

Interpersonal Targets and Types of Workplace Aggression as a Function of Perpetrator Sex

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Abstract We investigated the relationship between biological sex of the perpetrator and enactment of two forms of psychological workplace aggression (i.e., overt and covert) against two different interpersonal targets (i.e., supervisors and co-workers). Based on theories of power, we tested hypotheses using two samples ($n_1=155$, 57% females; $n_2=152$, 54% females). In comparison to women, results showed that men enacted greater levels of overt aggression against both supervisors and co-workers. Men and women reported enacting equal levels of covert aggression against both supervisors and co-workers. Taken together, these findings suggest that although biological sex of the perpetrator distinguishes levels of enacted overt aggression in the workplace, there are no differences between the sexes on levels of enacted covert aggression in the workplace.

Key words danger ratio · power · sex differences · status · workplace aggression

Do men and women differ in the frequency and forms of aggression they enact at work, and do these differences generalize across interpersonal targets? As with most workplace behavior, interpersonal workplace aggression, defined as efforts by individuals to harm others with whom they work (Neuman and Baron 2005), is predicted by both individual differences and situational variables (Hershcovis *et al.* 2007). This study addresses the

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intersection of biological sex of the perpetrator and the power of the interpersonal target in predicting overt and covert aggression at work.

Although research in developmental and clinical psychology (e.g., Archer and Coyne 2005; Sorenson and Taylor 2005) has focused on sex differences in enacted aggression in other life domains, sex differences in workplace aggression are not well understood. Drawing on danger ratio theory and differences in both perpetrator and target power, this study investigates sex differences in overt and covert workplace aggression enacted against different interpersonal targets (i.e., supervisor and co-workers). The focus of this paper is on differences between men and women as a biological category, rather than differences based on gender roles to which men and women may mutually ascribe (Powell and Graves 2003).

We posit that the personal power of both the perpetrator and the target will influence the type of aggression that men and women enact towards the target. Using danger ratio theory as our framework, we consider two forms of personal power: the biological sex of the perpetrator and the formal power position of the target. With power conceptualized broadly as “the resources and punishments one can deliver to others, in combination with the freedom to take such action” (Keltner *et al.* 2003, p. 277), supervisors possess more power than coworkers, and men possess more power than women. Danger ratio theory (e.g., Bjorkqvist 1994) suggests that a person who intends to be aggressive will be motivated to minimize personal danger (e.g., physical or psychological retaliation), while at the same time doing the most harm possible to the target.

Background and Hypotheses

Whereas stereotypical beliefs based on prevalence of criminal violence in North America suggest that women are not as aggressive as men (Barling *et al.* 2009), research in the developmental and clinical psychology literatures suggests that a more nuanced view is needed when characterizing aggression enacted by men and women in other domains. For example, although some research (e.g., Daly and Wilson 1998) has found that men are more physically aggressive than women, Bjorkqvist (1994) found that, compared to men, women tend to be more verbally aggressive. Boys are more physically aggressive than girls yet girls are more socially aggressive than boys; however, both sexes are equally aggressive if the type of aggression is taken into account (Underwood 2003). Data on intimate partner violence suggest that men are more likely than women to be physically aggressive towards their partners, yet, in meta-analytic comparisons, overall findings indicate that women are more likely to be aggressive against their partners than men (Archer 2000).

Similarly, there are mixed findings on sex differences in enacted workplace aggression. Aquino *et al.* (2004) showed no significant relationship between sex and workplace aggression; however, Hershcovis *et al.* (2007) found that men were more likely than women to be aggressive towards interpersonal targets (e.g., a colleague) but not organizational targets (e.g., office equipment). To reconcile these mixed findings and to disentangle sex differences in the enactment of workplace aggression, we investigate whether the type and interpersonal target of aggression differ among male and female perpetrators.

The definition of aggression has varied considerably across studies, and this may have contributed to differences in findings across studies related to the relationship between sex and aggression. For example, some researchers have operationalized workplace aggression to include only physically aggressive behaviors (e.g., Kraus *et al.* 1995). Following Baron, Neuman, and their colleagues (e.g., Baron and Neuman 1996, 1998; Baron *et al.* 1999;

Neuman and Baron 1998), we distinguish between overt and covert forms of aggression. Overt aggression is defined as aggressive behaviors in which the aggressor does not attempt to conceal his/her identity from the target (e.g., yelling at someone), whereas the aggressor does attempt to conceal his/her identity from the target with covert aggression (e.g., gossip). Although Baron *et al.* (1999) included physical forms of aggression (e.g., hitting or punching) within their overt aggression category, we consider only non-physical forms of overt aggression (e.g., yelling) to ensure a fair comparison (Cooper and Richardson 1986) with covert forms of aggression, which includes only non-physical forms of aggression (e.g., spreading lies or rumors about a target). We distinguish between overt and covert forms of aggression because each represents a different level of danger to the perpetrator. Specifically, overt aggression is explicit; therefore, it represents a higher level of danger to perpetrators because their actions are visible. In contrast, covert aggression is concealed and presents less danger to perpetrators because their actions are hidden. Using these forms of aggression as our outcomes variables enables us to test our theory that the perpetrator and target power will determine who engages in which type of aggression (i.e., how much danger the perpetrators are willing to risk).

In terms of the personal power of the perpetrator, men are more powerful than women not only in terms of physical strength (Hyde 2005), but also in terms of their historical social status and position within organizations (Berdahl 2007; Powell and Graves 2003). For instance, according to United States (US) Census statistics, US women receive lower pay, work in lower status jobs, and face more unemployment than their male counterparts (Cortina 2008). Therefore, the average social danger for women engaging in aggression is greater than it is for men. In contrast, due to greater average physical strength and social status, men should be on average less likely to perceive danger from enacting aggression. As such, women will be more inclined than men to hide their aggressive actions and will therefore be less likely to engage in overt forms of aggression.

In addition to perpetrator power, however, target power is likely to influence the extent and type of aggression perpetrators choose to enact. Workplace aggression occurs in the context of organizational relationships that delineate power dynamics and may constrain aggressive action. In an organizational context, legitimate power, which derives from one's formal role (e.g., as a supervisor), may influence the perpetrator's perception of danger. Supervisors have control over employee access to resources and work-related benefits. Therefore, men and women are both likely to perceive the danger of retaliation from higher-power targets.

Based on the above arguments, we posit that because men are less likely on average to perceive threats, men will be more *overtly* aggressive than women against supervisors (H1) and co-workers (H2). Further, we posit that because supervisors present a greater threat than co-workers, men and women will be more likely to engage in *covert* (H3) and *overt* (H4) aggression against co-workers than supervisors. Finally, because covert aggression permits perpetrators to hide their aggressive actions and thereby to minimize the threat of danger, men and women will be equally likely to engage in *covert* aggression against supervisors (H5) and co-workers (H6).

Method

Participants

Two samples of young workers were used to test our hypotheses. Participants in both studies were first-year business students from a Canadian university working part-time jobs

during the summer months (April–September) who voluntarily enrolled in a research participant pool to receive extra course credit. After obtaining ethics approval from our Institutional Review Board, we e-mailed survey links to students to complete online. This study was part of a larger program of research, conducted in 2006, examining aggression towards supervisors and co-workers. Due to the length of the questionnaire, we measured some of the variables in one version and some in another version with supervisor and co-worker aggression each measured in different surveys. Using the first sample ($n_1=155$), we investigated aggression towards supervisors: participants' average age was 20.17 years ($SD=1.21$), average number of hours worked per week was 40.03 h ($SD=12.27$), and 88 participants (57%) self-identified as female. Using the second sample ($n_2=152$), we investigated aggression towards co-workers: participants' average age was 19.92 years ($SD=1.16$), average number of hours worked per week was 42.00 h ($SD=14.35$), and 82 participants (54%) self-identified as female.

Measures

Biological Sex This was assessed using one question asking individuals to self-identify as either male or female.

Workplace Aggression Workplace aggression enacted against supervisors and co-workers was measured using scales for overt and covert aggression adapted from Baron *et al.* (1999). We used the same root items in both the supervisor and co-worker scales, but changed the target. Participants were asked to “Consider your recent summer job when answering these questions. Over the past 4 months, how often did you do each of the following things while you were at work to a supervisor [co-worker].” Responses were 0=never, 1=once, 2=twice, 3=3–5 times, 4=6–10 times, 5=11–20 times, and 6=more than 20 times. Overt aggression was measured with four items: yelled or shouted at a supervisor [co-worker], publicly embarrassed or put down a supervisor [co-worker], judged or criticized a supervisor's [co-worker's] work unfairly to his/her face, and insulted or ridiculed a supervisor [co-worker] work to his/her face. Covert aggression was measured with 4 items: spread a rumor or lie about a supervisor [co-worker] behind his/her back, delayed action on matters I knew were important to a supervisor [co-worker], secretly did things to make a supervisor [co-worker] look bad, and failed to warn a supervisor [co-worker] about impending danger.

Results

A summary of our hypotheses and results appears in Table 1 and descriptive statistics and intercorrelations for the study variables appear in Table 2.

Nonparametric tests of independent samples with ordinal data (i.e., Mann–Whitney test; Mann and Whitney 1947) were used to evaluate the four directional (H1–H4) and two non-directional hypotheses (H5, H6), with effect sizes (r) reported with each comparison. H1 was supported: men reported higher levels of overt aggression against supervisors than did women; $z=2.32$, $p<.05$, $n=155$, $r=.19$. H2 was supported: men reported higher levels of overt aggression against co-workers than did women; $z=1.90$, $p<.05$, $n=152$, $r=.15$. H3 was not supported: there were equal levels of covert aggression enacted against supervisors and co-workers; $z=1.09$, $p>.05$, $n=315$, $r=.06$. H4 was supported: there were higher levels of overt aggression enacted against co-workers than supervisors; $z=2.88$, $p<.01$, $n=316$,

Table 1 Hypotheses and results.

Hypotheses (H)	Results
H1: Men will be more overtly aggressive than women towards supervisors.	Supported
H2: Men will be more overtly aggressive than women towards co-workers.	Supported
H3: Men and women will be more likely to engage in covert aggression towards co-workers than supervisors.	Not supported: men and women enacted equal levels of covert aggression towards supervisors and co-workers.
H4: Men and women will be more likely to engage in overt aggression towards co-workers than supervisors.	Supported
H5: Men and women will be equally likely to engage in covert aggression towards supervisors.	Supported
H6: Men and women will be equally likely to engage in covert aggression towards co-workers.	Supported

$r=.16$. H5 was supported: men and women reported equal levels of covert aggression against supervisors; $z=1.25$, $p>.05$, $n=155$, $r=.10$. H6 was supported: men and women reported equal levels of covert aggression against co-workers; $z=-.61$, $p>.05$, $n=152$, $r=.05$.

Discussion

Consistent with our hypotheses, we found that men reported enacting more frequent overt aggression towards both supervisors and co-workers than did women. Men and women were equally likely to report engaging in covert aggression towards both supervisors and co-workers. Overall, overt aggression towards co-workers was also higher than overt aggression towards supervisors. Yet, contrary to our hypothesis, levels of covert aggression reported by both men and women towards co-workers and supervisors were not significantly different.

Overall, these findings call into question the stereotypical view that men are more aggressive in the workplace than women. In this study, the type of aggression and the target

Table 2 Spearman rank correlations between study variables and reliabilities from the 2 samples.

Variables	M^d	SD^d	1.	2.	3.	4.	5.
1. Sex ^a							
2. Overt supervisor aggression ^b	.17	.57	.19*	(.86)			
3. Covert supervisor aggression ^b	.18	.56	.10	.35***	(.82)		
4. Overt co-worker aggression ^c	.32	.75	.16	–	–	(.88)	
5. Covert co-worker aggression ^c	.21	.48	–.05	–	–	.44***	(.77)

Cronbach alphas appear in brackets on the diagonal. ^a 0=female, 1=male. ^b $N=155-157$. ^c $N=151-159$. ^d As median values for all forms of aggression measured here are zero, mean and standard deviation values reflective of ordinal response categories should be interpreted cautiously. * $p<.05$. *** $p<.001$. – No correlations available

of aggression were important conditions affecting sex differences in the enactment of workplace aggression. These findings suggest a need to focus on the relationship between the perpetrator and the target (Hershcovis and Barling 2010), in addition to the sex of the perpetrator. Holding higher relative status due to their sex (Gerber 2009), men may feel safer aggressing overtly against targets with more power (legitimate power in the case of supervisors, social power in the case of co-workers) than do women. Our findings are consistent with the basic premise of the danger-ratio theory (e.g., Bjorkqvist 1994) — that individuals are motivated to minimize personal danger (e.g., physical or psychological retaliation) when enacting aggression — and further delineate the role that power plays in this calculation.

One of our hypotheses (H3) was not supported. That is, we expected men and women to engage in more covert aggression towards co-workers than supervisors, but found no difference between covert aggression targeted at co-workers and supervisors. It is possible that the danger of retaliation from supervisors and co-workers is a low probability event because of the hidden nature of covert aggression. Since it is difficult to identify and assign responsibility for covert aggression, there may be little reason to avoid covert aggression for perpetrators who aim to be aggressive. This may explain why we found equal levels of covert, but not overt, aggression against both supervisors and co-workers. Again, this finding supports the danger ratio theory in that if individuals feel little likelihood that the target can identify them, there will be little threat of retaliation regardless of the power that the target holds. It appears that both sexes are equally likely to be covertly aggressive, regardless of the target.

As with any research, there are limitations worth noting. First, the use of part-time worker samples is a potential limitation, particularly given participants' shorter amounts of work experience. Yet, there are reasons to believe that the use of young workers as participants provides a conservative test of sex differences in aggression. Traditional social gender roles are changing (Powell and Graves 2003), and people from younger generations may be less likely to hold traditional sex role stereotypes than older generations. Given that participants were holding summer jobs, the possible repercussions for aggression might also be lower, and reporting of aggressive behavior higher than if we surveyed older workers. To some extent this mitigates the issue of lack of generalizability, which is usually a prevalent concern with student participants. Second, we assessed our two dependent variables (supervisor-targeted aggression and co-worker-targeted aggression) in different surveys. However, the sample structure was the same and we have no reason to believe that the respondents would have answered differently if they had responded to both dependent variables within the same survey. Nevertheless, future research should attempt to replicate these results by examining the dependent variables concurrently. Third, our research is further limited in generalizability to workplace aggression within Anglo-Western organizations. It would be interesting to compare these results with organizations situated in other cultures in which power differences between the sexes may be much stronger (e.g., some Middle Eastern cultures: Metcalfe 2007), in addition to countries in which organizations and governments put a greater emphasis on equality between men and women than in North America (e.g., Norway: Clark 2010). Despite this limitation, this study makes a contribution in terms of furthering understanding of how sex of the perpetrator and power differentials between target and perpetrator affect type and target of aggressive behavior at work.

The findings from this study have practical implications for organizations. First, organizations should be aware that there are different predictors of overt versus covert aggression in the workplace. In this study, we found that males were more likely to be

overtly aggressive than females. This finding may be especially applicable in industries and organizations that are male-dominated (e.g., construction, fire-fighting); therefore, it is especially important in these industries that managers are trained to deal with overt aggression. Further, organizations should implement a clear policy that defines overt and covert aggression, explains how victims can respond (i.e., reporting lines), and explains the investigation process and potential outcomes for perpetrators (Hershcovis and Barling 2006). It may be trickier to deal with covert aggression because it is a ‘hidden’ form of mistreatment. However, its hidden nature makes it more important that managers are trained to recognize and deal with covert aggression, since hidden mistreatment will be harder for victims to report. Finally, when training managers, they should be made aware that both men and women are equally likely to be covertly aggressive. This could be useful in thwarting stereotypes surrounding workplace aggression and ensuring managers are mindful of interpersonal interactions by both men and women.

In addition to the type of enacted aggression, the relationship between the perpetrator and the target remains paramount (Hershcovis and Barling 2010). Future research in the area of sex differences in workplace aggression should focus on further delineating the circumstances under which men or women are more or less likely to engage in specific forms of aggression. As well, the notion of gender identity (e.g., Bem 1974; Korabik and Ayman 2007), as opposed to sex differences, could be an interesting avenue to pursue in furthering the understanding of the enactment of workplace aggression. Most research in this area has focused on sex as a predictor, but perhaps psychological processes such as gender role orientation (Korabik and Ayman 2007) might be more predictive of how and against whom an individual will aggress. Overall, these approaches should enrich our understanding of workplace aggression, as well as help to provide guidelines for prevention policies and measures.

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