COMPETENT OR WARM?

COMPETENT OR WARM? APPLYING THE STEREOTYPE CONTENT MODEL TO INVESTIGATE THE RELATIONSHIP BETWEEN JOB PERFORMANCE AND WORKPLACE AGGRESSION

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TITLE: Competent or Warm? Applying the Stereotype Content Model to Investigating the Relationship Between Job Performance and Workplace Aggression

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ABSTRACT

This dissertation aims to advance our understanding of workplace aggression by developing and testing two models based on the stereotype content model (SCM) and adopting the social network analysis approach. Specifically, two studies of the dissertation focus on (a) unfavorable social evaluations stemming from competence stereotypes, (b) stereotype-driven negative emotions as a mechanism to explain the relationship between competence and workplace aggression, and (c) the role of informal workplace relationships in predicting workplace aggression. Study one investigates the nonlinear relationship between job performance and exposure to workplace aggression and two distinct mediating mechanisms at high and low levels of job performance. High performers provoke jealousy, and low performers provoke contempt from coworkers, both of which are positively associated with exposure to workplace psychological aggression. The study tested these relations using data from a sample of 187 teachers from educational institutions in India and found support for the curvilinear relationship between performance and workplace psychological aggression and the mediating mechanisms of jealousy and contempt for high and low performers, respectively. Study two examines the role of workplace social ties (advice and friendship ties) in predicting workplace aggression. Results from data collected at 2-time points from 248 individuals in 21 workgroups largely supported the proposition that highly competent employees become victims of covert aggression and low competence employees become victims of overt aggression. Interestingly, the findings suggest that advice-giving and friendship ties mitigate the experience of aggression by reducing coworkers' envy. However, advice-seeking aggravates overt aggression by increasing coworkers' contempt.

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CHAPTER 1: INTRODUCTION

Workplace aggression is a ubiquitous social phenomenon affecting both individuals and organizations. It has been estimated that nearly 39% of the US workforce has experienced some form of aggression at work (Schat, Frone, & Kelloway, 2006; Namie, 2021), resulting in tremendous costs for employees and employers. Workplace aggression has a negative impact on employee attitudes (job satisfaction and turnover intent), behavior (interpersonal and organizational deviance), and health (e.g., depression and somatic health; Hershcovis & Barling, 2010; Schat & Kelloway, 2000). The costs for organizations are also high because of victims' decreased work effort (Pearson & Porath, 2013), reduced time at work, and reduced productivity (O'Leary-Kelly, Griffin, & Glew, 1996). These consequences for both workers and organizations, have garnered considerable research attention to understand the antecedents and consequences of workplace aggression.

Previous research has identified a number of situational and individual antecedents of employee exposure to aggression. Situational antecedents include the type of industry (e.g., manufacturing vs. service; Schat, Frone, & Kelloway, 2006; Mikkelsen & Einarsen, 2002), job design (e.g., workload and autonomy; Einarsen, Raknes, & Matthisen, 1994; Vartia, 1996) interpersonal conflict, (Heshcovis et al., 2007) and group and organizational climate (e.g., violence climate and injustice climate; Spector, Coulter, Stockwell, & Matz, 2007; Aquino, Tripp, & Bies, 2006). Individual antecedents include victim demographics (e.g., age, gender, and tenure; Aquino & Bradfield, 2000; Notelaers et al. 2011), personality traits (e.g., negative affectivity, introversion, emotional instability; Aquino, Grover, Bradfield, & Allen, 1999; Glaso, Matthiesen, Nielsen, &

Einarsen, 2007), and behaviors (e.g., dominant behavior; Aquino, 2000; Aquino & Bommer, 2003).

Available theory suggests other antecedents that have the potential to enhance our understanding of workplace aggression are the two employee characteristics – likeability and performance -- which are salient personal attributes in work settings that are likely to influence how people are treated by others (Casciaro & Lobo, 2005). Likability and performance correspond to warmth and competence of the stereotype content model (Cuddy, Fiske, Glick, & Xu, 2002). However, there is notably little evidence to determine whether victims' competence and warmth (likeability) are related to victimization, although Jensen and colleagues (2014) suggest both competent and less competent employees are more likely to become victims.

In this dissertation, I seek to build on this and enhance the consideration of the antecedents of workplace aggression in several ways. First, the study by Jensen et al. (2014) implies a nonlinear relationship between performance and aggression by showing both high and low performers becoming victims. Thus, by testing the nonlinear relationship between performance and workplace aggression, I explain some of the crucial nuances of the aggression phenomenon. Second, little is known about the underlying mechanisms through which competence may precipitate aggression. It is theoretically and practically important to understand how and why employee competence may put them at risk of mistreatment. Finally, the role of social organizational context (such as informal interpersonal relationships) in which aggression occurs also needs to be considered.

Building on this, I examine two models by conducting two field studies that used the survey method and social network analysis method. I consider the competence-aggression relationship

by drawing on the stereotype content model (Cuddy et al., 2002) and the behavior from intergroup affect stereotypes (BIAS) map. Together these theories posit that people form judgments of others based on their competence and warmth. The judgments evoke emotions, which then translate into behaviors towards the target (see Paper 2: Theory and hypothesis for more information). Although not explicit, the Stereotype Content Model (SCM) theory implies the presence of a nonlinear relationship between competence and aggression. Guided by these arguments, in the study 1, I test a U-shaped relationship between job performance and aggression. Here, I use job performance as a behavioral manifestation of employee competence (see paper 1 for more information) suggesting high and low job performance is positively related to aggression. Testing this nonlinear model helps expand and develop the theory by providing a richer and more nuanced explanation for the job performance and aggression relationship.

This dissertation also examines the psychological mediating mechanism that explains how high and low competence levels are associated with victimization. I present a parallel mediation model wherein two mediators are proposed to uniquely explain the role of negative emotions (envy and contempt) in performance-aggression association. Understanding these mechanisms is essential to know how social judgments (stereotyping) may cause interpersonal harm, and thus help in developing prevention strategies for organizations to address aggression.

Next, study 2 of this dissertation considers the role of the social context in which the workplace aggression occurs. Although much of the research on aggression has focused on the victim's characteristics, a social contextual perspective is being encouraged by some scholars (e.g., Aquino & Tau, 2009; Hershcovis & Reich, 2013; Cortina, Hershcovis, & Clancy, 2021). Humans are inherently social, and the network of relationships they share in the workplace may be a most influential contextual factor that shapes individual behavior. Considering this, in study

2 of the dissertation, I adopt a social networks perspective as a context for understanding aggression. I argue that the focal employee's structural position in workplace relationships can form the basis for stereotyping and interpersonal aggression (Casciaro & Lobo, 2005). These relationships need not be personal and may include informal relationships such as advice or friendship ties among coworkers. The social network lens contributes to establishing the boundary conditions for the competence-aggression relationship. Specifically, I use two social network variables, advice and friendship ties, as boundary conditions. Based on multiple theoretical frameworks and previous empirical findings (e.g., stereotype content model, social network analysis), I test the moderating role of warmth (e.g., friendship ties) and advice (e.g., advice ties) in shaping the relationship between competence and exposure to aggression at work.

In summary, this dissertation consists of two field studies. The first study draws on the Stereotype Content Model to test for a nonlinear relationship between job performance and workplace psychological aggression. Furthermore, the study employs nonlinear mediation analysis to test a parallel mediation of coworker jealousy and coworker contempt at high and low levels of job performance and workplace aggression respectively. The second study draws on the Stereotype Content Model and Behavior from Intergroup Affect and Stereotype (BIAS) map to explore the relationship between competence and workplace aggression. Furthermore, this study employs social network analysis to explore the role of interpersonal relationships in predicting workplace aggression. Precisely, this dissertation attempts to examine (a) the presence of a nonlinear relationship between job performance and workplace psychological aggression, (b) the stereotype-driven negative emotions as a mediating mechanism underlying the nonlinear relationship, (c) the role of workplace informal relationships in predicting workplace aggression, and (d) the moderating role of employee friendship in shaping workplace

aggression phenomenon at the employee level. Investigating these issues is important both theoretically and practically. From a theoretical standpoint, this dissertation extends the stereotype content model by exploring the U-shaped relationship job performance share with workplace aggression, its underlying mechanism, and its individual-level boundary conditions. From a practical standpoint, this dissertation contributes to building a safe workplace that promotes employee well-being. It also contributes to organizational effectiveness by presenting how employee-level attributes and actions can mitigate the aggression phenomenon.

CHAPTER 2: LITERATURE REVIEW

A large body of literature has examined personal and situational antecedents, physiological and psychological consequences, and prevention and coping strategies related to workplace aggression (Kim, 2012). In this chapter, I will review the literature on workplace aggression. I will first define workplace aggression and then discuss the previous literature on workplace aggression, focusing on its antecedents. Finally, I will review the theories and empirical results to provide a foundation for my theoretical model.

Definition of Workplace Aggression

Based on workplace aggression literature, I conceptualize workplace aggression as the self-perception of being a target of behavior from a coworker or coworkers carried out with the intent to harm (Anderson & Bushman 2002; Aquino & Tau, 2009). This conceptualization is appropriate for this study because it has three conditions. First, aggression is a subjective and perceptual process, which is the focus of this dissertation. Second, workplace aggression is a broad construct that includes multiple forms of interpersonal conflict (e.g., incivility, undermining, and antisocial behaviors). This conceptualization is particularly important for study 2, where I argue that employees become victims of distinct forms of aggression. Third, workplace aggression is restricted to coworkers' aggression. This focused view is critical because employees may experience aggression from multiple sources at work, such as — supervisors, subordinates, and customers. This narrowed view is consistent with previous studies that specify that the source is essential to reflect the distinct patterns of aggression coming from supervisors, coworkers, and customers (Duffy, Ganster, & Pagon, 2002; Grandey, Dickter, & Sin, 2004; Hershcovis & Barling, 2010; Tepper, 2007). However, it should be noted that I adopted different definitions of workplace aggression in this dissertation based on the purpose of each study. For study 1, I adopted

workplace psychological aggression (WPA), which is defined as “behavior that is characterized by a verbal or symbolic act and the typical immediate effect of which is psychological harm (e.g., fear, anxiety)” (P. 24) (Schat & Frone, 2011). WPA includes verbal, indirect, and passive forms of aggression. Verbal aggression involves efforts to inflict harm on the victim through words rather than deeds (e.g., raising voice), indirect forms of aggression involve the delivery of harm through damaging the objects valued by the victim (e.g., work sabotage), and passive forms of aggression involve inflicting harm through the withholding of some action (e.g., not sharing work-related information) (Baron & Neuman, 1996).

For study 2, I conceptualize workplace aggression as a broad construct consisting of overt and covert forms of aggression (Neuman & Baron, 1998). Overt aggression refers to behaviors that harm a target where the perpetrator does not cover their identity. An example of overt behavior includes yelling, swearing, and making threats. Covert aggression refers to subtle behaviors that harm a target where perpetrators disguise their actions (Jensen et al., 2014). Examples include withholding work-related information and spreading rumors.

Predictors of Workplace Aggression

Based on the current body of literature, predictors of workplace aggression can be categorized into situational predictors (e.g., climate, justice, role ambiguity, and role conflict), personal predictors (e.g., demographics, personality, structural positions, and behavior), and relational predictors (e.g., leader-member exchange, team-member exchange, and LMX differential).

Theoretical foundation of Situational predictors

It is hard to narrow down to a single theory that examines situation-based antecedents of aggression because the conditions for which many of these relationships depend upon are situation-specific. However, criminology theories provide a guiding framework to understand the relationship between situational predictors and workplace aggression (Kim, 2012; Elias, 1986). Collectively, these theories suggest that situational constraints and regulatory failure are strong predictors of aggression. In a work context, situational constraints are workplace stressors that interfere with an individual's job performance and desired goals (Hershcovis et al., 2007). These stressors, when goal-responses are interrupted, may lead to negative emotions such as frustration. The frustration-aggression model posits that individuals' emotional reaction to situational constraints is frustration while the behavioral response is aggression (Fox & Spector, 1999). Drawing upon criminology theories, particularly on the frustration-aggression hypothesis, researchers have examined the relationship between role ambiguity, role conflict, and workplace aggression (Dollard, Doob, Miller, Mowrer, & Sears, 1939; Taylor & Kluemper, 2012). The relationship between these constructs and workplace aggression remains inconsistent. Although few studies show that both role ambiguity and conflict enhance interpersonal aggression (Bowling & Beehr, 2006; Taylor & Kluemper, 2012), others have shown a non-significant relationship between role ambiguity and aggression across different sectors (Einarsen, Raknes, & Matthiesen, 1994).

Another significant situational predictor of aggression is a regulatory failure. Regulatory failure is the inability of policies and practices to control aggression. Dollard et al. (1939) have noted that the suppression of any act is directly proportional to the strength of the punishment anticipated for expressing the act. Researchers argue that an aggression prevention climate—a

perception of employees that management emphasizes the control and elimination of aggression in their workplace—can curb workplace aggression (Spector, Coulter, Stockwell, & Matz, 2007). It controls aggression by instituting strong policies and procedures and by providing training in dealing with aggression. Previous research has supported that a strong aggression prevention climate can prevent such behaviour. For example, an empirical investigation by Spector et al. (2007) showed that the aggression climate is negatively related to physical and verbal aggression. Another study (Kessler, Spector, Chang, & Parr, 2008) demonstrates how distinct dimensions of aggression prevention climate are associated with physical and verbal aggression. In a study by Chang, Eatough, Spector, and Kessler (2012), the authors observed that poor psychological aggression-prevention climate represents stressors associated with increased strain and reduced motivation. Considering aggression-climate as a group-level construct, Gururaj and Schat (2016) examined its influence on individual behaviors using a multi-level model, suggesting a healthy group-level aggression climate can negatively influence workplace aggression.

Theoretical foundation of Personal predictors

Perhaps the most widely used theory to study the personal predictors of aggression is the victim precipitation model (Curtis, 1974; Schafer, 1968; 1977). The theory posits that victims possess and exhibit specific characteristics that intentionally or unintentionally instigate actors to behave aggressively towards the victim.

Drawing on the victim precipitation model, Aquino (2000) has categorized victims of workplace bullying as submissive and provocative victims. Based on this typology, submissive and weaker individuals are attracted to bullies because of their distinctive characteristics, and provocative individuals become victims because they elicit retaliatory actions from others (Kim, 2012). Drawing on submissive-provocative typology, scholars have examined individual factors

such as age, gender, personality traits, structural positions (co-worker, supervisor, and customer), and behaviors (OCB and performance) to predict exposure to aggression. Although early research suggested that older individuals and females are more prone to aggression (Schafer, 1968), the recent empirical work shows mixed findings. While some studies indicated that age is negatively related to aggression (Aquino & Bradfield, 2000), others show no significant relationship (Bowling & Beehr, 2006).

Another significant individual-based predictor of aggression is personality traits. Research on personality and aggression shows a consistent relationship between the victim's negative affectivity and aggression (Bowling et al., 2006; Hershcovis et al., 2007). Also, victims of aggression scored low on conscientiousness, agreeableness, and extraversion but high on neuroticism (Glaso, Matthiesen, Nielsen, & Einarsen, 2007; Coyne, Seigne, & Randall, 2000). Researchers have also demonstrated that provocative dominant behavior and conflict management styles as significant predictors of workplace victimization (Aquino, 2000; Aquino & Byron, 2002). While avoiding, obliging, and dominating styles are positively related to perceived victimization, integrating, and compromising conflict management styles are negatively related (Aquino, 2000).

Interestingly, recent empirical studies have suggested job performance as a predictor of victimization (Kim & Glomb, 2010; Lam, Van der Vegt, Walter, & Huang., 2011; Kim & Glomb, 2014). The empirical studies in this line of inquiry show that high performers are at risk for aggression by their co-workers (Kim & Glomb, 2010; 2014). It is also revealed that both high and low performers become victims of different forms of aggressive behaviors. While high performers experience covert forms of aggression, low performers become victims of overt forms of aggression (Jensen et al., 2014). Using a different theoretical framework (SCM) and explicitly

testing a curvilinear model, the first study of this dissertation demonstrates how high and low performers become victims of aggression through different underlying mechanisms.

Although several studies have explored the relationship between performance and aggression, more work is required to understand how and under what conditions performance leads to aggression. Research on social judgment specifies that humans base their evaluations on two universal dimensions – competence and warmth. In study 1, I will consider how job performance may be associated with exposure to aggression. However, we know little about the role of warmth in the relationship between competence and aggression. As posited by the stereotype content model (Fiske et al., 2002, please see below for details about SCM), warmth may be a boundary condition for the relationship between competence and aggression. Therefore, I address this in the study 2 by proposing and testing a model of the interaction effect of competence and warmth on workplace aggression.

Theoretical foundation of Relational predictors

Relational predictors refer to elements of the nature of relationships among members of a workgroup. These relations can be dyadic, differential, or collective in nature that may influence aggression. The nature of aggression depends on the type of relationship between perpetrator and target (Hershcovis et al., 2007). Lamertz and Aquino (2004) showed that social status and power emerging from focal employee positions in social networks can influence his/her victimization. Chullen, Dunford, Angermeier, Boss, and Boss (2010) demonstrated that the quality of a relationship between supervisors and subordinates influence deviant behaviors targeted towards both individuals and organizations. Although previous literature suggests that relationships play a significant role in victimization, there is still a dearth of research on how the supervisor-subordinate relationship influences workplace aggression. Identifying this gap, Gururaj et al.

(2016) studied how a dyadic relationship between leader and subordinates (Leader-member exchange; LMX) and a differential relationship within the team (LMX differentiation) influence workplace aggression. They identified that employees who share a strong relationship with their leader experience less aggression from coworkers. However, employees in teams with leaders expressing differential relationships experience more aggression.

Relational ties are the links between a pair of actors that act as channels for a social exchange through which instrumental (advice and knowledge) and emotional (friendship and love) support flow. These social exchanges provide insights into interpersonal dynamics that contribute to aggression. Thus, I argue it is crucial to consider the role of workplace ties while investigating workplace aggression. Previous research has supported this notion by demonstrating the quality of relationships (Venkataramani et al., 2007) and informal structures created by workflow and social systems (Lamertz et al., 2004; Venkataramani et al., 2007) are predictors of workplace aggression. In this dissertation, I build on this work by investigating the role of instrumental and expressive ties in predicting workplace aggression.

CHAPTER 3: STUDY 1

Why Do Both High and Low Levels of Job Performance Predict Coworker Aggression? A Competitive Mediation Model

Effective job performance is the primary contribution that an employee is expected to make to an organization. Indeed, it is the sine qua non of an employment relationship. People are hired because they possess the characteristics (e.g., knowledge, skills, etc.) that should enable them to effectively perform the tasks required by the job. Those who perform effectively will typically accrue various benefits including a reputation as a capable employee, strong relations with their supervisors and leaders, and higher financial rewards. Those who do not perform well will usually experience negative consequences, including criticism, lack of confidence from their supervisor and coworkers, and sanctions that may include being terminated. Thus, because of the centrality of job performance in organizations, the outcomes experienced by low and high performers tend to be sharply divergent from each other.

Although high and low performers usually experience divergent outcomes, in this paper I consider one area in which they may be vulnerable to a similar negative outcome: the experience of mistreatment from coworkers. Because high and low performers deviate from typical or "average" levels of performance, their coworkers may experience negative perceptions that may give rise to aggression towards them (Jensen, Patel, & Raver, 2014). In this study, I propose distinct mechanisms based on coworker emotion to explain why high and low performers experience mistreatment (i.e., aggression). Coworkers of high performers tend to feel jealous of and threatened by their superior performance, which may motivate aggressive behavior toward them. On the other hand, coworkers of poor performers tend to feel contempt and a desire to avoid being associated with their perceived incompetence, which is also expected to motivate

aggression. In the current study, I use multi-source data to test a model comprising a curvilinear relation between job performance and aggression and distinct pathways by which both high and low performance is associated with experiencing aggression from coworkers.

The idea that high and low performers may face aggression has received some research attention. While some scholars have suggested that star performers may experience aggression (Campbell, Liao, Chuang, Zhou, & Dong, 2017; Kim & Glomb, 2014; Lam, Van der Vegt, Walter, & Huang, 2011), others have suggested and demonstrated that low performers also experience aggression (Jensen et al., 2014). Hence, the existing evidence suggests that job performance is positively and negatively related to experiencing workplace aggression (Jensen et al., 2014). The extant empirical work examining this relationship relied on linear models that result in either positive (Jensen et al., 2014; Kim & Glomb, 2014, 2010) or negative (Hershcovis et al., 2007) association. However, I argue that performance and aggression share a more complex association than simply negative or positive. Thus, my paper uses a unifying framework to examine a non-linear relationship and to explain why high and low performers experience aggression. My study attempts to replicate the research from Jensen et al. (2014) while extending the previous findings in two novel ways. First, this study tests for the presence of a nonlinear relationship between job performance and workplace aggression. Second, it presents two novel underlying mechanisms through which job performance affects workplace aggression, jealousy and contempt.

One theoretical explanation for why the relation between performance and aggression may vary comes from the stereotype content model (SCM) (Fiske, Cuddy, Glick, & Xu, 2002). According to the SCM, individuals often use perceptions of the target’s competence (e.g., ability, creativity, intelligence, knowledge, and efficiency) to form stereotyped judgments. Stereotypes

are cognitive structures that consist of our beliefs about the personal attributes of members of social group (Cuddy & Fiske, 2002). Stereotypes stemming from the target's competence may subsequently lead to distinct negative emotions (such as jealousy and contempt) and behaviors towards them (Fiske et al., , 2002). Based on insights from the SCM, I propose a model to show that the relationship between individual job performance (a key indicator of competence in the work context) and workplace aggression is non-linear (i.e., U-shaped). In the proposed model I posit that both high and low job performance levels yield unique stereotypes and affective reactions that are positively related to aggression (Cuddy, Fiske, & Glick, 2007). Specifically, I contend that high performers elicit coworker jealousy and low performers elicit coworker contempt, both of which increase the likelihood of them experiencing workplace aggression. To reflect this, I propose and test a multiple mediation model to explain how job performance is curvilinearly related to workplace aggression. A schematic diagram depicting the proposed model overlaid on the curvilinear relation is presented in Figure 1. A more traditional path diagram representing these relations is presented in Figure 2.

In this research, I aim to investigate the mediating processes that account for a curvilinear relationship between job performance and workplace aggression and to contribute to the current literature on performance and workplace aggression in several ways. First, I test a curvilinear (U-shaped) relationship between aggression and performance in order to clarify some of the inconsistencies that characterize the limited theoretical and empirical work in this area. Previous research has focused on a linear relation, which may hinder theory development by failing to consider alternative (i.e., non-linear) forms of this relation. I test a non-linear (curvilinear) model to integrate the existing literature and advance theory on workplace aggression and job performance. Second, I draw on the stereotype content model (Fiske et al., 2002; 2007) as an

overarching theoretical framework to inform our choice of constructs for this model and conceptualize and explain their relations. By doing this, this study can provide novel insights into the relationship between job performance and aggression. I also contribute to the development of the stereotype content model by extending its application to the study of workplace aggression. Finally, this study can enhance our understanding of the job performance-aggression relationship by examining the underlying mechanisms responsible for the non-linear relationship. Previous work has found that envy mediates the linear relationship between job performance and aggression (Kim & Glomb, 2014). However, by considering both the non-linear relationship between job performance and workplace aggression and the mediating role of negative emotions in the curvilinear relationship, I provide a more nuanced theoretical explanation for job performance as an antecedent of exposure to aggression. Specifically, I use a multiple-mediator model to identify different mechanisms through which different performance levels may lead to aggression. This approach enriches our theoretical understanding of how and through what mechanisms employee performance becomes a potential risk factor for experiencing aggression.

The remainder of the paper proceeds as follows. First, I briefly describe our conceptualization of workplace aggression, followed by a brief discussion of the theoretical mechanisms underlying the relations between high and low performance and workplace aggression. From these theoretical discussions, I derive and test several hypotheses. Finally, I discuss theoretical, practical, and statistical implications and offer ideas to stimulate directions for future research on performance and aggression.

Conceptualization of Workplace Aggression

The working definition of workplace aggression is consistent with that of Schat and Frone's (2011) conceptualization of workplace psychological aggression (WPA) which defines WPA as a "behavior that is characterized by a verbal or symbolic act and the typical immediate effect of which is psychological harm (e.g., fear, anxiety)" (P. 24). This conceptualization is suitable for the study because of the behaviors it comprises – including verbal abuse, withholding of resources needed for work, and social isolation – are affect-driven behaviors that coworkers may engage in at work (Hershcovis & Barling, 2010; Jensen et al., 2014; Kim & Glomb, 2010).

Theoretical Background and Hypotheses

Rooted in social comparison theory, the SCM posits that social groups are stereotyped based on competence and warmth (Cuddy, Fiske, & Glick, 2004; 2007). Combining these two dimensions results in different stereotype categories that generate distinct emotions (Cuddy et al., 2004). Cuddy et al. (2007) have indicated that warmth and competence dimensions often correlate positively, suggesting that they act alike when considered at an individual level. Therefore, for this study, I focus on contrastive evaluations of competence at the individual level. Specifically, I argue that evaluating oneself against high performers elicits jealousy and evaluating oneself against low performers elicits contempt.

An extension of SCM that focuses on the behavioral outcomes of competence (and warmth) stereotypes in social interactions is the behavior from intergroup affect stereotypes (BIAS) map. According to this theory, the competence stereotypes predict positive (facilitation) and negative (harm) reactions, depending on the nature of the emotion elicited by the social comparison. Thus, drawing on the above theories, this study argues that contrastive performance

evaluations elicit jealousy and contempt toward high and low performers, respectively, which in turn, associate with aggression toward them.

Job Performance and Aggression

The positive association between job performance and workplace aggression can be derived from the key tenets of SCM and the BIAS map. Based on the integration of these two theoretical frameworks, I argue that when individuals engage in upward contrastive judgments with high performers, they perceive their own performance as deficient, triggering threat perceptions (Aspinwall & Taylor, 1993). High performers tend to have favorable relationships with supervisors and have access to information, advice, and social support (Gururaj & Schat, 2016), making them enjoy considerable influence and power in workgroups (Campbell et al., 2017). As a result, coworkers may view high performers as a threat to their resources and behave aggressively towards them to harm their reputation (Lee & Gino, 2016; Sterling & Labianca, 2015). Consistent with this idea, previous research suggests that individuals experiencing an identity threat (Aquino & Douglas, 2003) or threat to their resources (Campbell et al., 2017) are more likely to engage in hostile behaviors such as sabotaging others' work and undermining them in front of others.

A growing number of empirical studies support a positive relationship between performance and aggression. Kim and Glomb (2014) found that high performers were more likely to be targets of victimization from their group members. In another study, Kim and Glomb (2010) surveyed 200 healthcare managers and found a positive correlation between cognitive ability and workplace victimization. Although cognitive ability is not the same as job performance, it shares conceptual space with job performance because it is an indicator of competence. In another study, Lam et al. (2011) developed a multi-level model of interpersonal

harming behavior based on social comparison theory and tested it on two samples. They found that in teams with less cooperative goals, upward comparison with a higher-performing target was positively associated with harming the target, particularly when the offenders' future performance was expected to be lower than that of the target. Campbell et al. (2017) conducted a multisource field study with 936 dyads and an experiment with 204 participants. The results showed that a cooperative group climate, characterized by higher interdependence and solidarity, penalizes high performers through bullying from group members. Peers target higher performers because they represent deviance from performance norms, which may be viewed as a threat to the commonality and solidarity presented by cooperative climates.

In addition to providing a theoretical basis for a positive association between job performance and workplace aggression, the SCM and the BIAS map also support a negative association between job performance and workplace aggression. The downward contrastive judgment with low performers triggers contempt, an emotion that increases the likelihood of aggressive behavior toward the low performer. There are several reasons that low performers may be targets of contempt and aggressive behavior. First, low performers may jeopardize a team's success and be blamed for team performance shortcomings. Second, team performance shortcomings may also undermine a team member's reputation and career advancement opportunities (Jensen et al., 2014), for which a poor performing team member may be blamed. In addition, coworkers may be motivated to distance themselves from low performers to avoid perceptions of "incompetence by association" (Lockwood, 2002). Finally, poor performers are more likely to have a poor relationship with their supervisors (Jensen et al., 2014; Tepper, Moss, & Duffy, 2011), making them easier targets for victimization. Given these dynamics, I argue that coworkers will engage in neglecting (Weiner, 2006), distancing or excluding (Rozin,

Lowery, Imada, & Haidt, 1999), and demeaning behaviors towards low performers (Brewer & Alexander, 2002).

The proposed theoretical linkages between low job performance and aggression are supported by the empirical evidence (Bowling & Beehr, 2006; Hershcovis & Barling, 2010). Recently, Jensen et al. (2014) showed that both high and low performers are at risk of victimization by coworkers, but the form of victimization varied for the two groups. While high performers faced covert behaviors (e.g., withholding information and sabotaging work), low performers experienced overt actions (e.g., swearing and yelling).

Together, the SCM and BIAS map provide a unified framework suggesting that the nature of the association between job performance and exposure to workplace aggression depends on the level of job performance. Integrating the stereotyping perspective and behavioral outcomes, I make the following hypothesis:

Hypothesis 1: The relationship between job performance and workplace psychological aggression is curvilinear (U-shaped) such that exposure to workplace psychological aggression is higher at both low and high levels of job performance.

Role of Negative Emotions

I have so far discussed how stereotypes of job performance may lead to aggression. Now, I extend our discussion to more fully explain the underlying mechanisms of this relationship. Given that emotions play a critical role in expressing a behavior (Spector & Fox, 2002), I discuss the central role emotions play in shaping the relationship between performance and aggression. I base our arguments on the premise that "cognition cues behavior, but emotions activate them" (Frijda, 1987; Cuddy et al., 2007) and posit that emotions are the outcomes of cognitive appraisal and social judgments (Dijker, Koomen, van den Heuvel, & Frijda, 1996;

Mackie, Devos, & Smith, 2000; Smith, 2000). First, people form stereotypes based on the performance of the target. That is, people appraise the target as competent (incompetent) when they perceive the targets' performance is high or low. Next, these cognitive appraisals elicit distinct emotions about the target's performance and its implications for the self: i.e., will the performance of the target hurt or help me (Cuddy et al., 2007; Lazarus & Folkman, 1984)? Specifically, SCM identifies two distinct negative emotions defined by stereotypically high versus low competence: envy and contempt, respectively. While contrastive evaluation with high performers generates envy or jealousy, contrastive evaluation with low performers yields contempt. Finally, when the target's performance is viewed as threatening, these negative emotions give rise to behaviors to deal with the potential threat. I thus argue that the negative emotions, jealousy and contempt, act as bridges connecting stereotypes stemming from cognitive appraisals and workplace aggression.

Jealousy. SCM presents 'envy' as an outcome of social comparison; however, I focus on jealousy as an outcome for the reasons outlined below. Envy and jealousy are both stress reactions to threats occurring due to stereotyping, and both emotions can produce a feeling of inferiority and imply the loss of self-standing (Vecchio, 2000). The distinction between these two is so unclear that it is not uncommon to see people use them interchangeably, making researchers argue that there is no heuristic value in distinguishing between envy and jealousy (Bers & Rodin, 1984; Hill & Davis, 2000). However, some researchers have sought to make a distinction between these negative emotions. Accordingly, envy is an unpleasant negative emotion that is dyadic, caused by the knowledge of the desired attribute possessed by another person. Jealousy, on the other hand, is triadic and involves three principals: the focal employee, the rival (co-worker), and the valued target person (supervisor) (Vecchio, 2000). The key differentiating factor for jealousy is that the

desired object or goal is a person (Salovey & Rodin, 1986). Based on the type of situations that jealousy is elicited, Bers & Rodin (1984) classified it as social-relation jealousy, evoked when one's exclusivity in a relationship is challenged; and social-comparison jealousy, evoked when one's superiority or equity is challenged. Researchers have also argued that social comparison jealousy can replace envy (Salovey & Rodin, 1984). As I am interested in a threat response that is evoked due to both perceived lack of abilities that others possess (self-comparison jealousy) and perceived loss of relationship with their supervisors (self-relation jealousy), I adopt the concept of jealousy.

Social comparisons to high performers can stimulate feelings of jealousy, a negative emotional state generated in response to a threat stemming from an employee's loss or perceived loss of outcomes associated with a working relationship (DeSteno, Valdesolo, & Bartlett, 2006; Vecchio, 2000). The working relationship that I am interested is the one that exists between employees and their supervisor. As mentioned earlier, high performers develop strong relationships with their supervisors, accruing favorable outcomes including mentoring, preferred assignments, and better performance ratings (Walumbwa, Cropanzano, & Hartnell, 2009). The unique capabilities of high performers coupled with their strong workplace relationships may result in their coworkers feeling jealous, a common reaction to unfavorable social evaluation (Gilbert, Giesler, & Morris, 1995). Thus, the jealousy aroused by a threat perception, either real or imaginary, evokes a stress response that an employee tries to cope with by mistreating the target of jealousy.

The research in social and developmental psychology, and to a lesser degree in organizational behavior, demonstrate an association between jealousy and aggression. In romantic relationships, jealousy is a strong predictor of violence (Stets & Pirog-Good, 1987).

Research on sibling jealousy suggests that children jealous of their siblings are emotionally reactive, anxious, and develop somatic complaints and sleep problems. Jealous children also display withdrawal and aggressive behaviors (Volling, 2012; Volling et al., 2014).

Although there is little research on workplace jealousy per se, there is a body of research on a conceptually similar construct, envy, and its association with aggression. The research suggests that envious people engage in hostile acts towards the target (Duffy, Shaw, & Schaubroeck, 2008; Kim & Glomb, 2014) as a mechanism for coping with the threat stemming from the upward social comparison (Fein & Spencer, 1997; Sterling et al., 2015). Thus, drawing on the SCM and findings from previous research, I propose that high performers attract jealousy and, in turn, aggression from coworkers.

Hypothesis 2: The curvilinear relationship between job performance and workplace psychological aggression is mediated by coworker perceptions of jealousy towards the target.

Contempt. Contempt is one of the three emotions of the CAD (contempt – anger – disgust) or hostility triad (Rozin et al., 1999). It is defined as a moral emotion that is elicited towards members who have failed to meet expected goals (Fischer & Roseman, 2007; Melwani & Barsade, 2011). Previous research suggests that contempt stems from incompetence appraisal (Cuddy et al., 2007; Hutcherson & Gross, 2011). It conveys the expressers' feeling of superiority over the target who is regarded as low, inferior, and even worthless (Melwani, Mueller, & Overbeck, 2012). In line with these appraisals, the primary function of contempt is "social distancing," which is displayed through social exclusion and the reduction of a recipient's status in the social hierarchy (Fischer & Roseman, 2007; Keltner & Haidt, 1999; Melwani & Barsade, 2011). The exclusion function relies on identifying and avoiding people who are

inferior and incompetent. In the work-group context, low performers may jeopardize a team's success and limit the achievement of other employees. As a result, contempt functions to diminish interaction with individuals who are deemed unable to contribute to the group in a meaningful way (Hutcherson & Gross, 2011). Consequently, contemptuous coworkers try to distance themselves from low performers by mistreating them (active harm; Melwani et al., 2012) or engaging in behaviors that reduce negative perceptions of and impact on the self (passive harm). In sum, I posit that low performing employees are more likely targets of contempt and, in turn, aggression by coworkers.

> *Hypothesis 3:* The curvilinear relationship between job performance and workplace psychological aggression is mediated by coworker perceptions of contempt towards the target.

Method

Participants and Procedure

To test the hypotheses, I collected data from 44 educational departments of a large university in the Southern India. This setting provides an appropriate context for the study because job performance is salient, and it is associated with employees' resource allocation and growth opportunities.

Before collecting data, I contacted the head of the institution of all organizations, explained the purpose of the study and invited them to participate. After I received the permission, employees were encouraged to participate in the study and were assured that their confidentiality would be protected. Two hundred and thirty teachers across various institutions were contacted and invited to participate. Data were collected from three sources – the primary participant, the participant’s supervisor, and the participant’s coworker. The survey packages

distributed to the primary participants included (1) the primary participant's survey with a sealable return envelope; (2) a short survey for the primary participant's supervisor who was invited to complete and return the survey to the researcher directly in the sealed envelope provided; and (3) a short survey for a coworker of the primary participant to complete and return to the researcher in a sealed envelope. Each participant was given a unique alphanumeric code that identified them only to the researcher to enable the researcher to link data from the different sources while ensuring respondent confidentiality. Primary participants completed a survey regarding their self-reported exposure to workplace aggression; supervisors rated the primary participants' job performance; and the coworker respondent assessed the extent to which coworkers, in general, feel jealous of and contempt for the primary participant.

I received completed questionnaires from all sources for 192 respondents for a response rate of 82%. Eliminating surveys that could not be linked to all three sources yielded a sample of 187. Of the respondents, 63% were female and 95% were employed full time. For the primary participants, the average position tenure was 4.6 years, and the average age was 32.5 years.

Measures

Job Performance. To measure job performance, I used a three-item scale (Schat & Frone, 2011) on which supervisors evaluated the primary participant's performance on a 5-point scale ranging from 1 (poor compared to other subordinates) to 5 (Excellent compared to other subordinates). Items include: "During the past 12 months, how would you rate your subordinate's (a) overall performance, (b) amount of work accomplished, (c) overall quality of work?" The coefficient alpha of the performance scale was 0.88.

Jealousy. A coworker of the primary participant completed a 7-item jealousy measure developed and used by Vecchio (2000). For this study, the measure was adapted to the specific

occupational context I was investigating – i.e., coworkers' perceptions about whether other employees feel jealous of the primary respondent. The scale had five Likert-type response options with anchors of strongly disagree (1) to strongly agree (5). Sample items are "Some of our coworkers feel depressed when the supervisor speaks favorably about this person" and "When the supervisor praises this person, some other coworkers feel jealous." Higher scores indicate greater coworker jealousy. I averaged the items to form an overall rating of coworkers' perceptions of jealousness towards the primary respondent. The coefficient alpha of the jealousy scale was 0.94.

Contempt. The coworker of the primary participant completed a 4-item contempt measure, a subscale from the Differential Emotions Scale (DES) developed by Izard, Libero, Putnam, and Haynes (1993) that was adapted for the specific context I was investigating. Sample items are "some of our coworkers feel superior to this person," and "some of our coworkers feel that this person is good for nothing." The scale was anchored on a five-point scale ranging from strongly disagree (1) to strongly agree (5). The coefficient alpha of the contempt scale was 0.91.

Workplace psychological aggression. Workplace psychological aggression was measured using 23 items from the Workplace Harassment Scale developed by Bjorkqvist and Osterman (1992). Participants were instructed to respond based on the number of times they experienced the behavior from their coworkers during the past six months. The scale was anchored on a four-point scale from 0 (0 times) to 3 (four or more times), and sample items included "being ignored" and "having words aimed at hurting you." The coefficient alpha for the workplace harassment scale is 0.96.

Control Variables. I controlled for negative affect of the primary participant because of its established association with workplace aggression (Bowling & Beehr, 2006; Kim & Glomb, 2014). For this, I used the 10-item Positive Affect Negative Affect Schedule (Watson, Clark, & Tellegen, 1988; α = 0.81). I also controlled for group performance which is an aggregate variable that is computed in a manner similar to how workgroup incivility (Lim et al., 2008) and ambient sexual harassment (Glomb et al., 1997) are computed. Specifically, group performance is the mean of the supervisory ratings of the performance of all other workgroup members, excluding the focal individual's performance. For example, I computed Employee A's group performance by averaging the performance scores for Employee B through J, who comprise A's workgroup (Glomb et al., 1997; Lim, Cortina, & Magley, 2008). Therefore, if an individual's workgroup members are performing well, the group performance would be high regardless of the individual's own performance ratings. This approach allows me to control for the performance of other group members given its potential influence on the social comparison processes that underlie the proposed relations.

In addition, I examined our model by including other potentially relevant control variables in our robustness check. In particular, I controlled for age, gender, and tenure in all analyses. I controlled for these variables because previous research has suggested that women and middle-aged employees are more likely to be victims (Notelaers, Vermunt, Baillien, Einarsen, & De Witte, 2011). In terms of tenure, extant research shows a weak association between tenure and aggression (Bowling & Beehr, 2006).

Analytic Strategy

My proposed theoretical model lies at the employee (individual) level of analysis. However, our data are nested with individuals located within different departments. To account for the non-independence of observations, I conducted regression analyses using cluster-robust standard errors using Mplus 8.3 (McNeish, Stapleton, & Silverman, 2017; Muthén & Muthén,2012). This method employs a maximum-likelihood estimator to account for non-independence by correcting clustering bias in the standard error estimates.

I first performed confirmatory factor analysis to test the expected four-factor model using measures of the four main constructs, including workplace psychological aggression, job performance, coworker jealousy, and coworker contempt. Using maximum likelihood estimation implemented in Mplus 8.3, the four-factor model yielded a good overall fit to the data (χ^2 = 1364.28, *df* = 652), root mean square error of approximation (RMSEA) = .07, comparative fit index (CFI) = .90, and standardized root mean square residual (SRMR) = .05. All the indicators had significant (p <.01) factor loadings on their respective constructs.

Results

Descriptive statistics, Cronbach's alpha coefficients and correlations for all the study variables are presented in Table 1. Consistent with previous research (Kim & Glomb, 2010; 2014; Jensen et al., 2014), job performance was significantly correlated with workplace psychological aggression (WPA) (r = .20, p < .01). Both coworker jealousy (r = .38, p < .01) and coworker contempt (r = .34, p < .01) were significantly correlated with WPA. Coworker jealousy (r = .28, p < .01) and contempt (r = -.26, p < .01) were also significantly correlated with job performance. The control variable NA was significantly related to WPA (r = .25, p <.01), coworker jealousy (r = .19, p <.01), and coworker contempt (r = .21, p <.01). Finally, group

performance was significantly related to individual job performance ($r = .33$, $p < .01$), WPA ($r = .16$, $p < .05$), coworker jealousy ($r = .14$, $p < .05$), and coworker contempt ($r = -.16$, $p < .05$).

Hypothesis Testing

The results of regression analyses for testing Hypotheses 1-3 are summarized in Table 2. Hypothesis 1 proposed that the relationship between job performance and WPA is curvilinear. To test this relation, I followed the method suggested by Darlington and Hayes (2016). Before testing for curvilinearity, I centered the predictor variables to avoid possible rounding errors (Darlington & Hayes, 2016). In step 1, I introduced the control variables negative affect and group performance. Both negative affect ($b = .23$, $p < .01$) and group performance ($b = .25$, $p < .05$) were significantly and positively related to WPA. In addition, both control variables explained ten percent of the variance in WPA ($R^2 = .10$, $p < .05$). In step 2, the linear job performance term was added which significantly and positively related to WPA ($b = .17$, $p < .05$), explaining an additional two percent of the variance ($\Delta R^2 = .02$, $p < .05$). In step 3, I entered the squared (i.e., curvilinear) job performance term and found that the squared term was positively and significantly related to WPA ($b = .20$, $p < .01$), explaining an additional four percent of the variance ($\Delta R^2 = .04$, $p < .01$), thus supporting a curvilinear relation between job performance and workplace psychological aggression (De Dreu, 2006; Jackofsky, Ferris, & Breckenridge, 1986; Harris, Kacmar, & Witt, 2005).

The curvilinear relation between job performance and WPA is illustrated in Figure 2. As shown in Figure 2, exposure to aggression is high at low levels of job performance, decreases as job performance increases until a certain point, and then increases at higher levels of job performance. This supports the curvilinear U-shaped relationship proposed in Hypothesis 1.

Before testing hypotheses 2 and 3, I examined the relationship between job performance and the proposed mediators. As described in our introduction, I posited that the observed curvilinear relation is a function of two unique and differential relations involving job performance and aggression – reflecting a positive and negative relation, respectively, via two different mediators. Referring to the first mediator, I proposed that high performers would elicit feelings of jealousy in one's coworkers. Consistent with this, results from Table 3 show that job performance was positively related to coworker jealousy (b = .35, p < .01). Referring to the second mediator, I proposed that low performers would elicit feelings of contempt in coworkers. The results showed that performance was negatively related to contempt (b = -.30, p < .01). Together, these results meet the essential preconditions for the proposed mediation analyses.

Hypotheses 2 and 3 predict that coworker jealousy and contempt mediate the curvilinear relation between job performance and WPA. After obtaining support for the curvilinear relation (H1), I used the method and Mplus code suggested by Hayes and Preacher (2010) to test the mediating role of coworker jealousy and contempt on the curvilinear relationship between job performance and WPA. I controlled for NA and group performance in testing our hypothesized models. Tables 2 and 3 show the results of the mediation analysis. In Model 4 (ΔR^2 = .09, p < 0.01), the coefficient for coworker jealousy is significant and positive (b = .23, p < .01). I further computed the instantaneous indirect effects of job performance on WPA through both mediators (represented by theta). The theta (θ) for coworker jealousy is significant (b = .081, p <.01), suggesting that an increase in job performance is associated with an increase in coworker jealousy, which in turn is associated with an increase in WPA. Thus, hypothesis 2 is supported. Similarly, in Model 5 (ΔR^2 = .05, p < 0.01), the coefficient for coworker contempt is significant and positive (b = .28, p <.01). The theta (θ) for coworker contempt is also significant (b = -.083,

p <.05), suggesting that a decrease in performance is associated with an increase in coworker contempt and, in turn, an increase in WPA, supporting hypothesis 3. However, it should be noted that coworker contempt acted as a suppressor variable leading to what has been referred to as a competitive mediation (Hayes, 2017; Zhao, Lynch, & Chen, 2010). Competitive mediation occurs when the direct effect and mediated effect are both significant but of opposite sign. When this happens, the mediator acts as a suppressor variable. Therefore, after controlling for the mediator, there will be an increase in the magnitude of the relationship between dependent and independent variable (Ludlow & Klein, 2014; MacKinnon, Krull, & Lockwood, 2000). In the study, competitive mediation occurs because the indirect effect via coworker contempt is negative, while the direct effect is positive. The total effect at different levels of job performance (i.e., at -1 SD, Mean, and +1 SD) on WPA is, respectively, $b = -.13$ (*ns*), .18 ($p < .01$), and .49 ($p < .01$). However, after entering the intervening variable, coworker contempt, the direct effect of job performance on WPA increased at different levels of independent variable ($b = -.04$, *ns*; $b = .26$, $p < .01$; and $b = .56$, $p < .01$), suggesting competitive mediation.

I also calculated the total indirect effect, including both mediators together, which was not significant ($b = -.02$, $p =$ *ns*). One possible explanation for this nonsignificant effect is that the presence of two distinct indirect effects of opposite sign and similar magnitude cancel each other's effects, yielding a nonsignificant overall total indirect effect of job performance on WPA (e.g., Pitts & Safer, 2016). In such a case, the total indirect effect is potentially misleading and should be discounted when interpreting the results (Hayes, 2017; Hayes, personal communication, March 10, 2017).

Robustness Check

To examine the robustness of our findings, I checked whether our results held when controlling for potential excluded variables — age, gender, and tenure. The pattern of results remained unchanged, as there was a curvilinear relationship between job performance and aggression ($\Delta R^2 = .17$, $p < 0.01$). Additionally, coworker jealousy mediated the relationship between job performance and WPA ($b = 0.24$, $p < .01$) and coworker contempt also mediated the relationship between job performance and WPA ($b = -.28$, $p < .05$).

Discussion

This study used the stereotype content model as a framework to examine how interpersonal judgments and emotions can explain the curvilinear relation between job performance and exposure to workplace aggression. The results revealed coworker jealousy and contempt as parallel mediators of the relation between employee job performance and the experience of exposure to aggression. Whereas high performers experience jealousy from coworkers, low performers experience contempt. Both jealousy and contempt positively relate to aggression which explains the curvilinear association between job performance and exposure to workplace aggression.

Theoretical Implications

This study contributes to the extant aggression and performance literature in three primary ways. First, the study builds on previous research on the relationship between work performance and aggression by developing and testing theoretical propositions on how and through what mechanisms employee job performance predicts exposure to WPA. Previous research on the relation between performance and aggression has focused on high performers (Campbell et al., 2017; Kim & Glomb, 2010, 2014) and used a linear approach to test this

relation (Jensen et al., 2014). I build on this research by incorporating low performance and investigating a nonlinear relation between performance and aggression. The results show that the relation between performance and aggression is not consistent throughout all levels of performance. Instead, the study shows that individuals on both the high and low ends of the job performance continuum experience higher levels of WPA than those in the middle of this continuum. The finding of a curvilinear relationship reinforces Too-Much-of-a-Good-Thing (TMGT) effects in management research (Pierce & Aguinis, 2013). TMGT is a meta-theory based on the principle of diminishing marginal returns. It explains why a beneficial antecedent (e.g., job performance) may cause decreasing or negative outcomes (e.g., WPA) when they exceed a certain level. Management theories often assume more is always better, implying a linear relationship between antecedents and consequences (Pierce & Aguinis, 2013). However, the TMGT effect attempts to explain that it is necessary to find a balance between two extremes (i.e., monotonic positive or negative relationship) (Trumpp & Guenther, 2017). According to this theory, the relationship between two constructs has a context-specific inflection point, after which a further increase in the beneficial antecedent leads to adverse outcomes for the individual engaging in job performance. The study findings suggest that this notion applies to the association between job performance and workplace aggression, which is at its minimum at the inflection point (representing the optimum level of job performance for low exposure to aggression) and beyond which, exposure to aggression is higher, producing a U-shaped curve.

Kim and Glomb (2014) observed that envy acts as a mediator of the relationship between high performance and aggression. My study extends this finding by suggesting two distinct mediating mechanisms for high and low job performance. Specifically, I show that jealousy and contempt mediate the relation between high and low performance and aggression, respectively.

As jealousy shares conceptual space with envy, my observation of a mediating effect of jealousy can be considered a replication and extension of Kim and Glomb's (2014) investigation of the mediating influence of envy. Together, these findings demonstrate that the high performers make others covet their success (envy) or feel their access to resources is threatened (jealousy), triggering their mistreatment of high performers. This, coupled with my observation that contempt mediated the effect of low performance on WPA, echoes the notion of "envy up and scorn down" in the social comparison literature, in which individuals usually show envy or jealousy towards peers doing better than themselves and contempt towards peers doing worse than themselves (Cuddy et al., 2007).

Second, the study contributes to expanding the stereotype content model by enriching our understanding of how performance stereotypes can lead to aggression. Consistent with SCM and BIAS map, I found that coworkers engaging in upward contrastive judgments with high performers elicit jealousy, whereas coworkers engaging in downward contrastive judgments with low performers elicit contempt. While jealousy motivates coworkers to harm or undermine the reputation of high performers, contempt motivates them to demean or isolate low performers, both of which increase the risk of workplace psychological aggression. Thus, SCM and BIAS map helps us understand the unique mechanisms that explain how different performance levels may associate with aggression at work.

Limitations and Future Directions

This study has several limitations. In addressing these limitations, I point to future research directions that enhance our understanding of job performance dynamics, individual perceptions, and mistreatment. First, the primary participants in this research are college faculty members who work independently for the most part and whose performance indicators (e.g.,

publications, participation in conferences, or workshops) are readily apparent to others. The independent nature of this work and the visibility of its performance indicators may make high performers particularly susceptible to adverse reactions from coworkers. It is possible that my findings may not generalize to all types of work or team contexts. For example, in highly interdependent team contexts, team members who experience jealousy may not mistreat a high performer if doing so could compromise the team's performance and lead to negative consequences for the aggressor. Future research is warranted to investigate the influence of features of the work context (e.g., role interdependence) on the relations between performance, emotions, and behaviors such as aggression.

Second, although our research considered fundamental tenets of the SCM, I did not investigate all aspects of this theory, including warmth. According to SCM, a person's perceived warmth may interact with competence to influence the elicitation of negative emotions towards targets (Cuddy et al., 2007). The research on the role of interpersonal affect in task-related networks shows that warmth is a determinant of seeking task-related advice. Casciaro and Lobo's (2008) study showed that across three organizational contexts and types of task-related interactions, negative interpersonal affect reduces the likelihood that a competent person will be chosen by a partner for task interaction. In their typology, Casciaro and Lobo (2005) argue that both "competent jerks" (high competence, low warmth) and "incompetent jerks" (low competence, low warmth) are at more risk of victimization than individuals with high warmth. Some previous research has considered the role of similar constructs to warmth on the performance-aggression relation, including communion (Kim & Glomb, 2010) and benevolence (Jensen et al., 2014). Their research showed that these constructs moderate the relation between performance and aggression such that high performers that were perceived as communal or

benevolent experienced less aggression from coworkers. Like competence, warmth is a universal dimension of social evaluation (Cuddy et al., 2007). Future research that jointly considers coworker evaluations of an employee's warmth and competence will build on the results of the current study and enhance our understanding of the relation between performance and aggression in work settings.

Future research in this area would also benefit from the consideration of impression management, which may play a role in individual performance evaluations and may influence the likelihood of mistreatment. Bolino (1999) suggests that employees adopt impression management tactics to improve their performance evaluations. A coworker's perception that an individual's impression management tactics drive his/her performance evaluations may intensify the negative perceptions, jealousy, and likelihood of being mistreated. On the other hand, if an individual can effectively engage in impression management (through political skills, for example), it would reduce coworker's negative perceptions and mistreatment. These are just two suggestions that point to the potential merits of incorporating impression management into the model I investigated in this study.

Practical Implications

Based on the results of this study, I can offer several recommendations for practice. Excellent performance is crucial for the team and organizational success, and there is justification for rewarding and celebrating excellent performance. However, differentiating employees based on performance and rewarding high performers can be a double-edged sword that may have negative side-effects (Miao, Evans, & Li, 2017). Differential treatment within a team may trigger negative emotions and mistreatment, thus harming the group dynamics (Fida et al., 2018). Managers need to carefully consider how to affirm and reward high performance in a

manner that does not unnecessarily create or intensify conflict. While rewarding high performers, managers should communicate their achievements to the team members so that they know what the high performer did to be recognized. Furthermore, a manager should provide a clear path for how other coworkers can achieve similar recognition. If executed clearly, this approach can motivate high performers and other coworkers to improve their performance in the future. Furthermore, doing so may reduce the likelihood of jealousy and adverse outcomes such as mistreatment in organizations.

The results also point to the importance of managers effectively responding to and communicating about poor performance. Previous research on abusive supervision (Mawritz, Mayer, Hobbler, Wayne, & Marinova, 2012) and the leader-member relationship (Aryee, Chen, Sun, & Debrah, 2007) demonstrates that leaders may act as role models and substantially influence subordinates' behavior at work. Managers that harshly criticize or demean poor performers model this behavior for other employees, increasing the likelihood they will treat low performers with contempt and aggression. Alternatively, managers that focus on communicating performance shortcomings in a respectful manner, provide organizational support and resources for improvement (e.g., training and coaching), and treat a low performer with dignity should reduce the likelihood that other coworkers will show contempt toward or mistreat low performers.

In conclusion, this study, using data from employees, their supervisors, and coworkers, showed evidence of a curvilinear relation between employee job performance and exposure to aggression by coworkers, such that both high and low performing employees are at higher risk of exposure to aggression. I draw on tenets of the stereotype content model to suggest that coworker jealousy accounts for the elevated exposure to aggression experienced by high

performing employees and coworker contempt accounts for the elevated exposure to aggression experienced by low performing employees.

CHAPTER 4: STUDY 2

Relationships at Work: The role of task-related and friendship ties on perceived workplace aggression

Over the last few decades, investigating the individual (e.g., negative affectivity) and situational (e.g., injustice) (Bowling & Beehr, 2006; Hershcovis et al., 2007) explanations of workplace aggression has provided researchers and managers with useful evidence-based information. Nevertheless, workplace aggression is an interpersonal phenomenon that involves the interplay of at least two parties; therefore, research investigating the interpersonal dynamics will potentially integrate and extend the research that has independently considered individual or situational antecedents.

Employees spend a significant amount of time interacting with colleagues to solve work-related problems and accomplish task goals. These interactions, which constitute formal and informal networks, may substantially influence employee attitudes and interpersonal behaviors, including aggressive behaviour (Hershcovis & Reich, 2013; Lamertz & Aquino, 2004). Surprisingly, we know little about how these relationships shape individuals' experience of aggression. Therefore, in this study, I use a social network lens to examine the relational antecedents of workplace aggression.

A social network refers to a set of actors (e.g., individuals, organizations, countries) and the set of ties representing some relationship (e.g., friendship, advice, information exchange) or lack thereof between the actors (Scott, 2000; Venkataramani & Dalal, 2007). Social network analysis (SNA) is a well-established methodology that examines the relationship between an individual and the social group (Cross, Parker, & Brogatti, 2002). This perspective offers an opportunity to explore aggression phenomena from a different theoretical, methodological, and

analytical standpoint than much of the existing literature. When attempting to predict an outcome, the social network perspective focuses on individual relationship dynamics instead of intra-individual variables (Wasserman & Faust, 1994). Thus, from a social network perspective, "the causation is not located in an individual but is in the social structure" (Marin & Wellman, 2011). That is, SNA does not treat individuals as separate units. Instead, it examines individuals and their connecting links together. Therefore, the basic unit of analysis is not the individual but an entity consisting of a collection of individuals and the relationship between them (Xiaoyan, 2017). In analyzing these relations, SNA also considers the broader pattern of connections beyond the pair-wise relationships to understand the linkage between the component (e.g., a person) and the overall network structure (Luke & Harris, 2007). This unique approach allows SNA to capture valuable information that is mostly missed by traditional research methodologies.

SNA has been broadly used in Organizational Research (Borgatti & Foster, 2003). The importance of applying network theories to study the aggression phenomenon is based on recognizing the fact that interpersonal relationships provide a broader social context in which aggression occurs (Richarson & Green, 2006). For example, Lamertz and Aquino (2004) developed and tested a social structural model of power and status effects on victimization. Using dyads (please see Appendix B for definitions of SNA terms) as the unit of analysis, the authors found that individuals who share similar network positions, such as non-reciprocation and negative dyadic ties, experience similar levels of victimization. Non-reciprocation means an asymmetry in the relationship where one actor chooses the other for a particular relationship, but the other does not. Negative dyadic ties refer to the expression of dislike by one actor towards another. The authors also found that structural equivalence—the extent to which actors share a similar relationship pattern to and from all other actors in the network—is positively associated with

perceptual agreement on self-reported victimization (Burt, 1976; Wasserman & Faust, 1994). Emphasizing at the dyadic level, Venkataramani and Dalal (2007) demonstrated that positive and negative affect ties predict helping and harming behaviors, respectively. A positive tie exists when two persons, X and Y, like each other. In contrast, a negative tie is characterized by dislike, animosity, and avoidance. The authors found that the strength of the positive tie X shares with Y was positively related to the extent to which X helps Y, while the strength of negative tie X shares with Y was positively associated with the extent to which X harms Y. Lyons and Scott (2013) documented similar findings for both positive and negative affect. The authors found that even after controlling for help directed towards coworkers, employees who elicit positive affect are more likely to receive help and less likely to receive harm from coworkers.

While extant research has begun to highlight the importance of informal interactions in studying workplace aggression, several important issues have yet to be adequately addressed. First, network studies on aggression have often been restricted to a single form of ties - either task-related (advice ties) or affect ties (friendship ties) (Lamertz et al., 2004; Venkataramani et al., 2007) (please see Appendix B for definitions). Network researchers have long argued that the instrumental and affective contents are intertwined in social interactions (Casciaro & Lobo, 2014), and there is a significant overlap between these ties. Casciaro and Lobo (2005; 2008) found that competent and friendly coworkers (which the authors refer to as “lovable stars”) are highly regarded for task interactions, while competent and dislikable coworkers (which authors refer to as “competent jerks”) are least regarded for advice seeking. Extending these findings to the aggression literature, I believe focal individual’s competence and friendship together contribute to the manifestation of emotions among coworkers that, in turn, are expected to predict experienced aggression. Understanding the combined influence of these relationships is essential for enhancing

our theoretical understanding of workplace aggression and practical implications concerning its prevention and intervention. Second, while evidence suggests that informal ties are related to aggression, we know little about the underlying mechanisms. A mechanism that I am interested in builds on the findings from study one of this dissertation that is rooted in stereotyping and intergroup emotions research. In doing so, this study builds on the findings from study 1 that supports stereotype content model (SCM) (Cuddy et al., 2002). SCM is a prominent theory that accounts for modeling stereotype-dependent consequences, contending people engage in stereotyping to enhance power and to gain control over others (Fiske, 1993; 2013). The theory posits that stereotypes are represented by two universal dimensions of evaluation—competence and warmth—also called the content of stereotypes. The differential processing of the contents of stereotypes may lead to distinct emotions (admiration, contempt, envy, and pity). For instance, individuals stereotyped as competent but not warm elicit envy, whereas individuals who are stereotyped as low on competence and warmth elicit contempt.

Applying the SCM framework to the workplace context, I argue that competence and warmth stereotypes stemming from an individual's position in competence, advice, and friendship networks evoke distinct interpersonal emotions (e.g., envy and contempt) in their coworkers. These discrete emotions predict the focal individual's risk of becoming a victim of aggression. These relations are represented in the proposed mediated moderation model, shown in Figure 1. I first theorize that a focal individuals' competence predicts their experience of aggression. Further, I propose that the friendship and advice network centrality moderate the relationship between competence and workplace aggression. Finally, I contend that the negative emotions mediate the interactive effect of competence and network centralities (friendship and advice networks) on workplace aggression. This study takes a significant step in integrating social structures into

psychological process models to explain the occurrence of workplace aggression. Thus, this study builds on existing knowledge of workplace aggression suggesting employees acquiring central positions in advice giving and friendship networks are at lower risk of aggression from coworkers.

Theory and Hypothesis

Stereotype Content Model (SCM)

I use the stereotype content model (SCM) (Fiske, Cuddy, Glick, & Xu, 2002) and behaviors from intergroup affect and stereotypes (BIAS) (Cuddy, Fiske, & Glick, 2007) as an overarching framework to represent the proposed relationships in this study. This theory provides a useful theoretical framework to investigate the mechanism through which network ties translate into aggression.

The stereotype content model (SCM) is based on the notion that people tend to "Envy up and Scorn down." People tend to envy high-status groups such as the well-educated and wealthy and scorn those perceived to have a lower status, such as minorities, disabled persons, or even women. Developed by Fiske et al. (2002), the SCM posits that group stereotypes and interpersonal evaluations are formed along two dimensions: competence and warmth, stemming from appraisals of the target's potential harm and benefit the evaluator. Combining these two dimensions results in four stereotypes of warmth (high/low) by competence (high/low).

In the work context, competence and its behavioral manifestation, job performance are the key indicators of status. Those who perform well are stereotyped as competent and accrue high status, and those who do not perform are stereotyped as not competent and deemed low status (Fiske et al., 2002). Individuals viewed as competitors are stereotyped as lacking warmth, whereas individuals viewed as co-operative and friendly are stereotyped as warm. These interpersonal

social comparisons (both upward and downward) generate four different emotions (Cuddy, Fiske, & Glick, 2007). The upward comparisons include (a) upward assimilative social comparison directed towards individuals stereotyped as warm and competent, leading to the positive emotions of admiration and pride; and (b) upward contrastive comparison directed towards individuals stereotyped as competent but not warm, leading to the negative emotion of envy. Downward comparisons include (a) downward assimilative social comparison directed towards individuals stereotyped as warm but not competent, leading to pity; and finally (b) downward contrastive social comparison directed towards individuals stereotyped as incompetent and cold, leading to the emotions of disgust and contempt.

Behavior from Intergroup Affect Stereotypes (BIAS) Map

The BIAS map proposed by Cuddy et al. (2007; 2008) is an extension of the SCM, which considers the behavioral outcomes of warmth and competence judgments in social interactions. This theory proposes that the four combinations of high versus low levels of the above dimensions elicit four distinct behavioral responses: active facilitation (e.g., helping), active harm (e.g., attacking), passive facilitation (e.g., associating with), and passive harm (e.g., isolation). Specifically, warmth stereotypes will elicit active facilitation and prevent active harm, while competence stereotypes predict passive facilitation and prevent passive harm. I only consider active and passive harm behaviors in this study because I am interested in interpersonal harm.

Despite being called by different names across different streams of organizational research, the underpinning conceptualization is that people make a judgment of others based on two dimensions—a cognitive dimension (competence) and an affective dimension (friendship) (Casciaro et al., 2008). Although measured differently in organizational studies, these dimensions are not new to the field. For example, organizational psychology studies measure warmth through

positive traits such as helpfulness, tolerance, and friendship, and competence through intelligence, independence, and performance (Cuddy, Glick, & Beninger, 2011; Fiske, Cuddy, & Glick, 2007).

In network studies, warmth is often measured through employee friendship interactions (Casciaro et al., 2005; Casciaro et al., 2008; Venkataramani et al., 2007). The warmth dimension comprises traits such as friendliness, liking, and helpfulness. Therefore, warmth judgments are more accurately captured using friendship ties (Casciaro et al., 2008). In line with previous research, I use the history of friendship interactions to measure warmth.

Network (Advice and Friendship) Centrality and Workplace Aggression

A social network refers to a set of actors connected through a set of ties representing the relationship or lack thereof between them (Brass, Butterfield, & Skaggs, 1998). Employees engage in various forms of informal dyadic relationships at work, such as advice and friendship ties. Because people embed within multiple networks (Granovetter, 1985), the entirety of network relationships (centrality) defines their traits, providing enough information for others to make judgments. Therefore, I contend that employee's position in different networks such as advice and friendship networks is likely related to their exposure to workplace aggression.

Advice ties (instrumental or task-related ties) are relationships through which employees share and seek information (or knowledge) essential for completing work-related tasks (Ibarra, 1993). Centrality refers to the number of connections a focal individual has with others (Wasserman & Faust, 1999). Degree centrality for advice networks is accounted for in the form of in-degree (advice-giving) and out-degree (advice-seeking) centralities (Vardaman, Taylor, Allen, Gondo, & Amis, 2015). Network centrality theory implies that individuals with high in-degree advice centrality are sought after for their work-related assistance because such individuals

are stereotyped as experts who can solve issues quickly and effectively (Burke, Weir, & Duncan, 1976; Venkataramani et al., 2007). Contrary to this, individuals with high out-degree advice centrality are stereotyped as being less competent. These individuals would be those who continuously reach out to others to complete job-related tasks. In other words, the extent to which one seeks advice versus is sought out by others for advice is an indicator of how competent one is perceived.

Friendship ties also called affective or expressive ties, involve an exchange pattern of interpersonal affect (Ibarra, 1993). These interactions are mainly used for social and emotional support (Vardaman et al., 2015). While advice ties model the exchange of task-related consultations, friendship ties model social identification (Podolny & Baron, 1997; Lamertz et al., 2004). People who share a strong friendship relationship show concern and liking for each other. Friendship ties are usually unidirectional, although it is not uncommon to measure its directionality (Vardaman et al., 2015). Accordingly, individuals with high degree centrality in the affect network are stereotyped as warm and friendly (Casciaro et al., 2008; Venkataramani et al., 2007), whereas individuals with low degree centrality are stereotyped as cold and unfriendly.

Stereotyping to Aggression

The BIAS Map supports the proposed relationship between stereotypes and aggression. The central assumption of this framework is that perceptions of warmth and competence lead to dramatically different outcomes. Specifically, these traits of the focal individual may elicit distinct acts of aggression from others. In the context of work, aggression may occur when employees interact for work-related advice and friendship (Lamertz et al., 2004; Hershcovis et al., 2013). From social networks perspective, it can be argued that advice and friendship ties act as predictors of workplace aggression. Particularly, the focal employee's structural position in these

relationships can form a basis for stereotyping (Casciaro et al., 2005) and maybe a significant determinant of aggression.

Competence to Aggression

Workplace interpersonal evaluations and employees' reactions to such evaluations have been considered in the organizational behavior literature. In the work context, an important dimension of interpersonal evaluation is employee competence which includes traits such as industrious, skillfulness, and intelligence (Slater, 1955). Competence also plays major role in employee success. Competent employees contribute to organizations gaining competitive advantage, and thus organizations recognize and reward such employees. Therefore, competence is a key indicator of employee status. Those who are stereotyped as competent accrue high status, and those who are stereotyped as not competent are deemed low status (Fiske et al., 2002). SCM theory suggests that high-status employees elicit upward contrastive evaluations and trigger threat among coworkers, who see their own standing as deficient (Aspinwall & Taylor, 1993). Similarly, low status employees elicit downward contrastive evaluation from coworkers, who see themselves as superior to the target. Such contrastive judgments may eventually lead to mistreatment of the target to deal with the potential threat (Cuddy et al., 2007). The notion of competence stereotypes precipitating workplace aggression has been documented in study 1 of this dissertation and several previous studies (Kim & Glomb, 2014; Jensen et al., 2014). Drawing on the victim precipitation model, Kim and Glomb (2010; 2014) showed high performers experiencing high aggression in workgroups. Jensen et al. (2014) proposed and found that both high and low performers become victims. Interestingly, while high performers experience covert aggression, low performers experience overt forms of aggression. The first study of this dissertation showed support to SCM theory suggesting both high and low

performers experience aggression. In this second study, drawing on the BIAS map, I argue that high and low competence employees experience different forms aggression. Consistent with BIAS map, I contend while high competence employees experience passive (or covert) aggression, low competence employees experience active (or overt) aggression. In doing so, this study contributes to the extension of BIAS map to workplace aggression literature.

Choice of Overt or Covert Behaviors

Although employees are equally motivated to harm competent and incompetent "jerks" (unfriendly counterpart, see Casciaro et al., 2005 for full description), I propose that the nature of harmful behaviors directed may differ. One distinction between different forms of aggressive behavior relevant to this study is overt and covert forms of aggression (Borkquist, Osterman, & Lagerspetz, 1994; Neuman & Baron, 1998). Overt aggression refers to behaviors that harm a target where the perpetrator does not cover their identity. An example of overt behavior includes yelling, swearing, and making threats. Covert aggression refers to subtle behaviors that harm a target where perpetrators disguise their actions (Jensen et al., 2014). Examples include 'withholding work-related information' 'and 'spreading rumors.'

The idea of perpetrators engaging in distinct behaviors toward different people or groups is well known in aggression literature (Jensen et al., 2014). Consistent with this idea, previous research on performance and aggression shows that perpetrators use different forms of aggression for high vs. low performing coworkers. For instance, Jensen et al. (2014) showed that while high performers experience covert aggression, low performers experience overt aggression. Behaviors from intergroup affect and stereotypes (BIAS), an extension of the SCM, provide a theoretical explanation for individuals experiencing distinct behaviors. Together these theories argue individuals engage in active harm only when they perceive the target as harmful. The trait of

competence is considered as self-profitable (Cuddy et al., 2007) in that motivationally, competence represents traits that bring about desired outcomes to the trait possessor. For instance, a competent employee would receive good performance evaluations and rewards. These outcomes do not directly impact or hurt others. As a result, perpetrators may not use overt aggression to harm competent individuals. However, competent employees can still trigger threat among coworkers by making them perceive their own standing in the group as deficient (Aspinwall & Taylor, 1993). Therefore, coworkers mistreat and undermine them to reduce the negative effects of threat (Sterling & Labianca, 2015). For example, when experiencing an identity threat (Aquino & Douglas, 2003) or threat to their valuable resources (Campbell, Liao, Chuang, Zhou, & Dong, 2017), individuals engage in hostile behaviors to undermine the target in front of others. But because competent individuals are known to hold high levels of social status in the work group, they pose a significant risk to perpetrators. Therefore, perpetrators choose covert aggression to harm their competent counterparts while at the same time incurring as little danger to themselves as possible. As a result, I argue that competent employees are more likely to experience covert aggression (Bjorkqvist, Osterman, & Lagerspetz, 1994).

On the contrary, low competence harms those with this characteristic by undermining their job performance (Morgeson, Delaney-Klinger, & Hemingway, 2005). Research suggests that lower performers are further hurt by increased anxiety and decreased psychological well-being (Lin, Mutz, Clough, & Papageorgiou, 2017). Further, low competence employees can also bring risks to others in their workgroup. Because these individuals often fail to contribute effectively to the team, they increase the workload for others in the group. More importantly, incompetent employees can hurt workplace morale, especially when managers spend a disproportionate amount of time managing them, drawing leaders' attention away from the effort to support other employees

(Eagle Hill Consulting, 2015). Lockwood (2002) argued that low competence counterparts act as "feared self," a self that individuals fear to become in the future. Therefore, comparisons to less competent employees may make coworkers fear that they may be similarly negatively perceived by association. To avoid negative consequences that come with being associated with less competent employees, coworkers may engage in neglecting (Weiner, 2006), distancing or excluding (Rozin, Lowery, Imada, & Haidt, 1999), and even demeaning behaviors towards them (Brewer & Alexander, 2002). Low competence employees are more likely to have a poor relationship with their supervisors (Tepper, Moss, & Duffy, 2011) and hold less power within workgroups. Therefore, I argue that perpetrators are more likely to engage in overt aggression towards less competent employees because perpetrators perceive less harm from low competence employees as they are less likely to defend or retaliate against perpetrators (Carli, 1999).

Based on this, I argue that because incompetent employees are perceived as risk to others, they elicit overt aggression from coworkers. Therefore, the possibility of experiencing overt aggression will increase as competence decrease. Based on the preceding arguments, I propose that:

Hypothesis 1a: Competence is positive associated with the experience of covert aggression from coworkers.

Hypothesis 1b: Competence is negatively associated with the experience of overt aggression from coworkers.

Moderating Role of Advice and Friendship

The central assertion in my argument so far is that people assess the implications of others' traits and behaviors for the self. If perceived as threatening, they may be willing to take some

personal risk to deal with the potential threat. I will now extend my argument by discussing employee behaviors that are likely to be more or less threatening and, therefore, motivate coworkers to aggress against the target. In particular, I incorporate the social network perspective and consequences of advice and friendship ties to focus on employee behavior. Employees interact to exchange friendship and work-related information in the workgroups, forming friendship and advice networks. Therefore, I argue that an employee's position in these networks may threaten coworkers and influence their behaviors towards the focal employee (Lamertz et al., 2004; Venkataramani et al., 2007). However, in situations that lower the perceived threat, the motivation for coworkers to harm the focal employee is also likely to diminish. Thus, I examine these possibilities by considering the moderating role of advice-giving and advice-seeking, which are expected to exacerbate workplace aggression, and friendship, which is likely to alleviate interpersonal aggression.

Role of Advice Centrality

Consistent with the SCM and BIAS Map, I argue that centrality in advice-giving networks can lead to workplace aggression. Employees typically seek work-related advice from experts (Casciaro & Lobo, 2008; Hoffman, Lei, & Grant, 2009). Advice-giving signals the focal individual’s expertise and ability to solve work-related problems, and therefore, coworkers see these individuals as worthy of seeking advice. Because of their position, the actions of advice-givers are highly visible to others in the network. Advice givers are also seen as exerting interpersonal influence over advice seekers (Bonnacio & Dalal, 2006; Burke, Weir, & Duncan, 1976) because the act of advice-giving entails the potential for adviser to impact the behavior of the recipient. As a result, they are seen as holding high status and becoming powerful than non-advice givers in the workgroup (Brooks, John, & Gino, 2019; Lamertz & Aquino, 2004). Those

who are not sought for advice may see this as suggesting that they are not experts. Thus, advice giving can create a status disparity and power differential in inter-group relations. This inequality may trigger feelings of threat and elicit jealousy because advice givers possess the expertise and status others desire. Study 1 of this dissertation supports this argument by showing jealousy as a mediator between job performance and workplace aggression. To reduce the adverse effects of threats and alleviate the feeling of jealousy or envy, coworkers engage in harmful acts toward referent targets (Sterling & Labianca, 2015). However, advice givers do not pose a direct threat, and therefore, I argue that perpetrators are not motivated to engage in overt aggression towards them. In addition, because advice givers experience high status and power and are viewed favorably by other group members, they pose a significant risk to perpetrators. To avoid the negative consequences, perpetrators engage in covert aggression to hide their identity and to make their acts not easily detected by others. It is also important to note that I propose advice giving will amplify the relationship between competence and covert aggression. That is, the risk of experiencing covert aggression for competent targets amplifies with advice giving.

Contrarily, people occupying a central position in out-degree networks (advice-seekers) are stereotyped as less competent. These individuals reach out to others for work-related inputs and suggestions. Scholars have argued that there is no reason for the powerful to pay attention to the less competent (Goodwin & Fiske, 1993). However, I argue that coworkers pay equal attention to advice-seekers because these individuals pose a threat to others. When advice-seekers constantly depend on others to complete daily tasks, they delay the team's work, thus jeopardizing the overall team's success (Jensen et al., 2014). In addition, coworkers may view interruption by advice-seekers as a hindrance to their goal achievement and productivity. Studies have found that such interruptions threaten work resources, create time pressure, work overload, and even employee

stress for advice-givers (Leroy & Glomb, 2018). Because advice seekers can pose a direct threat to others, I argue that the risk of experiencing overt aggression is high for advice seekers. Furthermore, advice-seekers occupy low status in workgroups (Feng & MacGeorge, 2006). As a result, aggressors do not feel the need to hide their identity because there is likely less risk associated with mistreating advice seekers. It is also important to note that I propose advice seeking will amplify the relationship between competence and overt aggression.

Hypothesis 2: Advice giving is positively related to experience of covert aggression.

Hypothesis 3: Advice seeking is positively related to experience of overt aggression.

Hypothesis 4: Advice giving moderates the relationship between competence and experience of covert aggression such that the relationship is stronger at high levels of advice giving.

Hypothesis 5: Advice seeking moderates the relationship between competence and experience of overt aggression such that the relationship is stronger at high levels of advice seeking.

Role of Friendship

Researchers have suggested the primacy of the warmth effect (Cuddy et al., 2007; Wojciszke, 2005), suggesting that warmth-related information has a stronger influence on impression formation than competence information (Willis & Todorov, 2006; Casciaro & Lobo, 2014). Previous research has identified the importance of an employee's warmth in predicting exposure to aggression. For instance, Kim and Glomb (2010) studied communion as a boundary condition of the performance-aggression relationship. Communion is a multidimensional construct which reflects traits such as communality, socialization, consideration, and warmth. Individuals

with communion traits engage in friendly behaviors such as helping and nurturing coworkers and developing harmonious interpersonal relationships with coworkers (Kim et al., 2010). The findings suggest that communal individuals experienced less victimization. In another study, Jensen et al. (2014) showed that benevolent high performers (who are concerned with inputs and think more of giving than receiving in their relationships) are less likely to report both overt and covert victimization than entitled individuals (who are concerned with outputs and want to receive more than others for the same level of inputs). Although the above studies provide a brief explanation for the social and work-related benefits of warmth, more work is needed because the previous research has highly relied on self-reports in measuring warmth. For instance, Jensen et al. (2014) adopted the equity preference to measure benevolence (Sauley & Bedeian, 2000). Warmth is a dimension of social judgment; therefore, observer reports on warmth may provide more insight into understanding its impact on interpersonal mistreatment than self-reports. Network studies can overcome these limitations by capturing others' perceptions of warmth, Friendship networks are good indicators of warmth as friendship ties are channels for transmitting warmth and interpersonal affection. Friendship ties fosters rich interpersonal interactions that are associated with high levels of trust and social support. Thus, centrality in friendship network provide access to seek out others for friendship and may provide strong sense of belongingness (William, 2007). Conversely, individuals who occupy peripheral positions in the friendship network are isolated, disengaged, and are less motivated to help others (Brass, 2012).

In the organizational setting, the primacy of warmth may occur because, as Wojciszke (2005) suggested, unfriendly coworkers are more costly to deal with than those with less competence. Being warm is beneficial to others, and an unfriendly coworker may cause more harm to others (Peeters, 1983; Cuddy et al., 2007). For example, competent coworkers focus on

achieving self-directed goals, which may not harm other team members. But unfriendly coworkers interfere with team activities and hinder team members' performance. Determining if someone is friendly (or not) prepares the perceiver to pay attention to information regarding the person's ability to help (or harm) (Hack, Goodwin, & Fiske, 2013). Friendly employees cooperate and contribute to teams selflessly (Bing & Burroughs, 2001; Jensen et al., 2014) and take the time to listen and help others. They are good citizens who perform citizenship behaviors towards employees and organizations (Akan, Allen, & White, 2009). Therefore, employees tend to feel and act more positively towards those they consider friendly. SCM model supports this notion of friendly individuals receiving positive emotions from others. Even when friendly employees do not contribute to team performance, their likability/warmth makes others less likely to treat them with hostility. On the contrary, employees evaluated as not friendly are perceived as harmful and threatening. Even if they are not threatening, they are not pleasant to be around. Therefore, employees focus on threat elimination by mistreating and undermining the referent target (Sterling, 2013). Similar arguments are presented in the social network perspective. Lamertz and Aquino (2000) suggested that employees central to friendship network acquire referent power, which may afford them with a level of protection against aggression.

Based on the previous arguments, I propose that friendship will mitigate the relationship between competence and workplace aggression because coworkers are less motivated to harm friendly counterparts.

Hypothesis 6: Friendship centrality moderates the relationship between competence and experience of covert aggression such that the relationship is weaker at high levels of friendship.

Hypothesis 7: Friendship centrality moderates the relationship between competence and experience of overt aggression such that the relationship is weaker at high levels of friendship.

Mediating Role of Negative Emotions

Rooted in cognitive appraisal theories, the SCM proposes that "stereotypes prompt behavior but emotions activate them" (Frijda, Kuipers, & Ter Schure, 1989). It also suggests that a combination of high versus low warmth and competence judgments elicit four different emotional responses (Cuddy, Fiske, & Glick, 2008). While assimilative comparison to people perceived as warm and competent evokes positive emotions, contrastive evaluations with people perceived as incompetent and cold elicit negative emotions. According to the BIAS map, negative emotions predict both active and passive harm. I focus on negative emotions elicited by contrastive upward and downward evaluations (Cuddy et al., 2007). Accordingly, while the upward contrastive evaluation of individuals stereotyped as competent but cold elicits envy, the downward contrastive evaluation of someone stereotyped as incompetent and cold elicits contempt.

Similar social evaluation processes are proposed in the self-evaluation maintenance model (SME) (Tesser, 1991). According to this model, individuals try to maintain a positive self-evaluation with others who are psychologically close to them (e.g., friends and coworkers). Self-evaluation is formed by processes of reflection and comparison. Reflection occurs when the successful performance of a target is mirrored in oneself and thus improves one's self-evaluation. Reflection usually occurs when the performance is in the domain that is of low relevance to the self. However, comparison occurs when the target's successful performance is in the domain relevant to the self, resulting in lowered self-evaluation. In a work setting, advice centrality positively influences individual performance (Sparrowe, Liden, & Kraimer, 2001). Therefore, instead of reflection, a comparison process will occur because advice centrality falls in the domain

of high relevance to oneself. (Deci & Ryan, 2002; Kim & Glomb, 2014). Based on the direction of the comparison, Smith (2000) classified several discrete emotional reactions. According to this distinction, envy occurs with upward contrastive comparisons, and contempt occurs with downward contrastive comparisons.

Envy and Contempt in Social Comparison

Envy results from an upward contrastive comparison to individuals stereotyped as competent but cold. It occurs as a response to referent others' achievement of an outcome that one strongly desire (Vecchio, 2000). As a coping mechanism from threat stemming from upward contrastive comparison, envious individuals engage in hostile acts towards the target (Duffy, Shaw, & Schaubroek, 2008; Kim & Glomb, 2014) to maintain self-esteem (Fein & Spencer, 1997). Envy is ambivalent in that it involves begrudging admiration for the target because it acknowledges that the referent other has exceeded one's achievement (Cuddy et al., 2007). Because of its ambivalent nature, I argue that envious individuals are more likely to display covert forms of aggression. Specifically, I argue that while envious individuals are motivated to cause harm to the target, their grudging respect towards the target may discourage them from engaging in overt forms of aggression. For instance, envious individuals may hurt the target by not sharing work-related information. But, because they respect the target, they may be less likely to engage in yelling or swearing at the target. (Cuddy et al., 2007).

Contempt, on the other hand, occurs due to the downward contrastive comparison to someone stereotyped as incompetent and cold. Contempt is a moral emotion that belongs to the CAD triad (contempt, anger, and disgust), which conveys the expresser's feeling of superiority and dominance over the target, who is implied to be inferior, incompetent, and even worthless (Melwani, Mueller, & Overbeck, 2012). The primary function of contempt is social distancing.

The exclusion function emerges from identifying and reducing interactions with incompetent individuals who cannot contribute to the group meaningfully (Hutcherson & Gross, 2011). Besides, contempt also motivates individuals to remove the target from one's perceptual field so that one can stop perceiving it (Roseman, Wiest, & Swartz, 1994; Cuddy et al., 2007). Therefore, contemptuous individuals limit their contact with incompetent others to reduce the negative consequences inflicted on themselves and even punish them by inflicting harm (active harm). Therefore, I argue that contempt cues overt forms of aggression.

Previous work on social comparison supports that upward social comparison evokes envy (Ginao & Pierce, 2009) and downward social comparison evokes contempt. These emotions later translate into harmful interpersonal behaviors to hurt coworkers (Cuddy et al., 2007; Fiske et al., 2002; Kim et al., 2014). For example, in study 1 of this dissertation, I showed that high performers trigger jealousy among coworkers while low performers provoke contempt.

I extend these findings to the social network context and contend that employees with high competence and advice-giving but low friendship elicit envy from coworkers. In contrast, employees characterized by low competence, high advice seeking, and low friendship elicit contempt. These negative emotions consequently predict exposure to workplace aggression.

> *Hypothesis* 8: Envy mediates the interactive effect of competence and friendship on covert aggression such that low friendship, as opposed to high, evokes envy towards targets of high competence.

> *Hypothesis 9:* Envy mediates the interactive effect of competence and advice giving on covert aggression such that high advice giving, as opposed to low, evokes envy towards targets of high competence.

Hypothesis 10: Contempt mediates the interactive effect of competence and friendship on overt aggression such that low friendship, as opposed to high, evokes contempt towards targets of low competence.

Hypothesis 11: Contempt mediates the interactive effect of competence and advice seeking on overt aggression such that high advice seeking, as opposed to low, evokes contempt towards targets of low competence.

Method

Participants for this study include 259 full-time instructors from twenty-one departments from 5 educational organizations. These organizations include high schools, training institutions, and university departments. To avoid consistency bias arising from collecting both dependent and independent variables at the same time, I used a temporally lagged survey design with two time periods (Venkataramani et al., 2007). I employed a 1-month time lag in this study because the intent is to ensure temporal separation with a time gap that is not too short or too long. If the time interval between two stages is short, the evaluation of participants in the first stage may interfere with evaluations in the second stage, thus impairing the causal link among study variables. However, if the interval is long, then the potential link between time 1 and 2 variables is less likely to be observed (Podsakoff et al., 2003; Zhao & Xia, 2017).

In the initial phase of the survey (T1), participants provided demographic information (e.g., age, gender, tenure, and marital status) and completed measures of negative affect and provided social network data on competence, friendship, and advice. One month later, the second phase of the survey was conducted (T2), and I measured other social network data on envy and contempt and workplace aggression.

Before collecting the data, I contacted the head of each institution and explained the purpose of my study. Once the permission was obtained, I invited the employees to participate in the study and assured them that their anonymity and confidentiality would be protected. All respondents participated voluntarily and were assigned a unique identification number to match their responses at T1 with those at T2. At each phase, respondents completed a paper-and-pencil survey and returned the completed questionnaires in a sealed envelope to the research team directly.

At T1, I issued a total of 304 questionnaires of which 287 were returned (94% response rate). After removing questionnaires with unclear responses (6 responses) 281 valid questionnaires remained (92% response rate). At T2, following the exclusion, the questionnaires were sent to 281 participants and 260 were returned, which accounted for 92% of those that had responded to time 1. Again, removing the unclear responses, I finally obtained 259 valid questionnaires, which accounted for 85% of 305 (83% valid response rate). The participants included in the sample were 143 females (55%) and 116 males (45%). The average age of the participants was 37.3 years. The average organizational tenure of participants was 7.3 years.

Both time 1 and time 2 questionnaires included a roster of all the respondent's team members including participants and non-participants of the study. I sought consent from all team members before using their name in the survey and the names of those who did not consent to participate were dropped. The roster design, also called a whole network design, is used as it is known to improve the reliability of network data (Scott, 2000). I asked participants to answer specific questions about each of their other team members. To avoid the respondents' fatigue and poor response rates, I used single-item measures for all network variables. I also counterbalanced

the order of network questions and names in the roster at both Times 1 and 2 to avoid order effects (Venkataramani et al. 2007).

Measures

The network related variables that were directly measured at T1 were competence, friendship, and advice. At T2, network data on envy and contempt were measured. All network related variables such as network centralities were derived using UCINET 6.705 (Borgatti, Everett, & Freeman, 2002). I used normalized centrality scores for all network measures because they control for differences in group sizes. Accordingly, the degree centrality is the sum of all respondents' responses toward a focal actor divided by the number of respondents in the workgroup, excluding the focal individual (Wasserman & Faust, 1994; Borgatti et al., 2018).

Competence (T1). Competence was operationalized through answers to a single sociometric question. I asked respondents to rate the focal individual's competence by asking "how effective this person is at performing his/her job". Participants were asked to respond to this question using a Likert-type scale ranging from 1(to little extent) to 5 (to a great extent). Competence was measured using in-degree competence centrality. Competence centrality counts the competence of the focal individual (ego) as reported by other fellow group members (alter) in the work group network. Thus, the competence measure for each group members was the average score from ratings provided by the other work group members (excluding the focal member).

Friendship (T1). Friendship network was operationalized through answers to a single sociometric question. Participants were provided with a full list of coworkers in their respective department and asked to rate to what extent "I consider this person as my friend." Participants

were asked to respond to this question using a Likert-type scale ranging from 1 (to little extent) to 5 (to a great extent). From these responses, friendship in-degree centrality within friendship network was measured. This counts the number of friendship ties directed towards the focal individual by other fellow group members. Greater in-degree centrality scores indicate that more coworkers chose the focal individual as their friend.

Advice giving and Advice Seeking (T1). Advice network was operationalized through answers to a single sociometric question. Participants were provided with a full list of coworkers in their respective department and asked to rate to what extent "I go to this person for work-related advice and help." Participants were asked to respond to this question using a Likert-type scale ranging from 1 (to little extent) to 5 (to a great extent). From these responses, advice giving, and advice seeking were measured.

Advice giving was measured using advice in-degree centrality. This counts the number of advice ties directed towards the focal individual by other fellow group members. Greater advice in-degree centrality scores indicate that more coworkers seek advice from the focal individual.

Advice seeking was measured using advice out-degree centrality. This counts the number of advice ties directed outwards from the focal individual towards fellow group members. Greater advice out-degree centrality scores indicate that the focal individual is seeking advice from more fellow workers.

Envy (T2). For measuring envy using the social network method, I followed the method adopted by Kim and Glomb (2014). Envy was operationalized through answers to a single sociometric question. To interpret the question clearly, I provided a detailed explanation for envy

with examples from established scales (see Kim & Glomb, 2014, for this approach). Specifically, participants were provided with a full list of coworkers in their respective departments and asked to rate everyone on the following single question: “I envy this person.” For example, (a) it is so frustrating to see this person succeed so easily; (b) feelings of envy toward this person constantly torment me; (c) I generally feel inferior to this person’s success; or (d) this person’s success makes me resent this person. Participants rated everyone to a 5-point scale from 1 (to little or no extent) to 5 (to a great extent). From these responses, I calculated envy in-degree centrality which is the number of the envy relationships with a focal actor reported by others (i.e., coworkers) in the work group network. Thus, envy for each participant was the average score from ratings provided by the other group members (excluding the focal individual).

Contempt (T2). Contempt was operationalized through answers to a single sociometric question. To interpret the question clearly, I provided a detailed explanation with examples from established scales that represent the feeling of contempt. Specifically, participants were provided with a full list of coworkers in their respective departments and asked to rate everyone on the following single question: “I feel contempt for this person.” For example, feeling contemptuous may include (a) feeling you are better than or superior to this person (b) feeling this person is worthless, or (c) feeling this person is not worthy of your attention. The wording of these examples was adopted from Izard, Libero, Putnam, and Haynes (1993). Participants responded to a 5-point scale from 1 (to little or no extent) to 5 (to a great extent). From these responses, I calculated contempt in-degree centrality which is the number of the contempt relationships with a focal individual reported by others (i.e., coworkers) in the workgroup. Thus, contempt for each participant was the average score from ratings provided by other group members excluding the focal individual.

Workplace Aggression (T2). Workplace aggression was assessed using a shortened version of 12-item Aggressive Experiences Scale (Glomb, 2002; Glomb & Liao, 2003). Six items assessed covert aggression and six items assessed overt aggression. An illustrative item for covert aggression is “withholding information from you” and for overt aggression is “made angry gestures.” Respondents reported how often they had been targets of these behaviors by their group members during the previous 6 months. Respondents indicated the frequency of their aggression experience using a 5-point scale ranging from 1 (never) to 5 (once a week or more). The co-efficient alpha for covert aggression is .84 and overt aggression is .92.

Control Variables. Based on the previous research on performance-aggression (Glomb & Liao, 2003; Kim & Glomb, 2014; Jensen et al., 2014), I controlled for demographics (i.e., age, gender, and tenure) and the personality trait of negative affect. The research on the relationship between demographics and workplace aggression show mixed findings. For example, research by Bowling and Beehr (2006) found weak or no significant correlation between demographics and workplace aggression whereas Aquino and Bradfield (2000) found a significant relationship. Given there has been evidence of association, I controlled for age, gender, and tenure of the respondents. The personality trait of negative affectivity has shown a consistent relationship with workplace aggression (r = .21; Bowling & Beehr, 2006) and there is compelling evidence that negative affect may spark behavioral responses that precipitate workplace aggression (Aquino et al., 1999). Therefore, I controlled for negative affect. I used Positive Affect and Negative Affect Schedule (Watson, Clark, & Tellegen, 1988) to measure respondent negative affectivity. The co-efficient alpha for negative affect is .74.

Analytic Strategy

Similar to study 1 of the dissertation, the proposed theoretical model lies at the individual level of analysis. However, the data are nested with individuals located within different departments. To account for the non-independence of observations, I conducted regression analyses using cluster-robust standard errors using Mplus 8.3 (McNeish, Stapleton, & Silverman, 2017; Muthén & Muthén, 2012). This method employs a maximum-likelihood estimator to account for non-independence by correcting clustering bias in the standard error estimates.

Results

The means, standard deviations, correlations, and reliability statistics of the key variables are presented in Table 4. I conducted a confirmatory factor analysis to establish discriminant validity of the outcome variables – overt and covert aggression. I assessed and compared the hypothesized two-factor model with the one-factor alternative models. In the one-factor alternative model, I specified all indicator variables to load on a single latent factor ($\chi2$ = 944.37, *df* = 53; *CFI* =.45; *RMSEA* =.26; *SRMR*=.25). In the second hypothesized model, the indicator variables loaded on two latent factors ($\chi2$ = 101.12, *df* = 52; *CFI* =.97; *RMSEA* =.06; *SRMR*=.04). The results suggested that the two-factor model exhibited reasonably good fit to the data and superior fit to the one-factor model, suggesting that the discriminant validity of workplace aggression variables is reasonably high. The correlation between the overt and covert aggression is nonsignificant (*r* = -.11, *p* = *ns*) The standardized factor loadings of each item from the latent constructs ranged from .60 to .90 and all were statistically significant. Therefore, I retained two factor measurement model of covert aggression and overt aggression.

Hypotheses Testing

I ran multiple regression analyses to test for Hypotheses 1a and 1b which predicted that competence is positively related to covert aggression but negatively related to overt aggression. As shown in Table 5, after controlling for age, gender, organizational tenure, and negative affect, I found that competence was positively related to covert aggression (b = .35, p < .01) and negatively related to overt aggression (b = -.56, p < .01), supporting Hypotheses 1a and 1b respectively. It was also proposed that an individual's advice network is an indicator of his/her competence. Accordingly, it was proposed that as with the direct measure of competence, advice giving would be positively related to covert aggression while advice seeking is positively related to overt aggression. Results show that advice-giving was significantly related to covert aggression, but the direction of the relationship was opposite than what was hypothesized. The relationship between advice giving and covert aggression was negative (b = -.36, p < .01), and thus Hypothesis 2 was not supported. However, advice-seeking was positively related to overt aggression (b = .49, p < .01), supporting Hypothesis 3.

Moderation Analysis

I conducted moderated multiple regression analyses to test Hypotheses 4 and 5. First, I tested hypothesis 4, which stated that competence interacts with advice giving to predict covert aggression. I followed Aiken and West's (1991) recommendation and centered both advice giving and competence. After controlling for the same set of variables as the previous analysis, when competence, advice giving, and their interaction term are entered, the results yield a significant interaction coefficient predicting covert aggression (b = -.22, p < .01). However, the direction of the interaction was opposite than hypothesized. The results show that the interaction effect is negative suggesting the positive association between competence and covert aggression

reduces as advice giving increases. This pattern did not support Hypothesis 4. Next, I tested the interaction effect of competence and advice seeking on overt aggression which was significant and negative (b = -.28, p <.01) suggesting the negative association between competence and overt aggression increases with the increase in advice seeking, supporting Hypothesis 5.

Next, I conducted another moderated multiple regression analysis to test Hypotheses 6 and 7, which proposed that competence interacts with friendship to predict covert aggression (Hypothesis 6) and overt aggression (Hypothesis 7). I followed the same procedure as above. After controlling for the same set of variables, modeling competence and friendship, and adding the interaction term, the results yield significant interaction coefficients for both covert aggression (b = -.25, p < .01) and overt aggression (b = .20, p < .05). The results were all in expected direction suggesting that employees with high friendship experienced less covert aggression when their competence was high and less overt aggression when their competence is low, supporting Hypotheses 6 and 7.

Finally, although not hypothesized, I tested the interaction effect of friendship and advice seeking on overt aggression, and the results yielded a significant interaction coefficient (b = -.21, p < .01). The interaction effect is negative suggesting the positive association between advice seeking and overt aggression decreases as friendship increases.

Mediated Moderation

To test the mediated moderation relationship, I adopted the first-stage and direct effect moderation model approach of Edwards and Lambert (2007). Accordingly, I conducted the path analysis by constructing following equations

$$\boldsymbol{Y = b_0 + b_1X + b_2Mo + b_3XMo + b_4Me + e_1}$$

$$\boldsymbol{Me = a_0 + a_1X + a_2Mo + a_3XMo + e_2}$$

$$Y = [b_0 + b_2\text{Mo} + (a_0 + a_2\text{Mo})b_4] + [(b_1 + b_3\text{Mo}) + (a_1 + a_3\text{Mo})\, b_4]\text{X} + e_2 + e_1 b_4$$

In the above 3 equations, X, Me, Mo, and Y represent the independent variable, mediator, moderator, and dependent variables, respectively. The Equation 3 shows that the path linking X to Me (which is path 'a' of the indirect effect of X on Y) varies as a function of Mo, and the conditional indirect effect is represented by (a1 + a3Mo) b1. The direct effect of X on Y also depends on Mo, and it is captured by the term (bl+b3Mo) (Edwards et al., 2007).

To test the first hypothesized mediated moderation model (Hypothesis 8) in which envy mediates the interactive effect of competence and friendship on covert aggression, I conducted a path analysis. The results are presented in the Table 6. First, I modeled the control variables (participant's age, gender, tenure, and negative affect), competence, friendship centrality, and the interaction term (competence X friendship). The results yielded a significant interaction effect on envy (b = -.24, p < .01). Simple slope analysis confirmed that the results were in the expected direction (see fig. 5), such that when employees are considered as highly friendly, they are less likely to be envied by coworkers even when their competence is high (b = .14, p = *ns*). When employees are considered as less friendly, however, competent employees are more likely to be envied by coworkers (b = .61, p < .01).

Next, I modeled envy as a mediator of the interaction effect of competence and friendship on covert aggression. The results are displayed in Table 6. I found that envy was positively related to covert aggression (b = .37, p < .01). To probe this effect, I tested for conditional indirect effects at one standard deviation above and below the mean of the moderator (i.e., friendship). At one standard deviation below the mean for friendship, competence has a positive indirect effect for covert aggression (*indirect effect* = .23, 95% CI = 0.13, 0.34). At one standard deviation above the mean, the indirect effect was not significant suggesting that competence had

no significant indirect effect for covert aggression (*indirect effect* = .07, 95% CI = -0.01, 0.20). This suggests that competence had a significant and positive indirect effect on covert aggression via envy, but this effect is stronger for employees with lower friendship. These findings support Hypothesis 8. Next, the direct effect moderation model shows that the direct effect of competence on covert aggression is moderated by friendship. At one standard deviation below the mean for friendship, the direct effect of competence on covert aggression is significant (*direct effect* = .51, 95% CI = 0.47, 0.54). At one standard deviation above the mean, the direct effect of competence on covert aggression is not significant (*direct effect* = .17, 95% CI = -0.03, 0.36). This suggests that the even after controlling for the effects of coworkers' envy, friendly and competent employees experienced lower covert aggression compared to unfriendly competent employees.

Next, I tested whether envy mediates the interactive effect of competence and advice giving on covert aggression. I began by examining the interactive effect of competence and advice giving on envy. The results are presented in the Table 7. I modeled the control variables (participant's age, gender, tenure, and negative affect), competence, advice giving, and the interaction term (competence X advice giving). The results yielded a significant interaction term for envy (b = -.17, p < .05). Simple slope analysis confirmed that the results were in expected direction (see fig. 6). When employees were involved in high advice giving, they were subject to less envy from coworkers even when their competence was high (b = .15, p = ns). When competent employees engaged in less advice giving, however, they were subjected to more envy (b = .49, p < .01).

Next, I modeled envy as a mediator of the interactive effect of competence and advice giving on covert aggression. The results are displayed in Table 7. I found that envy was

positively related to covert aggression ($b = .45$, $p < .01$). Finally, I tested for conditional indirect effects at one standard deviation above and below the mean of the moderator (i.e., advice giving). At one standard deviation below the mean for advice giving, the indirect effect was significant, with competence having a positive indirect effect on covert aggression (*indirect effect* = .22, 95% CI = 0.16, 0.28). At one standard deviation above the mean of advice giving, competence had a nonsignificant positive indirect effect on covert aggression (*indirect effect* = .07, 95% CI = -0.04, 0.23). This suggests that competence had a significant and positive indirect effect on covert aggression, but this effect is only observed for employees with lower advice giving. The results support the Hypothesis 9.

Next, the direct effect moderation model shows that the direct effect of competence on covert aggression is moderated by advice giving. At one standard deviation below the mean of advice giving, the direct effect of competence on covert aggression is positive (*direct effect* = .43, 95% CI = 0.41, 0.45). At one standard deviation above the mean of advice giving, the direct effect of competence on covert aggression is not significant (*direct effect* = .15, 95% CI = -0.05, 0.35). This suggests that even after controlling for the effects of coworkers' envy, competent employees who engage in advice giving experienced lower covert aggression compared to employees who do not engage in advice giving.

In the next set of models, I tested mediated moderation involving contempt as a mediator. Hypothesis 10 suggests contempt mediates the interactive effect of competence and friendship on overt aggression. I began by examining the interactive effect of competence and friendship on contempt. The results are presented in the Table 8. The model included control variables (participant's age, gender, tenure, and negative affect), competence, friendship, and the interaction term (competence X friendship centrality). The results yielded a significant

interaction term predicting contempt ($b = .11$, $p < .01$) in the expected direction (see fig. 7). When employees were considered as highly friendly, they received less contempt from coworkers even when their competence was low ($b = -.20$, $p = ns$). When employees were considered as less friendly, however, less competent employees received more contempt ($b = -.42$, $p < .01$).

Next, I modeled contempt as a mediator of the interactive effect of competence and friendship on overt aggression. I found that contempt was positively related to overt aggression ($b = .20$, $p < .01$; see Table 8). Finally, I tested for conditional indirect effects at one standard deviation above and below mean of the moderator (i.e., friendship). At one standard deviation below the mean of friendship, the indirect effect was significant, demonstrating that competence had an indirect negative effect on overt aggression via contempt (*indirect effect* = -.08, 95% CI = 0.06, 0.16). At one standard deviation above the mean of friendship, competence had a nonsignificant negative indirect effect on overt aggression (*indirect effect* = -.04, 95% CI = -0.04, 0.001). This suggests that there is an indirect relationship between competence and overt aggression via contempt, only evident for employees with lower friendship. That is, low competence employees experience contempt and overt aggression when their friendship is low. These findings support Hypothesis 10. Next, the direct effect of competence on overt aggression is moderated by friendship. At one standard deviation below the mean of friendship, the direct effect of competence on overt aggression is negative (*direct effect* = -.53, 95% CI =- 0.50, -0.55). At one standard deviation above the mean of friendship, the direct effect of competence on covert aggression is not significant (*direct effect* = -.17, 95% CI = -0.44, 0.09). This suggests that the even after controlling for the effects of coworkers' contempt, unfriendly less competent employees experienced higher overt aggression.

Further, I tested Hypothesis 11 that suggests contempt mediates the interactive effect of competence and advice seeking on overt aggression. I began by examining the interactive effect of competence and advice seeking on contempt by conducting a moderated multiple regression. The results are presented in the Table 9. I first modelled the control variables (participant's age, gender, tenure, and negative affect), competence, advice seeking, and the interaction term (competence X advice seeking). The results yielded a significant interaction term for contempt (b = -.12, $p < .01$). Simple slope analysis confirmed that the results were in expected direction (see fig. 8). At high levels of advice seeking the negative relationship between competence and contempt was stronger (b = -.52, $p < .01$). Low competence employees experienced higher contempt from coworkers when they engaged in advice seeking. At low levels of advice seeking, the relationship between competence and overt aggression is still negative but weaker (b = -.28, $p < .01$).

Next, I modeled contempt as a mediator of the interactive effects of competence and advice seeking on overt aggression. I found that contempt was positively related to overt aggression (b = .28, $p < .01$; see Table 6). Then, I tested for conditional indirect effects at on standard deviation above and below mean of the moderator (i.e., friendship). At one standard deviation above the mean of advice seeking, competence had a negative indirect effect for overt aggression (*indirect effect* = -.15, 95% CI = -0.14, -0.11). This suggests that the negative indirect effect of competence on overt aggression is stronger for employees who are high on advice-seeking. At one standard deviation below the mean of advice seeking, the indirect effect was significant, with competence having a negative indirect effect on overt aggression via contempt, (*indirect effect* = -.08, 95% CI = -0.06, -0.08). These findings support Hypothesis 11.

Finally, I modeled contempt as a mediator of the interactive effect of competence and friendship on overt aggression. At one standard deviation below the mean of friendship, the direct effect of competence on overt aggression is negative (*direct effect* = -.53, 95% CI =- 0.50, -0.55). At one standard deviation above the mean of friendship, the direct effect of competence on covert aggression is not significant (*direct effect* = -.17, 95% CI = -0.44, 0.09). This suggests that the after controlling for the effects of coworkers' contempt, unfriendly less competent employees experienced higher overt aggression. The direct effect moderation model suggests that competence interacts with advice seeking to moderate the direct effect of competence on overt aggression (b = -.25, p <.01). The direction of the interaction is negative such that the direct relationship between competence and overt aggression is higher when the advice seeking is lower.

Discussion

This study aims to understand the role of two universal dimensions of interpersonal evaluation—competence and friendship—in predicting workplace aggression. The study was inspired by research calls to consider the role of social context in which workplace aggression occurs (Duffy, Ganster, Shaw, Johnson, & Pagon, 2006; Hershcovis & Reich, 2013; Cortina et al., 2021). In response to such calls, this study used a social-networks perspective to understand the dynamics and the experience of aggression at work and demonstrated workplace social ties as process and boundary conditions associated with employee exposure to aggression. The study showed a positive association between a workers' competence and the covert aggression they experience but a negative association between workers' competence and overt aggression they experience from their coworkers. In addition, as hypothesized, the current study shows that workers' engagement in advice seeking accentuates the negative relationship between workers'

competence and their exposure to overt aggression. The study also supported the hypothesized interaction effect of competence and friendship on workplace aggression. Lastly, the study supported the hypothesized conditional indirect effects involving envy and contempt. Below, I elaborate on the study findings, offer theoretical and practical implications, and discuss study limitations and future directions.

Theoretical Contribution

This study contributes to research and theory related to social networks and workplace aggression. First, the results suggest that employees' competence is a key factor in determining the type of aggression they experience. While high competence employees experienced greater covert aggression, low competence employees experienced greater overt aggression. High competence employees hold high status and power and can control the resources for others in the workgroup. Perpetrators perceive them as a threat to their own success and try to undermine their reputation. Because competent employees are powerful, perpetrators hide their identity and use covert aggression to avoid negative consequences. In contrast, low competence employees hold less power and become easy targets of overt aggression. Perpetrators are less afraid of these individuals because of their inability to defend or retaliate (Carli, 1999; Salin, 2003). This finding adds to our understanding of how individual competence can influence their exposure to aggressive behaviors. Although the earlier research suggested that high and low performers experience distinct kinds of mistreatment, this study provides further evidence suggesting the nature of aggression experienced is, in part, influenced by their perceived competence. This also highlights that employees become victims to distinct forms of aggression and that there is need to consider different forms of aggression such as covert and overt forms to draw accurate conclusions about the causes and consequences of aggression.

Second, friendship strongly moderates the association between employee competence and workplace aggression. The results showed that employee competence more strongly influenced the experience of aggression when that employee was perceived as less friendly. Friendly employees develop norms of positive reciprocity, which receivers are reluctant to violate by mistreating them because it promotes a reputation of being unkind and unthankful (Kim & Glomb, 2010). Previous findings suggest that benevolent employees experience less aggression because they cooperate and contribute to teams and are liked by other team members. While benevolent high performers reach out to others to help with work-related tasks, benevolent low performers help by performing citizenship behavior, which may garner empathy and mitigate aggression. Friendship ties' moderation of the relationship between competence and aggression is particularly striking because it suggests that employees that are central to friendship relationships hold referent power that protects them against becoming victims of workplace aggression (Lamertz et al., 2004). This finding illuminates the essential role the aggregate amount of friendship ties plays in shaping interpersonal stereotypes and reducing workplace aggression.

Third, I found evidence for advice ties (advice-giving and advice-seeking) acting as boundary conditions for the relationship between competence and workplace aggression. Advice givers are sought for advice because of their ability to solve work-related problems. Therefore, I proposed that employees occupying the central position in advice-giving networks experience aggression because they become subjected to envy. Interestingly, the findings suggest a different story showing a negative relationship between advice-giving and covert aggression, as advice-giving interacted with competence to predict covert aggression, but in the opposite direction from what was expected. The interaction was negative, suggesting the relationship between competence and covert aggression is weaker at higher levels of advice-giving. One potential

explanation for this is that employees who provide job-related advice and help are seen as helpful and cooperative, contributing to team members' well-being and success by helping them complete work-related tasks. This helpful behaviour is reciprocated by developing strong social ties that eventually help advice-givers build social capital embedded in their interpersonal advice relationships. In other words, advice-givers contribute to the team's collective success, and in turn, team members reciprocate by showing respect and positive behavior.

On the other hand, advice-seeking had a positive relationship with overt aggression moderated by competence. This finding implies that the risk of experiencing overt aggression for low-competent employees is higher when they seek advice. It is a noteworthy finding as it highlights a condition under which low competence employees are more likely to become victims of aggression. Several reasons could explain this. First, employees may dislike or have disrespect for incompetent employees who ask for advice. Perhaps they see advice-seeking from incompetent employees as an interruption for which they are not "time worthy." Second, it is also possible that incompetent employees may frequently ask for help completing the same or similar tasks. When this happens, coworkers may get frustrated and display overt forms of aggression. Finally, as noted in study one of this dissertation, less competent employees elicit contempt from their coworkers, which plays an important mediating role in them experiencing aggressive behavior. While advice seeking is not same as low competence, it can be a behavioral manifestation of low competence. Therefore, while advice-giving alleviates the mistreatment of competent employees by reducing envy, advice-seeking can aggravate the mistreatment of low-competent employees by increasing contempt. Such a finding is noteworthy because it enriches the research on workplace aggression by addressing a critical gap in the literature that has rarely considered the relationship between advice networks and aggression. This is the first study that

provides empirical evidence that advice seeking is detrimental to advice-seekers, especially when their competence is low.

Fourth, this study suggests two mechanisms that explain how stereotypes stemming from employee instrumental and affective ties can make them targets of workplace aggression through eliciting negative emotions. With respect to one mechanism the results showed that employees who are stereotyped as competent but not friendly (competent jerks; Casciaro & Lobo, 2005) elicit envy. Similarly, being competent but not engaging in advice-giving also evokes envy among their counterparts, which in turn is associated with covert aggression towards the target. With respect to the second mechanism employees stereotyped as less competent and less friendly (i.e., "incompetent jerks") elicit contempt. Similarly, less competent employees who seek advice also produce contempt among coworkers. Contempt, in turn, motivates coworkers to engage in overt aggression towards the target.

Finally, and most importantly, by adopting stereotype content model and BIAS map as a theoretical framework, the study provides new insights into the association between interpersonal relationships and workplace aggression. The findings suggest that employees who share friendship and advice with their co-workers experience less workplace aggression whereas employees who frequently seek advice may experience greater aggression. Previous research has predominantly applied the victim precipitation model to explain the relationship between performance and aggression. Although the victim precipitation model may account for the direct relationship between employee competence and workplace aggression, it does not sufficiently explain the boundary conditions and underlying mechanisms. Therefore, this study uses and extends the scope of the stereotype content model and BIAS map by proposing and evaluating the relational antecedents of workplace aggression. In doing so, the study contributes to the

introduction of social context modeled using network positions to explain why and under what circumstances employees experience workplace aggression. Although research suggests the importance of informal workplace relationships, we have a shortage of theoretical and empirical evidence testing whether informal relationships serve as boundary conditions of workplace aggression. This study's findings showed that although competence and friendship stereotypes predicted workplace aggression, the relationship of stereotypes to aggression was primarily indirect, mediated by distinct negative emotions. Moreover, the emotions were related to distinct types of workplace aggression. While envy was related to covert aggression, contempt was more strongly related to overt forms of aggression. The theory also proposed that warmth could alter social evaluation processes and outcomes (e.g., negative emotions, passive, and active harm). To my knowledge, this is the first study to extend SCM, BIAS map, and social networks perspective to the workplace aggression literature. By doing this, the dissertation shows that an employee's position in friendship and advice networks provide an essential interpersonal contextual buffer for the effects of employee competence and their experience of workplace aggression.

Practical Implications

Workplace aggression poses direct costs to organizations in the form of productivity loss and indirect costs in reduced commitment, decreased job satisfaction, reduced employee morale, and increased turnover. It is impossible and unnecessary to control social judgments among employees (Kim & Glomb, 2014). However, the results of this study suggest that individuals can mitigate their aggression experience by being pleasant, friendly, and sharing work-related advice with others. Better workplace friendship implies a better collegial environment that facilitates organizational goal accomplishment. Therefore, it becomes imperative for organizations to provide opportunities and resources for employees to develop a strong

friendship network. For instance, organizations can adopt team-building activities to create a friendly environment that further enhances employee social relations. A friendly workplace is also helpful in combating the adverse effects of employee competence. People are less likely to appraise a situation as threatening if they are in a supportive and friendly environment (Taylor, 2008). Instead, they are more likely to interpret events as challenging and utilize the resources to address the situation. For instance, an employee in a friendly work environment engages in social comparison with high performers but instead of feeling threatened, they may utilize their social resources to obtain help and advice.

The study also suggests several approaches that can help managers or policymakers can adopt to reduce negative emotions and subsequent aggression in workgroups. Considering that advice-giving and friendship act as buffers to mitigate workplace aggression, managers should take steps to foster interpersonal relations, collegiality, mutual respect, and teamwork that are important for curbing aggression. For instance, managers can encourage employees to take part in group activities that eventually enhance interpersonal relationships. Moreover, managers themselves should develop and show collegiality and compassion. This is particularly important for them to do this for employees that are lower performing and/or perceived as less competent. Because when managers behave compassionately, employees are more likely to reciprocate the behavior, which is found to cascade in their social networks (Fowler & Christakis, 2010).

Another opportunity for managers to curb aggression is to create a formal advice sharing program given the findings relating to advice-seeking, competence, and workplace aggression. The study results suggest that advice-seeking by low competence employees is positively associated with aggression, which may further hamper their performance. Therefore, managers should help such employees by creating teams in which advice-seeking and advice-giving is

normalized and encouraged. Perhaps, it is also a good idea for managers to incentivize advice-giving to encourage more employees participate in advice sharing.

Finally, managers can target aggression prevention strategies at specific members or groups within social networks. In order to attain this, managers could conduct network analysis of their teams or attend to their cues to identify the peripheral individuals. The study findings suggest that such targeted strategies are essential to prevent aggression, particularly for employees at most risk of aggression. Managers can then direct their efforts to improve these individuals' centrality, provide additional resources to enhance their competence, or offer coping strategies if they are victims of aggression.

Limitations and Future Directions

Although this study has many theoretical and practical implications, the limitations should be considered, which, at the same time, offer new avenues for future research. First, despite collecting data from numerous departments and several organizations, the data were limited to education sector, where the jobs are typically independent and competitive in nature. competition may elicit threat and rivalry among employees particularly when they foresee that their pay and other benefits are at risk. Threat, either perceived or real, may motivate employees to avoid personal loss, thus, triggering them to engage in workplace aggression. However, organizations that prioritize teamwork and group rewards may foster the collaborative mindset and a sense of shared responsibility and among employees. Therefore, employees are more likely to perform well as a group and less likely to harm or sabotage group members. Therefore, generalizability of the results would be extended through additional research among employees in other industries, sectors, and jobs.

Second, the study followed several strategies to reduce common method bias. I adopted different methods to measure dependent and independent variables, used multiple sources, and used a time-lagged design. Despite using a rigorous research design, I cannot still rule out the possibility of reverse causality. Indeed, structuration theory (Giddens, 1976) states that relationships can be the consequence of and precursors to behavior. This dissertation demonstrated that employees' friendship and advice ties predict their exposure to workplace aggression. However, it is also plausible that an employee's experience of workplace aggression within a workgroup shapes his or her friendship and advice networks. Therefore, future research should use methodologies that would assess these possibilities and the causality that is implied by the theoretical model used in this study.

Finally, I only focused on one network position, that is, degree centrality in this study. There are many network elements that may influence workplace aggression. For example, other network position variables such as betweenness centrality and Eigenvector centrality may impact individuals' aggression experiences. It can be argued that employees with high betweenness and eigenvector centrality experience less aggression The eigenvector centrality measures the influence of the node in the network, and individuals with high eigenvector centrality are connected to other individuals who are themselves well connected (Borgatti et al., 2018). Betweenness centrality measures how often a person occurs on the shortest paths between other people. Because these individuals act as bridges connecting one part of the network to another, they have high potential to control the flow of resources by acting. It can be argued that betweenness centrality can enhance an individual's bonding and bridging social capital. Bonding and bridging social capital help employees gain power by connecting with similar others within and outside their own teams respectively. However, eigenvector centrality

enhances an individual's linking social capital by connecting to people with higher status (Claridge, 2018). This bridging and linking social capital may predict employee's exposure to workplace aggression. Therefore, future studies should consider if such distinctions in the network positions protect an individual from becoming victims. Research that incorporates these and other structural elements of the network would be of value to the aggression literature.

Conclusion

This study highlights the key role social networks play in studying workplace aggression. The study findings show that employees' aggression experience depends on how they connect to others in their workgroups. Specifically, I found that competent and incompetent individuals located in central positions within the friendship network are less likely to experience workplace aggression. I also found that highly competent individuals who occupy a central position in advice-giving networks are less likely to be victimized. However, low competence employees occupying a central position in advice-seeking networks were at greater risk of experiencing aggression. By establishing that employee exposure to aggression is influenced by their perceived competence, I identified important boundary conditions for the competence-aggression relationship. I hope this study provides further motivation for future research efforts into the aggression phenomenon.

CHAPTER 5: GENERAL DISCUSSION

The primary goal of this dissertation was to examine the personal and relational antecedents of aggression, focusing primarily on the role of interpersonal stereotypes stemming from competence and warmth in predicting workplace aggression. Using the stereotype content model (Cuddy et al, 2002; 2007) as an overarching framework, I examined two models in two field studies using a survey and social networks analysis methods.

Study one supported a curvilinear relation between job performance and exposure to workplace aggression. The study also explored the underlying causal mechanism for the proposed relationship. The results revealed coworker jealousy and contempt as parallel mediators of the relation between employee job performance and the experience of exposure to aggression. High performers experience jealousy from coworkers, whereas low performers experience contempt. Both jealousy and contempt positively relate to aggression which explains the curvilinear association between job performance and exposure to workplace aggression.

Study two adopted social networks perspective to examine the relationship between interpersonal stereotypes and workplace aggression. Findings suggest that high- and low-competent employees become victims of different types of aggression. While high competence employees experienced covert aggression, low competence employees experienced overt aggression. Consistent with study one, this study provides further evidence for the two distinct mediating mechanisms unfolding at high and low levels of competence. Accordingly, high competence individuals experience aggression through eliciting envy, and low competence individuals experience aggression through eliciting contempt among coworkers. The study also offered three network structural variables, friendship centrality, advice giving, and advice seeking as boundary conditions of these mediated. First, the indirect relationship between

competence and aggression (overt and covert) through negative emotions (envy and contempt) is moderated by friendship ties. The indirect relationship is strongly evident when the friendship centrality is weak. High competence employees experienced envy and covert aggression when they were not central to their friendship networks. Similarly, low competence employees experience contempt and overt aggression when they were not sharing friendship ties with their coworkers. Second, advice-giving moderated the indirect effect of competence on covert aggression through envy such that the indirect relationship is weaker at high levels of advice-giving. Finally, advice-seeking moderated the indirect effect of competence on overt aggression through contempt. The indirect effect was strong for employees who engaged in advice seeking.

Theoretical Implications

The dissertation has two significant theoretical implications. It is the first study to apply the stereotype content model to workplace aggression literature. Extending SCM to address the relation between competence (e.g., job performance) and workplace aggression is important for several reasons. First, the theoretical framework enriches the explanation of the nature of the relationship between employee performance and workplace aggression. For instance, observing a nonlinear relationship between performance and aggression in study 1, the theory directs researchers to test for the possibility of a curvilinear relationship. Second, SCM provides a framework to explore the underlying mechanisms between competence and aggression. Considering the well-documented relationship between employee competence (for instance, competence, cognitive ability, and job performance) and workplace aggression, scholars need to explain the "black box" of underlying mechanisms. Unfortunately, exploring how competence influences workplace aggression has received less attention. When mechanisms of employee competence are explored, typically, only a single mediator (e.g., envy; Kim & Glomb, 2014) is

examined. In the real world, causal effects operate simultaneously through multiple mechanisms, and the SCM allows for the modeling of such real-world complexities and prevents epiphenomenality, a potential misspecification due to misattribution of the process to the proposed mediator rather than the "true" mediator. The association between M (mediator) and Y (dependent variable) may be epiphenomenal of the fact that X (independent variable) affects Y through the "true mediator" not proposed in the model. Because the proposed M is correlated with the "true mediator," it may be concluded that proposed M is the indirect path through which X influences Y (Hayes, 2018). In this dissertation, the parallel mediation model helps to prevent the ephiphenomenality. For instance, the correlation between envy and contempt is positive [(r = .28, $p < .01$) in study 1 and (r = .16, $p < .05$) in study 2]. Therefore, considering envy (or contempt) alone would misattribute the mediation process at low levels of competence to envy rather than to true mediator contempt. Finally, this dissertation, using SCM as a theoretical framework, also suggests boundary conditions for the relationship between competence and aggression, demonstrating that the relation varies based on employee’s friendship, advice-giving, and advice seeking.

The dissertation also demonstrates the value of informal workplace relationships as a social context to study the experience of workplace aggression. Social networks provide a rich interpersonal social context that helps researchers gather data about a focal individual from their teammates. Unfortunately, social network analysis has received very little attention in the aggression literature. By conducting social network analysis, this study offers new insights about the influence of social interactions on aggression experiences, which helps advance research on and intervention related to workplace aggression.

Practical Implications

The dissertation offers implications for the effective functioning of organizations. Both studies provide insights and recommendations for managers to curb workplace aggression. Findings from two studies suggest that both high and low performers experience aggression. Therefore, there is a need for managers to recognize this risk and take steps to prevent both high and low performers from being mistreated. As mentioned earlier, employees' central position in friendship and advice-giving networks help protect them from being mistreated. Therefore, managers should encourage and create opportunities for employees to develop strong friendship and advice networks. It is also important to note that these were the first studies to show the critical role of negative emotions in workplace aggression, and therefore, recommend managers to focus on developing intervention strategies that can reduce negative emotions (e.g., envy, jealousy, and contempt). In addition, the studies demonstrate that employees are not entirely powerless to defend themselves against aggression. Being good citizens by being friendly and helpful may serve as self-protecting behaviors (Aquino & Bommer, 2003). Therefore, organizations should take the responsibility to inculcate such behaviors in their employees. Employee citizenship behaviors also positively contribute to the organizational culture and climate. Organizational citizenship behavior can transform the organization because employees' willingness to help and cooperate with others boosts the strengthening of their social networks

In conclusion, by integrating two theoretical perspectives and using a rigorous research design, this dissertation focused on investigating how variation in employee competence and its manifestation (e.g., job performance) is associated with their risk of experiencing mistreatment and the factors that mediate and moderate these relations. The results highlight the role of stereotypes stemming from interpersonal evaluation and negative emotions in predicting

workplace aggression. The findings also highlight the role social networks play in this relationship.

References

Ahadzie, D. K., Proverbs, D. G., & Olomolaiye, P. (2008). Towards developing competency-based measures for construction project managers: Should contextual behaviours be distinguished from task behaviours?. *International Journal of Project Management*, *26*(6), 631-645.

Aiken, L. S., & West, S. G. (1991). *Multiple regression: Testing and interpreting interactions*. Thousand Oaks, CA: Sage.

Akan, O. H., Allen, R. S., & White, C. S. (2009). Equity sensitivity and organizational citizenship behavior in a team environment. *Small Group Research*, *40*(1), 94-112.

Anderson, C. A., & Bushman, B. J. (2002). Human aggression. *Annual review of psychology*, *53*(1), 27-51.

Aquino, K. (2000). Structural and individual determinants of workplace victimization: The effects of hierarchical status and conflict management style. *Journal of Management, 26,* 171-193.

Aquino, K., & Bradfield, M. (2000). Perceived victimization in the workplace: The role of situational factors and victim characteristics. *Organization Science*, *11*, 525-537.

Aquino, K., & Byron, K. (2002). Dominating interpersonal behavior and perceived victimization in groups: Evidence for a curvilinear relationship. *Journal of Management, 28,* 69-87.

Aquino, K., & Douglas, S. (2003). Identity threat and antisocial behavior in organizations: The moderating effects of individual differences, aggressive modeling, and hierarchical status. *Organizational Behavior and Human Decision Processes*, *90*(1), 195-208.

Aquino, K., Grover, S. L., Bradfield, M., & Allen, D. G. (1999). The effects of negative affectivity, hierarchical status, and self-determination on workplace victimization. *Academy of Management Journal*, *42*(3), 260-272.

Aryee, S., Chen, Z. X., Sun, L. Y., & Debrah, Y. A. (2007). Antecedents and outcomes of abusive supervision: test of a trickle-down model. *Journal of Applied Psychology*, *92*(1), 191-201.

Aspinwall, L. G., & Taylor, S. E. (1993). Effects of social comparison direction, threat, and self-esteem on affect, self-evaluation, and expected success. *Journal of Personality and Social Psychology*, *64*(5), 708-722.

Baron, R. A., & Neuman, J. H. (1996). Workplace violence and workplace aggression: Evidence on their relative frequency and potential causes. *Aggressive Behavior: Official Journal of the International Society for Research on Aggression*, *22*(3), 161-173.

Baughman, H. M., Dearing, S., Giammarco, E., & Vernon, P. A. (2012). Relationships between bullying behaviours and the Dark Triad: A study with adults. *Personality and Individual Differences*, *52*(5), 571-575.

Bing, M. N., & Burroughs, S. M. (2001). The predictive and interactive effects of equity sensitivity in teamwork-oriented organizations. *Journal of Organizational Behavior: The International Journal of Industrial, Occupational and Organizational Psychology and Behavior*, *22*(3), 271-290.

Björkqvist, K., Österman, K., & Hjelt-Bäck, M. (1992). Work harassment scale. *Vasa, Finland: Abo Akademi University*.

Björkqvist, K., Österman, K., & Lagerspetz, K. M. (1994). Sex differences in covert aggression among adults. *Aggressive behavior*, *20*(1), 27-33.

Bolino, M. C. (1999). Citizenship and impression management: good soldiers or good actors? *Academy of Management Review*, *24*(1), 82-98.

Borgatti SP, Everett MG, Freeman LC (2002) UCINET for Windows: Software for Social Network Analysis (Analytic Technologies, Harvard, MA).

Borgatti, S. P., & Foster, P. C. (2003). The network paradigm in organizational research: A review and typology. *Journal of management*, *29*(6), 991-1013.

Bowling, N. A., & Beehr, T. A. (2006). Workplace harassment from the victim's perspective: a theoretical model and meta-analysis. *Journal of Applied psychology*, *91*(5), 998-1012.

Brass, D. J. (2011). A social network perspective on industrial/organizational psychology. *Handbook of industrial and organizational psychology*, *1*, 107-117.

Brass, D. J., Butterfield, K. D., & Skaggs, B. C. (1998). Relationships and unethical behavior: A social network perspective. *Academy of management review*, *23*(1), 14-31.

Brewer, M. B., & Alexander, M. G. (2002). Intergroup emotions and images. In D.M. Mackie & E.R. Smith (Eds.), From Prejudice to Intergroup Emotions: Differentiated Reactions to Social Groups (pp. 209–225). New York, NY: Psychology Press.

Brickman, P., & Bulman, R. J. (1977). Pleasure and pain in social comparison. *Social comparison processes: Theoretical and empirical perspectives*, *149*, 186.

Burke, R. J., Weir, T., & Duncan, G. (1976). Informal helping relationship in work organizations. *Academy of Management Journal*, *19*(3), 370-377.

Campbell, E. M., Liao, H., Chuang, A., Zhou, J., & Dong, Y. (2017). Hot shots and cool reception? An expanded view of social consequences for high performers. *Journal of Applied Psychology*, *102*(5), 845-866.

Casciaro, T., & Lobo, M. S. (2005). Competent jerks, lovable fools, and the formation of social networks. *Harvard Business Review*, *83*(6), 92-99.

Casciaro, T., & Lobo, M. S. (2008). When competence is irrelevant: The role of interpersonal affect in task-related ties. *Administrative Science Quarterly*, *53*(4), 655-684.

Casciaro, T., & Lobo, M. S. (2014). Affective primacy in intraorganizational task networks. *Organization Science*, *26*(2), 373-389.

Chang, C. H., Eatough, E. M., Spector, P. E., & Kessler, S. R. (2012). Violence-prevention climate, exposure to violence and aggression, and prevention behavior: A mediation model. *Journal of Organizational Behavior*, *33*(5), 657-677.

Chullen, C. L., Dunford, B. B., Angermeier, I., Boss, R. W., & Boss, A. D. (2010). Minimizing deviant behavior in healthcare organizations: The effects of supportive leadership and job design. *Journal of Healthcare Management*, *55*(6), 381-397.

Cortina, L. M., Sandy Hershcovis, M., & Clancy, K. B. (2022). The embodiment of insult: A theory of biobehavioral response to workplace incivility. *Journal of Management*, *48*(3), 738-763.

Coyne, I., Seigne, E., & Randall, P. (2000). Predicting workplace victim status from personality. *European journal of work and organizational psychology*, *9*(3), 335-349.

Cuddy, A. J., & Fiske, S. T. (2002). Doddering but dear: Process, content, and function in stereotyping of older persons. In T. D. Nelson *Ageism: Stereotyping and prejudice against older persons*, *3*(1), 3-26.

Cuddy, A. J., Fiske, S. T., & Glick, P. (2004). When professionals become mothers, warmth doesn't cut the ice. *Journal of Social Issues*, *60*(4),701-718.

Cuddy, A. J., Fiske, S. T., & Glick, P. (2007). The BIAS map: Behaviors from intergroup affect and stereotypes. *Journal of Personality and Social Psychology*, *92*(4), 631-648.

Cuddy, A. J., Fiske, S. T., & Glick, P. (2008). Warmth and competence as universal dimensions of social perception: The stereotype content model and the BIAS map. *Advances in experimental social psychology*, *40*, 61-149.

Cuddy, A., Glick, P., & Beninger, A. 2011. The dynamics of warmth and competence judgments, and their outcomes in organizations. Research in Organizational Behavior, 31: 73–98.

Curtis, L. A. (1974). Victim precipitation and violent crimes. *Social Problems, 21,* 594-605.

Darlington, R. B., & Hayes, A. F. (2016). *Regression analysis and linear models: Concepts, applications, and implementation*. New York, NY: The Guilford Press.

De Dreu, C. K. (2006). When too little or too much hurts: Evidence for a curvilinear relationship between task conflict and innovation in teams. *Journal of Management, 32*(1), 83-107.

Deci, E. L., & Ryan, R. M. (Eds.). (2002). Handbook of self-determination research. Rochester, NY, US: University of Rochester Press.

DeSteno, D., Valdesolo, P., & Bartlett, M. Y. (2006). Jealousy and the threatened self: Getting to the heart of the green-eyed monster. *Journal of Personality and Social Psychology*, *91*(4), 626-641.

Dijker, A. J., Koomen, W., van den Heuvel, H., & Frijda, N. H. (1996). Perceived antecedents of emotional reactions in inter-ethnic relations. *British Journal of Social Psychology*, *35*(2), 313-329.

Dollard, J., Miller, N. E., Doob, L. W., Mowrer, O. H., & Sears, R. R. (1939). Frustration and aggression.

Duffy, M. K., & Shaw, J. D. (2000). The Salieri syndrome: Consequences of envy in groups. *Small group research*, *31*(1), 3-23.

Duffy, M. K., Shaw, J. D., & Schaubroeck, J. M. (2008). Envy in organizational life. In R. Smith (Eds.), *Envy: Theory and research*, 167-189. Oxford, U.K.: Oxford Press.

Dunn, J., Ruedy, N. E., & Schweitzer, M. E. (2012). It hurts both ways: How social comparisons harm affective and cognitive trust. *Organizational Behavior and Human Decision Processes*, *117*(1), 2-14.

Einarsen, S., Raknes, B. I., & Matthiesen, S. B. (1994). Bullying and harassment at work and their relationships to work environment quality: An exploratory study. *European Work and Organizational Psychologist, 4*, 381-401.

Elias, R. (1986). *The politics of victimization: Victims, victimology, and human rights.* New York: Oxford Press.

Escartín, J., Salin, D., & Rodríguez-Carballeira, Á. (2011). Conceptualizations of workplace bullying. *Journal of Personnel Psychology, 10*(4),157-165.

Fein, S., & Spencer, S. J. (1997). Prejudice as self-image maintenance: Affirming the self through derogating others. *Journal of Personality and Social Psychology*, *73*(1), 31-44.

Feng, B., & MacGeorge, E. L. (2006). Predicting receptiveness to advice: Characteristics of the advicegiver, and the recipient. Southern Communication Journal, 71(1), 67-85.

Festinger, L. (1954). A theory of social comparison processes. *Human relations*,*7*(2), 117-140.

Fida, R., Tramontano, C., Paciello, M., Guglielmetti, C., Gilardi, S., Probst, T. M., & Barbaranelli, C. (2018). 'First, Do No Harm': The Role of Negative Emotions and Moral Disengagement in Understanding the Relationship Between Workplace Aggression and Misbehavior. *Frontiers in Psychology*, *9*(671), 1-17.

Fischer, A. H., & Roseman, I. J. (2007). Beat them or ban them: The characteristics and social functions of anger and contempt. *Journal of Personality and Social Psychology*, *93*(1), 103-115.

Fiske, S. T. (1993). Controlling other people: The impact of power on stereotyping. *American psychologist*, *48*(6), 621.

Fiske, S. T. (2013). Varieties of (de) humanization: Divided by competition and status. In *Objectification and (de) humanization* (pp. 53-71). Springer, New York, NY.

Fiske, S. T., Cuddy, A. J., Glick, P., & Xu, J. (2002). A model of (often mixed) stereotype content: competence and warmth respectively follow from perceived status and competition. *Journal of Personality and Social Psychology*, *82*(6), 878-902.

Fiske, S.T. (2004). *Social Beings: A core motives approach to social psychology*. Hoboken, NJ: Wiley.

Foti, R. J., Thompson, N. J., & Allgood, S. F. (2011). The pattern-oriented approach: A framework for the experience of work. Industrial and Organizational Psychology, 4, 122–125.

Fox, S., & Spector, P. E. (1999). A model of work frustration–aggression. *Journal of Organizational Behavior, 20,* 915-931.

Frijda, N. H. (1987). Emotion, cognitive structure, and action tendency. *Cognition and Emotion*, *1*(2), 115-143.

Frijda, N. H., Kuipers, P., & Ter Schure, E. (1989). Relations among emotion, appraisal, and emotional action readiness. *Journal of personality and social psychology*, *57*(2), 212-228.

Gilbert, D. T., Giesler, R. B., & Morris, K. A. (1995). When comparisons arise. *Journal of Personality and Social Psychology*, *69*(2), 227-236.

Gino, F., & Pierce, L. (2009). Dishonesty in the name of equity. *Psychological science*, *20*(9), 1153-1160.

Glasø, L., Matthiesen, S. B., Nielsen, M. B., & Einarsen, S. (2007). Do targets of workplace bullying portray a general victim personality profile?. *Scandinavian journal of psychology*, *48*(4), 313-319.

Glomb, T. M. (2002). Workplace anger and aggression: Informing conceptual models with data from specific encounters. *Journal of Occupational Health Psychology, 7,* 20–36.

Glomb, T. M., & Liao, H. (2003). Interpersonal aggression in work groups: Social influence, reciprocal, and individual effects. *Academy of Management Journal*, *46*(4), 486-496.

Glomb, T. M., Richman, W. L., Hulin, C. L., Drasgow, F., Schneider, K. T., & Fitzgerald, L. F. (1997). Ambient sexual harassment: An integrated model of antecedents and consequences. *Organizational Behavior and Human Decision Processes*, *71*(3), 309-328.

Granovetter, M. (1985). Economic action and social structure: The problem of embeddedness. *American journal of sociology*, *91*(3), 481-510.

Gururaj, H., & Schat, A. C. (2016). Examining the role of LMX Quality and Differentiation on Workplace Aggression: A Multilevel Model. Proceedings of *Academy of Management,2016*(1),16578.

Hack, T., Goodwin, S. A., & Fiske, S. T. (2013). Warmth trumps competence in evaluations of both ingroup and outgroup. *International journal of science, commerce and humanities*, *1*(6), 99-105.

Harris, K. J., Kacmar, K. M., & Witt, L. A. (2005). An examination of the curvilinear relationship between leader–member exchange and intent to turnover. *Journal of Organizational Behavior*, *26*(4), 363-378.

Hayes, A. F. (2017). *Introduction to mediation, moderation, and conditional process analysis: A regression-based approach*. New York, NY: The Guilford Press.

Hayes, A. F., & Preacher, K. J. (2010). Quantifying and testing indirect effects in simple mediation models when the constituent paths are nonlinear. *Multivariate Behavioral Research*, *45*(4), 627-660.

Hershcovis, M. S., & Barling, J. (2010). Towards a multi-foci approach to workplace aggression: A meta-analytic review of outcomes from different perpetrators. *Journal of Organizational Behavior*, *31*(1), 24-44.

Hershcovis, M. S., & Reich, T. C. (2013). Integrating workplace aggression research: Relational, contextual, and method considerations. *Journal of Organizational Behavior*, *34*(S1), S26-S42.

Hershcovis, M. S., Turner, N., Barling, J., Arnold, K. A., Dupré, K. E., Inness, M., ... & Sivanathan, N. (2007). Predicting workplace aggression: a meta-analysis. *Journal of Applied Psychology*, *92*(1), 228-238.

Hoel, H., Einarsen, S., Keashly, L., Zapf, D., & Cooper, C. L. (2003). Bullying at work: the way forward. In *Bullying and emotional abuse in the workplace* (pp. 430-434). CRC Press.

Hutcherson, C. A., & Gross, J. J. (2011). The moral emotions: A social–functionalist account of anger, disgust, and contempt. *Journal of Personality and Social Psychology*, *100*(4), 719-737.

Ibarra, H. (1993). Network centrality, power, and innovation involvement: Determinants of technical and administrative roles. *Academy of Management journal*, *36*(3), 471-501.

Izard, C. E., Libero, D. Z., Putnam, P., & Haynes, O. M. (1993). Stability of emotion experiences and their relations to traits of personality. *Journal of Personality and Social Psychology*, *64*(5), 847-860.

Jackofsky, E. F., Ferris, K. R., & Breckenridge, B. G. (1986). Evidence for a curvilinear relationship between job performance and turnover. *Journal of Management*, *12*(1), 105-111.

Jensen, J. M., Patel, P. C., & Raver, J. L. (2014). Is it better to be average? High and low performance as predictors of employee victimization. *Journal of Applied Psychology*, *99*(2), 296-309.

Keltner, D., & Haidt, J. (1999). Social functions of emotions at four levels of analysis. *Cognition & Emotion*, *13*(5), 505-521.

Kessler, S. R., Spector, P. E., Chang, C. H., & Parr, A. D. (2008). Organizational violence and aggression: Development of the three-factor Violence Climate Survey. *Work & Stress*, *22*(2), 108-124.

Kim, E., & Glomb, T. M. (2010). Get smarty pants: Cognitive ability, personality, and victimization. *Journal of Applied Psychology*, *95*(5), 889-901.

Kim, E., & Glomb, T. M. (2014). Victimization of High Performers: The Roles of Envy and Work Group Identification. *Journal of Applied Psychology, 99*(4), 619-634.

Kim, Y. J. E. (2012). The mechanisms and work group context in the victimization of high performers. University of Minnesota: Minneapolis.

Krackhardt, D. (1992). The strength of strong ties: The importance of philos in organizations' [w:] Networks and Organizations: Structure, Form, and Action, ed. *EcclesN. N. and R. C.,"Harvard Business School Press", Boston, MA*.

Lam, C. K., Van der Vegt, G. S., Walter, F., & Huang, X. (2011). Harming high performers: A social comparison perspective on interpersonal harming in work teams. *Journal of Applied Psychology*, *96*(3), 588-601.

Lamertz, K., & Aquino, K. (2004). Social power, social status and perceptual similarity of workplace victimization: A social network analysis of stratification. *Human Relations*, *57*(7), 795-822.

Lazarus, R. S., & Folkman, S. (1984). *Stress, appraisal, and coping*. New York, NY: Springer publishing company.

Lee, J. J., & Gino, F. (2016). Envy and Interpersonal corruption: Social comparison processes and unethical behavior in organizations. In U. Merlone, M.K. Duffy, M. Perini, & R. Smith (Eds.) Envy at work and in organizations: Research, theory, and applications (pp. 347-372). Oxford, U.K.: Oxford University Press.

Lim, S., Cortina, L. M., & Magley, V. J. (2008). Personal and workgroup incivility: impact on work and health outcomes. *Journal of Applied Psychology*, *93*(1), 95-107.

Lockwood, P. (2002). Could it happen to you? Predicting the impact of downward comparisons on the self. *Journal of Personality and Social Psychology*, *82*(3), 343-358.

Lowery, C. M., Beadles, I. I., & Krilowicz, T. J. (2004). Using Personality and Cognitive Ability to Predict Job Performance: An Empirical Study. *International Journal of Management*, *21*(3), 300-306.

Ludlow, L., & Klein, K. (2014). Suppressor variables: The difference between 'is' versus 'acting as.' *Journal of Statistics Education, 22*(2), 1-28.

Mackie, D. M., Devos, T., & Smith, E. R. (2000). Intergroup emotions: explaining offensive action tendencies in an intergroup context. *Journal of Personality and Social Psychology*, *79*(4), 602-616.

MacKinnon, D. P., Krull, J. L., & Lockwood, C. M. (2000). Equivalence of the mediation, confounding and suppression effect. *Prevention Science*, *1*(4), 173-181.

Mawritz, M. B., Mayer, D. M., Hoobler, J. M., Wayne, S. J., & Marinova, S. V. (2012). A trickle-down model of abusive supervision. *Personnel Psychology*, *65*(2), 325-357.

McNeish, D., Stapleton, L. M., & Silverman, R. D. (2017). On the unnecessary ubiquity of hierarchical linear modeling. *Psychological Methods*, *22*(1), 114-140.

Melwani, S., & Barsade, S. G. (2011). Held in contempt: The psychological, interpersonal, and performance consequences of contempt in a work context. *Journal of Personality and Social Psychology*, *101*(3), 503-520.

Melwani, S., Mueller, J. S., & Overbeck, J. R. (2012). Looking down: The influence of contempt and compassion on emergent leadership categorizations. *Journal of Applied Psychology*, *97*(6), 1171-1185.

Miao, C. F., Evans, K. R., & Li, P. (2017). Effects of top-performer rewards on fellow salespeople: a double-edged sword. *Journal of Personal Selling & Sales Management*, *37*(4), 280-297.

Muller, D., Judd, C. M., & Yzerbyt, V. Y. (2005). When moderation is mediated and mediation is moderated. *Journal of personality and social psychology*, *89*(6), 852-863.

Muthén, B. (2008). Latent variable hybrids: Overview of old and new models. In G. R. Hancock & K. M. Samuelsen (Eds.), *Advances in latent variable mixture models* (pp. 1–24). Charlotte, NC: Information Age Publishing.

Muthén, L. K., & Muthén, B. O. (2012). MPlus: statistical analysis with latent variables User's guide.

Namie, G. (2021). 2021 WBI U.S. Workplace Bullying Survey. https://workplacebullying.org/wp-content/uploads/2021/04/2021-Full-Report.pdf

Neuman, J. H., & Baron, R. A. (1998). Workplace violence and workplace aggression: Evidence concerning specific forms, potential causes, and preferred targets. *Journal of management*, *24*(3), 391-419.

Notelaers, G., Vermunt, J. K., Baillien, E., Einarsen, S., & De Witte, H. (2011). Exploring risk groups workplace bullying with categorical data. *Industrial health*, *49*(1), 73-88.

O'Leary-Kelly, A. M., Griffin, R. W., & Glew, D. J. (1996). Organization-motivated aggression: A research framework. *Academy of management review*, *21*(1), 225-253.

Olweus, D. (1978). *Aggression in schools: Bullies and whipping boys.* Washington, DC: Oxford Press, New York.

Peeters, G. (1983). Relational and informational patterns in social cognition. *Current issues in European social psychology*, *1*, 201-237.

Pierce, J. R., & Aguinis, H. (2013). The too-much-of-a-good-thing effect in management. *Journal of Management*, *39*(2), 313-338.

Pitts, B. L., & Safer, M. A. (2016). Retrospective Appraisals Mediate the Effects of Combat Experiences on PTS and Depression Symptoms in US Army Medics. *Journal of Traumatic Stress*, *29*(1), 65-71.

Podolny, J. M., & Baron, J. N. (1997). Resources and relationships: Social networks and mobility in the workplace. *American sociological review*, 673-693.

Porath, C. L., & Pearson, C. (2010). The Cost of Bad Behavior. *Organizational Dynamics*, *39*(1), 64-71.

Preacher, K. J., & Hayes, A. F. (2008). Asymptotic and resampling strategies for assessing and comparing indirect effects in multiple mediator models. *Behavior Research Methods*, *40*(3), 879-891.

Raudenbush SW, Bryk AS, Cheong YF, Congdon RT, du Toit M (2011) HLM 7 (Scientific Software International, Lincolnwood, IL).

Rozin, P., Lowery, L., Imada, S., & Haidt, J. (1999). The CAD triad hypothesis: A mapping between three moral emotions (contempt, anger, disgust) and three moral codes (community, autonomy, divinity). *Journal of Personality and Social Psychology*, *76*(4), 574-586.

Schafer, S. (1968). *The victim and his criminal: A study in functional responsibility*. New York, NY: Random House.

Schafer, S. (1977). *Victimology: The victim and his criminal.* Reston. A Prentice-Hall.

Schat, A. C., & Frone, M. R. (2011). Exposure to psychological aggression at work and job performance: The mediating role of job attitudes and personal health. *Work & Stress*, *25*(1), 23-40.

Schat, A. C., & Gururaj, H. (2015). High and Low Levels of Job Performance Predict Co-worker Aggression, but for Different Reasons. In *Academy of Management Proceedings* (Vol. 2015, No. 1, p. 15105).

Schat, A. C., Frone, M. R., & Kelloway, E. K. (2006). Prevalence of Workplace Aggression in the US Workforce: Findings from a National Study.

Schaubroeck, J., & Lam, S. S. K. (2004). Comparing lots before and after: Promotion rejectees' invidious reactions to promotees. *Organizational Behavior and Human Decision Processes, 94,* 33–47.

Scott, J. (2000). *Social network analysis: A handbook.* London: Sage.

Smith, R. H. (2000). Assimilative and contrastive emotional reactions to upward and downward social comparisons. In J. Suls & L. Wheeler (Eds.) *Handbook of social comparison. Theory and research* (pp. 173-200). New York, NY: Kluwer Academic Publishers.

Spector, P. E., & Fox, S. (2002). An emotion-centered model of voluntary work behavior: Some parallels between counterproductive work behavior and organizational citizenship behavior. *Human Resource Management Review*, *12*(2), 269-292.

Spector, P. E., Coulter, M. L., Stockwell, H. G., & Matz, M. W. (2007). Perceived violence climate: A new construct and its relationship to workplace physical violence and verbal aggression, and their potential consequences. *Work & Stress*, *21*(2), 117-130.

Steinhage, A., Cable, D., & Wardley, D. (2017). The pros and cons of competition among employees. *Harvard Business Review https://hbr. org/2017/03/the-pros-and-cons-of-competition-among-employees*.

Sterling, C. M. (2013). A tale of two envys: A social network perspective on the consequences of workplace social comparison. University of Kentucky, Lexington.

Sterling, C. M., & Labianca, G. J. (2015). Costly comparisons: Managing envy in the workplace. *Organizational Dynamics, 44(4) 296-304*.

Stets, J. E., & Pirog-Good, M. A. (1987). Violence in dating relationships. *Social Psychology Quarterly, 50*(3), 237-246.

Taylor, S. G., & Kluemper, D. H. (2012). Linking perceptions of role stress and incivility to workplace aggression: The moderating role of personality. *Journal of Occupational Health Psychology*, *17*(3), 316-329.

Tepper, B. J., Moss, S. E., & Duffy, M. K. (2011). Predictors of abusive supervision: Supervisor perceptions of deep-level dissimilarity, relationship conflict, and subordinate performance. *Academy of Management Journal*, *54*(2), 279-294.

Tesser, A. 1991. Emotion in social comparison and reflection processes. In J. Suls & T.A. Wills (Eds.), Social comparison: Contemporary Theory and Research: 115-145. Hillsdale, NJ: Lawrence Erlbaum Associates.

Trumpp, C., & Guenther, T. (2017). Too little or too much? Exploring U-shaped relationships between corporate environmental performance and corporate financial performance. *Business Strategy and the Environment*, *26*(1), 49-68.

Vardaman, J. M., Taylor, S. G., Allen, D. G., Gondo, M. B., & Amis, J. M. (2015). Translating intentions to behavior: The interaction of network structure and behavioral intentions in understanding employee turnover. *Organization Science*, *26*(4), 1177-1191.

Vecchio, R. P. (2000). Negative emotion in the workplace: Employee jealousy and envy. *International Journal of Stress Management*, *7*(3), 161-179.

Venkataramani, V., & Dalal, R. S. (2007). Who helps and harms whom? Relational antecedents of interpersonal helping and harming in organizations. *Journal of Applied Psychology*, *92*(4), 952.

Volling, B. L. (2012). Family transitions following the birth of a sibling: An empirical review of changes in the firstborn's adjustment. *Psychological Bulletin*, *138*(3), 497-528.

Volling, B. L., Yu, T., Gonzalez, R., Kennedy, D. E., Rosenberg, L., & Oh, W. (2014). Children’s responses to mother–infant and father–infant interaction with a baby sibling: Jealousy or joy?. *Journal of Family Psychology*, *28*(5), 634–644.

Walumbwa, F. O., Cropanzano, R., & Hartnell, C. A. (2009). Organizational justice, voluntary learning behavior, and job performance: A test of the mediating effects of identification and leader-member exchange. *Journal of Organizational Behavior*, *30*(8), 1103-1126.

Wasserman, S., & Faust, K. (1994). *Social network analysis: Methods and applications* (Vol. 8). Cambridge university press.

Watson, D., Clark, L. A., & Tellegen, A. (1988). Development and validation of brief measures of positive and negative affect: the PANAS scales. *Journal of Personality and Social Psychology*, *54*(6), 1063-1070.

Weiner, B. (2006). *Social motivation, justice, and the moral emotions: An attributional approach*. Mahwah, NJ: Lawrence Erlbaum.

Weiner, B. (2006). *Social motivation, justice, and the moral emotions: An attributional approach*. Psychology Press.

Willis, J., & Todorov, A. (2006). First impressions: Making up your mind after a 100-ms exposure to a face. *Psychological science*, *17*(7), 592-598.

Wojciszke, B. (2005). Affective concomitants of information on morality and competence. *European psychologist*, *10*(1), 60-70.

Wojciszke, B., Bazinska, R., & Jaworski, M. (1998). On the dominance of moral categories in impression formation. *Personality and Social Psychology Bulletin*, *24*(12), 1251-1263.

Yuan, Y. C., Carboni, I., & Ehrlich, K. (2014). The impact of interpersonal affective relationships and awareness on expertise seeking: A multilevel network investigation. *European Journal of Work and Organizational Psychology*, *23*(4), 554-569.

Zhao, X., Lynch, J. G., & Chen, Q. (2010). Reconsidering Baron and Kenny: Myths and truths about mediation analysis. *Journal of Consumer Research*, *37*(2), 197-206.

Table 1

Correlations, Means, Standard Deviations, and Scale Reliabilities of Study Variables of Study 1

Variables	Mean	SD	1	2	3	4	5	6
1. Negative Affect	4.65	4.20	**(0.81)**					
2. Group Performance	.00	0.58	.06	**NA**				
3. Job performance	3.6	0.75	-.06	.33**	**(0.88)**			
4. WPA	.80	0.71	.25**	.16*	.20**	**(.96)**		
5. Coworker Jealousy	2.9	0.97	·19**	.14*	.28**	.38**	**(0.94)**	
6. Coworker Contempt	2.8	1.0	.21**	-.16*	-.26**	.34**	.28**	**(.91)**

Note: N = 187. Scale reliabilities are on the diagonal in parenthesis. NA = Not applicable. WPA = Workplace psychological aggression. $^{*}p < .05$ $^{**}p < .01$

Table 2

Regression Analysis Results for Curvilinear Effect and Mediation analysis of Study 1

Variables	Workplace Psychological Aggression						
	Curvilinear Relationship			Mediation Model			
	Model1	Model 2	Model 3a	Model 3b	Model 4	Model5	Model6
Control Variables							
NA	.23** (.06)	.24** (.06)	.24** (.06)	.24** (.06)	.18** (.06)	.16** (.05)	.14* (.05)
GP	.25* (.11)	.17 (.11)	.09 (.10)	.09 (.10)	.05 (.09)	0.14 (.09)	.11 (.10)
Independent Variables							
Job Performance		.17* (.07)	-1.28** (.47)	-1.28** (.47)	-1.46** (.53)	-1.16** (.38)	-1.29** (.43)
Job Performance squared			.20** (.07)	X_L = -.13(.09) X_M = .18**(.06) X_H = .49**(.15)	X_L = -.23(.11) X_M = .10(.06) X_H = .43**(.14)	X_L = -.04(.09) X_M = .26**(.05) X_H = .56**(.11)	X_L = -.11(.10) X_M = .20**(.05) X_H = .51**(.11)
Mediators							
Jealousy					.23**(.05)		.15**(.04)

Contempt						.28**(.05)	.23**(.06)
Jealousy + Contempt							NA
R^2	.10* (.05)	0.12* (.06)	0.16** (.06)	0.16 ** (.06)	0.25** (.06)	0.30** (.05)	.30** (.05)
ΔR^2		.02*	0.04*	0.04*	.09**	.05**	.001**

Notes: N employees = 187, N groups = 44. NA = negative affect, GP = group performance, X_L = X_{Low}, X_M = X_{Mean}, X_H = X_{High}. Model reflects unstandardized regression coefficients with standard errors in parenthesis. Job performance is grand-mean centered. Cluster-robust standard errors are used to account for the nested nature of the data. *$p < .05$, **$p < .01$*

Table 3

Indirect and Total Effects of Job Performance on Workplace Psychological Aggression Via Coworker Jealousy and Coworker Contempt of Study 1

Variable	Path a (Pmx)	Path b (Pym)	Direct effect (Pyx) = Pyx+2Pyx^{2}X)	Instantaneous Indirect effect (Pym*Pmx)	Total effect (Pyx+Pym*Pmx)
Coworker Jealousy (M1)			X_{Low} = -.23		X_{Low} = -.15
	.35**	.23**	X_{Mean} = .10	.081**	X_{Mean} = .18**
			X_{High} = .43**		X_{High} = .51**
Coworker Contempt (M2)			X_{Low} = -.04		X_{Low} = -.12
	-.30**	.28**	X_{Mean} = .26**	-.083*	X_{Mean} = .18**
			X_{High} = .56**		X_{High} = .48**
M1+M2			X_{Low} = -.11		X_{Low} = -.13
			X_{Mean} = .20**	-.02	X_{Mean} = .18**
			X_{High} = .51**		X_{High} = .49**

Note: Pmx = path from job performance to mediators; Pym = path from mediators to WPA. Pyx^2 = curvilinear relationship. *$p < .05$, **$p < .01$*

Table 4

Descriptive Statistics and Correlations of Study 2

Variables	Mean	SD	1	2	3	4	5	6	7	8	9	10	11	12
1. Age	3.28	0.88	**NA**											
2. Gender[a]	1.45	0.49	.21**	**NA**										
3. Tenure	7.26	6.4	.55**	.08	**NA**									
4. Negative Affect	2.23	0.71	.03	-.13*	.08	**.74**								
5. Competence	3.3	0.60	.190**	.10	.17**	-.23**	**NA**							
6. Advice Giving	2.44	0.68	.29**	.15*	.35**	-.16**	.41**	**NA**						
7. Advice Seeking	2.59	0.65	-.19**	-.11	-.11	.26**	-.57**	-.34**	**NA**					
8. Friendship	2.83	0.63	.15*	.15*	.10	-.19**	.38**	.65**	-.40**	**NA**				
9. Envy	2.01	0.45	-.08	-.11*	-.07	-.04	.24**	-.19**	-.14*	-.32**	**NA**			
10. Contempt	1.96	0.54	-.20**	-.17**	-.17**	.14*	-.53**	-.55**	.37**	-.60**	.16*	**NA**		
11. Covert Aggression	1.88	0.67	-.010	.04	-.07	-.04	.31**	-.32**	-.10	-.37**	.62**	.09	**.84**	
12. Overt Aggression	1.81	0.80	-.21**	-.11	-.17**	.25**	-.62**	-.49**	.51**	-.49**	.02	.57**	-.10	**.92**

Note. N = 259. NA = Not applicable.
[a] 0 = female, 1 = male.
*$p < .05$, **$p < .01$

Table 5

Multiple Regression Analysis of Main Effects and Interactions of Study 2

	Covert Aggression						Overt Aggression				
	Main effect				Interaction		Main effect			Interaction	
	M1	M2	M3	M4	M5	M6	M7	M8	M9	M10	M11
Intercept	3.2^{**}	3.3^{**}	3.1^{**}	3.2^{**}	3.3^{**}	3.1^{**}	2.2^{**}	2.2^{**}	2.1^{**}	2.2^{**}	2.02^{**}
	(.28)	(.32)	(.34)	(.30)	(.31)	(.34)	(.22)	(.26)	(.24)	(.26)	(.21)
Age	$-.15^{*}$	-0.6	-.06	-.13	-.10	-.10	-.09	-.11	-.07	-.07	-.06
	(.07)	(.06)	(.08)	(.08)	(.06)	(.08)	(.06)	(.06)	(.06)	(.06)	(.05)
Gender[a]	.05	.10	.08	.05	$.09^{*}$	.07	-.01	.01	-.00	-.02	-.00
	(.07)	(.06)	(.07)	(.07)	(.04)	(.06)	(.06)	(.06)	(.05)	(.05)	(.05)
Tenure	-.06	-.00	.09	-.02	-.04	.11	-.03	-.09	$-.10^{*}$	-.06	-.05
	(.09)	(.01)	(.07)	(.09)	(.05)	(.06)	(.05)	(.05)	(.05)	(.04)	(.04)
NA	.06	-.10	-.09	.01	.01	.01	$.13^{**}$	$.18^{**}$	$.17^{**}$	.10	$.11^{**}$
	(.06)	(.08)	(.07)	(.07)	(.05)	(.05)	(.05)	(.06)	(.06)	(.06)	(.05)
Competence	$.35^{**}$				$.47^{**}$	$.43^{**}$	$-.56^{**}$			$-.42^{**}$	$-.35^{**}$
	(.06)				(.05)	(.06)	(.06)			(.06)	(.07)
Friendship		$-.39^{**}$			$-.57^{**}$			$-.43^{**}$		$-.29^{**}$	
		(.06)			(.05)			(.07)		(.06)	
Advice Giving			$-.36^{**}$			$-.48^{**}$					
			(.05)			(.06)					
Advice Seeking				-.12					$.49^{**}$		$.26^{**}$
				(.07)					(.08)		(.07)
Competence * Friendship					$-.25^{**}$					$.20^{*}$	
					(.05)					(.08)	
Competence * Advice Giving						$-.22^{**}$					
						(.06)					
Competence * Advice Seeking											$-.28^{**}$
											(.06)
R^2	$.13^{**}$	$.16^{**}$	$.12^{**}$	.03	$.46^{**}$	$.38^{**}$	$.40^{**}$	$.30^{**}$	$.35^{**}$	$.51^{**}$	$.51^{**}$
	(.04)	(.05)	(.04)	(.02)	(.06)	(.07)	(.06)	(.06)	(.06)	(.06)	(.05)
ΔR^2	$.14^{**}$	NA	NA	NA	$.32^{**}$	$.24^{**}$	NA	NA	NA	$.09^{**}$	$.11^{**}$

[a] 0 = female, 1 = male. NA = not applicable. $^{*}p < .05$, $^{**}p < .01$

Table 6

Conditional Indirect Effects for Friendship In-degree (Moderator) Centrality and Envy (Mediator) of Study 2

	Envy		Covert Aggression	
	B	SE	B	SE
Constant	4.85**	.41	1.47**	.41
Age	-.03	.09	-.09*	.04
Gender[a]	-.09	.07	.12**	.04
Organizational Tenure	-.05	.07	-.02	.06
Negative Affect	-.03	.06	.01	.05
Competence	.37**	.07	.34**	.06
Friendship	-.46**	.07	-.40**	.07
Competence * Friendship	-.24**	.05	-.17**	.04
Envy			.37**	.07
Model Paths	Friendship		Estimated Effect	95% CI
Indirect Effect	Low (-1SD)		.23	[0.13, 0.32]
CO → EN → CA	High (+1SD)		.05	[-0.02, 0.19]
Direct Effect	Low (-1SD)		.51	[0.47, 0.54]
CO → CA	High (+1SD)		.17	[-0.03, 0.36]

[a] 0 = female, 1 = male. CO = competence, EN = envy, CA = covert aggression. *$p < .05$, **$p < .01$

Table 7

Conditional Indirect Effects for Advice giving (Moderator) and Envy (Mediator) of Study 2

	Envy		Covert Aggression	
	B	SE	B	SE
Constant	4.73**	.41	.93*	.35
Age	-.04	.09	-.08	.06
Gender[a]	-.11	.09	.12**	.04
Organizational Tenure	.04	.08	.10	.07
Negative Affect	-.01	.06	.01	.05
Competence	.32**	.06	.29**	.06
Advice giving	-.28**	.07	-.35**	.05
Competence * Advice Giving	-.17*	.06	-.14**	.05
Envy			.45**	.06
Model Paths	Advice Giving		Indirect Effect	95% CI
Indirect Effect	Low (-1SD)		.22	[0.16, 0.28]
CO → EN → CA	High (+1SD)		.07	[-0.04, 0.23]
Direct Effect	Low (-1SD)		.43	[0.41, 0.45]
CO → CA	High (+1SD)		.15	[-0.05, 0.35]

[a] 0 = female, 1 = male. CO = competence, EN = envy, CA = covert aggression. *$p < .05$, **$p < .01$

Table 8

Path Analysis for Conditional Indirect Effects for Friendship, Advice Seeking (Moderators) and Contempt (Mediator) of Study 2

	Contempt		Overt Aggression	
	B	SE	B	SE
Constant	3.9**	.29	1.37**	.33
Age	-.03	.06	-.06	.06
Gender[a]	-.06	.05	.03	.05
Organizational Tenure	-.05	.05	-.04	.05
Negative Affect	-.03	.05	.11*	.05
Competence	-.31**	.06	-.35**	.06
Friendship	-.46**	.05	-.19**	.06
Competence * Friendship	.11*	.04	.18*	.07
Contempt			.20**	.05
Model Paths	Friendship		Estimate	95% CI
Indirect Effect	Low (-1SD)		-.08	[-0.05, -0.12]
CO → CON → CA	High (+1SD)		-.04	[-0.04, 0.00]
Direct Effect	Low (-1SD)		-.53	[-0.50, -0.55]
CO → CA	High (+1SD)		-.17	[-0.44, 0.09]

[a] 0 = female, 1 = male. CO = competence, CON = contempt, CA = covert aggression. $^{*}p < .05$, $^{**}p < .01$

Table 9

Path Analysis for Conditional Indirect Effects for Advice Seeking (Moderator) and Contempt (Mediator) of Study 2

	Contempt		Overt Aggression	
	B	SE	B	SE
Constant	3.89**	.27	.95**	.26
Age	-.05	.06	-.05	.05
Gender[a]	-.10	.06	-.02	.05
Organizational Tenure	-.05	.06	-.04	.04
Negative Affect	.01	.05	.11*	.05
Competence	-.40**	.06	-.25**	.06
Advice Seeking	.12	.08	.23**	.07
Competence * Advice Seeking	-.12**	.04	-.25**	.06
Contempt			.28**	.04
Model Paths	Advice Seeking			
Indirect Effect	-1SD		-.08	[-0.06, -0.08]
CO → CON → CA	+1SD		-.15	[-0.14, -0.11]
Direct Effect	-1SD		-.01	[0.01, 0.01]
CO → CA	+1SD		-.49	[-0.73, -0.23]

[a] 0 = female, 1 = male. CO = competence, CON = contempt, CA = covert aggression. $^{*}p < .05$, $^{**}p < .01$

Figure 1

Proposed curvilinear relation between job performance and aggression and the mediational mechanisms of Study 1

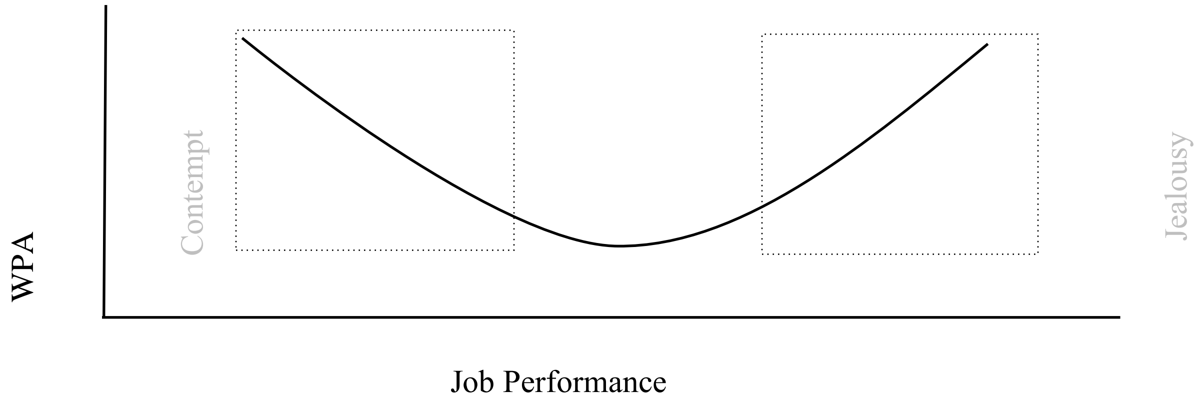


Figure 1. Diagrammatic Depiction of Hypothesized U-shaped Relation between Job Performance and Exposure to Workplace Psychological Aggression (WPA) and the potential Roles of Coworker Contempt and Jealousy in Explaining the two Sides of the U-shaped Relation.

Figure 2

A Multiple-Mediator Model of the Effects of Job performance on WPA of Study 1

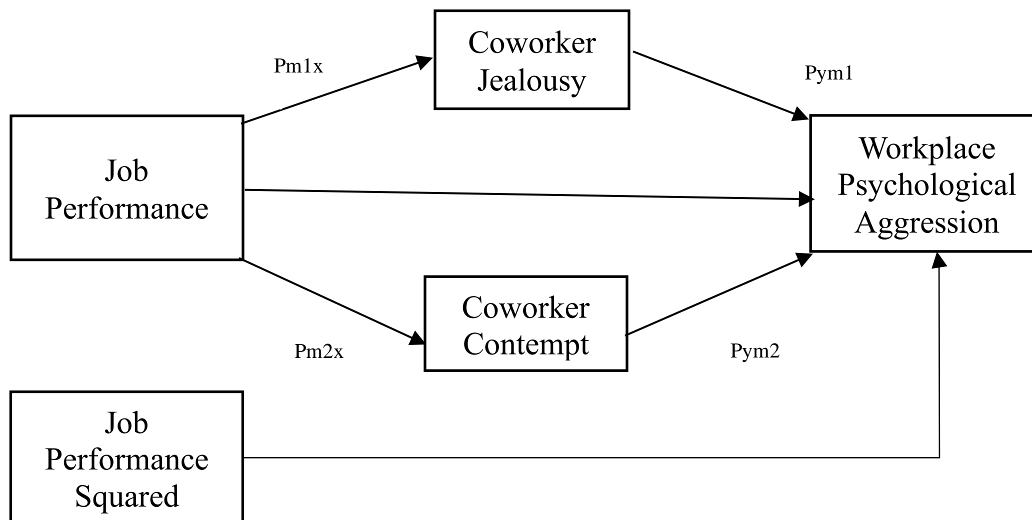
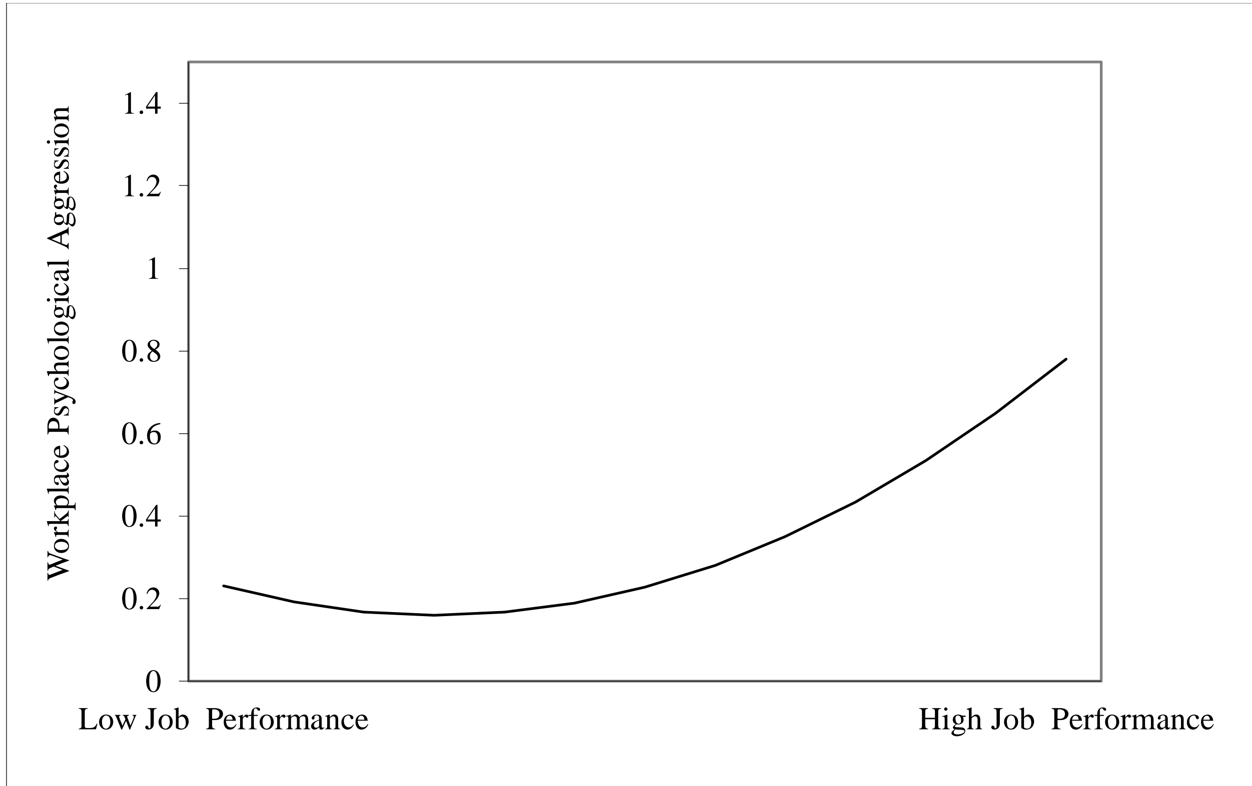


Figure 3

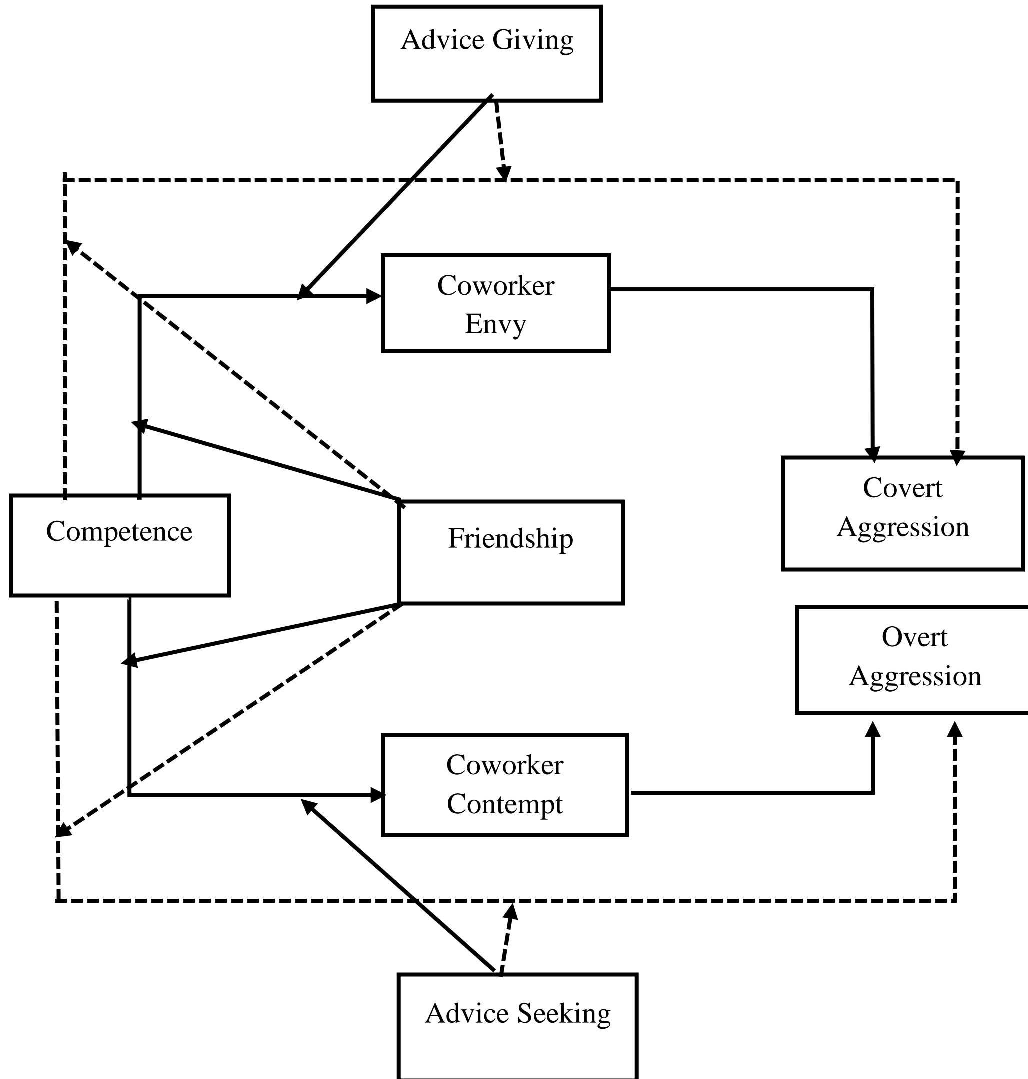
The Curvilinear Relationship Between Job Performance and WPA of Study 1



The plot was created by entering the unstandardized effects of job performance and job performance squared on WPA into an Excel worksheet from http://www.jeremydawson.co.uk/slopes.htm

Figure 4

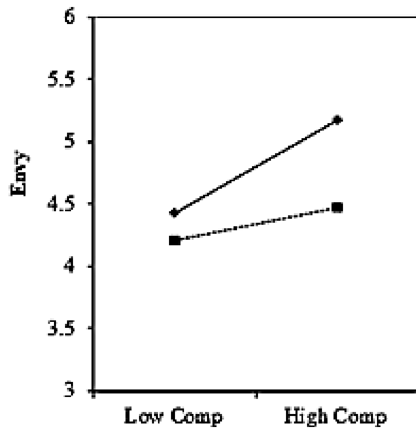
Conceptual Model of Study 2



The diagrammatic depiction of the relations tested in the study. The solid line represents indirect effect, and the dotted line represents direct effect.

Figure 5

Moderation (Fig 5a) Involving Envy and Mediated Moderation (Fig 5b) Involving Competence (comp) and Friendship (Frn) of Study 2



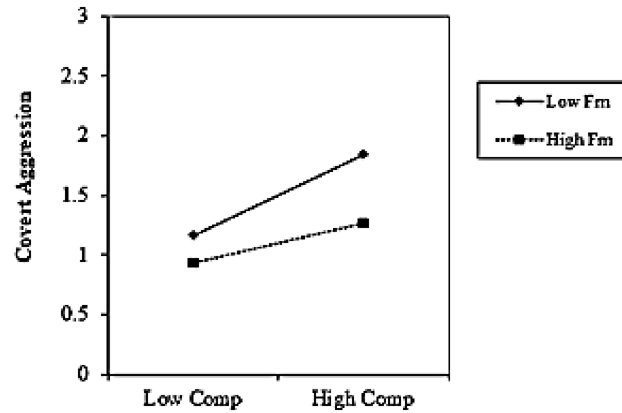
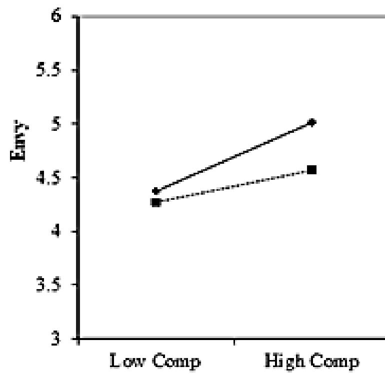


Fig 5a

Fig 5b

Figure 6

Moderation (Fig 3a) Mediated Moderation (Fig 3b) Involving Competence (comp) and Advice Giving (AdG)



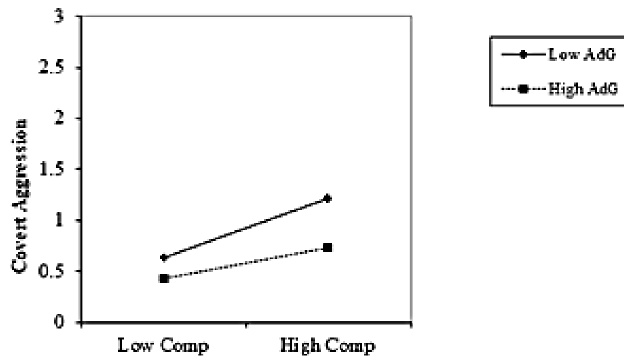


Fig 6a

Fig 6b

Figure 7

Moderation (Fig 7a) and Mediated Moderation Model (Fig 7b) Involving Competence (comp) and Friendship (Frn)

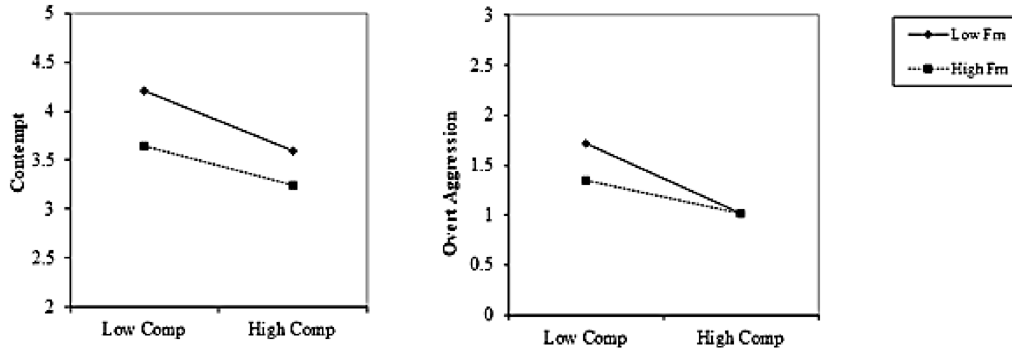


Fig 7a

Fig 7b

Figure 8

Moderation (Fig 8a) and Mediated Moderation Model (Fig 8b) Involving competence (comp) and Advice seeking (AS)

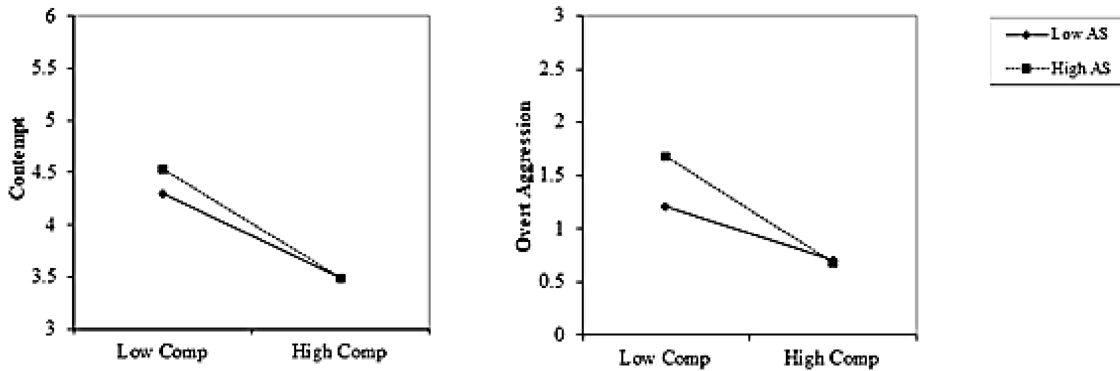


Fig 8a

Fig 8b

Appendix I – Study One Questionnaires

PRIMARY PARTICIPANT QUESTIONNAIRE

Questionnaire No ______

The following information is collected for statistical purposes and will not be used to personally identify you

1. What is your age range ?
   ☐ under 20 ☐ 20-29 ☐ 30-39 ☐ 40-49 ☐50 and above

2. What is your gender? ☐ Female ☐ Male

3. What is your present marital status:
   a. ☐ Single b. ☐ Married c. ☐ Divorced, Separated, Widow(er)

4. Do you have a child / children? ☐ Yes ☐ No

5. What is the highest degree you have obtained?
   a. ☐ Bachelors b. ☐ Masters c. ☐ M.Phil
   d. ☐ Ph.D
   e. ☐ Attending college/university (M.Phil/Ph.D)

6. What is your current job title?
   a. ☐ Lecturer b. ☐ Assistant Professor
   c. ☐ Associate Professor d. ☐ Professor
   e. ☐ Head of the Department
   f. ☐ Other (please write in the space provided) ______________________________

7. On average how many hours a week do you work? _________

8. What percent of your time at work do you spend interacting with co-workers? ___________

9. How long have you worked at your current organization? _________

10. How long have you worked in your current position? ___________

11. In which department are you currently working in _______________________________.

Instructions: This scale consists of a number of words that describe different feelings and emotions. Read each item and circle the appropriate number next to that word. Indicate to what extent to which you generally feel this way, that is, how you feel on average.

	Not at all	A little	Moderately	Quite a bit	Extremely
1) Distressed	1	2	3	4	5
2) Inspired	1	2	3	4	5
3) Excited	1	2	3	4	5
4) Nervous	1	2	3	4	5
5) Upset	1	2	3	4	5
6) Determined	1	2	3	4	5
7) Scared	1	2	3	4	5
8) Afraid	1	2	3	4	5
9) Enthusiastic	1	2	3	4	5
10) Alert	1	2	3	4	5

Instructions: Please indicate the extent to which you agree or disagree with the following statements

	Strongly disagree	Disagree	Undecided	Agree	Strongly Agree
1. My job tends to negatively affect my health	1	2	3	4	5
2. I work under a great deal of tension	1	2	3	4	5
3. I have felt nervous as a result of my job	1	2	3	4	5
4. If I had a different job, my health would probably improve	1	2	3	4	5
5. Problems associated with my job have kept me awake at night	1	2	3	4	5
6. I have felt nervous before attending meetings in the company	1	2	3	4	5

7. I often “take my job home with me” in the sense that I think about it when doing other things	1	2	3	4	5

	Strongly Disagree	Somewhat Disagree	Neither agree nor disagree	Agree	Strongly Agree
1. I think that some of my coworkers are jealous of me.	1	2	3	4	5
2. Some of my coworkers don’t like it when our supervisor gives me positive feedback.	1	2	3	4	5
3. Some of my coworkers envy my skills and work performance.	1	2	3	4	5

	Strongly Disagree	Somewhat Disagree	Neither agree nor disagree	Agree	Strongly Agree
1. Some of my coworkers think they are superior to me.	1	2	3	4	5
2. Some of my coworkers think I am worthless.	1	2	3	4	5
3. Some of my coworkers think they are better than me.	1	2	3	4	5
4. Some of my coworkers feel that I am not worthy of their attention.	1	2	3	4	5

	Strongly Disagree	Somewhat disagree	Neither agree nor disagree	Agree	Strongly Agree
1. I like my supervisor very much as a person	1	2	3	4	5
2. My supervisor is the kind of person one would like to have as a friend.	1	2	3	4	5
3. My supervisor is a lot of fun to work with	1	2	3	4	5
4. My supervisor defends my work actions to a superior, even without complete knowledge of the issue in question	1	2	3	4	5
5. My supervisor would come to my defense if I were “attacked” by others.	1	2	3	4	5
6. My supervisor would defend me to others in the organization if I made an honest mistake.	1	2	3	4	5

7. I do work for my supervisor that goes beyond what is specified in my job description.	1	2	3	4	5
	Strongly Disagree	Somewhat disagree	Neither agree nor disagree	Agree	Strongly Agree
8. I am willing to apply extra efforts, beyond those normally required, to further the interests of my work group	1	2	3	4	5
9. I am impressed with my supervisor's knowledge of his/her job.	1	2	3	4	5
10. I respect my supervisor's knowledge of and competence on the job.	1	2	3	4	5
11. I admire my supervisor's professional skills.	1	2	3	4	5

Policy Items	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1. In my department, there is a policy that discourages verbal and other non-physical forms of incivility in the workplace.	1	2	3	4	5
2. Information about my department's workplace incivility policy is communicated to all the faculty members.	1	2	3	4	5
3. Employees in my department are made aware of the behaviours that are covered by the workplace incivility policy.	1	2	3	4	5
4. In my department, employees are disciplined for being uncivil to others.	1	2	3	4	5
5. My department's policies and practices are effective at preventing incivility from occurring.	1	2	3	4	5
6. In my department, if someone complained about being treated with incivility, he/she would be taken seriously.	1	2	3	4	5
7. In my department, people could get away with being uncivil toward others. (R)	1	2	3	4	5
8. My department's policies/practices are effective at preventing incivility from occurring in the workplace.	1	2	3	4	5

Instructions: The following scale represents different aspects of workplace incivility. Please indicate approximately how often you have experienced each behavior from one or more of your co-workers in the last 6 months.

	0 Times	1 Time	2 to 3 Times	4 or More times
1. Being ignored	0	1	2	3
2. Lies about you told to others?	0	1	2	3
3. Being unreasonably disrupted?	0	1	2	3
4. Being shouted at loudly?	0	1	2	3
5. Being unreasonably criticized?	0	1	2	3
6. Having insulting comments made about your private life?	0	1	2	3
7. Being socially isolated?	0	1	2	3
8. Having sensitive details about your private life revealed to others?	0	1	2	3
9. Direct threat of physical violence?	0	1	2	3
10. Having someone glare at you and/or make a negative gesture?	0	1	2	3
11. Being accused of something you did not do?	0	1	2	3
12. Being laughed at?	0	1	2	3
13. Having others refuse to speak with you?	0	1	2	3
14. Having others belittle your opinions?	0	1	2	3
15. Having others refuse to listen to you?	0	1	2	3
16. Being treated as if you are non-existent?	0	1	2	3
17. Having words aimed at hurting you?	0	1	2	3
18. Have others talk about you behind your back?	0	1	2	3
19. Being given meaningless or insulting tasks?	0	1	2	3
20. Having rumors spread behind your back?	0	1	2	3

	0 Times	1 Time	2 to 3 Times	4 or More Times
21. Being made fun of in front of others?	0	1	2	3
22. Having your work judged in an incorrect and insulting manner?	0	1	2	3
23. Having your sense of judgment questioned?	0	1	2	3
24. Been accused of being mentally disturbed?	0	1	2	3

Once you have answered all the questions, place the questionnaire in the envelope provided to you and hand it over to the student investigator.

QUESTIONNAIRE TO BE FILLED BY SUPERVISOR

Questionnaire No_____

Please indicate how you would evaluate YOUR SUBORDINATE on the following statements using the scale provided.

	Poor	Fair	Good	Very Good	Excellent
1. Considering all of your subordinate's job duties and responsibilities, how would rate your subordinate's overall performance at work during the PAST 12 MONTHS?	1	2	3	4	5
2. How would you rate the overall AMOUNT OF WORK your subordinate accomplished during the PAST 12 MONTHS?	1	2	3	4	5
3. How would you rate the overall QUALITY OF YOUR WORK of your subordinate during the PAST 12 MONTHS, that is, how well do he/she do work?	1	2	3	4	5

.

This Person…	Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree
1. Adequately completes assigned duties.	1	2	3	4	5
2. Fulfills responsibilities specified in job description.	1	2	3	4	5
3. Performs tasks that are expected of him/her.	1	2	3	4	5
4. Meets formal performance requirements of the job.	1	2	3	4	5
5. Engages in activities that will positively affect his/her performance Evaluation.	1	2	3	4	5
6. Neglects aspects of the job he/she is obligated to perform.	1	2	3	4	5
7. Fails to perform essential duties.	1	2	3	4	5
8. Praises coworkers when they are successful.	1	2	3	4	5
9. Helps co-workers who have too much to do.	1	2	3	4	5
10. Works cooperatively with his/her co-workers	1	2	3	4	5
11. Puts in extra hours in order to get work done on time.	1	2	3	4	5
12. Works harder than necessary.	1	2	3	4	5
13. Takes on extra duties and responsibilities to assist others.	1	2	3	4	5

Once you have answered all the questions, place the questionnaire in the envelope provided to you and hand it over to the student investigator.

CO-WORKER QUESTIONNAIRE

Questionnaire No _____

Instructions: Please indicate the extent to which you agree or disagree the following statements

	Strongly Disagree	Somewhat Disagree	Neither agree nor disagree	Agree	Strongly Agree
1. Some of our coworkers feel depressed when the supervisor speaks favorably about this person.	1	2	3	4	5
2. When the supervisor praises this person, some other co-workers feel jealous.	1	2	3	4	5
3. When the supervisor pays attention to this person, some other coworkers feel irritated.	1	2	3	4	5
4. Some coworkers would be angry if the supervisor asked this person for help with a problem.	1	2	3	4	5
5. Some coworkers would not like it if the supervisor gave this person recognition or positive feedback.	1	2	3	4	5
6. Some coworkers worry that the supervisor thinks that this person is more competent than them.	1	2	3	4	5
7. Some of our coworkers are jealous of this person's skills and performance.	1	2	3	4	5

*Instructions: Please indicate the extent to which you agree or disagree with the following statements. R*emember, you are requested to make your responses on the basis of the way you feel about your co-worker at this time. Work at a good pace. It is not necessary to ponder; the first answer you decide on for a given word is probably the most valid. Please indicate your response by circling your chosen response.

	Strongly Disagree	Somewhat Disagree	Neither agree nor disagree	Agree	Strongly Agree
1. Some of our coworkers feel superior to this person.	1	2	3	4	5
2. Some of our coworkers feel that this person is worthless and not worthy of their time.	1	2	3	4	5
3. Some of our coworkers feel that this person is good for nothing.	1	2	3	4	5
4. Some of our coworkers feel this person is not worthy of their attention.	1	2	3	4	5

Instructions: Please indicate the extent to which you agree or disagree with the following statements

Policy Items	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1. In my department, there is a policy that discourages verbal and other non-physical forms of incivility in the workplace.	1	2	3	4	5
2. Information about my department's workplace incivility policy is communicated to all the faculty members.	1	2	3	4	5
3. Employees in my department are made aware of the behaviours that are covered by the workplace incivility policy.	1	2	3	4	5
4. In my department, employees are disciplined for being uncivil to others.	1	2	3	4	5
5. My department's policies and practices are effective at preventing incivility from occurring.	1	2	3	4	5
6. In my department, if someone complained about being treated with incivility, he/she would be taken seriously.	1	2	3	4	5
7. In my department, people could get away with being uncivil toward others. (R)	1	2	3	4	5
8. My department's policies/practices are effective at preventing incivility from occurring in the workplace.	1	2	3	4	5

Once you have answered all the questions, place the questionnaire in the envelope provided to you and hand it over to the student investigator.

Appendix II – Study Two Questionnaires

QUESTIONNAIRE – PHASE I and PHASE II

The following information is collected for statistical purposes and will not be used to personally identify you

First Name ______________________ *Last Name*___________________

1. What is your age range?
   ☐ under 20 ☐ 20-29 ☐ 30-39 ☐ 40-49 ☐50 and above

2. What is your gender? ☐ Female ☐ Male

3. What is your present marital status:
   a. ☐ Single b. ☐ Married c. ☐ Divorced, Separated, Widow(er)

4. Do you have a child / children? ☐ Yes ☐ No

5. What is the highest degree you have obtained?
   a. ☐ Bachelors b. ☐ Masters c. ☐ M.Phil
   d. ☐ Ph.D
   e. ☐ Attending college/university (M.Phil/Ph.D)

6. What is your current job title?
____

7. On average how many hours per week do you work? _________

8. What percent of your time at work do you spend interacting with co-workers? ___________

9. How long have you worked at your current organization? _________

10. How long have you worked in your current position? ___________

11. In which department are you currently working in?
____

***1.** Instructions: This scale consists of a number of words that describe different feelings and emotions. Read each item and circle the appropriate number next to that word to indicate the extent to which you generally feel this way, that is, how you feel on average.*

	Not at all	A little	Moderately	Quite a bit	Extremely
1. Distressed	1	2	3	4	5
2. Inspired	1	2	3	4	5
3. Excited	1	2	3	4	5
4. Nervous	1	2	3	4	5
5. Upset	1	2	3	4	5
6. Determined	1	2	3	4	5
7. Scared	1	2	3	4	5
8. Afraid	1	2	3	4	5
9. Enthusiastic	1	2	3	4	5
10. Alert	1	2	3	4	5

***2**. Instructions: Below are a number of characteristics that may or may not apply to you. Please circle the number next to each statement to indicate the extent to which you agree or disagree with that statement. You should rate the extent to which the pair of traits applies to you, even if one characteristic applies more strongly than the other.*

I see myself as ________	Strongly Disagree	Disagree a Little	Neither agree nor disagree	Agree a little	Agree Strongly
1. Extraverted, enthusiastic.	1	2	3	4	5
2. Critical, quarrelsome.	1	2	3	4	5
3. Dependable, self-disciplined	1	2	3	4	5
4. Anxious, easily upset.	1	2	3	4	5
5. Open to new experiences, complex.	1	2	3	4	5
6. Reserved, quiet.	1	2	3	4	5
7. Sympathetic, warm.	1	2	3	4	5
8. Disorganized, careless.	1	2	3	4	5
9. Calm, emotionally stable.	1	2	3	4	5
10. Conventional, uncreative	1	2	3	4	5

CONTACTS

The following questions list the people that you may work or interact with at work and ask you to provide a rating of each person, referring to a particular type of interaction or relationship you have with them. All of your answers are completely confidential.

For each person listed, using the scale provided, check the box that represents the rating for that person. We only use these names to link them to their formal role and level within the firm, and so that you do not need to provide that information in the survey.

Your answers may vary from question to question. For example, “John” may consult you on work-related questions, and “John” is your friend, but perhaps you don’t regularly seek his input related to your work-related questions. This is an example of how the results will appear. For practical reasons related to the length of the questionnaire, we only show the names of the people in your team. If you take advice from co-workers outside the team and/or consider them as your friends, please add their names in the space provided. You may leave one or more rows blank if there is more space provided than you need.

Q1. *Using the scale provided, please indicate the extent to which* ***<u>your position requires you to interact with the following co-workers</u>*** *from your department. Please leave a blank when you decline to answer for a particular person or when your own name appears.*

I **Interact** with	To little or no extent	To a limited extent	To some Extent	To a considera ble extent	To a great extent
1.	1	2	3	4	5
2.	1	2	3	4	5
3.	1	2	3	4	5
4.	1	2	3	4	5
5.	1	2	3	4	5
6.	1	2	3	4	5
Others 7.	1	2	3	4	5
8.	1	2	3	4	5

Q2. *Using the scale provided, please rate all co-workers in your department (or team) that are listed below to indicate the extent to which you regularly go to them* ***<u>for work-related advice and help.</u>*** *Please leave it as blank when you decline to answer for a particular person or when your own name appears. In case if the name is missing, please add it to the list below.*

I go to this person **for work-related advice**	To little or no extent	To a limited extent	To some Extent	To a considerable extent	To a great extent
1.	1	2	3	4	5
2.	1	2	3	4	5
3.	1	2	3	4	5
4.	1	2	3	4	5
5.	1	2	3	4	5
6.	1	2	3	4	5
Others 7.	1	2	3	4	5
8.	1	2	3	4	5

Q3. *Using the scale provided, please rate all co-workers in your department (or team) that are listed below to indicate the extent to which you consider them as* ***your friends.*** *Please leave it as blank when you decline to answer for a particular person or when your own name appears. In case if a name is missing, please add their name to the list below).*

I consider this person as **my friend**	To little or no extent	To a limited extent	To some Extent	To a considerable extent	To a great extent
1.	1	2	3	4	5
2.	1	2	3	4	5
3.	1	2	3	4	5
4.	1	2	3	4	5
5.	1	2	3	4	5
6.	1	2	3	4	5
Others 7.	1	2	3	4	5
8.	1	2	3	4	5

Q4. *Using the scale provided, please rate the* ***work competence*** *(e.g., how effective this person is at performing their job) of all co-workers in your department (or team) that are listed below. Please leave it as blank when you decline to answer for a particular person or when your own name appears. In case if a name is missing, please add their name to the list below).*

This person is **competent**	To little or no extent	To a limited extent	To some Extent	To a considerable extent	To a great extent
1.	1	2	3	4	5
2.	1	2	3	4	5
3.	1	2	3	4	5
4.	1	2	3	4	5
5.	1	2	3	4	5
6.	1	2	3	4	5
Others 7.	1	2	3	4	5
8.	1	2	3	4	5

Q5. Using the scale provided, please indicate the extent to which you are envious about your co-workers in your department (or team) that are listed below. For example, feeling envious might include the following reactions to this person: (1) it is so frustrating to see this person succeed so easily; (2) feelings of envy toward this person constantly torment me; (3) I generally feel inferior to this person's success; or (4) this person's success makes me resent this person. Please leave it as blank when you decline to answer for a particular person or when your own name appears. In case if a name is missing, please add their name to the list below.

I **envy** this person	To little or no extent	To a limited extent	To some Extent	To a considerable extent	To a great extent
1.	1	2	3	4	5
2.	1	2	3	4	5
3.	1	2	3	4	5
4.	1	2	3	4	5
5.	1	2	3	4	5
6.	1	2	3	4	5
Others 7.	1	2	3	4	5
8.	1	2	3	4	5

Q6. *Using the scale provided, please indicate the extent to which you feel* ***contempt*** *for your co-workers in your department (or team) that are listed below. Contempt includes (1) feeling you are better than or superior to this person; or (2) feeling that this person is worthless or (3) feeling that this person is not worthy of your attention. Please leave it as blank when you decline to answer*

for a particular person or when your own name appears. In case if a name is missing, please add their name to the list below.

I feel **Contempt** for this person	To little or no extent	To a limited extent	To some Extent	To a considerable extent	To a great extent
1.	1	2	3	4	5
2.	1	2	3	4	5
3.	1	2	3	4	5
4.	1	2	3	4	5
5.	1	2	3	4	5
6.	1	2	3	4	5
Others 7.	1	2	3	4	5
8.	1	2	3	4	5

Q7. *Instructions: The following scale represents aspects of different behaviors you may experience while at work. Please indicate approximately how often you have experienced each behavior from one or more of your co-workers in the last 6 months*

	Never	Rarely: 1 Time	Some-times: 2 to 3 Times	Often: 1 to 2 times a month	Very Often: Once or more a week
1. Withholding information from you.	1	2	3	4	5
2. Yelling or raising their voice.	1	2	3	4	5
3. Making you look bad.	1	2	3	4	5
4. Swearing at you.	1	2	3	4	5
5. Sabotaging your work	1	2	3	4	5
6. Using hostile body language	1	2	3	4	5
7. Withholding resources (e.g., supplies, equipment) needed to do your job.	1	2	3	4	5
8. Making threats.	1	2	3	4	5
9. Avoiding you.	1	2	3	4	5
10. Made angry gestures (e.g., pounding fist, rolling eyes).	1	2	3	4	5
11. Spreading rumors about you.	1	2	3	4	5
12. Getting "in your face."	1	2	3	4	5

QUESTIONNAIRE – PHASE II

First Name ______________________ Last Name___________________

In the previous phase, you responded to questions about your relationship with your co-workers. In this phase, you are asked to rate your feelings about or emotions towards your co-workers. Each question refers to a particular type of emotion you may have towards your coworkers. All your answers are completely confidential. For each person listed, using the scale provided, check the box that represents your feelings about that person.

For practical reasons related to the length of the questionnaire, we limit the number of people to those in your department. If you have identified any other co-workers from different teams that should be included, please make sure you use the exact same name to identify each person you name repeatedly. You may leave one or more rows blank if you do not need all of the spaces provided.

Q1. *Using the scale provided, please indicate the extent to which you are envious about your co-workers in your department (or team) that are listed below. For example, feeling envious might include the following reactions to this person: (1) it is so frustrating to see this person succeed so easily; (2) feelings of envy toward this person constantly torment me; (3) I generally feel inferior to this person's success; or (4) this person's success makes me resent this person. Please leave it as blank when you decline to answer for a particular person or when your own name appears. In case if a name is missing, please add their name to the list below.*

I **envy** this person	To little or no extent	To a limited extent	To some Extent	To a considerable extent	To a great extent
1.	1	2	3	4	5
2.	1	2	3	4	5
3.	1	2	3	4	5
4.	1	2	3	4	5
5.	1	2	3	4	5
6.	1	2	3	4	5
7.	1	2	3	4	5
8.	1	2	3	4	5
9.	1	2	3	4	5
10.	1	2	3	4	5
Others 11.	1	2	3	4	5
12.	1	2	3	4	5

Q2. *Using the scale provided, please indicate the extent to which you feel* ***contempt*** *for your co-workers in your department (or team) that are listed below. Contempt includes (1) feeling you are better than or superior to this person; or (2) feeling that this person is worthless or (3) feeling that this person is not worthy of your attention. Please leave it as blank when you decline to answer for a particular person or when your own name appears. In case if a name is missing, please add their name to the list below.*

I feel **Contempt** for this person	To little or no extent	To a limited extent	To some Extent	To a considerable extent	To a great extent
1.	1	2	3	4	5
2.	1	2	3	4	5
3.	1	2	3	4	5
4.	1	2	3	4	5
5.	1	2	3	4	5
6.	1	2	3	4	5
7.	1	2	3	4	5
8.	1	2	3	4	5
9.	1	2	3	4	5
10.	1	2	3	4	5
Others 11.	1	2	3	4	5
12.	1	2	3	4	5

Q3. *Instructions: Please indicate the extent to which you agree or disagree with the following statements*

	Strongly Disagree	Somewhat Disagree	Neither agree nor disagree	Agree	Strongly Agree
5. Some of my coworkers think they are superior to me.	1	2	3	4	5
6. Some of my coworkers think I am worthless.	1	2	3	4	5
7. Some of my coworkers think they are better than me.	1	2	3	4	5
8. Some of my coworkers feel that I am not worthy of their attention.	1	2	3	4	5

***Q4:** Instructions: Please indicate the extent to which you agree or disagree with the following statements*

	Strongly Disagree	Somewhat Disagree	Neither agree nor disagree	Agree	Strongly Agree
1. Some of my co-workers feel that I have it better than they do.	1	2	3	4	5
2. Some of my co-workers feel that my supervisor values my efforts more than his/her efforts.	1	2	3	4	5
3. Some of my co-workers feel that they cannot have a job as good as I have.	1	2	3	4	5
4. When my co-workers compare them to me, some of them feel that they are underdogs at work.	1	2	3	4	5
5. Some of my co-workers feel annoyed to see that I have all the luck in getting the best assignments.	1	2	3	4	5

Q5. *Instructions: The following scale represents aspects of different behaviors you may experience while at work. Please indicate approximately how often you have experienced each behavior from one or more of your co-workers in the last 6 months*

	Never	Rarely: 1 Time	Some-times: 2 to 3 Times	Often: 1 to 2 times a month	Very Often: Once or more a week
1. Withholding information from you.	1	2	3	4	5
2. Yelling or raising their voice.	1	2	3	4	5
3. Making you look bad.	1	2	3	4	5
4. Swearing at you.	1	2	3	4	5
5. Sabotaging your work	1	2	3	4	5
6. Using hostile body language	1	2	3	4	5
7. Withholding resources (e.g., supplies, equipment) needed to do your job.	1	2	3	4	5
8. Making threats.	1	2	3	4	5
9. Avoiding you.	1	2	3	4	5
10. Made angry gestures (e.g., pounding fist, rolling eyes).	1	2	3	4	5
11. Spreading rumors about you.	1	2	3	4	5
12. Getting "in your face."	1	2	3	4	5

Appendix III– Glossary of Network Terminologies

Advice ties: Also known as instrumental or task-related ties are relationships through which employees share and seek information (or knowledge) essential for completing work-related tasks.

Betweenness Centrality: It measures how often the node occurs on the shortest paths between two nodes. Nodes with high betweenness centrality lie on the communication path and can control information flow.

Centrality identifies prominent actors or key players. These individuals are extensively involved in relationships with other network members. Centrality indicates one type of "importance" of actors in a network. For instance, high advice centrality indicates that the focal individual is a key player in the advice flow. There are over 100 centrality measures (recently updated periodic table of centrality measure http://schochastics.net/sna/periodic.html).

For this dissertation, I focus on ***Degree*** **centrality**, which is the sum of all other actors who are directly connected to the ego (the focal individual or actor). It signifies activity or popularity. Lots of ties coming in and lots of ties coming out of an actor would increase *degree centrality*.

Dyad or dyadic ties – A tie that explains a relationship between two actors (or nodes).

Eigenvector Centrality: It measures the influence of a node in the network.

Friendship ties: Friendship ties, also called affective or expressive ties, involve an exchange pattern of interpersonal affect.

In-degree Centrality: It is measured by the number of connections that point towards the focal individual. For advice ties, it is the number of people approaching the focal individual for advice.
Negative dyadic ties - refer to the expression of dislike by one actor towards another.

Out-degree Centrality: The number of connections that originate at the focal individual. For advice ties, it is the number of people the focal individual is approaching for advice.

Reciprocity – Indicates symmetry in the relationship. For instance, reciprocity in friendship ties occurs when A chooses B as a friend and is also chosen by B.

Structural equivalence: The position of two actors is structurally equivalent when they share a similar pattern of relationship to and from all other actors in the network.

Ties (edges or relationships): The ties are the link between pair of actors and act as channels for a social exchange through which instrumental (advice and knowledge) and emotional (friendship and love) support flows.