizational revenge. According to Beugre (1998) in establishing a model of workplace aggression, "the development of further empirical studies on the antecedents and consequences of workplace aggression requires the development of an instrument to measure the concept" (p. 190). Also, O'Leary-Kelly, Griffin, and Glew (1996) in the development of their model of organization-motivated aggression (OMA) explained that "the most pressing research need relates to the measurement of OMA" (p. 246). The primary purpose of the present research was to develop and provide preliminary validation for the Organizational Revenge Scale. A critical element in the development of this scale was the use of different situations or scenarios, which described examples of organizational injustices or violations of trust, to provide a context for the endorsed behaviors.

An objective of the study was to examine the extent to which scores on existing instruments would correlate with scores on the ORS, thereby providing preliminary construct validity evidence. It was hypothesized that scores on the Vengeance Scale (VS; Stuckless & Goranson, 1992), the Interpersonal Jealousy Scale (IJS; Mathes & Severa, 1981), and a forgiveness measure, The Transgression-Related Interpersonal Motivations Inventory (TRIM; McCullough et al.'s 1998), would be significantly related to ORS scores.

Another objective of the research was to examine the psychometric properties (e.g., reliability, factor structure) of the ORS. The items were written to reflect one of the following categories of aggressive behaviors proposed by Folger and Baron (1996): a) physical indirect (e.g., “delaying work, making target look bad” and “showing up late for meetings”), b) physical direct (e.g., “homicide” and “intentional work slowdowns”), c) verbal indirect (e.g., “spreading rumors” and “failure to defend target”), d) verbal direct (e.g., “threats” and “insults and sarcasm”). Additional constructive items (e.g., “forgave the target” and “compromised with the target”) were added based on the organizational justice and trust literature. Although the items were written to reflect these conceptually distinct categories, an objective of the research was to determine if they were empirically different.

Finally, consistent with past research (e.g., Sommers & Vodanovich, in press; Stuckless & Goranson, 1992) it was hypothesized that younger individuals and males would have significantly higher ORS, VS, IJS, and TRIM scores.

Study 1

MethodParticipants

The sample consisted of undergraduate students ($N = 198$) recruited from an Introductory Psychology course at a public university in the southeastern United States. The average age of the sample was 19.4 years, and 63% of the participants were female.

Materials

Organizational Revenge Scale (ORS). Ten scenarios were written which depicted plausible situations of trust or justice violations by organizations (e.g., transgressions of distributive, procedural, and/or interactional justice). A group of Psychology masters students ($N = 10$) reviewed each scenario and provided feedback regarding the clarity, plausibility, and perceived degree of each violation. Based on this information, five scenarios were retained (see Appendix A).

Items ($N = 168$) were developed which depicted various reactions to the violations by the “victimized” employee to the trust violations described in the scenario. The items were written to reflect the range of revenge strategies individuals employed in response to organizational injustice. The items included aggressive behaviors as proposed by Folger and Baron (1996) and constructive behaviors (e.g., Bies and Tripp, 1996). Respondents were asked to endorse the degree of justification of each reaction (item) by the employee portrayed in the scenarios on a 7-point scale ranging from (1) “Extremely unjustified” to (7) “Extremely justified.”

Respondents were also asked to rate the severity of the scenarios. The first question asked the respondent to rate the fairness of the scenario on a 7-point scale ranging from (1) “Extremely unfair” to (7) “Extremely fair.” The second question asked the respondent to rate how angry the

person in the scenario was on a 7-point scale ranging from (1) “Not angry at all” to (7) “Extremely angry.”

Procedure

The participants were asked to complete the ORS, an informed consent sheet (see Appendix B), and a short demographic sheet (e.g., age, gender, race) (see Appendix C) during regular class periods. The students received extra credit for participating, and all their scores were kept anonymous.

Results

Organizational Revenge Scale items were primarily evaluated based on internal consistency statistics. Items that reduced the alpha of the total scale were eliminated. That is, items were removed from the scale if they possessed item by total score correlations that were either negative or exceedingly low (.20 or less) or high (.85 or greater). Redundant items across scenarios (those with inter-item correlations of .85 or greater) were also eliminated. Based on these criteria, a total of 82 items were removed from the ORS.

The revised ORS contained 86 items that were distributed into the five categories of aggressive behaviors in the following manner: a) physical indirect ($N = 14$), b) physical direct ($N = 14$), c) verbal indirect ($N = 21$), d) verbal direct ($N = 16$), and e) constructive ($N = 13$).

The means of the scenarios for the fairness ratings were the following: scenario 1, $M = 1.9$, scenario 2, $M = 1.46$, scenario 3, $M = 1.89$, scenario 4, $M = 1.98$, and scenario 5, $M = 2.06$. The means for the scenarios for the anger rating were the following: scenario 1, $M = 6.04$, scenario 2, $M = 6.36$, scenario 3, $M = 5.73$, scenario 4, $M = 5.74$, and scenario 5, $M = 5.62$. There were no significant differences between scenarios in either fairness or anger ratings.

Study 2

A second study was conducted to further assess the psychometric properties of the Organizational Revenge Scale. Specifically, the purpose of this study was to examine the construct validity of the ORS and further investigate the internal consistency of the overall scale and its possible "subscales."

Method

Participants

The sample consisted of undergraduate students ($N = 353$) recruited from an Introductory Psychology course at a public university in the southeastern United States. The average age of the sample was 25.04 and 71% of the participants were female.

Materials

Organizational Revenge Scale (ORS). Organizational revenge was measured using the revised 86-item ORS. Respondents were asked to endorse the level of justification of each reaction (item) by the employee in the scenarios on a 7-point scale ranging from (1) "Extremely unjustified" to (7) "Extremely justified."

Vengeance. Interpersonal vengeance was measured with Stuckless and Goranson's *Vengeance Scale* (VS; 1992). The measure consists of 20 self-report items (e.g., "I don't just get mad, I get even" and "Revenge is sweet") designed to evaluate respondents' attitudes toward revenge. Responses are made on a 7-point scale ranging from (1) "Disagree strongly" to (7) "Agree strongly." The authors reported satisfactory reliability estimates (alphas = .92) across two samples ($N = 402, 151$) as well as adequate test-retest reliability ($N = 85$; $r = .90$) across a five-week interval.

Validity evidence was offered by a significant negative correlation with the Empathy Scale ($r = -.38$), a significant positive correlation with Trait Anger ($r = .56$), and a nonsignificant correlation with the Marlowe-Crowne Social Desirability Scale. Further validation evidence is provided by Hutt, Iverson, Bass, and Gayton (1997) who found male responses on the Vengeance Scale to be significantly correlated with scores on the Macho Scale ($r = .25$), the Hypermasculinity Inventory ($r = .63$), and the Kindness Scale ($r = -.56$). Finally, Holbrook, White, and Hutt (1995) found that inmates reported significantly higher scores on the Vengeance Scale than samples of police officers and students.

Interpersonal Jealousy. Interpersonal jealousy was measured with the *Interpersonal Jealousy Scale* (IJS; Mathes & Severa, 1981). The scale consists of 28 items arranged on a 9-point scale ranging from (1) “Absolutely false; disagree completely” to (9) “Absolutely true; agree completely.” Respondents are asked to place the name of their current or past boyfriend or girlfriend in the blank of each item (e.g., “I feel possessive toward...” and “I like to find fault with ...’s old dates”). Respondents are then asked to use the scale to express their feelings concerning the truth of the item. The authors reported a satisfactory internal consistency reliability ($\alpha = .92$) for the scale.

Validity for the scale was demonstrated by significant positive correlations with Romantic Love ($r = .47$) and Liking ($r = .28$) scores. Additional validity evidence was furnished by Holtzworth-Munroe, Stuart, and Huthchison (1997) who found that violent husbands reported significantly higher scores on the IJS than nonviolent husbands.

Interpersonal Forgiveness. Interpersonal forgiveness was measured with McCullough et al.’s *Transgression-Related Interpersonal Motivations Inventory* (TRIM; 1998). The measure consists of 12 self-report items (e.g., “I’ll make him/her pay” and “I cut off the relationship with

him/her”) designed to evaluate respondents’ attitudes toward forgiveness. Responses are made on a 5-point scale ranging from (1) “Strongly disagree” to (7) “Strongly agree.” The authors’ scale measures the lack of forgiveness an individual may have toward an offender. The authors discussed that when an individual does not forgive an offender he/she may be motivated to exhibit destructive relationship behaviors such as avoid contact with the offender or seek revenge or harm to the offender.

The scale consisted of the following two subscales: Avoidance and Revenge. The authors reported an acceptable internal consistency reliability for the Avoidance subscale ($\alpha = .84$) and for the Revenge subscale ($\alpha = .92$). The authors also reported adequate test-retest reliabilities ($r = .86$; $r = .79$) across a three-week time frame and over a nine-week interval ($r = .64$; $r = .65$).

Validity for the subscales was demonstrated by significant negative correlations across two separate samples between Avoidance ($r = -.41$; $r = -.57$) and Revenge ($r = -.67$; $r = -.47$) with a single-item measure of forgiving.

Procedure

Each participant was given a packet that contained the revised Organizational Revenge Scale (see Appendix A), an informed consent sheet (see Appendix B), a short demographic sheet (e.g., race, age, gender) (see Appendix C), the Vengeance Scale (Stuckless & Goranson, 1992) (see Appendix D), the Interpersonal Jealousy Scale (Mathes & Severa, 1981) (see Appendix E), and the Transgression-Related Interpersonal Motivations Inventory (McCullough et al., 1998) (see Appendix F). The questionnaires were completed outside of class and returned to the principal investigator. The students were given extra credit for participating in the study. All responses

were kept anonymous, and the order of the scales was counterbalanced with the exception of the Organizational Revenge Scale, which was always completed first.

Results

Coefficient alphas were computed to estimate the reliability (internal consistency) of the overall 86-item ORS scale ($\alpha = .96$), VS ($\alpha = .92$), IJS ($\alpha = .85$), TRIM total score ($\alpha = .87$), Revenge subscale ($\alpha = .85$), and Avoidance subscale ($\alpha = .90$).

Correlations were computed between scores of all variables employed in the study (see Table 1). Significant correlations were found between the total ORS score and measures of vengeance, jealousy, and forgiveness. Significant correlations were also found for the five ORS "subscales" with measures of vengeance, jealousy, and forgiveness.

Predictors of Organizational Revenge

A hierarchical multiple regression analysis was performed to examine the degree to which the measures of vengeance, jealousy, and forgiveness predicted ORS total scores. Since age was significantly correlated with ORS total scores, age was treated as a control variable (entered first into the equation) in order to test the unique contributions of the various measures. That is, the Vengeance Scale (VS) total score, Interpersonal Jealousy Scale (IJS) total score, and the Avoidance and Revenge subscales of the Transgression-Related Interpersonal Motivations Inventory (TRIM) were entered as a block in the regression equation in step two.

As expected, age was found to be significantly related to ORS scores ($R = .23$). The results also indicated that the unique contribution of the four measures, considered as a block after age was entered, was a significant predictor of ORS scores ($R = .49$). Specifically, the Vengeance total score and the revenge subscale of the TRIM were significant predictors of scores on the ORS (see Table 2).

Factor Analysis

A factor analysis with an oblique rotation was performed on the ORS items. Five factors were requested in the analysis to verify if the ORS items would converge in the categories adopted from Folger and Baron (1996). The five factors accounted for a total of 47% of the variance in the ORS scores. The first three of these factors accounted for most of the variance (41%) with the fourth and fifth factor adding only 3% each. Although the eigenvalues associated with the factors all exceeded 1.0, the scree plot was analyzed to determine the number of factors to retain. It was decided that the fourth and fifth factor did not account for a significant portion of the variance. A follow-up factor analysis was computed that specified a 3-factor solution (see Table 3).

The first factor, "Illegitimate," consisted of items ($N = 53$) that represented the endorsement of both physical and verbal behaviors that were direct and indirect reactions, many of which were aggressive in nature (e.g., "Slapped the Vice President," "Gave Steve false information that ruined the results of one of his projects," "Verbally threatened management to change their benefits," "Yelled obscenities at Steve for transferring him to a different position"). Factor two included eight items that would generally be considered appropriate reactions to justice violations (e.g., "Told the press what happened," "Quit his job," "Participated in a strike against the organization") and was named "Legitimate." Factor three consisted of 11 items that reflected positive reactions to perceived injustice (e.g., "Make amends with Mr. Smith" and "Found ways to provide more support to the organization") and was labeled "Constructive."

Coefficient alphas were computed to estimate the reliability (internal consistency) of each factor. Reliability estimates of the three factors were: a) Illegitimate (.96), b) Legitimate (.76), and c) constructive (.88).

Discussion

The results of the present study offer preliminary support for the psychometric properties of the Organizational Revenge Scale and suggest that the ORS may be a useful tool to measure individual differences in retaliatory behaviors, particularly in response to perceived workplace injustice. Consistent with our hypothesis, scores on existing measures (i.e., Vengeance Scale total scores, Revenge subscale of the TRIM) were shown to be significant predictors of ORS scores, thereby providing initial evidence regarding the construct validity of the scale. Although the scales measure analogous constructs, it is important to note that the Vengeance Scale is a trait-like assessment of interpersonal vengeance. In contrast, the ORS includes a situational component, employing explicit, representative workplace scenarios to evoke revenge reactions. The significant association between the ORS and the Revenge subscale of the Transgression-Related Motivations Inventory (McCullough, et al., 1998), a measure of forgiveness, is consistent with the research of Bradfield and Aquino (1999). They reported that instances of workplace vengeance were significantly related to forgiveness strategies as well as blame attributions. Vengeance has also been found to be associated with higher levels of jealousy and low levels of forgiveness (Sommers & Vodanovich, in press).

As anticipated, age was a significant predictor of ORS scores, with younger individuals endorsing more vengeful and retaliatory behaviors. These results support previous research that found younger employees to engage in workplace aggression significantly more often than older employees (Baron, Neuman, & Geddes, 1999). Contrary to our expectations, males did not possess greater ORS total scores.

Tentative support was found for the multidimensional nature of the ORS. Three factors, rather than the projected five, emerged from the factor analysis. These factors partially reflect

past categorizations of aggressive behaviors. For instance, the “Illegitimate” factor contains a wide array of vengeful behaviors considered as inappropriate reactions within organizational settings. These types of behaviors are similar to aggressive behaviors reported by employees ($N = 452$) across several types of jobs (e.g., professional, sales, laborers) and organizations (e.g., public and private) who were asked to recall examples of workplace aggression, either as victims or perpetrators. All of these examples consisted of unacceptable behaviors which the authors categorized as either “overt” (e.g., “threats of physical violence”) or “covert” (e.g., “talking behind someone’s back/spreading false rumors”) (Baron et al., 1999). The second factor (Legitimate) is represented by aggressive-like reactions that are both legal and acceptable. These types of behaviors parallel possible revenge strategies that emerged from a content analysis of responses to trust violations (Bies and Tripp, 1996). For instance, the revenge behaviors of “Quit job” and “Litigation” overlap with the items “Quit his job,” “Participated in a strike against the organization,” and “Told the press what happened” found under the “Legitimate” factor in this study. The “Constructive” factor includes behaviors that are prosocial in nature and are aimed at restoring the damaged relationship between the employee and the organization or its representatives. This factor is congruent with research conducted by Bies and Tripp (1998) who also found positive reactions to perceived injustices such as “problem solve” and “negotiate resolutions to their situations” (p. 56).

Our analyses indicate the possible existence of three relatively distinct factors within the ORS. However, this finding is best considered as tentative particularly given the relatively large amount of variance accounted for by the first factor and the corresponding high number of items that loaded on this factor. Therefore, until more evidence is collected on the factor structure of the ORS, it may be beneficial to conceptualize the scale as a unitary construct with a high total

score indicating the endorsement of non-constructive, aggressive reactions to workplace injustice. It should be noted that since ORS items were selected primarily on their item-by-total-score correlations, firm evidence for distinct factors were somewhat unlikely to occur.

A rather unique aspect of the ORS is the embedding of items within specific workplace scenarios. Our goal was to assess individual differences in the endorsement of specific acts of revenge resulting from realistic and representative depictions of organizational trust violations (e.g., sudden layoffs, benefit reductions). To do so required the use of concrete examples of organizational injustice that would reasonably elicit such behaviors. This is in contrast to other instruments (e.g., the Vengeance Scale) that ask individuals how they generally think, feel, or act regarding revenge (e.g., "I just don't get mad, I get even).

It should also be noted that although the scenarios were developed to reflect situations of organizational injustice, the potential effects of individual types of justice violations (e.g., distributive, procedural, interactional) were not analyzed. Perhaps future research could directly investigate the moderating role that specific forms of organizational justice violations may play in an individual's propensity to commit (or endorse) acts of revenge. This appears to be especially important given recent research on the moderating role of various types of perceived justice transgressions and organizational commitment (e.g., Naumann, Bennett, Bies, & Martin, 1999), participation-satisfaction (e.g., Roberson, Moye, & Locke, 1999), the relationship between outcome negativity and individuals' reactions (e.g., Brockner, Konovsky, Cooper-Schneider, & Folger, 1994), perceived fairness of layoffs (e.g., Wanberg, Bunce, & Gavin, 1999), and workplace aggression (e.g., Baron et al., 1999; Greenberg & Alge, 1998).

One shortcoming of the present study is that the ORS was developed using a sample of undergraduate psychology students. It is important for future research to further examine the

psychometric properties (e.g., reliability, validity, and factor structure) of the scale within diverse, employee populations. Also, participants in this research were also asked to endorse the behaviors of fictitious characters. This approach was adopted to encourage the endorsement of a wide range of vengeful behaviors (less defensiveness) while still yielding information as to how individual respondents might react in certain organizational situations. However, future research may want to employ the procedure of directly asking participants how they would respond to certain workplace situations.

Carraher and Michael (1999) discussed the implications and utility of using the Vengeance Scale and a biographical inventory as a tool in selection. In this regard, it may be advantageous for subsequent research to focus on the application of the ORS in organizational settings. In particular, it seems appropriate to investigate the adequacy of the ORS to identify individuals with a propensity to commit acts of violence in the workplace. Given the frequency and severity of organizational violence, the need to develop a tool that organizations can employ in this manner appears to be crucial. Perhaps the development of the ORS will stimulate research aimed at understanding and predicting the different dimensions of retaliatory behaviors that occur within organizations and ultimately reduce the number of violent acts that are committed.

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Table 1

Intercorrelations Among Demographic Variables, Organizational Revenge, Vengeance, Jealousy, and Forgiveness

Measures	1	2	3	4	5	6	7	8	9	10	11	12	13	14
(N = 353)														
Organizational Revenge														
1. ORS total score		.89***	.89***	.92***	.90***	.51***	.45***	.17***	.27***	.09	.40***	-.24**	-.08	.03
2. Physical Indirect Subscale			.83***	.81***	.76***	.27***	.42***	.11*	.18**	.02	.32***	-.16**	-.03	.03
3. Physical Direct Subscale				.84***	.83***	.35***	.48***	.11*	.18**	-.00	.35***	-.15**	-.14**	.10
4. Verbal Indirect Subscale					.85***	.30***	.47***	.20***	.31***	.12*	.43***	-.22***	-.04	.06
5. Verbal Direct Subscale						.33***	.47***	.17**	.28***	.10	.41***	-.19***	-.11*	.07
6. Constructive Subscale							.28***	.01	.04	-.05	.15**	.10	-.04	.14**
Vengeance														
7. Vengeance total score								.22***	.36***	.03	.64***	-.26***	-.16**	.08
Jealousy														
8. IJS total score									.21***	.13*	.23***	-.20***	.07	.04
Forgiveness														
9. TRIM total score										.87***	.74***	-.09	.05	-.03
10. Avoidance Subscale											.31***	-.01	.15**	-.06
11. Revenge Subscale												-.16**	-.10	.03
Demographic Variables														
12. Age													.03	.02
13. Gender														.03
14. Race														

Note. ORS = Organizational Revenge Scale; IJS = Interpersonal Jealousy Scale; TRIM = Transgression-Related Interpersonal Motivations Inventory.

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

Table 2

The Effect of Age, and Scores on the Vengeance and Revenge Subscale in the Prediction of Scores on the Organizational Revenge Scale.

Statistic	Predictors				
	Age	Vengeance	Jealousy	Avoidance subscale	Revenge subscale
Main effects					
B	-1.31	.70	.08	.08	1.79
SE B	.30	.15	.08	.40	.72
Beta	-.23	.30	.05	.01	.17
t	-4.37***	4.54***	.94	.20	2.84*

Note. SE = Standard error.

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

Table 3

Oblique Factor Loadings for Organizational Revenge Dimensions

		Oblique Factor Loadings		
Item		1	2	3
ABC 1	Participated in not fixing errors in the work produced so that customers would be unsatisfied in order to get back at the company.	.65	-.04	-.09
ABC 2	Verbally threatened management to change their benefits.	.59	-.04	-.09
ABC 3	Participated in vandalizing some company property because of the loss of benefits.	.70	-.34	-.13
ABC 5	Participated in stealing products from the organization to make up for the loss of benefits.	.75	-.30	-.21
ABC 6	Told competitors some trade secrets about Creations Plus production because of the loss of benefits.	.64	-.05	-.18
ABC 7	Gave management obscene gestures during plant meetings.	.69	-.16	-.11
ABC 8	Participated in slowing production so that the company would lose money to get back at the company for the loss of benefits.	.66	.02	-.11
ABC 9	Called in sick on the same day.	.55	.20	.02
ABC 12	Talked about spreading lies about the company so that the company would lose money.	.70	-.14	-.17
ABC 14	Planned to get even with the company for drastically reducing their benefits.	.63	.10	-.09
BOB 1	Made physical threats (e.g., beat him up, destroy his new car) to Mr. Smith not to use his ideas.	.65	.01	-.03
BOB 2	Deleted files and infected Mr. Smith's computer with a virus so that his files would be inaccessible.	.63	.23	.07
BOB 4	Sent Mr. Smith false information regarding some of the details of his ideas so that the plan would fail when Mr. Smith implemented it.	.60	.38	.07
BOB 6	Withheld important information that Mr. Smith needed for another project.	.47	.37	.12
BOB 7	Told coworkers and subordinates that Mr. Smith stole his ideas, stole company property, was a poor performer, and has an inappropriate social life outside of work.	.42	.31	.04
BOB 8	Ruined the paint job on Mr. Smith's car because he stole his ideas.	.66	-.23	-.18
BOB 9	Caused his work to be late to several clients and told the clients that because Mr. Smith was never at work and was slow at doing his work that their product was late.	.62	.12	-.10
BOB 13	Yelled at Mr. Smith for taking his ideas.	.49	.33	.12
BOB 14	Used sarcasm toward Mr. Smith in future meetings.	.63	.24	-.03
BOB 17	Talked to other employees about physically hurting Mr. Smith.	.59	-.29	-.14
DAN 1	Made Steve's ideas look bad during meetings with upper management.	.59	.17	.05
DAN 3	Criticized Steve in front of coworkers, subordinates, and clients.	.67	.05	.02

DAN 4	Steve that if he did not give him his job back, then everyone would know about how Steve used his expense account for personal use.	.60 .47	.13 .34	.11 .01
DAN 5	Stopped returning Steve's phone calls and e-mails.			-.02
DAN 6	Gave Steve false information that ruined the results of one of his projects.	.64	.15	-.04
DAN 9	Told clients that the delays in their project were due to Steve's lack of ability.	.60 .63	-.02 -.07	-.04 .02
DAN 11	Insulted Steve during meetings.	.44	.33	.01
DAN 12	Stopped supporting Steve's ideas.	.56	.19	-.17
DAN 13	Gave Steve dirty looks during meetings.	.60	-.36	
DAN 14	Sent Steve e-mails threatening to hurt him if he did not get his job back.	.45	.32	.09
DAN 17	Confronted Steve in front of other employees regarding this situation.	.61	-.03	-.14
DAN 18	Yelled obscenities at Steve for transferring him to a different position.			-.18
TODD 2	Used company resources for his private use before being sent to Mexico.	.56	.01	-.20
TODD 3	Falsely reported that he worked more hours to make up for being sent to Mexico with less pay and benefits.	.66 .60	-.12 .03	-.04 .10
TODD 5	Started coming in late.	.58	.24	
TODD 6	Bad-mouthed upper management with his co-workers.			-.09
TODD 7	Verbally threatened his supervisor that the organization won't get away with closing the plant.	.62	-.13	-.12
TODD 9	Produced less quality products to get back at the organization	.68	-.04	-.06
TODD 10	Participated with his coworkers in stopping needed resources from the suppliers to slow production.	.62	-.05	
TODD 14	Participated in sending threats of sabotaging plant equipment to upper management because of the plant closure.	.68	-.30	-.20
TODD 15	Took some plant resources home to make up for being sent to Mexico.	.66	-.15	-.25
TODD 16	Participated in vandalizing the cars of upper management when they came to the plant.	.61	-.43	-.15
TODD 18	Sent anonymous e-mails to upper management threatening them that they will no longer have jobs if they close the plant.	.64	-.28	-.16
TODD 20	Planned to wreck some of the plant's equipment to get back at the company for closing the plant.	.68	-.36	-.13
TODD 22	Talked with other employees about sending threatening messages of physical harm to upper management if they closed the plant.	.56	-.25	-.25
LISA 2	Gave Sam a poor performance evaluation to show that she is a better employee for the job.	.43	.08	-.04
LISA 3	Talked openly with her coworkers about Sam's lack of experience, poor performance, inappropriate conduct after work.	.46	.17	-.04
LISA 4	Interrupted Sam in meetings with the regional managers so that he would not have a chance to present his information.	.65	-.03	.03

Threatened

LISA
5

LISA 6	Threatened the Vice President that if she did not get the promotion that she would sabotage the results of a major project that he was working on.	.68	-.30	-.09
LISA 7	Put down Sam's ideas during meetings with the other regional managers.	.58	.06	.03
LISA 9	Slapped the Vice President.	.53	-.29	-.06
LISA 10	Completely ignored the Vice President whenever possible.	.50	.19	-.08
ABC 4	Called in sick when the Vice President needed her at an important meeting with clients.	.66	.17	-.02
BOB 3	Told the press what happened.	.12	.52	.07
BOB 5	Confronted Mr. Smith in front of upper management about stealing his ideas.	.16	.52	.15
BOB 11	Demanded a public apology from Mr. Smith for taking his ideas.	.11	.52	.06
BOB 12	Gave Mr. Smith a piece of his mind when he saw him.	.30	.54	.22
DAN 15	No longer covered for Mr. Smith's absences.	.09	.57	.09
TODD 12	Dreamed about one day being Steve's supervisor and firing him.	.31	.43	.04
TODD 13	Quit his job.	.19	.42	-.02
TODD 19	Participated in a strike against the organization.	.27	.48	.15
ABC 10	Helped the company set up programs that would help the laid off employees find jobs.	.19	-.42	.30
BOB 10	Forgave the organization.	.29	-.20	.61
BOB 15	Forgave the organization.	.21	-.12	.48
BOB 16	Found some way to compromise with Mr. Smith.	.29	-.06	.59
DAN 10	Helped Mr. Smith to implement his ideas so that the company would get the most benefit out of the plan.	.31	-.11	.64
TODD 8	Made amends with Mr. Smith.	.30	.02	.52
TODD 11	Provided more help to Steve.	.30	-.29	.55
TODD 17	Talked about the positive aspects of the change with his coworkers.	.30	-.10	.66
LISA 11	Found ways to provide more support to the organization.	.31	-.15	.62
LISA 12	Thanked management for giving him the opportunity to still work even if it is in Mexico.	.34	-.32	.50
LISA 13	Found ways to work with Sam.	.39	-.23	.63
ABC 13	Sincerely congratulated Sam on his promotion.	.32	-.15	.58
BOB 18	Worked overtime to help Sam adjust to his new position.	.28	.36	-.10
DAN 8	Worked only the minimum until retirement.	.35	.37	-.14
TODD 4	Finished one of the projects that he and Mr. Smith had been working on together and took all the credit for the great results.	.30	-.30	.23
LISA 1	Worked harder to prove to Steve that he does respect the goals of the team.	.17	.39	.10
	Filed a suit against the company.	.34	.32	-.02
	Left the company in the middle of an important project.			

Note. Item loadings defining factors are in bold.