

Predicting Workplace Aggression and Violence

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Abstract

Consistent with the relative recency of research on workplace aggression and the considerable media attention given to high-profile incidents, numerous myths about the nature of workplace aggression have emerged. In this review, we examine these myths from an evidence-based perspective, bringing greater clarity to our understanding of the predictors of workplace aggression. We conclude by pointing to the need for more research focusing on construct validity and prevention issues as well as for methodologies that minimize the likelihood of mono-method bias and that strengthen the ability to make causal inferences.

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Workplace

aggression: any behavior initiated by employees that is intended to harm another individual in their organization or the organization itself and that the target is motivated to avoid; sometimes differentiated from workplace violence in its emphasis on psychological aggression

INTRODUCTION

Just why employees might choose to engage in aggression is a question that has captured the public's imagination for many decades. As a result of media exposure given to dramatic workplace homicides, workplace aggression has received considerable public attention, and many myths surrounding this issue have emerged. Why people may choose to behave aggressively in organizations is an empirical question that has been confronted for only approximately 15 years (Barling 1996), and in this review, we use the results of this research to challenge widespread myths.

MYTH #1: WORKPLACE AGGRESSION AND VIOLENCE ARE INTERCHANGEABLE

Definitional Issues

Numerous reviewers have commented on the proliferation of conceptual and operational definitions of workplace aggression (e.g., Keashley & Jagatic 2003, Kelloway et al. 2006, Neuman & Baron 1998, Robinson & Greenberg 1998, Schat & Kelloway 2005, Snyder et al. 2005). Labels such as emotional abuse (Keashly 1998, 2001; Keashly & Harvey 2005), workplace incivility (Andersson & Pearson 1999), workplace

violence (e.g., Rogers & Kelloway 1997; Schat & Kelloway 2000, 2003), antisocial work behavior (Giacalone & Greenberg 1997, O'Leary-Kelly et al. 2000), psychological abuse (Sheehan et al. 1990), bullying (Einarsen 1999, Hoel et al. 1999, Rayner & Cooper 2006, Zapf et al. 2003), and workplace harassment (e.g., Richman et al. 1999, Rospenda 2002, Rospenda & Richman 2005) are used to describe similar and often overlapping behavioral domains. These definitions vary along several dimensions, including the consideration given to perpetrators, actions, intentionality, targets, and outcomes (Snyder et al. 2005). In addition, differing degrees of severity ranging from physical assault (e.g., Kraus et al. 1995) to threats of assault (Jenkins 1996) and psychological aggression (e.g., being yelled at or cursed at; Baron & Neuman 1998, Rogers & Kelloway 1997, Schat & Kelloway 2000, 2003) are included in the realm of aggressive behaviors (Buss 1961).

Schat & Kelloway (2005, p. 191) offered a general definition of workplace aggression as "behavior by an individual or individuals within or outside an organization that is intended to physically or psychologically harm a worker or workers and occurs in a work-related context." They suggested that this definition (*a*) was consistent with definitions used in the general human aggression literature (e.g., Baron & Richardson 1994, Berkowitz 1993, Geen 2001), (*b*) was sufficiently general to include a wide range of physical and nonphysical behaviors that comprise workplace aggression, and (*c*) encompassed aggressive behaviors enacted by a variety of sources within (e.g., supervisors, coworkers) and outside of (e.g., clients, customers, patients) the organization (e.g., Greenberg & Barling 1999, LeBlanc & Kelloway 2002).

Although the terms "workplace aggression" and "workplace violence" are often used interchangeably, they are distinguishable. Conceptually, Schat & Kelloway (2005) suggested that workplace violence is a distinct form of workplace aggression that comprises behaviors that are intended to cause physical harm (e.g.,

physical assaults and/or the threat of assault). By definition, all violent behaviors are aggressive whereas not all aggressive behaviors are violent. This distinction is frequently made in research on both general (e.g., Anderson & Bushman 2002) and workplace (e.g., Greenberg & Barling 1999, Neuman & Baron 1998) aggression, and various authors (e.g., LeBlanc & Kelloway 2002, Schat & Kelloway 2003) provide factor-analytic evidence that physically and nonphysically aggressive behaviors are empirically related but distinct constructs (Barling et al. 1987). As is the case with romantic relationships (Cano et al. 1998, Murphy & O'Leary 1989), researchers have frequently noted the potential for aggressive behavior to escalate into a physical confrontation in both marital relationships (Murphy & O'Leary 1989) and workplace contexts (Barling 1996, Dupré & Barling 2006, Glomb 2002, Herschovis & Barling 2006), and victims of workplace physical violence are likely to have experienced prior nonphysical aggressive acts (Schat et al. 2006).

Prevalence Estimates

Prevalence estimates, invariably based on self-reports of victimization, also point to the need to distinguish between workplace aggression and violence. Prevalence estimates for physical violence range between just over 1% (Duhart 2001) to 5% of the workforce (U.S. Postal Serv. Comm. Safe Secure Workplace 2000) being assaulted over a 12-month span. In contrast, for nonphysical aggression, estimates range between 9% (Einarsen & Skogstad 1996) and 70% (Einarsen & Raknes 1997). In a study of Canadian public-sector employees, 69% responded that they had experienced some form of verbal workplace aggression (Pizzino 2002); in a study of public-sector employees in the United States, 71% indicated that within the past five years they had been victims of workplace incivility (Cortina et al. 2001).

In contrast, there are far fewer instances of workplace violence. One of the few datasets not based on self-reports of victimization indicates

Workplace violence: similar to workplace aggression, but the behavior enacted usually is more physical in nature

Individual differences: factors (e.g., trait anger) that differ across people and predispose some to respond in similar ways across situations

that there were 516 workplace homicides across all employees in the United States in 2006, a decrease of more than 50% from 1994 (Bur. Labor Stat. 2007). Between 1993 and 1999, the Bureau of Justice Statistics showed that aggression within workplaces assessed in the National Crime Victimization Survey (i.e., simple assault, aggravated assault, robbery, and rape/sexual assault) comprised 18% of all violent crime in the United States (Duhart 2001). However, during this same period, workplace aggression that fell into this category of violent crime decreased by approximately 44%, with each form of aggression reported as lower in 1999 than in 1993 (Duhart 2001).

Nonetheless, the widespread use of nonrepresentative samples, discrepancies in reporting time frames, variations in defining and operationalizing workplace aggression, as well as challenges associated with obtaining data on forms of aggression that are less visible than physical workplace aggression (such as psychological and verbal aggression; Barling 1996, Beale et al. 1996, Schat et al. 2006, VandenBos & Bulatao 1996) make it difficult to assess the actual prevalence of workplace aggression and violence. Accordingly, Schat et al. (2006) addressed these issues recently in their nationally representative probability sample of American workers. They reported that 6% of the workforce reported incidents of physical violence over a 12-month period. In contrast, 41.4% of the same respondents reported incidents of psychological aggression. Just over 13% of the sample reported experiencing workplace aggression on a weekly basis, while only 1.3% experienced violent acts on a weekly basis.

Thus, we conclude that although workplace aggression occurs relatively frequently, workplace violence is an infrequent occurrence. Indeed, as a point of comparison, more workers die each year because of occupational safety issues than by workplace violence. In turn, occupational diseases may claim more lives than do homicide and fatal accidents combined (Herbert & Landrigan 2000).

MYTH #2: PROFILING THE AGGRESSIVE EMPLOYEE

Consistent with the public attention focused on workplace aggression, stereotypes about the “typical” perpetrator have developed. In general, the resulting profile portrays the typical perpetrator as likely to be a young, male, white individual with poor self-esteem and an aggressive personality, with substance abuse issues and a fascination with weapons. Despite the questionable value of this approach (Day & Catano 2006), this profile may sometimes be used in personnel selection as a guide for excluding potentially aggressive individuals from the workplace (*N. Y. Times* 1993). Martinko et al. (2006) note, for example, that in at least some organizations, females are disproportionately employed in potentially stressful positions, presumably because they are less likely to respond to conflict and stress with aggression. Although the seeming simplicity of a profile makes it an attractive tool to practitioners (Gladwell 2006), understanding whether profiles have any predictive validity or utility is of considerable social importance from scientific, practical, and ethical or legal perspectives.

In this section, we examine existing data linking various demographic and individual-differences variables with workplace aggression. The possibility that such a link exists is reinforced by findings that individual differences may explain as much as 62% of the variance in workplace aggression in some studies (Douglas & Martinko 2001).

Gender

One of the most consistent findings in the social and behavioral sciences is that males tend to be more aggressive and violent than females (Eagly & Steffan 1986, Geen 2001, Martinko et al. 2006). As a result, it is not surprising that research focusing on workplace aggression investigates possible gender effects, providing a large database from which initial conclusions may be drawn. Most studies

show that males engage in more workplace aggression than females (e.g., Baron et al. 1999, Dupré & Barling 2006, Haines et al. 2006, McFarlin et al. 2001). A few studies, however, show nonsignificant correlations between gender and workplace aggression (e.g., Douglas & Martinko 2001, Inness et al. 2005). Complicating the ability to derive any conclusions are data showing that, when workplace bullying is the outcome, females are more aggressive than men in some studies (Namie & Namie 2000) but are less aggressive in others (Parkins et al. 2006).

Age

A consistent finding within the social and behavioral sciences is that age is associated with the perpetration of aggression and violence (e.g., Feshbach 1997). One possible explanation for this is that with increasing age, people better understand the consequences of their behavior and are more capable of exerting control over any expression of anger. Studies on the link between age and workplace aggression yield mixed results. Whereas some studies yield a negative correlation between age and workplace aggression (e.g., Haines et al. 2006, Inness et al. 2005, McFarlin et al. 2001), others yield no significant correlation (e.g., Douglas & Martinko 2001, Dupré & Barling 2006, Greenberg & Barling 1999). Greenberg & Barling's (1999) data extend these findings by focusing on different targets, showing that there is no correlation between age and workplace aggression targeted against a supervisor, coworker, or subordinate.

Race

An integral part of the stereotypical profile of the violence-prone employee is that he is white; despite this, there are very few data examining this issue. McFarlin and colleagues' (2001) data support this assumption, but data on bullying (as opposed to workplace aggression) do not support this idea (Parkins et al. 2006). Last, while noting that her data suffer from

“opportunity bias” (the sample was predominantly white and male), Glomb (2002) showed that beyond between-group differences, the perpetrator and victim were usually of the same race. This finding provides some support for Hershcovis & Barling's (2007) relational model of workplace aggression, which posits that the nature of the aggression is dependent on characteristics of the relationship between perpetrator and target.

Socioeconomic Status

Socioeconomic status is invariably reflected through three variables: education, income, and occupation (Gallo & Matthews 2003). McFarlin et al. (2001) showed a minimal but significant negative correlation between income (but not education) and verbal and physical aggression. Douglas & Martinko (2001) showed no significant link between workplace aggression and either education or profession, and Greenberg & Barling (1999) failed to find a link between either education or income and aggression against a supervisor, peer, or subordinate. Thus, there is minimal support for a link between socioeconomic status and workplace aggression in the few studies investigating this issue.

Colocation

Although not part of the stereotypical profile of the aggressive employee, one additional variable warrants consideration because it is associated with workplace aggression in several studies. Specifically, there is a positive correlation between the time the perpetrator and target spend together and workplace aggression, whether within subordinate-supervisor dyads (Dupré & Barling 2006, Glomb 2002, Harvey & Keashley 2003) or between coworkers (Glomb & Liao 2003). The additional likelihood that the time spent between perpetrator and target moderates the influence of subjective work experiences reinforces the importance of assessing the simultaneous influence of these predictor variables.

The individual differences described above all reflect demographic characteristics, broadly defined; what follows is a discussion of the possible relationship between personality attributes and workplace aggression.

Negative Affect

Negative affect reflects the individual predisposition to experience negative psychological states such as hostility, sadness, and anxiety; it is subclinical in nature and is differentiated from clinical experiences such as depression. Studies have investigated whether a link exists between negative affect and workplace aggression, consistent with its frequent focus within organizational behavior in general, and findings provide support for this link (Hepworth & Towler 2004, Hershcovis et al. 2007). This phenomenon extends beyond the supervisor-subordinate dyad to peers in workgroups (Glomb & Liao 2003); in addition, negative affect also moderates the effects of perceived injustice on retributive behaviors (Skarlicki et al. 1999).

Self-Esteem

Anderson & Bushman (2002) note that it has long been an article of faith that individuals low in self-esteem will be more susceptible to aggression in general, and there is some empirical support for a link between self-esteem and workplace aggression as well (Harvey & Keashly 2003, Inness et al. 2005). Nonetheless, the nature of the self-esteem must be accounted for, as an inflated or unstable self-esteem (which is akin to narcissism) is likely to predict aggression if self-esteem is threatened (Anderson & Bushman 2002). Because narcissism is associated with counterproductive workplace behaviors (which include psychologically aggressive behaviors; Judge et al. 2006, Penney & Spector 2002), the nature of the self-esteem needs to be addressed in future research.

Trait Anger and the Aggressive Personality

Some individuals are predisposed to respond to what they see as provocation with aggres-

sion (Dill et al. 1997, Spielberger 1991), and research reveals consistent and strong correlations between trait anger and workplace aggression (e.g., Douglas & Martinko 2001, Glomb & Liao 2003, Hepworth & Towler 2004, Hershcovis et al. 2007, Parkins et al. 2006). Closely related to trait anger is the possible link between workplace aggression and an aggressive or hostile personality. Last, personal attitudes that sanction revenge as an acceptable behavior predict workplace aggression (Douglas & Martinko 2001, Hepworth & Towler 2004).

As noted above, one of the most consistent predictors of the enactment of aggression is perceived provocation. Closely aligned to this is the cognitive appraisal of, or causal reasoning about (Bing et al. 2007, Martinko et al. 2002), the precipitating interpersonal event. Several studies reveal a relationship between perceptions of hostile intent and aggression (e.g., Douglas & Martinko 2001, Epps & Kendall 1995).

As is the case in virtually all research focusing on the prediction of workplace aggression, all of these studies assume, and test, a linear explanation for the relationship between individual differences and workplace aggression. Geddes & Callister (2007) challenge this assumption, positing that higher levels of anger expression in some cases might have beneficial personal and organizational outcomes. Future research on trait anger (and other predictors) and workplace aggression may well benefit substantially from theorizing and research on possible non-linear effects.

Personal History with Aggression

Social learning theory has long held that early exposure to aggression would have significant implications for subsequent enactment of aggression (e.g., Bandura 1973). Greenberg & Barling (1999) showed that a history of aggression predicts current aggression against coworkers and supervisors (Douglas & Martinko 2001, Inness et al. 2005). Given that other individual differences moderate the influence of negative workplace experiences on

workplace aggression (e.g., Inness et al. 2005, Skarlicki et al. 1999), each of these person variables might well moderate the effects of perceived interpersonal provocation, an issue worthy of investigation in future research. In a study that reinforces the importance of separating the target of aggression (Hershcovis et al. 2007), Greenberg & Barling (1999) showed no effect of a history of aggression on current aggression against a coworker or subordinate.

Multivariate Analyses

There are ample data from which conclusions about workplace aggression might be drawn. However, doing so on the basis of zero-order correlations may capitalize on chance and perpetuate potentially erroneous stereotypes. In addition, as noted above, each of these person variables might moderate the effects of perceived interpersonal provocation (e.g., Inness et al. 2005, Skarlicki et al. 1999). Importantly, therefore, some studies provide a more nuanced multivariate perspective. In this respect, multivariate analyses such as Hershcovis and colleagues' (2007) meta-analysis of the predictors of workplace aggression and Inness and colleagues' (2005) within-person between-jobs analysis provide the basis from which appropriate conclusions about the relative importance of these demographic and individual difference variables might be drawn.

Beyond the ethical and legal concerns that would emerge from any attempt to base selection decisions on demographic profiles of potentially aggressive employees and to exclude them from potential employment during the selection process, the empirical data provide no support for such an approach (Day & Catano 2006). Even if such an approach were attempted, the resulting profile would likely be so broad as to be of little practical value (Paul & Townsend 1998), or as Gladwell (2006) concludes about attempts to profile aggressive dogs, successful profiling would require "... a more exacting set of generalizations to be more exactly applied."

In contrast to the marginal findings with demographic variables, there are consistent relationships between personality variables (e.g., trait anger, negative affect) and workplace aggression, supporting claims that such information might be useful in the selection process. At the same time, however, Inness et al.'s (2005) observation from their within-subject between-jobs analyses suggests that workplace experiences explain substantially more variance in aggression than do personality variables, which calls into question the practical utility of pre-employment screening (Lanyon & Goodstein 2004) and reinforces the use of approaches that focus on enhancing the quality of work experiences and management behaviors (Litzky et al. 2006).

MYTH #3: MENTAL ILLNESS IS A FACTOR IN WORKPLACE VIOLENCE

One frequently held belief is that individuals who engage in acts of workplace violence suffer from some form of mental illness. Such beliefs are sustained in several ways. First, media stories about workplace violence incidents usually implicate mental illness (e.g., alcoholism, depression; Graham 1991, Halbfinger 2003, Stuart 1992). Second, from a scientific perspective, questions about the possible link between mental illness and violence or aggression in general are by no means new (Harris & Lurigo 2007), and there is a substantial body of research on this general topic. Surprisingly, therefore, there is much less empirical research assessing the possible link between different forms of mental illness and workplace aggression. The research that has been conducted has focused primarily on anxiety, depression, and substance abuse (specifically, alcohol).

A substantial body of research shows a link between alcohol use and general violence (Lipsey et al. 1997), and some research has been conducted addressing the link between alcohol use and workplace aggression. With few exceptions (e.g., Chen & Spector 1992), most studies

Profiling: the use of personal or demographic characteristics to determine whether an individual might be likely to become aggressive or violent in the workplace; often believed by proponents to be based on scientific evidence

support such a link. For example, McFarlin et al. (2001) showed substantial effects of the number of days of alcohol use in the past month as well as the number of days of heavy drinking on workplace aggression. Greenberg & Barling (1999) refined this, showing a link between quantity of alcohol consumed and aggression against a coworker. Moreover, the amount of alcohol consumed moderated the effects of employees' job insecurity and procedural injustice on aggression against subordinates and coworkers (Greenberg & Barling 1999).

Only one study investigated the link between anxiety and workplace bullying (Parkins et al. 2006), and this study showed no significant relationship.

Given the pervasive belief implicating mental illness in workplace aggression, the paucity of empirical research is somewhat surprising. One possible reason for this is the reluctance by behavioral scientists to straddle disciplinary boundaries (in this case, clinical and organizational psychology); however, generating a robust body of knowledge on the role of mental illness will require just such boundary spanning. The available data suggest that only modest links exist between some forms of mental illness (substance abuse) and workplace aggression, and mental illness plays no substantial role in the prediction of workplace aggression. Paraphrasing Friedman's (2006) observation about the link between mental illness and context-free aggression, then, we conclude by emphasizing that "most people who are violent are not mentally ill, and most people who are mentally ill are not violent."

MYTH #4: WORKPLACE AGGRESSION OCCURS BETWEEN SUBORDINATES AND SUPERVISORS

March 6, 1998: Before killing himself, a Connecticut Lottery Corporation Accountant searched for and then killed the Corporation's president and three of his supervisors (Springer 1998).

Typical media accounts of workplace aggression emphasize those instances in which an or-

ganizational member kills a workplace supervisor, perpetuating the myth that workplace aggression is a function of subordinate-supervisor relationships. However, situations such as the one described above are atypical (LeBlanc & Kelloway 2002). Although workplace aggression does tend to be target specific (Hershcovis et al. 2007, Inness et al. 2005), the perpetrator and victim within any instance of workplace aggression can vary considerably.

Sygnatur & Toscano (2000) found that 67% of workplace homicides occur during robberies and other crimes perpetrated by organizational outsiders, 15% were perpetrated by employees or former employees, 8% by customers or clients, 7% by acquaintances, and 4% by relatives. Peek-Asa et al. (1998) found that the perpetrators in more than 90% of nonfatal workplace assaults were not organizational insiders but rather were members of the public. Greenberg & Barling (1999) reported that 82%, 74%, and 76% of the 136 men who took part in their study admitted to some form of psychological aggression against coworkers, subordinates, and supervisors, respectively. Regarding insider aggression, Baron et al. (1999) found that although individuals were most likely to aggress against a coworker or their immediate supervisor, they also aggressed against subordinates and other supervisors (see sidebar Picket Line Violence).

Aggression in the workplace has been categorized into four types that are based on the perpetrator's relationship to the victim (Braverman 1999, Calif. Occup. Saf. Health Admin. 1995). Type I occurs when the perpetrator has no legitimate relationship with the targeted employees or organization and usually has entered the work environment to commit a criminal act (e.g., armed robbery, shoplifting). More than 65% of workplace homicides occur during a robbery (Sygnatur & Toscano 2000). For public servants, violence was most likely from clients, residents, or other members of the public (approximately 71% of those reporting workplace violence) rather than from coworkers (approximately 34% of those reporting workplace violence) (participants could

report violence from both sources; Public Serv. Comm. 2002). Certain factors (e.g., contact with the public, handling money, working alone or in small numbers) increase the risk for this type of aggression (Castillo & Jenkins 1994, Davis 1987, Kraus 1987). Type II workplace aggression occurs when the offender has a legitimate relationship with the organization and commits an act of aggression while being served, cared for, or taught by members of the organization (e.g., customers, clients, inmates, students, or patients; LeBlanc & Kelloway 2002), and this type of aggression accounts for approximately 60% of nonfatal workplace assaults (Peek-Asa & Howard 1999). With regard to occupational context, employees who provide service, care, advice, or education are at greatest increased risk for assault (e.g., Amandus et al. 1996, Canad. Cent. Occup. Health Saf. 1999, LeBlanc & Kelloway 2002), especially if clients, customers, inmates, or patients are experiencing frustration, insecurity, or stress (Lamberg 1996, Nat. Inst. Occup. Saf. Health 2002, Painter 1987).

Type III aggression occurs when the perpetrator is an insider (e.g., a current or former employee of the organization who targets another past or present employee). Media accounts of workplace aggression typically focus on subordinate-supervisor aggression, and insider-initiated aggression has received significant research attention. When employees are the perpetrators, certain work experiences or situational factors consistently predict their aggression. Employees' workplace aggression has been linked to situational factors such as job stress (e.g., Chen & Spector 1992, Fox & Spector 1999, Glomb 2002), surveillance (Greenberg & Barling 1999), and supervision that is abusive (Inness et al. 2005), unfair (Baron et al. 1999), and overcontrolling (Dupré & Barling 2006). Role stressors such as role ambiguity and role conflict have been shown to be related to workplace bullying (Einarsen et al. 1994) and workplace aggression (e.g., Bedeian et al. 1980, Chen & Spector 1992). In their meta-analysis, Hershcovis et al. (2007) confirmed that role conflict significantly predicted

PICKET LINE VIOLENCE

Violence that occurs during the course of a labor dispute is frequently overlooked in discussions of workplace violence. In characterizing picket line violence, Thieblot et al. (1999) point out that labor disputes tend to involve two large categories of violent acts: confrontational and purposeful. Confrontational violence is that which breaks out at the spur of the moment during a conflict. In contrast, Thieblot et al. (1999) describe purposeful violence as planned and deliberate; in essence, violence can be used as a tool in a labor dispute.

The incidence of violence during a labor dispute appears to have diminished over time. Francis et al. (2006) report a marked decrease in incidence post 1995. However, violence remains a potent possibility during a labor dispute. Indeed, there is some speculation that picket line violence is "legitimized" by labor legislation and/or court rulings that do not discipline the participants in violent confrontations (Francis et al. 2006). A labor dispute is perhaps one of the few remaining aspects of a modern workplace in which violent confrontation is tolerated and even expected by the participants.

workplace aggression. Last, Type IV aggression occurs when the offender has a current or previous legitimate relationship with an employee of the organization (e.g., current or former spouse, relative, friend, or acquaintance). Lifetime prevalence rates of partner violence have been estimated at 25% for women and 8% for men (Tjaden & Thoennes 2000), and between 1% and 3% of all incidents of workplace violence are perpetrated by intimate acquaintances of the victim (Duhart 2001). Partner violence has considerable implications for both the individual and the workplace (Swanberg et al. 2006) (see sidebar Intimate Partner Violence).

Consequently, the belief that most workplace aggression occurs within the supervisor-subordinate relationship is incorrect, and there are both similar and unique predictors of aggression against different workplace targets (Inness et al. 2008). The search for a comprehensive understanding of the nature, prediction, and prevention of workplace aggression is a much more pervasive problem than this myth conveys, and future research needs to

INTIMATE PARTNER VIOLENCE

Although widely cited, the CAL/OSHA framework excludes other known sources of workplace violence. Swanberg et al. (2006), for example, note the possibility for family or intimate partner violence to spill over into the workplace, with adverse consequences for both the individual victims and their employing organizations.

For many individuals, work is a “social address,” and partners or family members know where an individual works and, frequently, his/her schedule. Even when individuals separate from a partner, they often maintain their employment and, as a result, can be easily located. Lifetime prevalence rates of partner violence have been estimated at 25% for women and 8% for men (Tjaden & Thoennes 2000). Intimate partners are identified as the perpetrator in approximately 1% to 3% of all workplace violence incidents (Duhart 2001).

Intimate partner violence is exhibited in at least three predominant ways in the workplace: work disruption, stalking, and on-the-job harassment (Swanberg et al. 2006). Work disruption comprises activities that interfere with attendance or promptness at work. Stalking comprises unwanted and repeated threatening behaviors such as following someone, vandalizing property, or leaving unwanted messages. On-the-job harassment more typically includes the perpetrator appearing at the workplace and directly interfering with the victim’s work.

focus on the many different relational contexts at work.

MYTH #5: WORKPLACE AGGRESSION IS RANDOM, UNPREDICTABLE, AND HENCE, NOT PREVENTABLE

The belief that workplace aggression occurs randomly is voiced frequently; fears that mental illness plays a major part in the perpetration of workplace aggression would exacerbate this. Yet the data suggest otherwise. As discussed above, some demographic factors and individual-difference variables are associated with workplace aggression. The consistency of these predictions alone belies the notion that workplace aggression is random and unpredictable.

Much research has focused on situational or organizational predictors of aggression at work, with organizational injustice receiving considerable attention as a possible predictor of workplace aggression. Procedural and interpersonal justice are related to workplace aggression (e.g., Berry et al. 2007, Dupré & Barling 2006, Greenberg & Barling 1999, Hershcovis et al. 2007, Inness et al. 2005, Neuman & Baron 1998, Skarlicki & Folger 1997). In their meta-analysis, Hershcovis et al. (2007) found that interactional injustice was a stronger predictor of workplace aggression than was procedural injustice, and after controlling for interactional injustice, the effect of procedural injustice became nonsignificant. Abusive supervision (Inness et al. 2005) and other poor leadership behaviors (Hershcovis et al. 2007), along with stressors such as role conflict, role overload, role ambiguity, work constraints, and job autonomy (Bowling & Beehr 2006), also predict the enactment of workplace aggression.

Although research has focused on employees’ perceived injustice, it may also play a salient role in client interactions (Smith et al. 1999). Clients who are denied service, for example, may be more likely to experience this denial as unjust and to commit acts of aggression.

As noted above, the role of individual differences has also been studied intensively, and there may be an interaction between situational and individual factors in the prediction of workplace aggression. Importantly, studies show that individual differences exacerbate the effects of workplace experiences (Aquino et al. 2004, Folger & Skarlicki 1998, Inness et al. 2005, Skarlicki et al. 1999).

Contextual factors outside of workplace experiences, such as societal influences, organizational climate, and organizational tolerance for workplace aggression (e.g., Aquino & Lamertz 2004), are also related to workplace aggression. Dietz et al. (2003) examined the effects of community-level violent crimes and plant-level procedural justice climate as predictors of workplace aggression. They showed that community violence level predicted workplace aggression

Organizational injustice: the belief that one has been treated unfairly from a procedural, interpersonal, or distributive perspective

whereas plant-level procedural justice did not. More recently, Spector et al. (2007) found that perceived violence climate was related to physical and verbal aggression experienced by nurses, along with injury from violence and perceptions of workplace danger.

Given the range of demographic, individual-difference, occupational, and situational predictors of workplace aggression identified over the past decade and evidence relating to the target-specific nature of the act (Hershcovis et al. 2007), the notion that acts of workplace aggression are random, and therefore unpredictable and not preventable, is not sustainable.

MYTH #6: LAYOFFS CAUSE WORKPLACE AGGRESSION

The “stress and potential violence triggered by the wave of corporate layoffs” is now the focus of employers in the prevention of violence at work.
(Lombardi 1994, p. 16)

Contradicting the belief that workplace aggression is random, layoffs are often cited as major predictors of workplace aggression. Discussions about this possible link were frequent during the 1990s.

Research on workplace aggression was precipitated by a series of shootings in the U.S. post office (U. S. Post. Serv. Comm. Safe Secure Workpl. 2000) during the late 1980s and early 1990s (Kelloway et al. 2006). These well-publicized events focused public and research attention on workplace violence, resulting in the widely used phrase, “going postal,” which typically denotes an employee losing control over his/her emotions and engaging in violent acts. The empirical status of this myth is important because it is so pervasive and persistent, suggesting that profiling may be a viable preventive strategy (*N. Y. Times* 1993) and extending the question of whether aggression is more likely to occur in some contexts.

Notions about the salience of layoffs per se was undoubtedly reinforced by the frequency of media reports linking acts of workplace ag-

gression to downsizing and layoffs. Evidence-based conclusions about the role of layoffs and other workplace experiences are clearly needed.

Research evidence disputes any direct effect for the role of layoffs. Although layoffs are associated with anger, depression, and aggression among both victims and survivors, it is not the layoff per se that is implicated in subsequent acts of workplace aggression but rather the manner in which layoffs are conducted. If layoffs are not conducted appropriately, feelings of injustice and anger probably emerge (e.g., Catalano et al. 1997, Folger 1993, Vinokur et al. 1996), which are more likely to predict aggression than are the layoffs specifically (Brockner 2006).

Overall, therefore, there is no support for the notion that layoffs per se are associated with workplace aggression; indeed, it is more likely that most layoffs are not accompanied by workplace aggression, dispelling the myth that layoffs are a major predictor of workplace aggression. In contrast, the perceived fairness with which layoffs are implemented is critical, supporting the role of perceived injustice in workplace aggression.

Lastly, it is worth noting that the phrase “going postal” is somewhat of a misnomer: The prevalence rate of workplace violence, workplace aggression, and workplace homicide in the U.S. Postal Service is actually quite a bit lower than in the general workforce (U. S. Post. Serv. Comm. Safe Secure Workpl. 2000).

MYTH #7: WORKPLACE AGGRESSION WILL NOT BE REDUCED, IT WILL BE DISPLACED

“Work is, by its very nature, about violence—to the spirit as well as to the body. It is about ulcers as well as accidents, about shouting matches as well as fistfights, about nervous breakdowns as well as kicking the dog around. It is, above all (or beneath all) about daily humiliation.” (Terkel 1974, p. xi)

Informed by his extensive interviews with working people, Terkel’s (1974) observation

“Going postal”: denotes the situation in which organizational members suddenly become extremely violent; derived after several incidents in the U.S. Postal Service in the late 1980s involving workplace homicides

Displaced

aggression: the decision to direct one's aggression against a target other than the perceived provocateur, usually a target that is of lower power or status than oneself to limit the likelihood of retaliation

Situational

specificity: factors inherent in a particular situation that make it likely that the same individuals will respond in unique ways within different situations or contexts

reinforces the notion that violence is embedded in the very fabric of work and that displaced aggression is an inherent part of this violence. Conceptually, displaced aggression is an idea that has its roots in classic psychodynamic theory, which initially represented an attempt to account for the unconscious motives underlying the behavior in question. This is markedly different from the way in which displaced aggression is typically dealt with in the literature on workplace aggression, where it is more about the target of aggression than the motives for the aggressive behavior. It occurs when an act of aggression is directed not toward the original source of the provocation, but instead toward a person or object that is targeted due to being in a particular place at a certain time and of a lower status than the instigator (Bushman & Baumeister 1998, Bushman et al. 2005, Marcus-Newhall et al. 2000, Miller et al. 2003, Pedersen 2006).

A few studies have examined displaced aggression. Even minor provocations may lead to displaced aggression. Bushman et al. (2005) found that individuals who ruminated about a previous experience that caused annoyance and frustration and then encountered a minor triggering event were more likely to engage in displaced aggression.

Although research findings are limited, they are mixed regarding the notion of displaced workplace aggression. Research and theory have suggested that workplace aggression is target specific (Barling 1996, Bennett & Robinson 2000, Greenberg & Barling 1999, Hershcovis et al. 2007, Inness et al. 2005, Robinson & Bennett 1995), and a target-specific response to a perceived provocation would be antithetical to the idea of displaced aggression. Yet there is some support for the displaced aggression (e.g., Mitchell & Ambrose 2007). Hoobler & Brass (2006) found that the family members of employees who were the target of abusive supervision reported greater undermining directed at family members. Hoobler & Brass (2006) asked subordinates about confronting their abusive supervisors, and found that the more abusive they perceived their supervisors

to be, the less likely subordinates were to confront them. Moreover, research shows that following perceived provocations, responses can be either person directed or organizational directed (Robinson & Bennett 1995).

Interpretations from prior research are difficult, however, because much of the research has explored the issue of aggression without specifying the target of the aggression (Hershcovis et al. 2007). Nonetheless, the most appropriate conclusion that is target-specific and displaced aggression need not be antithetical: Although considerable research supports the notion that target-specific aggression is a response to perceived provocations, under some conditions, individuals may choose to displace their aggression away from the provocateur. Rather than pursuing one or the other of these seemingly conflicting hypotheses, an investigation of the conditions under which aggression is likely to be target specific or displaced would best further the understanding of workplace aggression prediction.

MYTH #8: WORKPLACE AGGRESSION SPILLS OVER ACROSS CONTEXTS

Somewhat consistent with the idea of displaced aggression, one of the most enduring and intriguing questions concerning human aggression is whether people who are aggressive in one context or relationship are likely to be aggressive in other contexts or relationships because aggression is a function of the person. Or, conversely, is aggression a function of the situation, such that individuals will be aggressive in one relationship or context but not in another? In a sense, this question contrasts two different explanations for workplace aggression: situational specificity (which assumes that aggression is purposive and goal directed) and individual differences. As evident throughout this review, there is much research on individual and relational predictors of workplace aggression. Nonetheless, to be able to confront the questions posed by this myth, studies are required that focus on aggression across contexts and/or

relationships while taking into account dispositional factors.

Greenberg & Barling (1999) reported significant correlations between aggression against supervisors, coworkers, and subordinates, providing initial support for individual-difference explanations. Nonetheless, the effects of perceived provocation did not spill over across contexts, suggesting the importance of situational specificity explanations. Inness and colleagues (2005) provided a more robust context in which this question could be examined. They focused on 105 employees who were moonlighting simultaneously in two separate jobs, each with a different supervisor. Personal factors (age, history of aggression) predicted a modest level of the variance in the primary and secondary jobs, although no significant correlation emerged in workplace aggression against the two different supervisors in the two jobs. Moreover, the situational predictors of supervisor-directed aggression (abusive supervision) were target specific. Inness et al. (2005) concluded by noting that situational factors, in comparison with personal factors, accounted for substantially more of the variance in workplace aggression.

CONCEPTUAL AND RESEARCH DIRECTIONS

Despite the fact that workplace aggression is by no means a recent phenomenon, research has addressed the issue of workplace aggression only over the past 15 years. Future research will lead to a better understanding of the predictors of workplace aggression if it focuses on several conceptual and methodological questions.

Perhaps most pressing are questions of construct validity. A critical first step is to discriminate between constructs that are frequently studied in isolation from each other, such as workplace aggression, bullying, abusive supervision, supervisory overcontrol, and workplace violence. Second, research might address the interrelationships of various forms of aggressive

PREDICTING TEENAGE WORKPLACE AGGRESSION

Evidence indicates that teenagers also enact workplace aggression. With more teenagers working now than in the past, understanding why they may engage in workplace aggression is both conceptually and practically important. Although research remains limited, perceptions of interpersonal injustice and abusive supervision are related to aggression directed at supervisors by teenage employees (Dupré et al. 2006). Dupré et al. also show that when teenagers work primarily for financial reasons, their perceptions of supervisor mistreatment are significantly related to aggression directed at workplace supervisors, but not when they work primarily for reasons of personal fulfillment. When financially dependent on their work, teenagers may feel tied to their jobs and use aggression to respond to perceived mistreatment. When less dependent on their jobs, teenagers may be more likely to exit a situation of perceived mistreatment. In terms of predicting workplace aggression, research should continue to focus on this cohort of employees, given that teenagers who learn to respond to situations in the workplace with aggression may continue to engage in aggression at work throughout their working lives.

behavior both within the workplace (supervisor, peer, and subordinate-targeted) and across domains (work, family and community). It is known that workplace aggression occurs among teenage employees (Dupré et al. 2006); thus, the question of whether aggression spans different roles might be extended (see sidebar Predicting Teenage Workplace Aggression). Specifically, research could focus on overlaps between school bullying (e.g., Raskauskas & Stoltz 2007, Veenstra et al. 2005), dating violence (O'Leary & Slep 2003), and workplace aggression (Dupré et al. 2006). Third, the nature of the relationship between workplace aggression and violence warrants attention. Given data from marital relationships (Murphy & O'Leary 1989), the suggestion that verbal or psychological aggression can escalate into physical aggression (Glomb 2002) warrants attention.

With few exceptions (e.g., Barling et al. 2001, Richman et al. 1999, Rospenda 2002),

research on workplace aggression has developed in isolation from research on sexual harassment, thus extending questions about construct validity. Although recent factor analytic evidence suggests that sexual harassment and generalized workplace aggression are empirically distinct but related constructs (Fendrich et al. 2002), the predictive role of dominance and power in the enactment of sexual harassment (Berdahl 2007) reinforces the need for such research.

Knowledge that would facilitate the prevention of workplace aggression would be of substantive importance for organizational practitioners. A first step is to dispel myths that are of no validity or practical utility (e.g., notions pertaining to “going postal,” profiling potentially aggressive employees, and the idea that workplace aggression is unpredictable). Isolating the organizational conditions that predict workplace aggression (e.g., perceived interpersonal injustice, poor leadership) would provide some indication of initiatives that organizations might choose to follow (e.g., leadership training). In this regard, research showing that workplace aggression and sexual harassment (Dekker & Barling 1998, Dupré & Barling 2006) are lower when employees perceive that the organization will impose sanctions is one possibility. However, because most workplace aggression occurs at the hands of organizational outsiders (e.g., customers, members of the public), any beneficial effects of organizational policies and sanctions against aggression would be limited to current employees. Given that most acts of workplace aggression will continue to be perpetrated by outsiders, training employees to anticipate and understand acts of workplace aggression (Schat & Kelloway 2000) and providing social support to individuals who experience aggressive acts (Schat & Kelloway 2003) are potential means of ameliorating the consequences of workplace aggression. Acknowledging that different individuals may choose to respond to acts of aggression in different ways (Adams-Roy & Barling 1998) and training them to respond effectively may

also prevent future occurrences of workplace aggression.

Last, a methodological note is in order. To date, the study of workplace aggression has relied almost exclusively on self-reports, convenience samples, and self-reports of victimization or aggression typically collected as part of a cross-sectional organizational survey. Clearly required is research that excludes threats as a function of monomethod bias and is more conducive to causal inferences. The examination of specific incidents of aggression (Glomb 2002), perhaps in combination with an experience sampling methodology (e.g., Miner et al. 2005), and focusing on daily work experiences offer promising means of exploring the nature of this complex phenomenon. At the same time, moving beyond an individual focus to incorporate team-based experiences (Raver & Gelfand 2005) and multilevel perspectives might also enhance our understanding of workplace aggression.

CONCLUSION

We set out to provide an evidence-based examination of prevailing myths about the predictors of workplace aggression. Doing so shows that although acts of workplace aggression are frequent, workplace violence is infrequent, and there is little support for the notion of a profile of the typical violence-prone employee, although negative affect and trait anger do predict workplace aggression. Similarly, although perceived interpersonal provocation (whether in the form of injustice or poor leadership) predicts workplace aggression, neither mental illness nor layoffs per se do predict workplace aggression. Last, the notion of displaced aggression in the workplace has limited support. Focusing on several issues (e.g., construct validity, prevention) in future research while simultaneously minimizing the likelihood of monomethod bias and enhancing the ability to make causal inferences will advance our understanding of the predictors of workplace aggression.

SUMMARY POINTS

1. Attempts to profile potentially aggressive employees are not supported by the data. Perhaps because of the seeming simplicity in the notion of being able to exclude violent individuals from organizations, the notion of “profiling” potentially aggressive employees during the selection process is often touted as one way of limiting workplace aggression. However, the data do not support this approach: There are no single variables, or combinations of variables, that have sufficient predictive power to make this an empirically or ethically supportable process.
2. Most workplace aggression is not a function of “disgruntled” employees. Beliefs that workplace aggression is a function of “disgruntled employees” who “go postal” remain widespread. Recent data, including nationally representative probability samples of American workers, show that more employees experience aggression at the hands of organizational “outsiders” (e.g., customers) than at the hands of subordinates, and that experiencing aggression from peers and supervisors is by no means unusual.
3. Workplace aggression is not a function of layoffs per se (versus perceived provocation). The stereotypical view holds that layoffs are a major factor in the subsequent enactment of workplace aggression. Data, however, suggest otherwise: First, the overwhelming majority of layoffs take place without any aggression occurring as a result. Second, it is not the layoff per se that is implicated in subsequent aggression, but rather the way in which the layoff is implemented. To the extent that individuals perceive that the process was unfair, or that they were treated unjustly, target-specific aggression might ensue.
4. Workplace aggression is predictable. Despite lingering fears that workplace aggression is largely unpredictable (and the result of disgruntled employees), the data tend to suggest otherwise. Specifically, numerous studies now show that, like aggression in general, perceived provocation is a significant predictor of workplace aggression, and that this effect may be buffered (or exacerbated) by specific individual difference variables.
5. Workplace aggression is preventable. One possible implication emerging from the notion that workplace aggression is predictable is that it therefore might also be preventable. There are some studies showing that the perception that the organization will take some action against workplace aggression (or sexual harassment) may well be a significant factor in reducing workplace aggression.
6. Workplace aggression is not a function of mental illness. The notion that workplace aggression is committed by employees with some form of mental illness is widely held among the lay public, and frequently cited as a major causal factor in media reports following catastrophic incidents. While the possible role of mental illness in workplace aggression remains to be investigated in more depth, studies that have been conducted provide no compelling evidence for this notion at all. This is an important issue, because continuing to cling to this idea (*a*) will sustain the beliefs that workplace aggression is largely unpredictable and therefore not preventable, and (*b*) will continue to stigmatize employees who might already be vulnerable.

FUTURE ISSUES

We suggest that future research is most profitably directed at three general research needs: the need to address questions about the construct definition of workplace aggression, the need to address questions about prevention and harm reduction, and the need to incorporate more varied research methodologies.

1. Questions of construct definition. Noting the plethora of terms developed to label similar phenomenon, what is the relationship between behaviors such as aggression, bullying, abusive supervision, violence, harassment, and victimization? How do aggressive behaviors vary both within (i.e., directed at supervisors, coworkers, and clients) and across (i.e., work, family, and community) roles? How does aggressive behavior develop? Do schoolyard bullies become workplace aggressors? What is the relationship between workplace violence and workplace aggression? Under what circumstances does aggressive behavior escalate into violence? What is the relationship between workplace aggression and sexual harassment?
2. Questions about prevention and mitigation. What is the role of organizational sanctions in preventing workplace violence? How can organizations intervene most effectively to both prevent and mitigate the effects of workplace aggression?
3. Questions of research methodology. To date, most research has been based on self-report and cross-sectional surveys. The next generation of studies will be based on longitudinal data, event-based methodologies, and multilevel analyses.

DISCLOSURE STATEMENT

The authors are not aware of any personal biases that might be perceived as affecting, or affect, the objectivity of this review.

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LITERATURE CITED

- Adams-Roy J, Barling J. 1998. Predicting the decision to confront or report sexual harassment. *J. Organ. Behav.* 19:329–36
- Amandus HE, Zahm D, Friedmann R, Ruback RB, Block C, et al. 1996. Employee injuries and convenience store robberies in selected metropolitan areas. *J. Occup. Environ. Med.* 38:714–20
- Anderson CA, Bushman BJ. 2002. Human aggression. *Annu. Rev. Psychol.* 53:27–51**
- Andersson LM, Pearson CM. 1999. Tit-for-tat? The spiralling effect of incivility in the workplace. *Acad. Manage. Rev.* 24:452–71
- Aquino K, Galperin BL, Bennett RJ. 2004. Social status and aggressiveness as moderators of the relationship between interactional justice and workplace deviance. *J. Appl. Soc. Psychol.* 34:126–38
- Aquino K, Lamertz K. 2004. A relational model of workplace victimization: social roles and patterns of victimization in dyadic relationships. *J. Appl. Psychol.* 89:1023–34**
- Bandura A. 1973. *Aggression: A Social Learning Analysis*. Englewood Cliffs, NJ: Prentice Hall
- Barling J. 1996. The prediction, experience, and consequences of workplace violence. In *Violence on the Job: Identifying Risks and Developing Solutions*, ed. GR VandenBos, EQ Bulatao, pp. 29–49. Washington, DC: Am. Psychol. Assoc.

Comprehensive overview of theories of human aggression, including the roles of person and situational factors, cognition, affect, and arousal.

Proposes a relational model of workplace victimization predicated on dyadic roles and the organizational context in which they operate.

- Barling J, O'Leary KD, Jouriles EN, Vivian D, MacEwen KE. 1987. Factor similarity of the Conflict Tactics Scales across samples, spouses and sites: issues and implications. *J. Fam. Violence* 2:37-53
- Barling J, Rogers AG, Kelloway EK. 2001. Behind closed doors: in-home workers' experience of sexual harassment and workplace violence. *J. Occup. Health Psychol.* 6:255-69
- Baron RA, Neuman JH. 1998. Workplace aggression—the iceberg beneath the tip of workplace violence: evidence on its forms, frequency, and targets. *Public Admin. Q.* 21:446-64
- Baron RA, Neuman JH, Geddes D. 1999. Social and personal determinants of workplace aggression: evidence for the impact of perceived injustice and the type A behavior pattern. *Aggress. Behav.* 25:281-96
- Baron RA, Richardson DR. 1994. *Human Aggression*. New York: Plenum. 2nd ed.
- Beale D, Cox T, Leather P. 1996. Work-related violence—is national reporting good enough? *Work Stress* 10:99-103
- Bedeian AG, Armenakis AA, Curran SM. 1980. Personality correlates of role stress. *Psychol. Rep.* 46:627-32
- Bennett RJ, Robinson SL. 2000. Development of a measure of workplace deviance. *J. Appl. Psychol.* 85:349-60
- Berdahl JL. 2007. The sexual harassment of uppity women. *J. Appl. Psychol.* 93:425-37
- Berkowitz L. 1993. *Aggression: Its Causes, Consequences, and Control*. Philadelphia, PA: Temple Univ. Press
- Berry CM, Ones DS, Sackett PR. 2007. Interpersonal deviance, organizational deviance, and their common correlates: a review and meta-analysis. *J. Appl. Psychol.* 92:409-23**
- Bing MN, Stewart SM, Davison HK, Green PD, McIntyre MD, James LR. 2007. An integrative typology of personality assessment for aggression: implications for predicting counterproductive workplace behavior. *J. Appl. Psychol.* 92:722-44
- Bowling NA, Beehr TA. 2006. Workplace harassment from the victim's perspective: a theoretical model and meta-analysis. *J. Appl. Psychol.* 91(5):998-1012
- Braverman M. 1999. *Preventing Workplace Violence: A Guide for Employers and Practitioners*. Thousand Oaks, CA: Sage
- Brockner J. 2006. Why it's so hard to be fair. *Harvard Bus. Rev.* 84(3):122-29
- Bur. Labor Stat. 2007. *National Census of Fatal Occupational Injuries in 2006*. Washington, DC: Bur. Labor Stat.
- Bushman BJ, Baumeister RF. 1998. Threatened egotism, narcissism, self-esteem, and direct and displaced aggression: Does self-love or self-hate lead to violence? *J. Personal. Soc. Psychol.* 75:219-29
- Bushman BJ, Bonacci AM, Pedersen WC, Vasquez EA, Miller N. 2005. Chewing on it can chew you up: effects of rumination of triggered displaced aggression. *J. Personal. Soc. Psychol.* 88(6):969-83
- Buss AH. 1961. *The Psychology of Aggression*. New York: Wiley
- Calif. Occup. Saf. Health Admin. 1995. *Guidelines for Workplace Security*. Sacramento, CA: Calif. Occup. Saf. Health Admin.
- Canad. Cent. Occup. Health Saf. 1999. *Violence in the workplace*. <http://www.ccohs.ca/oshanswers/psychosocial/violence.html>
- Cano A, Avery-Leaf S, Cascardi M, O'Leary KD. 1998. Dating violence in two high school samples: discriminating variables. *J. Prim. Prev.* 18:431-46
- Castillo DN, Jenkins EL. 1994. Industries and occupations at high risk for work-related homicide. *J. Occup. Med.* 36:125-32
- Catalano R, Novaco R, McConnell W. 1997. A model of the net effect of job loss on violence. *J. Personal. Soc. Psychol.* 72:1440-47
- Chen PY, Spector PE. 1992. Relationships of work stressors with aggression, withdrawal, theft and substance use: an exploratory study. *J. Occup. Organ. Psychol.* 65:177-84
- Cortina LM, Magley VJ, Williams JH, Langhout RD. 2001. Incivility in the workplace: incidence and impact. *J. Occup. Health Psychol.* 6:64-80**
- Davis H. 1987. Workplace homicides of Texas males. *Am. J. Public Health* 77:1290-93
- Day AL, Catano VM. 2006. Screening and selecting out violent employees. In *Handbook of Workplace Violence*, ed. EK Kelloway, J Barling, JJ Hurrell, pp. 549-77. Thousand Oaks, CA: Sage
- Dekker I, Barling J. 1998. Personal and organizational predictors of workplace sexual harassment of women by men. *J. Occup. Health Psychol.* 3:7-18

Shows that interpersonal and organizational deviance are strongly correlated but have different relationships with personality and organizational citizenship behaviors, leading to the conclusion that these are separable constructs.

Addresses the incidence, targets, perpetrators, and consequences of workplace incivility (e.g., disrespect, degradation); shows that women experience incivility more than do men.

Shows that the rate of violent crime in the community is a better predictor of workplace aggression than is plant procedural justice; demonstrates the importance of considering extraorganizational predictors.

Investigates the role of six individual-difference variables, which together account for 62% of the variance in workplace aggression.

Shows the importance of injustice as a mediator between supervisors' controlling behavior and employee aggression and the moderating role of organizational sanctions.

Focuses on workplace aggression within teams; demonstrates that being the target of aggression predict one's own enactment of aggression.

- Dietz J, Robinson SL, Folger R, Baron RA, Schulz M. 2003. The impact of societal violence and organizational procedural justice climate on workplace aggression. *Acad. Manage. J.* 46:317–26
- Dill KE, Anderson CA, Anderson KB, Deuser WE. 1997. Effects of aggressive personality on social expectations and social perceptions. *J. Personal. Soc. Psychol.* 31:272–92
- Douglas SC, Martinko MJ. 2001. Exploring the role of individual differences in the prediction of workplace aggression. *J. Appl. Psychol.* 86:547–59
- Duhart DT. 2001. *Bureau of Justice Statistics special report: violence in the workplace, 1993–1999*. NCJ 190076. Washington, DC: U.S. Bur. Justice Stat.
- Dupré KE, Barling J. 2006. Predicting and preventing supervisory workplace aggression. *J. Occup. Health Psychol.* 11:13–26
- Dupré KE, Inness M, Connelly CE, Barling J, Hopton C. 2006. Workplace aggression in teenage part-time employees. *J. Appl. Psychol.* 91(5):987–97
- Eagly A, Steffan VJ. 1986. Gender and aggressive behavior: a meta-analytic review of the social psychological literature. *Psychol. Bull.* 100:309–30
- Einarsen S. 1999. The nature and causes of bullying at work. *Int. J. Manpower* 20:16–27
- Einarsen S, Raknes BI. 1997. Harassment at work and the victimization of men. *Violence Vict.* 12:247–63
- Einarsen S, Raknes BI, Matthiesen SB. 1994. Bullying and harassment at work and their relationships to work environment quality: an exploratory study. *Eur. Work Organ. Psychol.* 4:381–401
- Einarsen S, Skogstad A. 1996. Bullying at work: epidemiological findings in public and private organizations. *Eur. J. Work Organ. Psychol.* 5:185–201
- Epps J, Kendall PC. 1995. Hostile attributional bias in adults. *Cogn. Ther. Res.* 19:159–78
- Fendrich M, Woodward P, Richman JA. 2002. The structure of harassment and abuse in the workplace: a factorial comparison of two measures. *Violence Vict.* 17:491–505
- Feshbach S. 1997. The psychology of aggression: insights and issues. In *Aggression: Biological, Developmental, and Social Perspectives*, ed. S Feshbach, J Zagrodzka, pp. 213–35. New York: Plenum
- Folger R. 1993. Reactions to mistreatment at work. In *Social Psychology in Organizations: Advances in Theory and Research*, ed. K Murnighan, pp. 163–83. Englewood Cliffs, NJ: Prentice Hall
- Folger R, Skarlicki DP. 1998. A popcorn metaphor for workplace violence. In *Dysfunctional Behaviour in Organizations: Violent and Deviant Behaviour*, Vol. 23, ed. RW Griffin, A O'Leary-Kelly, JM Collins, pp. 43–81. Greenwich, CT: JAI
- Fox S, Spector PE. 1999. A model of work frustration-aggression. *J. Organ. Behav.* 20:915–31
- Francis L, Cameron JE, Kelloway EK. 2006. Crossing the line: violence on the picket line. In *Handbook of Workplace Violence*, ed. EK Kelloway, J Barling, JJ Hurrell, pp. 231–60. Thousand Oaks, CA: Sage
- Friedman RA. 2006. Violence and mental illness—how strong is the link? *N. Engl. J. Med.* 355(20):2062–64
- Gallo LC, Matthews KA. 2003. Understanding the association between socioeconomic status and physical health: Do negative emotions play a role? *Psychol. Bull.* 129:10–51
- Geddes D, Callister RR. 2007. Crossing the lines(s): a dual threshold model of anger in organizations. *Acad. Manage. Rev.* 32:721–46
- Geen RG. 2001. *Human Aggression*. Buckingham, UK: Open Univ. Press. 2nd ed.
- Giacalone RA, Greenberg J. 1997. *Antisocial Behavior in Organizations*. Thousand Oaks, CA: Sage
- Gladwell M. 2006. Troublemakers: What pit bulls can teach us about profiling. *New Yorker*, Feb. 6
- Glomb TM. 2002. Workplace anger and aggression: informing conceptual models with data from specific encounters. *J. Occup. Health Psychol.* 7:20–36
- Glomb TM, Liao H. 2003. Interpersonal aggression in work groups: social influence, reciprocal and individual effects. *Acad. Manage. J.* 46:486–96
- Graham JP. 1991. Disgruntled employees: ticking time bombs. *Secur. Manage.* 36:83,85
- Greenberg L, Barling J. 1999. Predicting employee aggression against coworkers, subordinates and supervisors: the roles of person behaviors and perceived workplace factors. *J. Organ. Behav.* 2:897–913
- Haines VY, Marchand A, Harvey S. 2006. Crossover of workplace aggression experiences in dual-earner couples. *J. Occup. Health Psychol.* 11:305–14
- Halbfinger DM. 2003. Factory killer had a history of anger and racial taunts. *N. Y. Times*, July 10:A14
- Harris A, Lurigo AJ. 2007. Mental illness and violence: a brief review of research and assessment strategies. *Aggress. Violent Behav.* 12:542–51

- Harvey S, Keashly L. 2003. Predicting the risk for aggression in the workplace: risk factors, self-esteem and time at work. *Soc. Behav. Personal.* 31:807–14
- Hepworth W, Towler A. 2004. The effects of individual differences and charismatic leadership on workplace aggression. *J. Occup. Health Psychol.* 9:176–85
- Herbert R, Landrigan PJ. 2000. Work-related death: a continuing epidemic. *Am. J. Public Health* 90(4):541–45
- Hershcovis MS, Barling J. 2006. Preventing insider-initiated violence. In *Handbook of Workplace Violence*, ed. EK Kelloway, J Barling, JJ Hurrell, pp. 607–31. Thousand Oaks, CA: Sage
- Hershcovis MS, Barling J. 2007. A relational perspective on workplace aggression: an examination of perpetrators and targets. In *Dysfunctional Workplace: Management Challenges and Symptoms*, ed. J Langan-Fox, CL Cooper, R Klimoski, pp. 268–84. Cheltenham, UK: Elgar
- Hershcovis MS, Turner N, Barling J, Arnold KA, Dupré KE, et al. 2007. Predicting workplace aggression: a meta-analysis. *J. Appl. Psychol.* 92:228–38**
- Hoel H, Rayner C, Cooper CL. 1999. Workplace bullying. In *International Review of Industrial and Organizational Psychology*, ed. CL Cooper, IT Robertson, 14:195–230. Chichester, UK: Wiley
- Hoobler JM, Brass DJ. 2006. Abusive supervision and family undermining as displaced aggression. *J. Appl. Psychol.* 91(5):1125–33
- Inness M, Barling J, Turner N. 2005. Understanding supervisor-targeted aggression: a within-person, between-jobs design. *J. Appl. Psychol.* 90:731–39
- Inness M, LeBlanc MM, Barling J. 2008. Psychosocial predictors of supervisor-, peer-, subordinate-, and service provider-targeted aggression. *J. Appl. Psychol.* In press
- Jenkins EL. 1996. *Violence in the workplace: risk factors and prevention strategies*. DHHS (NIOSH) Publ. No. 96–100. Washington, DC: Gov. Print. Off.
- Judge TA, LePine JA, Rich BL. 2006. Loving yourself abundantly: relationship of the narcissistic personality to self- and other perceptions of workplace deviance, leadership, and task and contextual performance. *J. Appl. Psychol.* 91:762–76
- Keashly L. 1998. Emotional abuse in the workplace: conceptual and empirical issues. *J. Emot. Abuse* 1:85–115
- Keashly L. 2001. Interpersonal and systemic aspects of emotional abuse at work: the target's perspective. *Violence Vict.* 16:233–68
- Keashly L, Harvey S. 2005. Workplace emotional abuse. In *Handbook of Workplace Violence*, ed. EK Kelloway, J Barling, JJ Hurrell, pp. 95–121. Thousand Oaks, CA: Sage
- Keashly L, Jagatic K. 2003. By any other name: American perspectives on workplace bullying. In *Bullying and Emotional Abuse in the Workplace: International Perspectives in Research and Practice*, ed. S Einarsen, H Hoel, D Zapf, CL Cooper, pp. 31–61. London: Taylor & Francis
- Kelloway EK, Barling J, Hurrell JJ Jr. 2006. *Handbook of Workplace Violence*. Thousand Oaks, CA: Sage**
- Kraus JF. 1987. Homicide while at work: persons, industries, and occupations at high risk. *Am. J. Public Health* 77:1285–89
- Kraus JF, Blander B, McArthur DL. 1995. Incidence, risk factors, and prevention strategies for work-related assault injuries: a review of what is known, what needs to be known, and countermeasures for intervention. *Annu. Rev. Public Health* 16:355–79
- Lamberg L. 1996. Don't ignore patients' threats, psychiatrists told. *J. Am. Med. Assoc.* 275:1715–16
- Lanyon RI, Goodstein LD. 2004. Validity and reliability of a pre-employment screening test: the counterproductive behaviour index (CBI). *J. Bus. Psychol.* 18:533–53
- LeBlanc MM, Kelloway EK. 2002. Predictors and outcomes of workplace violence and aggression. *J. Appl. Psychol.* 87:444–53
- Lipsey MW, Wilson DB, Cohen MA, Derzon JH. 1997. Is there a causal relationship between alcohol use and violence? In *Recent Developments in Alcoholism: Vol. XIII*, ed. M Galanter, pp. 245–82. New York: Plenum
- Litzky BE, Eddleston KA, Kidder DL. 2006. The good, the bad and the misguided: how managers inadvertently encourage deviant behaviours. *Acad. Manag. Perspect.* 20:91–103
- Lombardi KS. 1994. Efforts to stem violence in the workplace. *N. Y. Times*, Feb. 13. <http://query.nytimes.com/gst/fullpage.html?res=9B06E3DE1238F930A25751C0A962958260&scp=1&sq=efforts+to+stem+violence+in+the+workplace&st=nyt>

Analyzes the results of 57 empirical studies to identify the individual and organizational predictors of workplace aggression.

Comprehensive overview of the prevalence, contexts, sources, and forms of workplace aggression, and prevention and intervention initiatives.

- Marcus-Newhall A, Pedersen WC, Carlson M, Miller N. 2000. Displaced aggression is alive and well: a meta-analytic review. *J. Personal. Soc. Psychol.* 78(4):670–89
- Martinko MJ, Douglas SC, Harvey P. 2006. Understanding and managing workplace aggression. *Organ. Dyn.* 35:117–30
- Martinko MJ, Grundlach MJ, Douglas SC. 2002. Toward an integrity theory of counterproductive workplace behaviour: a causal reasoning perspective. *Int. J. Select. Assess.* 10:36–50
- McFarlin SK, Fals-Stewart W, Major DA, Justice EM. 2001. Alcohol use and workplace aggression: an examination of perpetration and victimization. *J. Subst. Abuse* 13:303–21
- Miller N, Pedersen WC, Earleywine M, Pollock VE. 2003. A theoretical model of triggered displaced aggression. *Personal. Soc. Psychol. Rev.* 7:75–97
- Miner AG, Glomb TM, Hulin C. 2005. Experience sampling mood and its correlates at work. *J. Occup. Organ. Psychol.* 78:171–93
- Mitchell MS, Ambrose ML. 2007. Abusive supervision and workplace deviance and the moderating effects of negative reciprocity beliefs. *J. Appl. Psychol.* 92(4):1159–68
- Murphy CM, O’Leary KD. 1989. Psychological aggression predicts physical aggression in early marriage. *J. Consult. Clin. Psychol.* 57:579–82
- Namie G, Namie R. 2000. *The Bully at Work: What Can You Do to Stop the Hurt and Reclaim Your Dignity on the Job*. Naperville, IL: Sourcebooks
- Nat. Inst. Occup. Saf. Health. 2002. *Violence: occupational hazards in hospitals*. DHHS Publ. No. 2002–101. <http://www.cdc.gov/niosh/2002-101.html#intro>
- Neuman JH, Baron RA. 1998. Workplace violence and workplace aggression: evidence concerning specific forms, potential causes, and preferred targets. *J. Manage.* 24:391–411
- N. Y. Times*. 1993. Postal study aims to spot violence-prone workers. *N. Y. Times*, July 2:A9
- O’Leary KD, Slep AM. 2003. A dyadic longitudinal model of adolescent dating aggression. *J. Child Adolesc. Psychol.* 32:314–27
- O’Leary-Kelly AM, Duffy MK, Griffin RW. 2000. Construct confusion in the study of antisocial work behavior. In *Research in Personnel and Human Resource Management*, Vol. 18, ed. GR Ferris, pp. 275–303. Greenwich, CT: JAI
- Painter K. 1987. “It’s part of the job”: violence at work. *Employ. Relat.* 9:30–40
- Parkins IS, Fishbein HD, Ritchey PN. 2006. The influence of personality on workplace bullying and discrimination. *J. Appl. Soc. Psychol.* 36:2554–77
- Paul RJ, Townsend JB. 1998. Violence in the workplace—a review with recommendations. *Employ. Rights Resp.* 7: 11:1–14
- Pedersen WC. 2006. The impact of attributional processes on triggered displaced aggression. *Motiv. Emot.* 30:75–87
- Peek-Asa C, Howard J. 1999. Workplace-violence investigations by the California Division of Occupational Safety and Health, 1993–1996. *J. Occup. Environ. Med.* 41:647–53
- Peek-Asa C, Schaffer KB, Kraus JF, Howard J. 1998. Surveillance of nonfatal workplace assault injuries, using police and employers’ reports. *J. Occup. Environ. Med.* 40:707–13
- Penney LM, Spector PE. 2002. Narcissism and counterproductive work behaviour: Do bigger egos mean bigger problems? *Int. J. Select. Assess.* 10:126–34
- Pizzino A. 2002. Dealing with violence in the workplace: the experience of Canada unions. In *Violence at Work: Causes, Patterns and Prevention*, ed. M Gill, B Fisher, V Bowie, pp. 165–79. Cullompton, UK: Willan
- Public Serv. Comm. 2002. *2002 Public Service Employment Survey*. <http://www.tbs-sct.gc.ca/media/nr-cp/2002/1202-eng.asp>
- Raskauskas J, Stoltz AD. 2007. Involvement in traditional and electronic bullying among adolescents. *Dev. Psychol.* 43:564–75
- Raver JL, Gelfand MJ. 2005. Beyond the individual victim: linking sexual harassment, team processes, and team performance. *Acad. Manage. J.* 48:387–400
- Rayner C, Cooper CL. 2006. Workplace bullying. In *Handbook of Workplace Violence*, ed. EK Kelloway, J Barling, JJ Hurrell, pp. 121–46. Thousand Oaks, CA: Sage

- Richman JA, Rospenda KM, Nawyn SJ, Flaherty JA, Fendrich M, et al. 1999. Sexual harassment and generalized workplace abuse among university employees: prevalence and mental health correlates. *Am. J. Public Health* 89:358–63
- Robinson SL, Bennett RJ. 1995. A typology of deviant workplace behaviors: a multidimensional scaling study. *Acad. Manage. J.* 38:555–72
- Robinson SL, Greenberg J. 1998. Employees behaving badly: dimension, determinants and dilemmas in the study of workplace deviance. In *Trends in Organizational Behavior*, Vol. 5, ed. CL Cooper, DM Rousseau, pp. 1–30. New York: Wiley
- Rogers K, Kelloway EK. 1997. Violence at work: personal and organizational outcomes. *J. Occup. Health Psychol.* 2:63–71
- Rospenda KM. 2002. Workplace harassment, services utilization, and drinking outcomes. *J. Occup. Health Psychol.* 7:141–55
- Rospenda KM, Richman JA. 2005. Harassment and discrimination. In *Handbook of Work Stress*, ed. J Barling, EK Kelloway, MR Frone, pp. 149–88. Thousand Oaks, CA: Sage
- Schat ACH, Frone M, Kelloway EK. 2006. Prevalence of workplace aggression in the U.S. workforce: findings from a national study. In *Handbook of Workplace Violence*, ed. EK Kelloway, J Barling, JJ Hurrell, pp. 47–90. Thousand Oaks, CA: Sage
- Schat ACH, Kelloway EK. 2000. The effects of perceived control on the outcomes of workplace aggression and violence. *J. Occup. Health Psychol.* 4:386–402
- Schat ACH, Kelloway EK. 2003. Reducing the adverse consequences of workplace aggression and violence: the buffering effects of organizational support. *J. Occup. Health Psychol.* 8:110–22
- Schat ACH, Kelloway EK. 2005. Workplace violence. In *Handbook of Work Stress*, ed. J Barling, EK Kelloway, M Frone, pp. 189–218. Thousand Oaks, CA: Sage
- Sheehan KH, Sheehan DV, White K, Leibowitz A, Baldwin DC. 1990. A pilot study of medical student “abuse”: student perceptions of mistreatment and misconduct in medical school. *J. Am. Med. Assoc.* 263:533–37
- Skarlicki DP, Folger R. 1997. Retaliation in the workplace: the roles of distributive, procedural and interactional justice. *J. Appl. Psychol.* 82:434–43
- Skarlicki DP, Folger R, Tesluk P. 1999. Personality as a moderator in the relationship between fairness and retaliation. *Acad. Manage. J.* 42:100–8
- Smith AK, Bolton RN, Wagner J. 1999. A model of customer satisfaction with service encounters involving failure and recovery. *J. Mark. Res.* 36(3):356–72
- Snyder LA, Chen PY, Grubb PL, Roberts RK, Sauter SL, Swanson NG. 2005. Workplace aggression and violence against individuals and organizations: causes, consequences and interventions. In *Exploring Interpersonal Dynamics Research in Occupational Stress and Well Being*, Vol. 4, ed. P Perrewe, D Ganster, pp. 1–65. New York: Elsevier
- Spector PE, Coulter ML, Stockwell HG, Matz MW. 2007. Relationships of workplace physical violence and verbal aggression with perceived safety, perceived violence climate, and strains in a healthcare setting. *Work Stress* 21:117–30
- Spielberger CD. 1991. *State-Trait Anger Expression Inventory: Revised Research Edition*. Odessa, FL: Psychol. Assess. Resourc.
- Springer J. 1998. Worker kills 4 at lottery headquarters. *Hartford Courant*, March 7. <http://www.pulitzer.org/archives/6203>
- Stuart P. 1992. Murder on the job (killing of coworkers). *Personnel J.* 71:72–84
- Swanberg JE, Logan TK, Marke C. 2006. The consequences of partner violence on employment and the workplace. In *Handbook of Workplace Violence*, ed. EK Kelloway, J. Barling, JJ Hurrell, pp. 351–80. Thousand Oaks, CA: Sage
- Sygnatur EF, Toscano GA. 2000. Work-related homicides: the facts. *Compens. Work. Cond.* Spring:3–8
- Terkel S. 1974. *Working: People Talk About What They Do All Day and How They Feel About What They Do All Day*. New York: Pantheon
- Thieblot AJ, Haggard TR, Northrup HR. 1999. *Union Violence: The Record and the Response by the Courts, Legislatures, and the NLRB*. Fairfax, VA: George Mason Univ. Olin Inst. Employ. Pract. Policy. Rev. ed.
- Tjaden P, Thoennes N. 2000. *Extent, nature, and consequences of intimate partner violence*. Washington, DC: U.S. Dep. Justice, Nat. Inst. Justice

- U.S. Post. Serv. Comm. Safe Secure Workpl. 2000. *Report of the United States Postal Service Commission on a Safe and Secure Workplace*. New York: Nat. Cent. Addict. Subst. Abuse Columbia Univ.
- VandenBos G, Bulatao EQ. 1996. Workplace violence: its scope and the issues. In *Violence on the Job: Identifying Risks and Developing Solutions*, ed. G VandenBos, EQ Bulatao, pp. 1–23. Washington, DC: Am. Psychol. Assoc.
- Veenstra R, Lindenberg S, Oldehinkel AJ, De Winter AF, Verhulst FC, Ormel J. 2005. Bullying and victimization in elementary schools: a comparison of bullies, victims, bully/victims, and uninvolved preadolescents. *Dev. Psychol.* 41:672–82
- Vinokur AD, Price RH, Caplan RD. 1996. Hard times and hurtful partners: how financial strain affects depression and relationship satisfaction of unemployed persons and their spouses. *J. Personal. Soc. Psychol.* 71:177–94
- Zapf D, Einarsen S, Hoel H, Vartia M. 2003. Individual effects of exposure to bullying at work. In *Bullying and Emotional Abuse in the Workplace*, ed. S Einarsen, H Hoel, D Zapf, CL Cooper, pp. 103–26. New York: Taylor & Francis



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