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UNDERSTANDING EMPLOYEES’ BEHAVIORAL REACTIONS TO AGGRESSION IN ORGANIZATIONS

by

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ABSTRACT

The purpose of this dissertation is to explore employees’ behavioral reactions to the perceived aggression of others. Perceived aggression is defined as behavior that is perceived to be intentionally harmful by the intended target. A typology is developed that identifies two primary dimensions of behavioral reaction: (1) the form of the behavior (aggression/non-aggression) and (2) the direction of the behavior (toward the source of the harm/not toward the source of the harm). Based on these dimensions, the typology produces four categories of behavioral reactions: retaliatory aggression, displaced aggression, constructive problem-solving, and withdrawal. A model is then presented, which identifies various factors that influence employees’ reactions. The relationships are examined in two studies. The first study is a cross-sectional survey design, which investigates the reactions to perceived supervisor aggression and the moderating effects of various situational factors (fear of retaliation, aggressive modeling and absolute hierarchical status) and individual factors (trait anger and the need for social approval). The second study is a 2x2 experimental design that investigates the reactions to perceived aggression and the moderating effects of fear of retaliation and personality variables (trait anger, locus of control and the need for social approval). Participants of the experiment, 77 undergraduate students, were randomly assigned into conditions of perceived aggression (high/low) and fear of retaliation (high/low). Perceived aggression was manipulated through exam feedback and fear of retaliation was manipulated through anonymity of instructor evaluations. The results of both studies provide support for some of the predictions, as well as some contradictory findings. Conclusions are drawn from the theory, typology and findings of the studies, highlighting implications for future aggression and organizational behavior research.

KEYWORDS: Aggression, retaliation, displaced aggression, withdrawal, problem-solving
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CHAPTER ONE:
INTRODUCTION

Understanding Employees’ Behavioral Reactions to
Aggression in Organization: A Theoretical Overview

Aggression is considered a basic and important aspect of the human condition (Geen, 1990). Social psychologists contend that aggression is instinctual (Lorenz, 1966) and is fueled by social context (Berkowitz, 1962). Given the toll aggression plays on individuals and society at large, researchers have invested much time to understand its causes and consequences (Geen & Donnerstein, 1983). As a result, a rich body of literature has evolved to uncover the general nature and roots of aggression (see Anderson & Bushman, 2002 for a review).

Similarly, workplace aggression researchers have also invested much time in trying to understand the nature of aggression in work settings. This research has identified various forms of workplace aggression (see Neuman & Baron, 2005, for a review), as well as a wide range of factors that instigate aggression at work (see Neuman & Baron, 1998, and Baron, 2005, for reviews). By and large, much of the research on workplace aggression focuses on why individuals engage in aggression rather than how individuals respond to aggression. Given the instinctual nature of aggression, theorists suggest aggressive reactions to aggression are likely (e.g., Bies & Tripp, 1996, 1998a; Dollard, Doob, Miller, Mowrer, & Sears, 1939; Folger & Skarlicki, 1998). Yet, we also know that individuals do not always react aggressively (e.g., Miller, 1948; Sears, 1941; Tepper, Duffy, & Shaw, 2001; Zellars, Tepper, & Duffy, 2002).

The purpose of this paper is to explore employee behavioral reactions to aggression. First, I define aggression and perceived aggression, and discuss how individuals formulate responses to aggression. Building from this review, I present a typology of employee behavioral
reactions to the perceived aggression of others. Further, I develop a theoretical model that identifies various situational and individual factors that influence employees’ reactions to aggression. It is important to note that the typology and model presented are limited in scope, in that they merely seek to describe behaviors that individuals may engage in as a consequence of being aggressed against at work. Because of this, the typology and model do not address motives underlying behavioral reactions (e.g., instrumental or affective purposes), or the broader range of non-behavioral reactions to aggression (psychological, emotional or physiological responses). Nevertheless, the typology and model do provide a stepping-stone and framework for future aggression and organizational research.

**Aggression versus Perceived Aggression**

Aggression includes any behavior that is carried out with the intention to injure or aggravate another person (Eron, 1987). Not all injurious or destructive acts constitute aggression, however. Aggression is any behavior that intends to cause harm, meaning it is driven by specific and “injurious” motives (Bandura, 1983). Behavior can, therefore, constitute aggression whether or not it actually harms the target, so long as it was intended to do so. Because of this, individuals who are the target of aggression generally wish to avoid it (Baron, 1977; Geen, 2001).

In this paper, I investigate *perceived* acts of aggression, meaning any behavior that is perceived to intentionally inflict harm. Although aggression is defined as behavior that intends to cause harm, I look at behaviors that the recipient *believes* were carried out with the intention of causing harm, regardless of whether or not the act actually harms the victim or was intended to do so. That is, the behavior targeted toward the recipient is *perceived* as intentionally harmful,
whether or not it (1) successfully harms the recipient or (2) was intended by the actor to harm the recipient.

Defining aggression from the recipient’s point of view is important for studying reactions to aggression; individuals who do not believe they are intentionally harmed may not view the act as aggression and therefore not react. In a similar vein, behaviors not intended to cause harm may, nevertheless, be perceived by the recipient as intentionally harmful and may stimulate a response. In this way, it is only the behaviors that the recipient perceives as aggression—those behaviors that intentionally inflict harm—that provoke reactions. Therefore, in this paper I focus on acts perceived by the recipient as intentionally harmful (e.g., verbal attacks, spreading rumors, isolating someone from others).

**Reactions to Perceived Aggression**

Social psychology models of aggression are helpful to understand how individuals might react to the perceived aggression of others. In general, these models describe the process by which individuals choose to engage in aggression. In doing so, they consider a variety of events that produce aggression, such as frustration, personal attacks, temperature, noise, and so on, which Berkowitz (1989) calls “aversive events.” Because “perceived aggression” is a specific aversive event, I draw from process models to understand reactions to aggression.

Process models of aggression have focused on a variety of factors to explain aggression, such as the role of cognition (Berkowitz, 1983, 2001), affect (Anderson, 1997; Anderson, Deuser, & DeNeve, 1995), learning history (Bandura, 1983, 2001; Buss, 1961), cognitive scripts (Huesmann, 1986), social interactions (Tedeschi & Felson, 1994), and arousal (Zillman, 1983). Table 1 provides a summary of the dominant theories of aggression.
### Chapter 1 Table 1
Dominant Theories of Aggression

<table>
<thead>
<tr>
<th>Aggression Theory</th>
<th>Theorists</th>
<th>Basic description</th>
</tr>
</thead>
</table>
| Frustration-aggression Theory                          | Dollard, Doob, Miller, Mowrer, & Sears (1939) | • Aggression is the result of frustrating events.  
• The strength of aggression depends on the degree of frustration, the source of the frustration, and the number of times the individual is frustrated.  
• When the source of the frustration is unavailable (an anger response) or when the individual fears punishment from the source (a fear response), aggression is displaced on others. |
| Internal Conflict Theory of Hostility Displacement     | Miller (1941, 1948)                | • Revised the Frustration-aggression theory. Added:  
  o Individuals may respond to aggression with non-aggressive reactions (specifically, regression, problem-solving, or withdrawal).  
  o Individuals can be both angry and fearful of the source of the frustration, which causes them to still displace aggression on others. |
• Negative affect stimulates thoughts, memories, expressive motor reactions, and physiological responses in reaction to fight (anger) or flight (fear). |
• Reinforcements strengthen aggression, and punishments extinguish or suppress aggression.  
• Aggression can also be a learned, instrumental response to achieve some end objective. |
  - Classical Conditioning                                | Buss (1971)                        |                                                                                   |
  - Instrumental Learning Theory                         | Mischel (1973, 1999)               |                                                                                   |
<table>
<thead>
<tr>
<th>Aggression Theory</th>
<th>Theorists</th>
<th>Basic description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Social Information Processing Theory</td>
<td>Crick &amp; Dodge (1989) Dodge (1980)</td>
<td>Aggression is a consequence of how people understand and interpret social interactions. Faulty processes may be predicted at any one of the six stages of information processing: (1) encoding cues, (2) interpreting those cues, (3) clarifying goals of the interaction, (4) seeking and accessing information about the situation, (5) deciding upon a response, and (6) enacting upon that decision.</td>
</tr>
<tr>
<td>Excitation Transfer Theory</td>
<td>Zillmann (1983)</td>
<td>Psychological arousal (specifically anger) that occurs at one point in time may transfer to another point in time, generating a stronger, angrier aggressive reaction.</td>
</tr>
<tr>
<td>Script Theory</td>
<td>Huesmann (1986, 1998)</td>
<td>Violent or aggressive acts observed through the mass media develop scripts that define situations and guide behavior. Scripts become well versed, highly associative concepts in memory that are drawn upon to guide behavior.</td>
</tr>
<tr>
<td>Social Interaction Theory</td>
<td>Tedeschi &amp; Felson (1994)</td>
<td>Aggressive behavior is motivated by higher goals and intends to change the target’s behavior. Coercion is to attain social control (obtain something valuable), justice (retaliate toward some wrong), and identity (enhance one’s social or self-identity).</td>
</tr>
</tbody>
</table>
Anderson and Bushman (2002) outlined an integrated model of aggression that draws on these different theories, which they call the General Aggression Model (GAM). GAM provides an overview of how individuals make sense of aversive events (to include perceived aggression) and explains how and why individuals react to these events. Initially, individuals experience an affective reaction, which triggers thoughts, memories, expressive motor, and physiological responses. Anderson and colleagues (Anderson, 1997; Anderson, Anderson, & Deuser, 1996; Anderson & Bushman, 2002; Anderson, Deuser, & DeNeve, 1995) argue knowledge structures (thoughts, feelings, memories, behavioral scripts, and expressive-motor responses) validate affective reactions, which comprise the “internal state.” Thus, the internal state consists of affect (mood, emotion, expressive motor responses), cognitions (memories, scripts, learning history), and arousal responses (physiological and psychological reactions), and provides the basis of decision-making and the ensuing behavioral choice. (Figure 1 summarizes this process.)
Chapter 1 Figure 1
General Aggression Model
Within the decision-making phase of GAM, individuals first undergo a primary appraisal. Primary appraisals are immediate and automatic, and require little cognitive effort to assess the harm, intent, malevolence and feelings toward the situation (Anderson et al., 1995). Individuals attempt to interpret the interaction (e.g., Did the person intend to cause me harm?) and evaluate their feelings (e.g., Are my feelings warranted?). Depending on the interaction’s importance and resources available to understand the event (e.g., time, cognitive capacity), individuals may engage in a secondary appraisal before reacting. Secondary appraisals reassess the situation and emotions felt, and consider consequences of potential reactions. Afterwards, a behavioral choice is made; specifically, whether or not to react aggressively.

The entire process (i.e., internal state, decision-making and behavioral choice) is also influenced by situational and individual factors. For example, social learning theory suggests that people react to aggression based on direct experience or by observing others (Bandura, 1983, 2001; Mischel, 1973). Similarly, script theory proposes that individuals react based on “scripts,” which are automatic cognitive dialogue based on learned behaviors (Huesmann, 1986, 1988, 1998). Additionally, the situation itself may provide information on how to respond (Anderson & Bushman, 2002). For example, individuals may lack the opportunity to aggress, expect punishments as a result of aggression, and so forth. Further, the physical environment (e.g., temperature, noise) may also influence individuals’ reactions (Baron & Richardson, 1994; Geen, 1990). Lastly, personality traits influence aggressive tendencies, such as Type A Behavior Pattern (e.g., Baron, Neuman, & Geddes; Baron, Russell, & Arms, 1985), trait anger (e.g., Fox & Spector, 1999; Hepworth & Towler, 2004), negative affect (e.g., Aquino, Lewis, & Bradfield, 1999), and locus of control (e.g., Fox & Spector, 1999).
In sum, individuals process aggression through a complex sequence of emotions, biological factors, and cognitions. The decision-making process and subsequent reactions to aggression are also influenced by situational and individual factors. The ultimate behavioral choice that emerges from this process is whether or not to engage in aggression. Based on this understanding, I now consider the broad range of aggressive and non-aggressive reactions that may result should an individual feel victim to aggression.

**A Typology of Behavioral Reactions to Aggression**

The process model described above suggests aggression will produce aggressive or non-aggressive reactions. In addition to the form of the reaction, research also suggests that identifying the direction of the behavior—or, stated differently, to whom the reaction is delivered—is also important in predicting reactions to aggression (e.g., Baron, 2005; Baron & Neuman, 1998; Buss, 1961). For instance, Dollard, Doob, Miller, Mowrer, and Sears’ (1939) argue that individuals generally wish to react against the source of the harm; however, when this is not feasible, reactions may be targeted toward others. Similarly, Buss (1961) argued that reactions to “noxious stimuli” (such as aggression) are principally based on learned responses, and these reactions may be targeted toward the harmdoer or toward some other target.

Thus, the typology presented (Figure 2) identifies two primary dimensions of behavioral reactions: the form of the reaction (aggression versus non-aggression) and the direction of the reaction (behaviors directed toward the source of the harm versus behaviors not directed toward the source of the harm). I elaborate on each dimension below.
The Form of the Reaction: Aggression Versus Non-Aggression

One of the most prominent theories of aggression is Dollard et al.’s (1939) frustration-aggression hypothesis. Although the theory refers specifically to reactions to frustration, the principles apply to aggression as well. Dollard et al. define frustration as something (or someone) that interferes with, threatens, or prevents goal-oriented activity, arguing that “aggression is always a consequence of frustration” (1939: 1). They contend that frustration is triggered from aversive events, which then causes individuals to aggress. Contemporary aggression research has demonstrated that this very general and ambitious generalization oversimplifies individuals’ reactions (Berkowitz, 1981, 1989; Geen, 1990; Miller, 1941, 1948).
Nonetheless, Dollard et al.’s theory of aggression is important to understanding aggression as a consequence of aggression.

Building on Dollard et al., Berkowitz (1981) argued that “all aversive events, whether frustration, deprivations, noxious stimuli or environmental stresses, produce an instigation to aggression” (174). Indeed, workplace aggression research provides substantial support for the notion that aggression promotes aggressive responses. For example, Baron, Neuman, and Geddes (1999) found that the more strongly participants felt harmed (e.g., unfairly criticized, insulted or ridiculed), the more likely they engaged in aggression (e.g., yelling, threats, blocking work activities, and so forth). Research on workplace revenge and retaliation has found aggression is a likely reaction to mistreatment (e.g., Aquino, Bies, & Tripp, 2001; Bies & Tripp, 1996, 1998a; Cortina & Magley, 2003; Skarlicki & Folger, 1997). Further, research shows that tyrannical and abusive supervision promotes aggression (e.g., revenge, Bies & Tripp, 1998b; coworker and organizational deviance, Mitchell & Ambrose, 2004a). Lastly, aggression may also result from less intense sources of provocation. For example, research shows acts of incivility (contempt or disregard) or emotional abuse (hostile verbal and non-verbal behaviors) promote aggression, such as threats, badmouthing, or defying orders (e.g., Pearson, Andersson, & Plorath, 2000; Pearson, Andersson, & Wegner, 2001; Harvey & Keashly, 2003; Keashly, Trott, & MacLean, 1994). In sum, workplace aggression research provides substantial support for the notion that aggression promotes aggressive reactions.

Yet, we also know that aggression does not always lead to aggression. For example, Berkowitz (1983, 1989) argues that emotions trigger cognitive processes that enable a fight or flight response. In terms of aggression, a fight response triggers aggression, whereas a flight response triggers non-aggressive reactions. Berkowitz (1990) argued that aggression is likely
when individuals sustain hostile emotions. Specifically, he argues that when individuals encounter an aversive event (such as aggression) they respond aggressively if they engage in anger-related ideas rather than fear-related ideas. Similarly, Bies and Tripp’s (1996, 1998a) found respondents initially ruminated over mistreatment and once they were good and angry, they engaged in revenge strategies; but when individuals feared future punishments for revenge, they did not retaliate toward the harmdoer.

Miller (1941, 1948) suggested that when non-aggressive responses are strengthened by the situation, individuals are less likely to aggress and more likely to react non-aggressively. For example, if an individual is being aggressed toward and the environment embraces a more constructive solution to problems and conflicts, the victim might seek a more constructive method of resolving the situation. Similarly, Sears (1941) contends that reactions to aggression depend on an individual’s “learned” response. If an individual has previous experience dealing with a similar situation, they will respond according to what they have learned is appropriate. Memories and vicarious learning that trigger a constructive solution, therefore, elicit more positive reactions. Memories and vicarious learning that trigger aggressive reactions influence aggression. Lastly, memories and vicarious learning that trigger suppression of reactions influence regression or withdrawal.

Research provides support for a variety of non-aggressive reactions as well. The stress literature suggests that individuals may engage in problem-focused coping to deal with stressful situations (e.g., Folkman, 1984; Folkman & Lazarus, 1980, 1985; Lazarus & Folkman, 1983). These behaviors allow individuals to regain control in constructively (e.g., tried to get the person responsible to change their mind; Folkman & Lazarus, 1980, 1985;Thoits, 1994). Further, research on work adjustment, control, and withdrawal also provide support for non-aggressive
reactions (e.g., Ashforth, 1989; Greenberger & Strasser, 1989; Rosse & Hulin, 1985; Staw, 1980; Steers & Mowday, 1981). For instance, Steers and Mowday (1981) argue that stressful work situations, cause employees to quit. Workplace withdrawal research also suggests increased absenteeism, turnover, transfers, and behaviors of the like are also a likely result of stress (Ashforth, 1989; Rosse & Hulin, 1985). Further, qualitative research on workplace abuse provides evidence of non-aggressive responses, such as avoiding the abuser, exiting the situation (e.g., quit, transfer), having others intervene (e.g., filed a complaint, spoke to higher authorities, had a colleague speak to the abuser), and decreasing work effort (Keashly, Trott, & MacLean, 1994; Pearson, Andersson, & Wegner, 2001). Likewise, Tepper et al. (2001) found that some employees who worked for an abusive supervisor engaged in dysfunctional resistance strategies (e.g., ignoring the supervisor), while others engaged in constructive resistance strategies (e.g., asking for additional explanation and clarification). Thus, non-aggressive acts are also a probable response to aggression.

Altogether, this review suggests the two general forms of reactions to aggression can be in the form of aggression and non-aggression. An aggressive reaction involves any behavior with the intent to inflict harm. A non-aggressive reaction involves any behavior lacking the intent to inflict harm. Within the context of the typology, I argue these two categories fall on a continuum, whereby at the extreme points you see the most active forms of aggression (e.g., assault, homicide) and non-aggression (e.g., reconciliation, exit).

The Direction of the Reaction: Toward the Source versus Not toward the Source

Aggression researchers have often described behavior in terms of direction (Buss, 1961; Neuman & Baron, 1997, 1998). Dollard et al. (1939) also touched on this topic, arguing that the direction of an aggressive response is relative to the expected punishments for their actions.
They assert that individuals generally wish to retaliate or aggress against the source of their frustration. However, some circumstances do not allow for retaliation (e.g., the individual fears future harm from the harmdoer or the harmdoer is unavailable). In these instances, individuals are forced to suppress aggression, which inhibits its natural course (Freud, 1933). Suppressing aggression, however, only heightens negative emotions, and when combined with the need to expend aggression causes individuals to “displace” aggression on an otherwise innocent target. Dollard et al. argue that displaced aggression allows individuals to “vent” their hostility without the fear of recourse from the harmdoer.

Buss (1961) also discusses direction and aggression. He defined direct aggression as behavior where the victim seeks to harm the provoking source, and indirect aggression as behavior where the victim seeks to harm something or someone that the provoking source values. Buss argued that indirect forms of aggression allow the victim to react with a sense of safety from recourse. That is, indirect aggression is difficult at best to pin-point, which allows the victim to aggress without being identified. Nevertheless, indirect aggression, as described by Buss, is aggression that is not physically targeted at the source of the harm, whereas direct aggression is specifically and physically targeted toward the source of the harm.

Theories of personal control also discuss directionality. Accordingly, when individuals feel threatened, they seek to regain control (deCharms, 1968), called “psychological reactance” (Brehm, 1966; Wortman & Brehm, 1975). Reactance involves individuals seeking to change the objective conditions of the situation. However, not all situations can be changed, which may promote feelings of helplessness (Seligman, 1975). Rothbaum, Weisz, and Synder (1982) argue that even when individuals feel helpless, they do not abandon the desire to regain control; instead, reactance is a two-stage process. Initially, individuals attempt to directly modify
objective conditions. However, when direct control is either not possible or unsuccessful, individuals modify their own behavior to suit the prevailing conditions (e.g., withdrawal). These secondary behaviors are necessary to regain a homeostatic level of personal control (or equilibrium) so that individuals can better function within their environment.

Workplace aggression research provides evidence of direct attempts to harm the source of the perceived aggression (e.g., Cortina & Magley, 2003; Mitchell & Ambrose, 2004b; Jones, 2003, 2004). Although specific investigations of displaced aggression are rare within workplace aggression research, studies that have investigated forms of displaced aggression suggest individuals do react toward targets that are not the source of their hostilities (e.g., Aquino & Douglas, 2003; Bennett, 1998; Fox & Spector, 1999; Mitchell & Ambrose, 2004b). Further, a recent meta-analysis on psychology experiments found displaced aggression to be a consistent and robust response to provocation when respondents were unable to retaliate toward the provoker directly (see Marcus-Newhall, Pedersen, Carlson, & Miller, 2000).

Thus, this review suggests individuals may respond directly toward the source of the perceived aggression or may target their response at a different target. Therefore, reactions may be directed toward the source of the perceived harm or toward someone or something not perceived to be the source of the harm. Within the context of the typology, I believe these two categories fall on a continuum, whereby at the extreme points you see the most active forms of reactions toward the source of the harm (e.g., assaulting or reconciling with the source) and reactions toward someone or something not the source of the harm (e.g., assaulting someone other than the source or leaving the organization).
Categories of Behavioral Reactions to Aggression

The two dimensions produce four basic categories of behaviors: (1) aggression/behavior directed toward the source, (2) aggression/behavior not directed toward the source, (3) non-aggression/behavior directed toward the source, and (4) non-aggression/behavior not directed toward the source. I believe these four categories are best described as retaliatory aggression (aggression/behavior directed toward the source), displaced aggression (aggression/behavior not directed toward the source), constructive problem-solving (non-aggression/behavior directed toward the source), and withdrawal (non-aggression/behavior not directed toward the source). Figure 2 presents the typology with these categories of behavior. Each is described in more detail below.

Retaliatory aggression is behavior that intends to inflict harm on the person perceived to be responsible for the harm. The purpose of retaliation is to “even the score” or “get back at” the transgressor (Skarlicki & Folger, 2005). According to Berkowitz (1989), retaliatory aggression is a fight response to the anger initiated by the transgression. By retaliating, victims to aggression directly and intentionally harm the perceived harmdoer. Retaliatory aggression may involve behaviors directed at the target, such as assault or obscene gestures, or less severe behaviors, such as gossiping about the harmdoer where the primary intent is to cause harm to the harmdoer (Buss, 1961). Thus, retaliatory aggression constitutes behavior that intends to inflict harm (i.e., aggression) directly toward the source of the perceived aggression (i.e., the behavior is directed toward the source).

Displaced aggression is behavior that intends to inflict harm on a person or object not the source of the perceived harm (Dollard et al., 1939). As stated before, displaced aggression often occurs because the individual is unable to retaliate against the harmdoer. The victim essentially
redirects their hostilities (or aggressive reactions) onto other, more available targets. Thus, the victim is intentionally harming someone or something other than the harmdoer. Thus, displaced aggression involves acts of intentional harm directed toward targets that are not the source of the harm (i.e., toward other people (assault, threats) or property (e.g., theft, property damage)). Thus, displaced aggression constitutes behavior that intends to inflict harm (i.e., aggression) at a target that is not the source of the harm (i.e., the behavior is not directed toward the source).

**Constructive problem-solving** is behavior that seeks to improve the situation in a positive manner. Problem-solving is defined as any attempt to effectively solve specific problems that are encountered (D’Zurilla, Nezu, & Maydeu-Olivares, 2004). However, not all problem-solving activities can be seen as “constructive.” Constructive actions seek to change objective conditions to better the situation for the victim without intentionally harming the source of the perceived aggression. Therefore, in the context of reactions to perceived aggression, constructive problem-solving is behavior that seeks to resolve or stop the perceived aggression without intentionally harming the source. In the stress literature, constructive problem-solving is similar to the problem-focused coping concept of “reversals” (Thoits, 1994). Reversals attempt to convert a negative situation into a positive one or, at least, minimize the negative one. Another similar concept is “voice,” whereby individuals feel empowered to speak out and remedy the problem (Farrell, 1983; Rusbult, Farrell, Rogers, & Mainous, 1988; Lind & Tyler, 1988; Tyler, 1987). Thus, constructive problem-solving is behavior that directly seeks to address the perceived aggression (i.e., the behavior is directed toward the source) absent the intent to inflict harm (i.e., non-aggression).

**Withdrawal** is behavior that places physical or psychological distance between the victim and the source of the aggression (Sears, 1941). In the stress literature, withdrawal is similar to
problem-focused coping behaviors of “extrication,” where individuals attempt to remove themselves from a negative situation (Thoits, 1994). Within the organizational literature, two types of withdrawal behaviors have generally been the focus of research: work and job withdrawal. Work withdrawal involves behaviors to avoid aspects of the work role (e.g., avoiding particular tasks, increasing errors, reduced interest), whereas job withdrawal involves exiting the job in some way (e.g., turnover, transfers, absenteeism, chronic tardiness; Hanisch & Hulin, 1991). When individuals engage in withdrawal, they adjust their own behavior without removing or directly addressing the source of the perceived aggression. Instead, no changes are made to the actual objective conditions. Further, withdrawal is not behavior that intends to inflict harm and, therefore, it does not constitute aggression. Rather, withdrawal behaviors seek to adapt one’s own behaviors to the aggression (i.e., the behavior is not directed toward the source), absent the intent to inflict harm (i.e., non-aggression).

Based on this typology, I suggest there is a wide range of reactions to aggression that can be described by one of the four categories presented in the typology. Each of the four behaviors is based on the two primary dimension descriptors: the form of the behavior (aggression or non-aggression) and the direction of the behavior (behavior directed at the source or behavior not at the source).

**A Model of Employee Reactions To Aggression**

So far, I have described how individuals process aggression, as well as identified categories of likely responses to such attacks. I now address the issue of which factors influence those reactions (Figure 3). The model is based on the process by which individuals understand aggressive events (explained in Figure 1). To reiterate, individuals process aggression through a complex sequence of emotions, biological factors, and cognitions. Ultimately, these processes
provide the basis for a behavioral decision. Which response individuals choose to engage in, therefore, is dependent upon situational and individual factors influencing decision-making processes. Thus, in order to understand which reactions individuals decide to engage in, it is important to identify relevant situational and individual factors that influence responses. Therefore, the model presented identifies various factors that influence the decision-making process, which then result in a particular reaction (i.e., with retaliatory aggression, displaced aggression, constructive problem-solving or withdrawal).

For conceptual clarity, the *victim* refers to the individual whose reaction is the focus of concern, and the individual who is the recipient of the aggression. The *harmdoer* is the individual who targeted aggression toward the victim. Lastly, the *target* is the person to whom the victim directs the reaction as a consequence of aggression.
Chapter 1 Figure 3
A Model of Behavioral Reactions to Aggression in Organizations
The Influence of Situational Factors

The first set of variables that I propose affect individuals’ reactions to aggression are situational factors. Based primarily on social psychology and workplace aggression literatures, I explore situational factors that researchers have identified to influence reactions to provoking or threatening situations. Specifically, I consider fear of retaliation, aggressive modeling, an apology, the victim’s status, and the organization’s climate.

Fear of Retaliation. Research indicates that fear of retaliation from the provoking source strongly influences individuals’ responses to aggression. A basic tenant of Dollard et al.’s (1939) aggression theory is that fear of future punishments or retaliation deters retaliation and promotes displaced aggression. They argued that “the strength of inhibition of any act of aggression varies positively with the amount of punishment anticipated to be a consequence of that act” (1939: 33). Victims essentially understand that aggressing toward the harmdoer may promote further attacks against them. This understanding stems from what victims have already learned or experienced. Victims rely on learned inhibitions to understand and assess potential consequences of their own behavior (whether through direct experience or vicarious learning) (Bandura, 1983; Berkowitz, 1983, 1989). Thus, because of what is expected and learned from the past, dominant aggressive reactions may be suppressed. Nevertheless, individuals differ in what they know, meaning reactions may vary.

Indeed, aggression research suggests fear of retaliation plays an important role in a victim’s decision to engage in retaliation. Research provides strong evidence that fear of retaliation heightens displaced aggression and inhibits retaliatory aggression. A recent meta-analysis of psychology experiments of displaced aggression shows that displaced aggression is a robust reaction when individuals feared retaliation from the harmdoer (Marcus-Newhall et al.,
fear of retaliation was the strongest predictor of counterproductive workplace behavior (CWB), and those who feared retaliation engaged in more incidents of CWBs targeted to the organization than those targeted toward a specific person (the harmdoer).

Research investigating sexual harassment also demonstrates the effects of fear of retaliation. Studies have demonstrated that the greater the felt victimization, the more likely the respondent feared retaliation from the harmdoer (Holgate, 1989; Junger, 1987). This research consistently shows fear of retaliation strongly influences whether or not employees report harassment. (See Koss, Goodman et al., 1994 for review.) Likewise, Fitzgerald and colleagues (Fitzgerald, 1993; Fitzgerald & Ormerod, 1993; Hesson-McInnis & Fitzgerald, 1992) found that fear of retaliation was the main reason victims did not report their harasser. Further, sexual harassment research also suggests fear of retaliation influences withdrawal behaviors. Research has shown that individuals who are harassed who also fear retaliation feel as though nothing can be done to change the situation, which results in greater incidents of absenteeism and turnover (Allen & Erikson, 1989; Koss, Goodman et al., 1994).

In the context of whistleblowing, Near and Miceli (1996) argue that individuals generally only report incidents that constitute whistleblowing if there is a “reasonable supposition of success,” meaning that something can be done and they will not be retaliated upon for their actions. In contrast, when individuals do not believe there is a reasonable supposition of success (success is not supported by the organization), victims’ fears of retaliation heighten and, therefore, they are less likely to report the harmdoer. Further, their research shows that individuals who believe they will be retaliated against are far less likely to blow the whistle (Near & Miceli, 1986), suggesting fear of retaliation inhibits constructive problem-solving.
This review suggests that fear of retaliation inhibits reactions toward the source of the harm and strengthens reactions against other targets. In particular, individuals who fear retaliation from the harmdoer are more likely to engage in behaviors not targeted at the source (e.g., displaced aggression and withdrawal), as direct reactions (whether aggressive or non-aggressive) heighten fears of being caught and subjected to further acts of aggression by the harmdoer. Thus, research suggests that victims of aggression would be less likely to engage in behaviors targeted toward the harmdoer (e.g., retaliatory aggression and constructive problem-solving), particularly when they fear of retaliation from the harmdoer. Therefore, I propose:

**Proposition 1**: The greater the fear of retaliation a victim has with the source of aggression, the more likely the victim will engage in displaced aggression and withdrawal, and the less likely the victim will engage in retaliatory aggression and constructive problem-solving.

**Aggressive Modeling**. According to social learning theory (Bandura, 1983, 2001; Mischel, 1973, 1999), individuals develop aggressive patterns of behavior through learned experiences, whether through observation or direct experience. Vicarious learning occurs through the observation of social models (e.g., parents, supervisors). The concept of social modeling is particularly relevant to aggressive tendencies. A main tenant of social learning theory is that learned tendencies guide behaviors. However, not all learned tendencies are enacted, meaning sometimes individuals show restraint in their reactions, depending on the situation. Therefore, individuals enact learned tendencies that are also supported in their environment (Bandura, 1983). When aggression is supported at work, victims feel more inclined to engage aggression themselves because they feel it is appropriate behavior. Thus, by observing
aggressive behaviors of other organizational members, individuals learn that aggressive reactions are encouraged and constitute an appropriate response to perceived aggression.

According to social information processing theory, “one can learn more about individual behavior by studying the information and social environment within which the behavior occurs and to which it adapts” (Salancik & Pfeffer, 1978: 226). Specifically, social information processing theory suggests that individuals develop expectations about appropriate behavior by assessing the immediate environment. Building from these principles, O’Reilly and Caldwell (1985) argue that certain attitudes and behaviors perceived in the environment communicate not only “the way things should be done” but also “the way things ought to be done.” Stated differently, observing employees’ behavior lets employees know which behaviors are appropriate and inappropriate at work, and more so than the organization’s rules and regulations. Thus, work environments that provide information that aggression is supported (e.g., supervisors and coworkers actively engage in aggression themselves) may influence victims’ aggressive reactions.

Indeed, research provides support for the influence of social learning theory and social information processing theory with workplace aggression. For example, Robinson and O’Leary-Kelly (1998) explored the extent to which an individual’s work group influenced antisocial behavior, and found that antisocial behavior exhibited by group members significantly influenced an individual group member’s antisocial behavior. Similarly, Aquino and Douglas (2003) found that high-status employees who were frequently exposed to aggressive modeling engaged in higher levels of antisocial behavior than employees in low-status positions, or when compared to high-status employees who were exposed to low levels of aggressive modeling. They argue that aggressive models set strong norms for employees, which guide behaviors.
Based on these arguments, I believe that individuals who perceive aggressive modeling within the workplace will be more likely to engage in aggressive behaviors in reaction to perceived aggression (retaliatory aggression and displaced aggression), and less likely to engage in non-aggressive reactions (constructive problem-solving and withdrawal). Therefore, I predict:

*Proposition 2*: The greater the presence of aggressive models within the workplace, the more likely the victim will engage in retaliatory aggression and displaced aggression, and the less likely the victim will engage in constructive problem-solving and withdrawal.

**An Apology.** An apology conveys an explanation of behavior, and has been found to be a powerful deterrent to interpersonal conflict (Darby & Schlenker, 1982; Schwartz, Kane, Joseph, & Tedeschi, 1978; Takaku, 2000), and particularly to aggression (Ohbuchi, Kameda, & Agarie, 1989). Tedeschi and Norman (1985) argue that an apology mitigates aggression because the harmdoer is able to successfully remove the negative evaluation of the offense. According to correspondent inference theory (Jones & Davis, 1965), an apology lessens perceptions that the offensive act was intentional and most likely not due to some underlying trait of the offender. As a consequence, the victim no longer attributes the negative act to the harmdoer, allowing for interpersonal forgiveness (Takaku, 2001).

Likewise, Ohbuchi et al. (1989) found that an apology conveys one of the following messages to a victim: (a) reduction of the victim’s responsibility (i.e., harmdoer admits responsibility for the transgression), (b) respect for the victim, (c) denial of maliciousness (i.e., harmdoer is not so bad after all), and/or (d) restoration of social justice (i.e., harmdoer has accepted the disgrace of his/her actions or is remorseful and promises not to commit the action in the future). Consequently, an apology inhibits negative reactions to a personal offense. For example, Ohbuchi et al. (1989) found that victims who received an apology were less likely to
engage in aggression, regardless of the strength of the offense. Further, an apology improved the victim’s impression of the harmdoer. The results of their study suggest an apology decreases the severity of the offense and the victim’s cognitive appraisal of the harmdoer.

Theorists have also argued that an apology also evokes affective reactions which, in turn, influence more positive behavioral intentions (Weiner, 1986, 1995). Accordingly, victims who receive an apology make benevolent attributions about the harmdoer, meaning they hold the harmdoer less responsible for the transgression, which then promotes benevolent affective reactions. Ohbuchi et al. (1989) found support for this contention. In addition to lessening aggressive reactions and improving perceptions of the harmdoer, they found that an apology increased victims’ affect (lessening anger and unpleasant feelings). They argued that the act of apologizing mitigated negative emotional reactions to personal attacks.

I believe these results suggest that victims who receive an apology from the harmdoer will feel less inclined to engage in either dysfunctional or constructive problem-solving behaviors. Should victims receive an apology from the harmdoer, they would be less likely to attribute the act as intentionally harmful, and therefore feel little need to directly change the situation. As a result, apologizing would lessen the need to retaliate or engage in constructive problem-solving. Further, because an apology increases positive emotions and lessens hostility and anger, victims would be less likely to strike out against others by way of displaced aggression. Lastly, the benevolent attributions and affect that are produced from the apology would increase more positive behavioral intentions, thereby lessening victims’ needs to change their own behavior to adapt to the situation (i.e., withdrawal). Therefore, I predict:
Proposition 3: The presence of an apology will lessen the victim’s reactions of retaliatory aggression, displaced aggression, constructive problem-solving and withdrawal.

Victim Status. Individuals’ status in an organization often communicates a certain level of power; those in higher level positions often are able to modify others’ circumstances by providing or withholding valued resources or administering punishments (Emerson, 1962; Kipnis, 1972). Research suggests three types of status communicate an individual’s ability to influence others: relative hierarchical status, absolute hierarchical status, and informal status. Relative hierarchical status is the victim’s hierarchical position relative to the harmdoer. Absolute hierarchical status is the victim’s hierarchical position within the entire organization, regardless of the harmdoer’s status (Aquino, Tripp, & Bies, 2001; Bies & Tripp, 1996). Informal status involves the dependencies the victim generates through work relationships (Brass & Burkhardt, 1993). Research investigating the nature of status and workplace revenge suggests status is an important determinant of reactions to aggression. I explore this below.

Relative hierarchical status. Aquino and colleagues (Aquino & Douglas, 2003; Aquino, Tripp, & Bies, 2001, in press; Thau, Aquino, & Wittek, 2004) argue that because status reflects a victim’s ability to reward or punish, those in higher status positions in comparison to the harmdoer are provided a sense of comfort. For example, a supervisor might feel less threatened by a subordinate who is aggressive. Yet, just because a victim of higher status feels more secure and powerful doesn’t necessarily mean that that person will not seek to control the situation. The issue falls squarely as a desire to “save face,” or maintain a certain level of respect, given their social position as compared to the harmdoer. Consequently, the victim of greater status may feel it necessary to restore and re-establish “face” by retaliating against the harmdoer (Brehm, 1966;
Indeed, research has shown victims of higher status than the source of the mistreatment seek revenge against their offender (e.g., Aquino et al., 2001, in press; Kim, Smith, & Brigham, 1998).

In contrast, victims who are of lesser status than the harmdoer may be inhibited from retaliating (Aquino et al., 2001; Bies et al., 1997; Kim et al., 1998). Again, status innately relays information about how much power one has over another. Those of lesser status have no formal power to exert resources and punishments, which means they are poorly positioned to retaliate. As a result, low status victims may try to maintain their relationship with the higher status offender (Aquino et al., in press). Aquino et al. (in press) argue that low status victims consequently try to engage in pro-social coping activities, like forgiveness and reconciliation. Hence, low status victims have no other alternative but to engage in more constructive behaviors with the harmdoer (i.e., constructive problem-solving).

Further and consistent with the frustration-aggression hypotheses (Dollard et al., 1939), because lower status victims are unable to retaliate against the harmdoer, they would be more likely to displace their aggression on others (Dollard et al., 1939). A qualitative study by Bies and Tripp (1996) supports this contention. Respondents who worked with a “tyrannical boss” felt retaliation was too precarious, and instead engaged in other forms of aggression (e.g., unauthorized use of company resources). Further, according to theories of control (Rothbaum et al., 1982), lower status victims may seek to regain a sense of personal control by adapting their own behavior. Results from Bies and Tripp’s (1996) study also support this notion, as victims who worked with a tyrannical boss decided to withhold help, support and effort, worked less or quite (i.e., withdrawal).

Thus, I predict:
Proposition 4(a): The greater the hierarchical status of the victim relative to the harmdoer, the more likely the victim will engage in retaliatory aggression, and the less likely the victim will engage in constructive problem-solving, displaced aggression, and withdrawal.

Absolute hierarchical status. Absolute hierarchical status imposes normative constraints on behavior (Hogan & Emel, 1981; Tripp & Bies, 1997). Hogan and Emler (1981) argue that those in high-status positions must maintain a respectable facade and are more cognizant of how they are perceived by others. Thus, engaging in aggressive behaviors or behaviors that imply incompetence (i.e., withdrawal) are less likely. These arguments are also consistent with Bies and Tripp (1997), who found individuals in higher-status positions viewed revenge as “unprofessional.” Acts of aggression send a message to others that the victim could not handle the situation professionally; also, aggression goes “against the grain” of how individuals in higher positions should behave. These arguments suggest that victims who are in high status positions will seek a more proactive and direct solution to the problem (i.e., constructive problem-solving), and avoid behaviors that would infer unprofessionalism (i.e., retaliatory aggression and displaced aggression) or incompetence (i.e., withdrawal).

In contrast, victims in low status positions within the organization are more likely to engage in more dysfunctional behaviors (e.g., retaliation, displaced aggression and withdrawal). Aquino et al. (in press) argue that low status victims lack symbolic and self-affirming resources (e.g., prestigious titles, pay, autonomy, responsibility), and because of this, they are more sensitive to offenses, and in particular to personal attacks of aggression. Research provides support for these arguments. Aquino et al. (2001) found that victims in lower status positions
sought revenge more often. Further, Aquino and Douglas (2002) found that lower status victims engaged in more antisocial behaviors than victims higher in absolute status.

Therefore, I predict:

**Proposition 4(b):** *The greater the absolute status of the victim, the more likely the victim will engage in constructive problem-solving, and the less likely the victim will engage in retaliatory aggression, displaced aggression, and withdrawal.*

*Informal status.* Informal status is based on the set of relationships individuals build in organizations (Brass & Burkhardt, 1993). The network individuals hold with others organizational members provides for a source of power, particularly if they have the capacity to provide access to or exclusion from certain interpersonal relationships (Molm & Cook, 1995). This is important because individuals require a sense of belonging and social acceptance (Baumeister & Leary, 1995). Those involved with social cliques or networks within organizations are also perceived by others to hold more informal power and therefore can influence others (Brass & Burkhardt, 1993). These arguments suggest that those with strong informal networks will hold a greater sense of status within the organization.

Informal status provides a sense of comfort to handle situations head on. Findings from Thau, Aquino, and Wittek (2004) support this contention; specifically, individuals’ informal status heightened revenge reactions such that the greater the informal status, the more likely individuals engaged in retaliatory acts toward the harmdoer, regardless of the level of relative or absolute hierarchical status of the victim. These results imply that victims of high informal status feel a greater ability to deal with the situation directly. Thus, victims of aggression may feel safe and empowered to either retaliate against the harmdoer or seek help from others. In this way, victims with strong network ties (or a high degree of informal status) feel their relational
ties safeguard them from any future punishments from the harmdoer. Further, due to the reliance on network members, victims would be less likely to behave in ways that may damage relationships with others. Therefore, they would be less likely to direct their aggression toward fellow coworkers (or displace aggression). Further, because of the “surface” power provided them through network ties, victims with informal power would also be less likely to feel as though the situation was out of their control and thus, less likely to withdraw from the situation. Therefore, I predict:

Proposition 4(c): The greater the informal status of the victim, the more likely the victim will engage in retaliatory aggression and constructive problem-solving, and the less likely the victim will engage in displaced aggression and withdrawal.

Organization Climate. Climate represents employees’ shared understandings and experiences of organizational events. An organization’s climate is the molar prescriptions of organizational policies, practices, and procedures, both formal and informal (Reichers & Schneider, 1990). Organizations hold many climate types (e.g., work-family climate, Kossek, Colquitt, & Noe, 2001; justice climate, Liao & Rupp, 2005; ethical climate, Victor & Cullen, 1988, to name a few). However, an organization’s climate of silence is particularly relevant to how individuals react to aggression, and therefore will be the focus here.

Morrison and Milliken (2000) argue that some organizations foster a “climate of silence,” which involves the “widely shared perceptions among employees that speaking up about problems or issues is futile and/or dangerous” (708). They contend a climate of silence stems from management practices and beliefs, and in particular, managements’ unwillingness to hear feedback from lower level employees. They believe managers often feel threatened by negative feedback because it reflects poorly on them (Argyris & Schon, 1978). Research shows that
feedback from lower level subordinates is usually negative (Illgen, Fischer, & Taylor, 1979). As a result, managers often avoid information that might suggest weakness in their abilities. Managers who are already threatened by subordinate feedback (Korsgaard, Roberson, & Rymph, 1998) may feel any direct action an employee makes to remedy a situation is an attack on management’s ability to control its employees and its credibility. These managers believe management is supposed to know what’s best for their employees and is able to identify problem areas (and people). Glauser (1984) argued that these types of beliefs are pervasive—specifically, the manager’s role is to direct and control while subordinates are supposed to follow without question. Morrison and Milliken (2000) concede that not all organizations maintain the same degree of silence; however, those that do stymie upward feedback (Ashford, Rothbard, Piderit, & Dutton, 1998; Dutton, Ashford, O’Neill, Hayes, & Wierba, 1997).

In short, organizations that embrace a climate of silence inhibit employees from speaking out about organizational problems (like acts of aggression) because employees anticipate negative consequences for doing so (e.g., being labeled, viewed negatively, punished) or because they believe speaking out is futile and will make no difference (Milliken, Morrison, & Hewlin, 2003). These arguments suggest that a climate of silence inhibits an employee’s ability to voice concerns or seek constructive solutions to acts of perceived aggression. Therefore, victims of aggression would be less likely to engage in constructive problem-solving behaviors when the organization espouses a climate of silence.

Drawing from reactance principles (Brehm, 1966), Morrison and Milliken (2000) contend that a climate of silences also heightens feelings that the situation is out of the victim’s control. Because victims are unable to “speak out,” they feel an inability to handle the situation directly either through retaliation or constructive problem-solving. Either option suggests that negative
consequences will befall the victim. Consistent with these arguments, qualitative findings by Vakola and Bourades (2005) found that an organization’s climate of silence facilitated employees’ silence, and negatively influenced employees’ job satisfaction and organizational commitment.

When employees are unable to change the objective conditions of the situation, control theory suggests employees may engage in other behaviors in order to regain a sense of personal control (Rothbaum et al., 1982); specifically withdrawal, whereby victims attempt to change their own behaviors to accommodate an otherwise obstreperous situation. Further, consistent with the frustration-aggression hypothesis (Dollard et al., 1939), victims’ inability to retaliate against the source of the harm would thereby intensify the need to displace their aggression. Therefore, I predict:

**Proposition 5**: The greater the climate of silence within the organization, the more likely the victim will engage in displaced aggression and withdrawal, and the less likely the victim will engage in retaliatory aggression and constructive problem-solving.

### The Influence of Individual Factors

House, Shane and Herold (1996) contend that “certain dispositions do not even manifest themselves unless certain situational cues make them salient” (218). This suggests strong situations, like aggression, bring to the surface certain personality characteristics in victims, which may influence reactions. Indeed, research suggests personality traits influence both non-aggressive and aggressive reactions (e.g., Anderson & Bushman, 2002; Baron & Richardson, 1994; Perrowé & Spector, 2002). I address locus of control, self-esteem, socioemotional needs, negative affect, trait anger, type A behavior pattern, and perceived powerlessness, as aggression research has identified these specific individual factors as influencing reactions.
**Locus of Control (LOC).** LOC is the generalized expectation one has in terms of their level of control of rewards and punishments (Rotter, 1966). Individuals high on LOC have an “internal” orientation and believe that control is based on one’s motivation, abilities and other factors of the self. Individuals low on LOC have an “external” orientation, and believe that control is based on luck, fate, or some other external consequence.

Research on LOC suggests individuals’ control beliefs allow them to effectively cope (or not) with stressful situations (Anderson, 1977; Kobasa, Maddi, & Kahn, 1982). In terms of coping, internals generally feel more readily able to influence aversive situations, and, therefore, engage in behaviors to directly reduce the stress. Essentially, internals see themselves as “causal agents,” who are able to directly change situations (Fiske & Taylor, 1984). For example, in terms of interpersonal conflicts, Hahn (2000) reported that internals were more apt to seek problem-focused behaviors than externals. In contrast, externals have the tendency to avoid stressful situations because they believe their fate has been largely defined by outside forces. Greenberger and Strasser (1991) argue that externals most likely see fewer opportunities to control the situation, which promotes feelings of helplessness. Hence, externals become highly frustrated in terms of aversive and stressful situations.

In terms of perceived aggression, research suggests that should an internal respond to aggression with aggression, they are more likely to act in ways to subvert the harm directly (Baron & Richardson, 1994). In contrast, when externals aggress, they do so for the purpose of expressing their hostility and anger, but not at the source of the stress (Blass, 1991; Buss, 1961; Dengerink, O’Leary, & Kasner, 1975; Feshbach, 1984). Given the suggested patterns of LOC, internals seem better able to deal with the source of aggression directly (i.e., constructive problem-solving and retaliatory aggression). Externals, with their fatalistic approach, would feel
unable to change objective conditions and therefore react toward other sources (i.e., displaced aggression and withdrawal). Thus, I predict:

Proposition 6: The greater the degree of locus of control of a victim (internal orientation), the more likely the victim will engage in retaliatory aggression and constructive problem-solving, and the less likely the victim will engage in displaced aggression and withdrawal.

Self-Esteem. Self-esteem is an individual’s favorable global evaluation of himself or herself (e.g., intelligence, worth, value). The traditional perspective of self-esteem states that high levels produce beneficial consequences, whereas low levels produce more dysfunctional consequences (Anderson, 1994). Specifically, individuals with low self-esteem act out more aggressively (Oates & Forrest, 1985) in order to enhance their self-perceptions by denigrating others (Toch, 1993). However, much of the research on aggression suggests that individuals high in self-esteem are more inclined to act out aggressively (see Baumeister & Boden, 1998).

The basis for those authors’ arguments is that although higher levels of self-esteem increase confidence, it also infers other characteristics, such as superiority, pride, arrogance, narcissism (Baumeister, Smart, & Boden, 1996). Not surprisingly, because high self-esteem individuals hold themselves in a very favorable light, they behave quite arrogantly, conceitedly, and egotistically (Baumeister & Boden, 1998). Research suggests that individuals with high self-esteem who are provoked engage in irrational and problematic behavior because provocation implies a questioning of their self-assessments. In contrast, individuals with low self-esteem are more uncertain (Baumeister, 1995; Campbell & Lavalle, 1993) and have a greater concern for how others see them (Heatherton & Polivy, 1991). As a result, low self-esteem tends to result in more conservative reactions (Baumeister, Heatherton, & Tice, 1993).
Researchers argue that individuals with high self-esteem have the tendency to target reactions directly against individuals who subvert or otherwise undermine their own self-perceptions. They do so to validate their self-perceptions, which have been called into question by the provoker (e.g., Berkowitz, 1978; Katz, 1988; Toch, 1993). This reaction is due to threatened egotism, where favorable views of oneself are disputed or in some other way the harmdoer is calling into question the victim’s self-assessment (Baumeister, Smart, & Boden, 1996). In short, high self-esteem individuals react aggressively whenever victims believe their favorable self-assessments are being “questioned, contradicted, impugned, mocked, challenged, or otherwise put in jeopardy” (Baumeister et al., 1996: 8).

Yet, high self-esteem does not always influence retaliatory reactions. Research also suggests individuals with high self-esteem are more likely to engage in voice (e.g., Avery, 2003; LePine & VanDyne, 1998). For example, individuals with high self-esteem have been shown to be more willing to stand up to authorities and complain (Staw & Boettger, 1990; Van Dyne et al., 1995). Further, and of particularly interest here, Miceli and colleagues (Miceli & Near, 1992; Near & Miceli, 1985, 1987) suggested that in the context of whistle-blowing (i.e., situations under which individuals are threatened by out-of-line behavior—like aggression), individuals with high self-esteem try to improve the situation through proactive means. In contrast, the results suggest that individuals with low self-esteem have the tendency to withdraw from these controversial situations.

The above literature review suggests that individuals with high self-esteem are more likely to react directly to aggression. Thus, I believe that individuals high in self-esteem will be more likely to engage in retaliatory aggression and constructive problem-solving in order to redeem their self-perceptions. However, because victims with low self-esteem already do not
think highly of themselves, they are more likely to think the harmdoer’s actions and appraisals are correct. Thus, even if they become angry or hostile, they are less likely to react directly toward the source and more likely to react toward others (i.e., displaced aggression and withdrawal). Therefore, I predict:

Proposition 7: The greater the degree of self-esteem of a victim, the more likely the victim will engage in retaliatory aggression and constructive problem-solving, and the less likely the victim will engage in displaced aggression and withdrawal.

Socioemotional Needs. Martin (1984) argued that the need for social contact is a central motivator for human behavior. In other words, individuals generally wish to seek out positive interactions with others and in doing so, want others to view them favorably. Four different types of social rewards result from social contact: (1) positive stimulation (i.e., a sense of belonging), (2) attention or praise, (3) emotional support, and (4) a benchmark for social comparisons (Hill, 1987). In essence, social contact produces certain socioemotional needs. Armeli, Eisenberger, Fasolo, and Lynch (1998) speculated that individuals vary in their desire for certain socioemotional needs. They believe socio-emotional needs are comprised of (1) the need for praise and recognition, (2) the need to receive affection (e.g., need for affiliation), (3) the need for consolation and sympathy when experiencing stress (e.g., need for emotional support), and (4) the need for social approval.

Research suggests that these characteristics influence behaviors such as support or help-seeking (e.g., Nadler, 1983), particularly when an individual fails to resolve problems independently (e.g., DePaulo, 1982; DePaulo, Dull, Greenberg, & Swaim, 1989; Rosen, 1983). Thus, individuals with high socioemotional needs engage in actions to enhance emotional support (Hill, 1991). At the same time, high socioemotional needs individuals avoid or “retreat”
from situations that are threatening or that would induce negative affiliation or negative emotions (e.g., Exline, 1963; Mehrabian & Ksionzky, 1974; Terhune, 1968). Therefore, research suggests that victims high in socioemotional needs heighten efforts to seek or facilitate help (Hill, 1991).

This review suggests that when individuals have a high need for socioemotional contact and are also victim to aggression, they are more likely than others to react non-aggressively. Because high socioemotional-needs individuals retreat from contentious and negative situations, they are far less likely to aggress against others (either toward the harmdoer or other targets) and, therefore, far more likely to avoid or retreat from the harm (i.e., withdrawal). However, behaviors that involve constructive problem-solving allow for the victim to address the problem through social contact. Whether the victim seeks to resolve the matter with the harmdoer positively or resolve the harm by seeking others’ help, these constructive problem-solving behaviors appeal to the basic needs that are desired in an individual with high socioemotional needs (e.g., praise, affiliation, consolation or approval). Thus, I predict:

**Proposition 8:** The greater the degree of socioemotional needs of a victim, the more likely the victim will engage in constructive problem-solving and withdrawal, and the less likely the victim will engage in retaliatory aggression and displaced aggression.

**Negative Affect.** Negative affect (NA) is a higher-order personality variable, describing the extent to which an individual experiences negative emotions and anxiety across time and situations (Watson & Clark, 1984). High NA individuals experience a variety of aversive mood states, such as anger, contempt, disgust, fear, guilt and nervousness (Watson, Clark, & Tellegen, 1988). Spielberger (1972) argued that individuals high in NA are hyper-responsive to psychosocial stressors. Thus, high NA individuals respond negatively to organizational
constraints and interpersonal conflict (e.g., DeJonge, Dormann et al., 2001; VanKatwk, Fox, Spector, & Kelloway, 2000).

Not surprisingly, individuals high in NA report higher levels of stress and more poorly cope with perceived negative situations (Clark & Watson, 1986). Thus, NA increases negative emotions (e.g., Larsen & Katelaar, 1991) and aversive reactions (e.g., Berkowitz, 1983, 1989; Geen, 1990). Berkowitz (1983) contends that individuals high in NA are particularly sensitive to negative interactions and, therefore, are more likely to respond destructively. These sentiments are echoed in the workplace aggression literature (e.g., Andersson & Pearson, 1999; Martinko & Zellars, 1998), which has shown that NA is related to CWBs (e.g., Fox, Spector, & Miles, 2001), aggression (Douglas & Martinko, 2001; Grandey, Dickter, & Sin, 2004), organizational retaliatory behaviors (Skarlicki, Folger, & Tesluk, 1999), and workplace deviance (Aquino et al., 1999). Further, research also shows NA strengthens the relationship between stress and withdrawal behaviors (e.g., job burnout, Zellars & Perrewé, 2000; turnover, Judge, 1993).

Thus, research suggests high NA individuals would be hyper-sensitive to perceived aggression, which would heighten negative and destructive reactions. Specifically, given the tendency toward aggression, victims with high NA would most likely react with retaliatory aggression and displaced aggression. Further, given the contemptuous and pessimistic nature of high NA individuals, these victims most likely will feel the situation cannot be changed and, therefore, engage in withdrawal behaviors rather than constructive solutions (i.e., constructive problem-solving). As such, I predict:

**Proposition 9:** The greater the degree of negative affect, the more likely the victim will engage in retaliatory aggression, displaced aggression, and withdrawal, and the less likely the victim will engage in constructive problem-solving.
**Trait Anger.** Trait anger is an individual tendency to perceive a wide range of situations as anger-provoking (Fox & Spector, 1999). Research has shown that high trait anger individuals more easily experience anger when they encounter annoying conditions (Spielberger, 1996; Spielberger, Krasner, & Solomon, 1988). Anger itself heightens the likelihood that the individual will blame others for unfair actions (Keltner, Ellsworth, & Edwards, 1993), and therefore anger “colors” perceptions to more negative attributions (Bodenhauser, Sheppard, & Kramer, 1994). Further, heightened states of anger are strongly related to property destruction, physical assaults, and other unsavory behaviors (Spielberger et al., 1991). Given this review, it seems considering the influence of trait anger is highly relevant in the context of reactions to perceived aggression.

Berkowitz (2001) argued that anger promotes the urge to hurt targets, and when enacted on, the ensuing behavior is purposeful, intentional harm (or, stated differently, aggression; cf. Kassinove & Sukhodolsky, 1995). For example, Deffenbacher (1992) found that individuals with high trait anger had intense reactions to personal attacks. Similarly, workplace aggression research has shown that individuals high in trait anger are more likely to engage in aggression. For example, Douglas and Martinko (2001) found that high trait angry individuals held more favorable revenge attitudes because they believed that the offender purposefully and unnecessarily attacked them. Fox and Spector (1999) found trait anger was the strongest predictor of counterproductive workplace behaviors. Thus, research suggests trait anger to heighten aggressive reactions.

Trait anger also appears to inhibit non-aggressive reactions. A study by Kassinove et al. (Kassinove, Roth, Owens, & Fuller, 2002) investigated the relationship of trait anger on outcomes of a prisoner’s dilemma simulating wartime interactions. They argued that because
trait angry individuals are more likely to experience anger with little provocation, trait angry
individuals would also be disinclined to engage in neutral or cooperative solutions. Consistent
with their predictions, trait anger strongly influenced competitive reactions and lessened non-
competitive reactions. These findings are consistent with Deffenbacher (1992), who found that
high trait anger was associated with less constructive coping and more aggressive reactions to
personal attacks.

Based on these arguments, I believe that individuals high on trait anger will be more
likely to react with aggression (either retaliatory or displaced), and less likely to respond with
more neutral (i.e., withdrawal) or cooperative behaviors (i.e., constructive problem-solving).
Thus, I predict:

Proposition 10: The greater the degree of trait anger, the more likely the victim will
engage in retaliatory aggression and displaced aggression, and the less likely the victim
will engage in constructive problem-solving and withdrawal.

Type A Behavior Pattern (TABP). TABP is an epidemiological construct,
characterized by excessive impatience, competitiveness, irritability, and hostility (Evans,
Palsane, & Carrere, 1987; Glass, 1977). Type A individuals strive to achieve and generally
prefer to work alone and, when they work with others, they try to control the situation (Miller,
Lack, & Asroff, 1985). In contrast, low Type A individuals (called Type B) have a calm
disposition and deal with interpersonal conflict effectively (Baron, 1989). Research
investigating the relationship of TABP and aggression demonstrates that Type A individuals are
more likely to engage in aggressive reactions (e.g., Baron, Russell, & Arms, 1985; Carver &
Glass, 1978). Further, research suggests that Type A individuals are naturally hostile people,
who like to aggress toward others to inflict harm as well as to release anger (Strube, Turner,
Cero, Stevens, & Hinchey, 1984). Not surprisingly, workplace aggression research also shows the influence of TABP on workplace aggression (e.g., Baron, 1989; Baron, Neuman, & Geddes, 1999). Thus, Type A personality individuals are more likely to engage in aggression.

However, research also suggests that Type A individuals may seek non-aggressive means to regain control in terms of interpersonal conflicts (e.g., Baron et al., 1985; Miller et al., 1985). For example, in addition to retaliating against the provoker, some Type A individual have sought out positive solutions when provoked (Miller et al., 1985; Strube et al., 1984). In this way, Type A individuals in their attempts to regain control may do so constructively (i.e., constructive problem-solving) or destructively (i.e., retaliation). With this said, Type A individuals are very control-centric, and have a very deterministic nature (Miller, Lack, & Asroff, 1985). As a result, I believe withdrawal behaviors are unlikely, as they may communicate failure to achieve or control of the aggressor. However, because Type A individuals have the propensity for hostility, they also are more likely to express hostilities through aggression (Baron, 1989; Baron et al., 1999). Therefore, I predict:

**Proposition 11:** The greater the degree of Type A Behavior Pattern, the more likely the victim will engage in retaliatory aggression, displaced aggression, and constructive problem-solving, and the less likely the victim will engage in withdrawal.

**Perceived Powerlessness.** Powerlessness is defined as “the perceived inability to affect one’s environment” (Bennett, 1998: 223). Generally speaking, individuals become powerless at work in highly uncertain situations (e.g., cost cutting, layoffs, right-sizing; cf. Bennett, 1998). High levels of uncertainty are often accompanied by levels of distrust and stress, and lower levels of morale (Brockner, 1988). Ashforth (1989) argues that powerlessness derives from an individual’s lack of participation in decision-making and lack of autonomy within the nature of
the person’s work. Individuals who experience powerlessness feel socially isolated and helpless within their work environment (Ashforth, 1989). Ashforth further argues that powerlessness promotes psychological reactance, whereby an individual will engage in behaviors to try to regain control.

In contrast, Bennett (1998) argued that individuals who experience powerlessness do not want to “rock the boat” or engage in behaviors that may lead to future punishments. From this perspective, powerlessness constrains psychological reactance and subsequent reactions toward the source of the harm (e.g., retaliation or constructive problem-solving). Simply put, the act of feeling powerless means the objective conditions of the situation cannot be changed directly. (Thinking of powerlessness in this fashion is consistent with Ashforth’s (1989) conceptualization of “helplessness,” which he argues is the cognitive consequence of powerlessness.) Consistent with control theory principles (Rothbaum et al., 1982), Bennett argues powerless individuals engage in more secondary control behaviors. They substitute “hard” interactions with evasive behaviors.

Individuals who feel powerless, therefore, choose alternative and low-key ways to regain control. Research supports this assertion. Buss (1961) found that victims of abuse released hostilities by aggressing against other individuals who were not the source of the provocation; yet the behaviors they engaged in were particularly discreet, making it difficult to identify the culprit. Ashforth (1989) found that individuals who felt they were unable to change the objective conditions engaged in work alienation behaviors, meaning they disengaged or become uninvolved in job tasks. In contrast, Bennett (1998) found that providing employees with empowerment training improved absenteeism by 40% and significantly increased productivity. These results suggest that powerlessness influences reactions directed against targets not the
source of the harm (i.e., displaced aggression and withdrawal), and lessens direct reactions to regain control (i.e., retaliatory aggression and constructive problem-solving). Therefore:

**Proposition 12**: *The greater the degree of powerlessness, the more likely the victim will engage in displaced aggression and withdrawal, and the less likely the victim will engage in retaliatory aggression and constructive problem-solving.*

**Discussion**

Organizational researchers have spent considerable efforts investigating the nature and general consequences of aggression (see Neuman & Baron, 1998, and Bennett & Robinson, 2003 for reviews). Subsequently, we know a great deal of the types of aggressive behaviors individuals engage in at work (see Neuman & Baron, 2005). We also know a great deal of the various situational and individual factors that influence aggression in the workplace (see Baron, 2005, for a review). However, much of this research focuses on explaining why individuals engage in aggression, rather than how individuals react to the aggressive behavior of others. In short, we know little about specific reactions to aggression and what makes employees react one way or another in work settings.

The Bureau of Justice Statistics (1998) reported 9 million employees were victim to aggression between the years 1992 and 1996, which is a rise in reported incidents from previous years. Given this increase, it is important to identify and predict how individuals would respond to aggression. The typology presented identifies reactions in terms of the form of behavior (aggression versus non-aggression) and the direction of the behavior (behavior directed toward the source or behavior not directed toward the source). The two dimensions produced four categories of behavioral reactions; specifically, retaliatory aggression, displaced aggression, constructive problem-solving, and withdrawal. These categories serve to provide a basis of
employee reactions to aggression generally. Thus, employees may engage in a variety of reactions which may fall within the dimensions of the typology based aggressive intentions of the behavior and its direction. In no way does this suggest that individuals engage in only one type of behavior at any particular time. Indeed, individuals may engage in more than one reaction. Which behaviors they engage in depends on situational and individual influences.

The process by which individuals come to decisions on how to react to aggression is fairly complex. Various aspects of the situation and the victim’s personality influence how individuals specifically react. The model presented identifies various situational and individual factors that have received attention in the aggression literature, and are particularly relevant to the dimensions of the typology presented. Although some variables are largely out of the organization’s control (e.g., personality traits) managers may still be able to influence more positive and constructive reactions through situational characteristics of the job, the work setting and the organization more generally. In no way does the model reflect all variables that influence behaviors, but it does attempt to identify those most salient to bring about particular reactions based on aggression/non-aggression and direction of toward the source/not toward the source. Clearly though, much research is needed to identify other factors that influence reactions, particularly those that enhance constructive problem-solving and reduce retaliation, displaced aggression, and withdrawal.

Implications

The typology and model presented are fairly descriptive of the entire process of reactions. Neither really addresses the motivations for why individuals engage in one reaction or another. For example, an individual may engage in retaliatory behaviors for instrumental reasons versus affective reasons. This is the logical next step. Aggression researchers have identified various
mottoes of aggressive behavior. For example, hostile motives are considered impulsive, thoughtless, and anger-driven. Instrumental motives serve to achieve or secure some desirable resource (e.g., status, money; cf. Bandura, 1983; Berkowitz, 1989). Bushman and Anderson (2001; Anderson & Bushman, 2002) draw on distinctions in the law of premeditated versus impulsive actions, and argue motives can be described through the goal of the behavior. Proximate goals serve as affect-release, whereas primary goals serve a purpose. Workplace aggression researchers can build from these ideas and from the typology to investigate the reasons behind what drives an employee to react one way or another.

Further, the propositions developed are largely presented in isolation of each variable, suggesting that each variable independently affects employees’ reactions. In the real world, we know that this is not the case. Rather, in terms of aggression the variables may also interact with each other to influence reactions (whether situational x situational, situational x personality trait, or personality trait x personality trait). Future research needs to investigate the potential for three-way interaction effects that may counter-act, heighten or lessen reactions. For example, what are the personality traits that would override fear of retaliation? What situations strengthen more proactive and constructive reactions, regardless of one’s negative individual traits (e.g., negative affect, trait anger, and TABP)?

My literature review suggests constructive reactions (i.e., constructive problem-solving) are given the least amount of attention in aggression research. Because of this, little is known about how to enhance constructive problem-solving reactions to workplace aggression. This is a necessary next step in order to help organizations develop policies, practices, and environments that embrace constructive rather than destructive reactions (e.g., retaliation, displaced aggression, and withdrawal). The stress literature has considered more problem-focused ways of coping to
stressed events (e.g., Folkman, 1984; Folkman & Lazarus, 1980, 1985; Lazarus & Folkman, 1983; Thoits, 1994). Integrating ideas from the stress literature on problem-focused coping reactions (as well as other relevant literatures) may improve our understanding on constructive problem-solving by highlighting which situational and individual factors promote more constructive solutions to aggression.

Further, the theoretical model presented here speaks to only behavioral reactions to aggression. Aggression elicits more than simply behaviors; like affective responses (e.g., anger, fear), psychological reactions (e.g., depression), and physical reactions (e.g., ulcers, headaches). It is important to understand how these reactions are related in the larger nomological network of understanding responses to aggression. For example, do certain behavioral reactions lessen negative affective, psychological or physical reactions? Do certain affective, psychological or physical reactions promote or minimize behavioral reactions? In short, although I presented a model that focuses only on behavioral reactions, I do not disregard the importance of other reactions to aggression or how they relate to behavioral reactions. Rather, I hope the typology and model presented here can provide a foundation for bridging our understanding on other types of reactions to aggression.

For practitioners, I believe the typology and model provide useful information on how to better manage workplace aggression. Of central importance to managers is understanding employees’ reactions to non-violence, particularly given the rise and costs associated with these acts (Bureau of Justice Statistics, 1999). Theorists suggest that these non-violent acts of aggression can create a downward spiral of behaviors (Skarlicki & Folger, 2005). The typology and model presented suggests aggression can promote damaging and costly reactions (i.e., retaliatory aggression, displaced aggression and withdrawal). This reality places a large burden
on managers, who are responsible for creating safe and healthy work conditions. By understanding which reactions are possible and what influences those reactions, organizations can develop methods to promote more constructive behaviors (i.e., constructive problem-solving) and avoid destructive reactions, ending the potential negative spiral.

**Conclusion**

The typology and model presented serve as a necessary step in understanding employee reactions to aggression. It is important to identify what behaviors are likely when employees are victimized by aggression and which specific individual and situational factors influence employees’ reactions. By understanding responses to aggression, researchers can begin to address the larger issues associated with workplace aggression (e.g., outsourcing, restructuring or downsizing, salary reductions). In sum, understanding the nature of reactions to aggression can promote a better understanding of how aggression influences organizations and its members, and therefore can assist employers in developing sound prevention practices and safe environments for their employees.
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CHAPTER TWO:

STUDY 1: CROSS-SECTIONAL SURVEY DESIGN

How do Employees React to Perceived Supervisor Aggression? Understanding the Influence of Situational and Individual Factors

Over the last decade, understanding workplace aggression has been of growing interest to organizational researchers (e.g., Fox & Spector, 2005; Griffith & O’Leary-Kelly, 2004; Kelloway, Barling, & Hurrell, in press). Much of the research on workplace aggression focuses on the destructive behaviors of employees. Recently, however, greater emphasis has been given to manager or supervisor aggression (e.g., Tepper, 2000; Tepper, Duffy, & Shaw, 2001; Tepper, Duffy, Henle, & Lambert, in press). Indeed, even the popular press has highlighted a variety of destructive leadership exemplars, such as Martha Stewart, Donald Trump, and “Chainsaw” Al Dunlap (Byrne, 1999; Joyce, 2005). Although a variety of descriptions have emerged in the literature (e.g., abusive supervision (Tepper, 2000), managerial bullies (Neuman & Keashly, 2003), tyrannical bosses (Ashforth, 1994)), one common theme among them is that supervisor aggression involve acts perceived by employees to intentionally cause harm.

Research suggests supervisor aggression has pervasive and negative consequences. For example, studies have shown that employees who work with aggressive supervisors are less satisfied, committed, and trusting, and are more psychologically distressed (e.g., Ashforth, 1997; Keashly, Trott, & MacLean, 1994; Tepper, 2000). Yet, far less research has investigated employees’ behavioral reactions to supervisor aggression. Some theorists claim employees will seek to retaliate (e.g., Bies & Tripp, 1996, 1998; Folger & Skarlicki, 1998); still, we know that employees do no always react aggressively (e.g., Keashly et al., 1994; Tepper et al., 2001).
Consequently, we know little about the behaviors employees engage in as a consequence of supervisor aggression, as well as what makes employees react one way or another.

The purpose of this paper is to develop and test a model of employees’ behavioral reactions to perceived supervisor aggression. I first define perceived supervisor aggression. I then draw from the aggression literature to review how employees may respond to aggressive behavior, and develop a typology of employees’ behavioral reactions to perceived aggression. Further, I outline and test various situational and individual factors that influence what makes employees react one way or another. Lastly, conclusions are drawn and implications for future research are discussed.

**Perceived Supervisor Aggression**

Aggression is defined as behavior that is carried out with the intention to injure or aggravate another person (Eron, 1987). This definition contains two important components. First, aggression is noxious behavior that the recipient would otherwise like to avoid. Second, aggression is behavior that is driven by motives to harm the intended target. Intention to harm is something that is not easily defined, but is more or less inferred from the behavior itself (Geen, 1990). This suggests aggression is really defined by the target or the recipient of the behavior. Tedeschi and colleagues (Brown & Tedeschi, 1976; Tedeschi & Bond, 2001) argue aggression is perceived when the target believes the offender’s behavior intended to cause them harm.

In this study, the targets considered are the employees. Workplace aggression research suggests supervisors are a common source of employees’ aggression at work. For example, a study by Neuman and Keashly (2003) reported 35% of the respondents indicated supervisors were the main source of their aggression, and, overall, supervisors were considered the most persistent source of aggression at work. These results are consistent with other research, which
has identified supervisors as the primary instigator of workplace aggression (e.g., Cortina, Magley, Williams, & Langhout, 2001; Einarsen & Skogstad, 1996; Keashly et al., 1994).

In order to study employees’ reactions to supervisor aggression, it is particularly important to understand the supervisor’s behavior from the employee’s perspective. Supervisors often engage in behaviors that are not intended to harm employees but the behavior is interpreted as such. For example, a supervisor may use a sharp tone with an employee for what is believed to be good cause (e.g., the employee was habitually late for work or missed important deadlines); still, the employee feels as though the supervisor was intentionally humiliating and ridiculing. In this way, the supervisor’s intention is irrelevant. What matters is the employee’s interpretation of the behavior. Simply put, employees who do not believe they are intentionally harmed may not believe the supervisor was aggressing against them and therefore may not react. Similarly, behaviors that the supervisor did not intend to cause harm may, nonetheless, be perceived as intentionally harmful and would stimulate a response. It is only those supervisory behaviors that employees perceive as aggression—intentionally harmful acts—that may provoke a reaction from employees.

Thus, in this paper, supervisor aggression involves perceived acts of aggression. Perceived aggression is behavior that the recipient—the subordinate—believes was carried out with the intention to cause harm (e.g., verbal attacks, threats, isolating the employee from others and important projects). Perceived supervisor aggression, therefore, is behavior perceived by the subordinate as intentionally harmful, whether or not the behavior (1) successfully harms the subordinate or (2) was intended to do so by the supervisor.
Behavioral Reactions to Perceived Supervisor Aggression

Research that has investigated behaviors that can be considered supervisor aggression (e.g., verbal abuse, threats, forcefulness, yelling, intimidation) suggests these acts produce dysfunctional consequences. For example, a study by Ashforth (1997) found employees who worked with tyrannical bosses, defined as supervisors who exercise “absolute power oppressively or brutally” (Ashforth, 1994: 755), had higher levels of frustration, stress, and work alienation, and lower levels of work-unit cohesion. Further, research on abusive supervision has shown employees who are dealing with persistent supervisor mistreatment had lower levels of satisfaction, commitment and justice perceptions, and higher levels of role conflict and psychological distress (e.g., Duffy, Ganster, & Pagon, 2002; Tepper, 2000). Research on behavioral reactions has been more limited. Ashforth (1997) assessed performance outcomes, but the results were not conclusive. One other exception is Tepper et al.’s (2001) study, which shows abusive supervision was related to dysfunctional resistance (e.g., avoidance) and constructive resistance (e.g., asking the supervisor for more explanation).

These results are consistent with aggression research in social psychology. Specifically, social psychologists contend aggression can produce two basic reactions: aggression or non-aggression (e.g., Anderson, 1997; Anderson, Deuser, & DeNeve, 1995). Models of aggression, however, mainly focus on the processes and factors that instigate aggression. Indeed, workplace aggression researchers have drawn from aggression models to explain why individuals engage in aggression at work (e.g., Baron, 2004; Neuman & Baron, 1998). In doing so, both literatures also emphasize that when individuals experience aversive events (such as perceived aggression) they may choose to react aggressively or non-aggressively. How they react is dependent on situational factors (e.g., aggressive cues) and individual characteristics of the recipient of the
perceived aggression (e.g., personality). (See Anderson & Bushman, 2002 and Baron, 2004, for reviews of both literatures.)

A second defining characteristic of reactions to aggression is the direction of the response (e.g., Dollard, Doob, Miller, Mowrer, & Sears, 1939; Buss, 1961). One of the dominant theories of aggression is Dollard et al.’s (1939) theory of frustration—aggression. They argue that individuals generally wish to retaliate against the source of the harm but that some instances do not allow for retaliation. Consequently, victims react on other, more available targets. Buss (1961) argued that reactions to aversive events are based on what is learned. When individuals understand retaliation will produce further harm to them, they react against other targets. Baron and Neuman (Baron, 2004; Neuman & Baron, 1998) have elaborated on Buss’ contentions, arguing that restraining factors (e.g., fear of retaliation) inhibit retaliatory responses and promote reactions against organizational members, the organization itself, as well as organizational outsiders.

Based on this review, I suggest reactions to aggression can be defined by two primary dimensions: the form of the behavior (aggression versus non-aggression) and the direction of the behavior (toward the harmdoer versus not toward the harmdoer). An aggressive reaction involves any behavior with the intent to inflict harm; a non-aggressive reaction involves any behavior lacking the intent to inflict harm. Reactions directed toward the harmdoer are those targeted against the perceived aggressor (the supervisor); reactions not directed toward the harmdoer may be targeted against someone or something that is not the perceived aggressor (coworkers, the organization, and organizational outsiders).

These dimensions form the basis of a typology of behavioral reactions to aggression (shown in Figure 1). The two dimensions produce four categories of reactions: (1) retaliatory
aggression (aggression/behavior directed toward the perceived aggressor), (2) displaced aggression (aggression/behavior not directed toward the perceived aggressor), (3) constructive problem-solving (non-aggression/behavior directed toward the perceived aggressor), and (4) withdrawal (non-aggression/behavior not directed toward the perceived aggressor). Each category is described further below.

Retaliatory aggression is a behavioral reaction that intends to inflict harm (i.e., aggression) on the harmdoer (i.e., directed toward the aggressive supervisor). Skarlicki and Folger (2004) argue retaliation allows individuals to “even the score” or “get back at” their transgressor. Workplace aggression research provides support for these contentions. For example, Bies and colleagues (Aquino, Tripp, & Bies, 2001; Bies & Tripp, 1996, 1998) found
when individuals were mistreated, they sought revenge. Similarly, Skarlicki and colleagues (Skarlicki & Folger, 1997; Skarlicki, Folger, & Tesluk, 1999) found perceived mistreatment instigates retaliation. Further, Jones (2003) found that individuals differentiate the source of the harm with their reactions, and when respondents felt the source intentionally tried to harm them, they specifically and intentionally try to get back at the source. Thus, perceived supervisor aggression may instigate retaliatory reactions directed at the supervisor.

Displaced aggression is a behavioral reaction that intends to inflict harm (i.e., aggression) on a target that is not the source of the perceived aggression (i.e., not directed toward the aggressive supervisor). The concept of displaced aggression was initially presented by Dollard et al. (1939), who argued that individuals displace aggression when they are unable to retaliate. They believed aggression is a natural reaction to frustrating events (like perceived supervisor aggression) and the act of not aggressing on the source of harm builds negative energy, which ultimately gets released on other targets. Although displaced aggression has only recently been evidenced in the workplace aggression literature (e.g., Fox & Spector, 1999; Mitchell & Ambrose, 2004), a meta-analysis of psychology experiments demonstrates displaced aggression is a robust reaction to perceived aggression (Marcus-Newhall, Pedersen, Carlson, & Miller, 2000). Therefore, subordinates who perceive aggression by their supervisors may also displace aggression on other targets (e.g., coworkers, organization, outsiders).

Constructive problem-solving is a behavioral reaction that does not intend to inflict harm (i.e., non-aggression), but seeks to improve the situation by directly dealing with the aggression of the supervisor (i.e., directed toward the aggressive supervisor). Problem-solving behaviors try to solve specific problems effectively (D’Zurilla, Nezu, & Maydeu-Olivares, 2004), but not all problem-solving activities are “constructive.” Rather, constructive behaviors attempt to resolve
stressful situations and generally for all involved (e.g., Folkman, 1984; Folkman & Lazarus, 1980). Therefore, constructive problem-solving attempts to change conditions positively for the victim without harming others intentionally. Workplace aggression research provides some support for these types of behaviors. For example, Keashly, Trott, and MacLean (1994) conducted a qualitative study on workplace emotional abuse (a form of aggression) and found that some individuals tried to reconcile with the abuser; some others asked for help. Further, Tepper et al. (2001) found some respondents engaged in constructive resistance strategies (e.g., ask the abuser to clarify the problem) when dealing with an abusive supervisor. Thus, research suggests that subordinates who perceive supervisor aggression may also engage in constructive problem-solving.

Withdrawal is a behavioral reaction that does not intend to inflict harm (i.e., non-aggression), but seeks to place physical or psychological distance between the victim and the perceived aggressor (i.e., not directed toward the aggressive supervisor). According to reactance theory, when individuals are dealing with a threatening situation, they initially try to change the objective conditions of the situation. However, if they are unable to change the situation or believe they cannot change the situation, they then adapt their own behavior, which gives them a sense of personal control (Rothbaum, Weisz, & Synder, 1982). The organizational literature suggests individuals may withdrawal from their work (e.g., avoiding tasks) or from the job entirely (e.g., quitting, transferring) (Hanisch & Hulin, 1991). Although empirical research on withdrawal is limited in workplace aggression research, qualitative studies suggest perceived aggression (e.g., emotional abuse) is related to intentions to quit, transfers, absenteeism, and decreased productivity and work effort (e.g., Keashly et al., 1994; Pearson, Andersson, &
Wegner, 2001). These results suggest that withdrawal is also a likely response to perceived supervisor aggression.

In sum, employees may engage in a variety of behavioral reactions to supervisor aggression. Based on the form of the behavior (aggression versus non-aggression) and the direction of the behavior (directed toward the harmdoer versus not directed toward the harmdoer), employees may respond to supervisor aggression by retaliating, displacing aggression, constructive problem-solving, or withdrawing. Having identified the four basic types of reactions to supervisor aggression, I now consider various situational and individual factors that the aggression literature suggests influence whether an employee reacts one way or another (e.g., Anderson & Bushman, 2002; Baron, 2004). Specifically, I consider fear of retaliation, aggressive modeling, absolute hierarchical status, trait anger, and the need for social approval.

The Influence of Situational and Individual Factors

The Influence of Situational Factors

Fear of retaliation. Social psychologists have demonstrated for some time that when individuals fear retaliation from a harmdoer they are less inclined to retaliate against that source (see Bandura, 1983; Berkowitz, 1983). Research shows that when an individual fears further retaliation from the harmdoer, this fear precludes even well-justified retaliation, particularly when the harmdoer has greater power over the victim (Bandera, 1973; Baron, 1971; Taylor, Schmutte, & Leonard, 1977). Therefore, understanding the influence of fear of retaliation in the case of supervisor aggression over subordinates is of particular importance.

The principle of fear of retaliation evolved from the theory of frustration—aggression (Dollard et al., 1939). Dollard et al. (1939) argued that when individuals fear retaliation from the source of their frustration, retaliatory acts of aggression are suppressed because they understand
that aggressing against this source may promote more attacks against them. In this way, individuals deter retaliatory reactions due to learned inhibitions (Bandura, 1983; Berkowitz, 1983; Sears, 1948). They understand the consequences of their behavior through similar situations experienced in the past or through vicarious learning (watching what happens to others) (Bandura, 1983; Berkowitz, 1983).

Therefore, Dollard et al. argued fear of retaliation would influence aggressive reactions to frustrating events (e.g., perceived supervisor aggression). Specifically, they argue that fear of retaliation heightens displaced aggression. To reiterate, displaced aggression allows victims to vent hostilities without fear of recourse. Social psychology research has provided evidence that fear of retaliation influences displaced aggression (see Marcus-Newhall et al., 2000, for a review). Workplace aggression research also provides support for the influence of fear of retaliation. For example, Fox and Spector (1999) found fear of retaliation to be the strongest predictor of counterproductive workplace behavior (CWB). In their study, when individuals believed they could engage in CWBs without penalty (or without fear of retribution), they engaged in more CWBs targeted against the organization. They argued the results provide support for Dollard et al.’s arguments about fear of retaliation and aggressive reactions. Further, in a qualitative study, Tripp and Bies (1997) attempted to understand why individuals did not engage in revenge. One of the most consistent deterring factors among the would-be avengers was fear of retaliation.

Fear of retaliation has also been studied in the context of sexual harassment and whistleblowing. This research consistently shows individuals who fear retaliation from the source of the harm were far less likely to report sexual harassment (e.g., Fitzgerald, 1993; Fitzgerald & Ormerod, 1993; Hesson-McInnis & Fitzgerald, 1992) or blow the whistle (Near &
Miceli, 1986). Near and Miceli (1996) argue that individuals generally do not report incidents unless they believe they have a “reasonable supposition of success,” which is less likely when fear of retaliation is high. Research has also shown that fear of retaliation heightens feelings that nothing can be done to change the situation, resulting in greater incidents of absenteeism and turnover (Allen & Erikson, 1989; Koss, Goodman et al., 1994). Thus, these studies suggest that fear of retaliation may heighten withdrawal and lessen constructive problem-solving reactions.

Overall, this review suggests that individuals victimized by supervisor aggression who also fear of retaliation from that source will not react directly (i.e., retaliatory aggression and constructive problem-solving), and instead react against other targets (i.e., displaced aggression and withdrawal). Therefore, I predict:

Hypothesis 1: Fear of retaliation will moderate the positive relationships between perceived supervisor aggression and (a) displaced aggression and (b) withdrawal such that the relationships will be stronger when fear of retaliation is high rather than low, and the positive relationships between perceived supervisor aggression and (c) retaliatory aggression and (d) constructive problem-solving will be stronger when fear of retaliation is low rather than high.

Aggressive modeling. Researchers have applied principles of social learning theory to understand aggression. Specifically, theorists argue individuals develop aggressive behavior patterns through vicarious learning or direct experiences (Bandura, 1983, 2001; Mischel, 1973, 1999). Aggression becomes a learned behavior either by the individual experiencing situations in the past that call for an aggressive reaction or by observing social models (e.g., parents, supervisors, peers) who exhibit aggressive behaviors (Bandura, 1983). Models who engage in aggression communicate to the observer that aggression is acceptable and supported. Therefore,
when aggressive behaviors are modeled by others and supported in the work environment, employees may feel more inclined to engage in aggression themselves.

Similarly, social information processing theory suggests individuals develop expectations about appropriate behavior through the environment (Salancik & Pfeffer, 1978: 226). O’Reilly and Caldwell (1985) argue that observing behavior that is supported in the environment not only communicates “the way things should be done” but also “the way things ought to be done.” Stated differently, how people behave in organizations is not always consistent with organizational rules and regulations; rather, behavioral standards are conveyed more so by watching how coworkers and supervisors behave at work. Therefore, work environments that support aggressive behaviors (e.g., supervisors and coworkers actively engage in aggression themselves) may influence and promote aggression.

Workplace aggression research provides support for social learning and environmental effects. A study by Robinson and O’Leary-Kelly (1998) specifically explored the influence of work group behaviors on individual group member’s antisocial behavior. They found that when individuals felt group members exhibited antisocial behavior, they engaged in antisocial behavior themselves. Further, a study by Aquino and Douglas (2003) investigated the moderating effects of aggressive modeling on the relationship of identity threat and antisocial behavior. They define identity threat as “any overt action by another party that challenges, calls into question, or diminishes a person’s sense of competence, dignity, or self-worth” (Aquino & Douglas, 2003: 196). Acts that threatened one’s identity are likely to be perceived as aggression because they are a personal attack on an individual’s abilities and self-respect (Bushman & Anderson, 2002). Aquino and Douglas found frequent exposure to aggressive social models enhanced antisocial behavior when individuals felt their identity was threatened.
The results of these studies suggest that individuals who experience supervisor aggression who are also exposed to aggressive models would believe aggression is acceptable in the workplace and, therefore, be more inclined to engage in aggressive reactions to supervisor aggression (i.e., retaliatory aggression and displaced aggression). Further, because modeling aggression suggests aggression is supported in the environment, they would be less likely to engage in non-aggressive reactions (i.e., constructive problem-solving and withdrawal).

Therefore, I predict:

**Hypothesis 2:** Aggressive modeling will moderate the positive relationships between perceived supervisor aggression and (a) retaliatory aggression and (b) displaced aggression such that the relationships will be stronger when high aggressive modeling is high rather than low, and the positive relationships between perceived supervisor aggression and (c) constructive problem-solving and (d) withdrawal will be stronger when aggressive modeling is low rather than high.

**Absolute hierarchical status.** Absolute hierarchical status is an individual’s hierarchical position within the entire organization (e.g., non-management, middle-management, executive; Aquino, Tripp, & Bies, 2001; Bies & Tripp, 1996). High-status positions are often accompanied with symbolic and material benefits (e.g., large salaries, autonomy, prestige), whereas low-status positions are often accompanied by a disproportionately smaller share of these benefits, if not a larger share of negative ones (e.g., small salaries, mistreatment, bad working conditions) (Aquino & Douglas, 2003). Further, the position an individual holds in an organization communicates power; specifically, those in high-status positions are generally able to administer benefits (e.g., valued resources) or punishments to others (Emerson, 1962; Kipnis, 1972).
Due to this power differential, individuals in lower-status positions feel the need to aggressively defend themselves when they feel they are being oppressed by those in power (Baumeister, Smart, & Boden, 1996; Daly & Wilson, 1988; Gilligan, 1996). Consistent with this theme, Aquino and colleagues (Aquino & Douglas, 2003; Aquino, Tripp, & Bies, in press) argue that employees in low-status positions are more sensitive to offenses from higher-ups, such as supervisor aggression. Results from their research shows that individuals in lower-status positions were more inclined to seek revenge (Aquino et al., in press) and engage in antisocial behaviors (Aquino & Douglas, 2002) than those in higher-status positions.

In contrast, individuals in high-status positions are generally bound by normative constraints, meaning the position demands reputable behavior (Hogan & Emler, 1981; Tripp & Bies, 1997). Therefore, acts of aggression imply unprofessionalism and acts of withdrawal (absenteeism, decreased work effort) imply incompetence, which conflict with the behavioral norms of high-status positions. Consistent with these arguments, Tripp and Bies (1997) found many professional employees did not engage in revenge because they found it “unprofessional.” Thus, individuals in high-status positions would be less likely to engage in behaviors viewed as unprofessional (e.g., retaliatory aggression, displaced aggression, and withdrawal), and more likely to engage in other, more professionally-oriented, behaviors (e.g., constructive problem-solving). I predict:

**Hypothesis 3**: Absolute hierarchical status will moderate the positive relationship between perceived supervisor aggression and (a) constructive problem-solving such that the relationship will be stronger when high absolute hierarchical status is high rather than low, and the positive relationships between perceived supervisor aggression and (b)
reliatory aggression, (c) displaced aggression, and (d) withdrawal will be stronger when absolute hierarchical status is low rather than high.

The Influence of Individual Factors

**Trait anger.** The notion that anger promotes aggressive reactions is commonly embraced by aggression researchers (Berkowitz, 1990; Geen, 1990). However, anger is a feeling that generally goes away, unlike trait anger, which is a stable characteristic. Trait anger is the tendency to perceive a wide-range of situations as anger-provoking (Fox & Spector, 1999). Not surprisingly, researchers have found that individuals with high trait anger experience anger more easily when they encounter annoying conditions (Spielberger, 1996; Spielberger, Krasner, & Solomon, 1988).

Trait anger also intensifies negative reactions, particularly when individuals feel they are personally attacked (Deffenbacher, 1992). For example, Fox and Spector (1999) found trait anger strongly predicted counter-productive workplace behaviors. Douglas and Martinko (2001) found trait anger heightened incidents of workplace aggression, particularly when individuals also held low levels of self-control. Further, a recent meta-analysis of workplace aggression demonstrated trait anger was a significant predictor of interpersonal and organizational aggression (Hershcovis, Turner et al., in press).

While trait anger strengthens aggressive reactions, it also appears to minimize non-aggressive ones. In a prisoner’s dilemma experiment using wartime conditions, Kassinove, Roth, Owens, and Fuller (2002) found individuals with high trait anger were less likely to engage in neutral or cooperative solutions. Because high trait anger intensifies negativity, these authors argued and found trait anger heightened competitive reactions. Similarly, Deffenbacher (1992)
found high trait angry individuals were more likely to act out aggressively and less able to engage in constructive coping behaviors.

Based on this review, I predict individuals with high trait anger will be more likely to respond to supervisor aggression with aggression (whether retaliatory aggression or displaced aggression), and less likely to respond with non-aggression (i.e., constructive problem-solving or withdrawal). Rather, individuals who are low in trait anger are more likely to react to aggression with non-aggression. Therefore, I predict:

**Hypothesis 4**: Trait anger will moderate the positive relationships between perceived supervisor aggression and (a) retaliatory aggression and (b) displaced aggression such that the relationships will be stronger when trait anger is high rather than low, and the positive relationships between perceived supervisor aggression and (c) constructive problem-solving and (d) withdrawal will be stronger when trait anger is low rather than high.

**Need for social approval.** Researchers have argued that individuals desire a certain level of social contact (e.g., Foa & Foa, 1980; Hill, 1987; Martin, 1984). Foa and Foa (1980) contend social contact can be an exchange resource; the value of that contact depends on the source of the interaction. According to Hill (1987), contact becomes most valuable when it provides individuals with (1) positive stimulation (i.e., a sense of belonging), (2) recognition or praise, and (3) emotional support. When contact provides these rewards, it can be a strong motivator of human behavior (Martin, 1984). However, not all individuals desire social contact to the same extent, meaning some individuals seek social contact and approval more than others (Armeli, Eisenberger, Fasolo, & Lynch, 1998). The need for social approval describes an individual tendency to seek social approval and favorable evaluations of others (Martin, 1984).
In general, research shows that individuals with high need for social approval engage in help-seeking behaviors and desire contact from individuals in more powerful positions to gain favorable evaluations (Martin, 1984). Individuals with a high need for social approval attempt to act in socially appropriate ways and avoid behavior that would be frowned upon by others. Research has shown that individuals who have high need for social approval seek out support from others (e.g., Hill, 1991; Nadler, 1983), especially if they fail to resolve problems on their own (e.g., DePaulo, 1982; DePaulo, Dull, Greenberg, & Swaim, 1989; Rosen, 1983). Further, because negative interactions heighten feelings of negative affiliation and emotion, individuals with a high need for social approval avoid or retreat from threatening situations (e.g., Exline, 1963; Mehrabian & Ksionzky, 1974; Terhune, 1968).

In this way, individuals with a high need for social approval who are victim to supervisor aggression would be less likely to react aggressively (i.e., retaliatory aggression and displaced aggression) and more likely to react non-aggressively (i.e., constructive problem-solving and withdrawal). Therefore, I predict:

**Hypothesis 5:** The need for social approval will moderate the positive relationships between perceived supervisor aggression and (a) constructive problem-solving and (b) withdrawal such that the relationship will be stronger when need for social approval is high rather than low, and the positive relationships between perceived supervisor aggression and (c) retaliatory aggression, (d) displaced aggression will be stronger when need for social approval is low rather than high.
Methods

Sample and Procedure

Surveys were distributed to individuals called to jury duty by a county circuit court in the southeastern U.S. The jurors were addressed at the beginning of the day before they were called to serve. The researcher explained that the purpose of the survey had nothing to do with jury duty or court system, but instead was to investigate sensitive issues that affect individuals at work. Interested participants picked up surveys from and returned surveys to the researcher. Over the course of four weeks, 321 individuals participated in the study (29% response rate). The average age of the participants was 42.4 years old ($SD = 12.12$); the average company tenure was 8.1 years ($SD = 7.82$). Approximately 52.7% were currently working in non-management positions, 48.6% were female, and 71.8% were white (12.2% were Hispanic, 8.8% were Black).

Measures

Pretest for new and adapted measures. Measures of fear of retaliation, constructive problem-solving and withdrawal were adapted and/or integrated from previously validated measures. As a consequence, these measures were pretested on a separate sample of 62 individuals called for jury duty. The average age of this sample was 43.0 ($SD=12.57$); the average company tenure was 8.34 years ($SD=7.92$). Approximately 53.1% were non-management, 48.4% were female, and 71.9% were white (12.5% were Hispanic, 10.9% were Black). The purpose of the pretest was to conduct an exploratory factor analysis and reliability analysis on the adapted items. The results suggest the items of the measures fell on their representative constructs, and all measures held robust reliabilities. (See Appendix A for details of the pretest results.)
Perceived supervisor aggression. Supervisor aggression was assessed with the shortened 6-item version of Tepper’s (2000) Abusive Supervision measure. The instructions of the measure were adapted, asking participants to rate the frequency by which they experienced “intentional” behaviors by their immediate supervisor (1=never, 2=once a year, 3=twice a year, 4=several times a year, 5=monthly, 6=weekly, 7=daily) (alpha=.92). Example items are “My boss ridiculed me” and “My boss put me down in front of others.”

Fear of retaliation. Fear of retaliation from the supervisor was assessed with an adapted version of Fox and Spector’s (1999) fear of future punishments measure. The 3-item measure asked respondents to indicate their level of agreement on a 7-point Likert-like scale (1=strongly disagree, 7=strongly agree) (alpha=.91). Example items are “I am afraid of reacting against my supervisor for fear of future punishments” and “I would not act out against my supervisor because he/she would retaliate against me.”

Aggressive modeling. Consistent with Aquino and Douglas (2003), aggressive modeling was assessed by adapting Robinson and O’Leary-Kelly’s antisocial behavior scale. Two sources of modeling were assessed: supervisor aggressive modeling and, separately, coworker aggressive modeling. Each 9-item measure asks respondents to rate the number of times they observed supervisors (alpha=.91) and coworkers (alpha=.92) engage in the listed behaviors over the course of the past year (1=never, 2=1-3 times, 3=4-6 times, 4=7-9 times; 5=10 or more times). Example items are “Damage property belonging to the organization” and “Started an argument with someone at work.”

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1 Mitchell & Ambrose (2004) developed this shortened measure from two separate published data sets. They performed exploratory and confirmatory factor analyses on Tepper’s original 15-item measure, which revealed two distinct factors. One factor represented behaviors of proactive interpersonal abuse by the supervisor (e.g., “ridicules me” and “tells me my thoughts and feelings are stupid”), rather than passive acts disrespect (e.g., “doesn’t give me credit for jobs requiring a lot of effort”). Mitchell and Ambrose argue the shortened 6-item measure best reflects acts of supervisor aggression.
Absolute hierarchical status. Consistent with Aquino, Douglas, and Martinko (2004), respondents were asked to indicate their status in the organization (1=non-management, 2=line-management, 3=middle-management, and 4=senior/executive management). Non-management was described as a position that did not supervise other personnel. Line-management was described as a position that supervises non-management personnel. Middle-management was described as a position that supervises line-management personnel. Senior or executive management was described as a position that supervises middle-management personnel.

Trait anger. Trait Anger was assessed using the 7-item anger subscale of Buss and Perry’s (1992) Aggression Questionnaire. The measure assesses an individual’s dispositional tendency toward anger in everyday life. Participants rated their agreement on a 5-point scale (1=very slightly true of me, 5=very highly true of me) (alpha=.79). Sample items include “I have trouble controlling my temper” and “When frustrated, I let my irritation show.”

Need for social approval. The 9-item Martin-Larsen Approval Motivation measure (MLAM; Martin, 1984) was used. The MLAM assesses approval seeking tendencies, and asks respondents to rate their agreement on a 7-point Likert-like scale (1=strongly disagree, 7=strongly agree) (alpha=.72). Sample items are “I find it difficult to talk about my ideas if they are contrary to group opinion” and “If there is any criticism or anyone says anything about me, I can take it” (reverse-coded).

Retaliatory aggression. Retaliatory aggression was assessed by adapting Bennett and Robinson’s (2000) and Aquino, Lewis, and Bradfield’s (1999) interpersonal deviance measures. The 10-item measure asks respondents to rate the frequency they intentionally engaged in behaviors against their supervisor over the past year (1=never, 2=once a year, 3=twice a year,
4=several times a year, 5=monthly, 6=weekly, 7=daily) (alpha=.84). Example items are “Swore at my supervisor” and “Avoided my supervisor on purpose.”

**Displaced aggression.** Three targets of displaced aggression were assessed: toward the organization, coworkers, and customers. Organization displaced aggression was assessed by adapting Robinson and Bennett’s (2000) 12-item organizational deviance measure. Based on a visual review of the organizational deviance items, three items were deleted due to conceptual overlap with other dependent variables. One item conflicted with retaliatory aggression (“Neglected to follow my boss’s instructions”) and two items conflicted with withdrawal behaviors (“Put little effort into my work,” and “Worked slower than I could have worked”). The resulting 9-item measure asked respondents to rate the frequency they intentionally engaged in the behaviors listed against the organization (alpha=.77). Example items are “Taken property from work without permission” and “Falsified a receipt to get reimbursed for more money than I spent on business expenses.” Coworker and customer displaced aggression were assessed by adapting Robinson and Bennett’s 7-item interpersonal deviance measure to each representative source. Example coworker displaced aggression items are “Made an obscene comment or gesture toward a coworker” and “Publicly embarrassed a coworker” (alpha=.85). Example customer displaced aggression items are “Acted rudely toward a customer” and “Swore at a customer” (alpha=.82). All displaced aggression measures asked respondents to indicate the frequency they intentionally engaged in the stated behaviors over the course of the past year (1=never, 2=once a year, 3=twice a year, 4=several times a year, 5=monthly, 6=weekly, 7=daily).

**Constructive problem-solving.** Constructive problem-solving was assessed by adapting and integrating Rusibult, Farrell, Rogers and Mainous’ (1988) “voice” measure with Tepper and
et al.’s (2001) constructive resistance scale. The 8-item measure assesses general work behavior that actively and constructively tries to improve conditions, and asked respondents to indicate the frequency they engaged in the stated behaviors over the course of the past year (1=never, 2=once a year, 3=twice a year, 4=several times a year, 5=monthly, 6=weekly, 7=daily) (alpha=.93). Example items are “Tried to convince the person to reassess the problem” and “Tried to reconcile with the person I was having trouble with.”

**Withdrawal.** Withdrawal was assessed by adapting Rusbult, Farrell, Rogers, and Mainous’ (1988) Neglect measure. The 8-item measure asked respondents to indicate the frequency they engaged in withdrawal behaviors involving the tasks they perform for the job over the course of the past year (1=never, 2=once a year, 3=twice a year, 4=several times a year, 5=monthly, 6=weekly, 7=daily) (alpha=.88). Example items include “I lost motivation to do my assigned job duties well” and “I avoided tasks and assignments.”

**Controls.** Because aggression promotes aggression (Berkowitz, 2001), it is important to control for non-supervisor sources of aggression. Therefore, I controlled for perceived coworker and customer aggression. Items from the reduced abusive supervision measure (Tepper, 2000) and Schat, Desmarais and Kelloway’s (2005) Workplace Aggression Questionnaire (WAQ) were used to assess perceived coworker and customer aggression. Relevant items were identified for each source, producing an 8-item measure of coworker aggression (alpha=.88) and an 8-item measure of customer aggression (alpha=.89). Both measures were pretested on a separate sample of 85 individuals called for jury duty. The average age of this sample was 40.9 (SD=12.64); the average company tenure was 7.9 years (SD=7.79). Approximately 54.8% were non-management, 58.8% were female, and 72.9% were white (16.5% were Hispanic, 4.7% were Black). The purpose of the pretest was to conduct an exploratory factor analysis and reliability
analysis on the adapted items. The results suggest the items of the measures fell on their representative constructs, and all measures held robust reliabilities. (See Appendix B for details of the pretest results.)

Further, consistent with previous aggression research, other variables were used as controls. Age was controlled for because research suggests younger individuals are more likely to engage in aggression (e.g., Aquino & Douglas, 2003). Research also provides evidence that men hold more favorable attitudes toward retaliation than women (Stuckless & Goranson, 1992), and therefore gender was used as a control (0=female). Research also suggests an employee’s tenure with their organization influences reactions toward supervisors (Bauer & Green, 1996; Wayne, Shore, & Liden, 1997). Thus, tenure with the organization was controlled for in years. Lastly, research suggests that individuals are less than forthcoming about their own destructive behaviors (e.g., aggression). Therefore, social desirability in the responses was controlled for with the 18-item short version of the Pauhlus (1993) social desirability measure (alpha=.73).

**Results**

**Measurement Model Results**

Confirmatory factor analyses (CFA), with maximum likelihood estimation, was conducted to examine the distinctness of the variables. The measurement model consisted of 12 factors: perceived supervisor aggression, fear of retaliation, supervisor aggressive modeling, coworker aggressive modeling, trait anger, need for social approval, retaliatory aggression, organization displaced aggression, coworker displaced aggression, customer displaced aggression, constructive problem-solving, and withdrawal. The results indicate the 12-factor model provided a good fit to the data ($X^2 = 9324.06; df = 4211$, $p < .001$); the fit indices were RMSEA = .06, NNFI = .92, and CFI = .93. RMSEA scores below .08 (Hu & Bentler, 1999) and
NNFI and CFI scores above .90 (Bentler & Bonnet, 1990) indicate an acceptable fit. The 12-factor model was compared to an 8-factor model ($\chi^2=10725.38, df=4249; \text{RMSEA}=0.08; \text{NNFI}=0.91, \text{CFI}=0.91$) and to a 1-factor model ($\chi^2=17358.52, df=4277; \text{RMSEA}=0.13; \text{NNFI}=0.81, \text{CFI}=0.82$). The 8-factor model combined both types of aggressive modeling behaviors into one factor and all aggression dependent variables into one factor. The results suggest the 12-factor model produces a significant improvement in fit in the data than the 8-factor model ($\chi^2$ difference $= 1401.32, df=38, p<.001$) and 1-factor model ($\chi^2$ difference $= 8034.46, df=66, p<.001$), suggesting the measurement model is a better fit than the alternative models (Schumacker & Lomax, 1996).

**Moderated Multiple Regression Results**

Moderated multiple regression was used to assess the hypotheses. Following the recommendation of Cohen, Cohen, West, and Aiken (2003), predictor variables were mean-centered to reduce multicollinearity. Variance inflation factor (VIF) scores were assessed for the predictive variables; all were well below the 10.0 standard (Ryan, 1997), suggesting multicollinearity did not present a biasing problem.

Variable means, standard deviations, and correlations are reported in Table 1. Regression results are provided in Table 2. Plotted interactions are shown in Figures 2 through 14. For all interaction plots, values representing plus or minus one standard deviation from the mean were used to generate the plotted regression lines (Cohen et al., 2003). To provide a more detailed understanding of the interactions, t-tests of the simple slopes were conducted (Aiken & West, 1991). Unless otherwise noted, the t-test results reveal the slopes are significantly different from zero. Appendix C provides a summary of the results for all hypothesized relationships. The regression results are discussed in detail below.
### Chapter 2 Table 1
#### Summary of Descriptive Statistics and Correlations

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<th>Variables</th>
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*aCorrelations greater than .15 are significant at $p < .01$ and those greater than .11 at $p < .05$, two tailed.*
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(.93)

(.88)
## Chapter 2 Table 2
Results of Multiple Regression Analysis for Hypothesized Relationships

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a N=326. Standardized beta-coefficients are reported. *** p < .001; ** p < .01; * p < .05, two tailed.
The Moderating Effects of Situational Factors

Fear of retaliation. Hypotheses 1(a) and 1(b) predict similar moderation effects for fear of retaliation such that the positive relationships between perceived supervisor aggression and (H1a) displaced aggression (organization, coworker, and customer displaced aggression) and (H1b) withdrawal will be stronger when fear of retaliation is high than low. The fear of retaliation x perceived supervisor aggression interaction was significantly related to all forms of displaced aggression (organization, coworker and customer displaced aggression). Figures 2 through 4 illustrate the pattern of the interactions for the displaced aggression variables.

Figure 2 shows that the relationship between perceived supervisor aggression and organization displaced aggression was negative when fear of retaliation was high, such that as perceived supervisor aggression increased, organization displaced aggression decreased. In contrast, the relationship was not significant when fear of retaliation was low (t = .38, n.s.). Figure 3 shows that the relationship between perceived supervisor aggression and coworker displaced aggression was also negative when fear of retaliation was high. However, for low fear of retaliation, the relationship was positive, as perceived supervisor aggression increased, coworker displaced aggression increased. Lastly, Figure 4 shows that the relationship between perceived supervisor aggression and customer displaced aggression was not significant when fear of retaliation was high (t = -.14, n.s.), but the relationship was positive when fear of retaliation was low. Overall, the patterns do not support the prediction that the relationship between perceived supervisor aggression and displaced aggression was stronger when fear of retaliation is high than low. Therefore, Hypothesis 1(a) is not supported.
Chapter 2 Figure 2
Interaction of Perceived Supervisor Aggression and Fear of Retaliation on Organization Displaced Aggression

Chapter 2 Figure 3
Interaction of Perceived Supervisor Aggression and Fear of Retaliation on Coworker Displaced Aggression
The results show the fear of retaliation x perceived supervisor aggression interaction was not significantly related to withdrawal. Therefore, Hypothesis 1(b) is not supported.

Hypotheses 1(c) and 1(d) predict similar moderation effects for fear of retaliation such that the positive relationships between perceived supervisor aggression and (H1c) retaliatory aggression and (H1d) constructive problem-solving will be stronger when fear of retaliation is low than high. The fear of retaliation x perceived supervisor aggression interaction was significantly related to retaliatory aggression. As predicted, Figure 5 shows that the positive relationship between perceived supervisor aggression and retaliatory aggression was stronger when fear of retaliation was low than high. Therefore, Hypothesis 1(c) is supported.
The fear of retaliation x perceived supervisor aggression interaction was significantly related to constructive problem-solving. Figure 6 shows that the relationship between perceived supervisor aggression and constructive problem solving is positive when fear of retaliation is high. Thus, as perceived supervisor aggression increased, constructive problem-solving increased. Contrary to my predictions, the relationship was not significant when fear of retaliation was low ($t = .75$, n.s.). Therefore, Hypothesis 1(d) is not supported.
Hypothesis 2 predicts aggressive modeling will moderate the relationship between perceived supervisor aggression and reactions. Two sources of aggressive modeling were assessed: supervisor aggressive modeling and coworker aggressive modeling. The results in Table 2 show the interaction for supervisor aggressive modeling did not significantly moderate any of the hypothesized relationships. Therefore, Hypothesis 2 is not supported for supervisor aggressive modeling. Coworker aggressive modeling did influence the relationship between perceived supervisor aggression and reactions.

Hypotheses 2(a) and 2(b) predict similar moderation effects for aggressive modeling such that the positive relationships between perceived supervisor aggression and (H2a) retaliatory aggression and (H2b) displaced aggression (organization, coworker, and customer displaced aggression) will be stronger when aggressive modeling is high than low. The results show the
perceived supervisor aggression x coworker aggressive modeling interaction was significantly related to retaliatory aggression. As predicted, Figure 7 shows that the positive relationship between perceived supervisor aggression and retaliatory aggression was stronger when coworker aggressive modeling was high than low. Therefore, Hypothesis 2(a) is supported.

The results show that the coworker aggressive modeling x perceived supervisor aggression interaction was significantly related to coworker displaced aggression, but not to organization or customer displaced aggression. As predicted, Figure 8 shows that the positive relationship between perceived supervisor aggression and coworker displaced aggression was stronger when coworker aggressive modeling is high than low. When coworker aggressive modeling was high, the relationship was positive such that as perceived supervisor aggression
increased, coworker displaced aggression also increased. In contrast, when coworker aggression modeling was low, the relationship was negative; as perceived supervisor aggression increased, coworker displaced aggression decreased. Therefore, the results provide support for Hypothesis 2(b).

Hypotheses 2(c) and 2(d) predict similar moderation effects for aggressive modeling such that the positive between perceived supervisor aggression and (H2c) constructive problem-solving and (H2d) withdrawal will be stronger when aggressive modeling is low than high. The results show that the perceived supervisor aggression x coworker aggressive modeling interaction was significantly related to constructive problems-solving. As predicted, Figure 9 shows that the positive relationship between perceived supervisor aggression and constructive problem-solving is stronger when coworker aggressive modeling is low than high. For high
coworker aggressive modeling, the relationship was not significant \((t = .39, \text{n.s.})\), such that as perceived supervisor aggression increased, constructive problem-solving maintained relatively high levels. For low coworker aggressive modeling, the relationship is positive such that as perceived supervisor aggression increased, constructive problem-solving increased to similar levels of that of high coworker aggressive modeling. Therefore, Hypothesis 2(c) is supported.

![Interaction of Perceived Supervisor Aggression and Coworker Aggressive Modeling on Constructive Problem-Solving](image)

**Chapter 2 Figure 9**

**Interaction of Perceived Supervisor Aggression and Coworker Aggressive Modeling on Constructive Problem-Solving**

The results show the coworker aggressive modeling x perceived supervisor aggression interaction was not significantly related to withdrawal. Therefore, Hypothesis 2(d) is not supported.

**Absolute hierarchical status.** Hypotheses 3(a) predicts absolute hierarchical status will moderate the positive relationship between perceived supervisor aggression and constructive problem-solving such that the relationship will be stronger when absolute hierarchical status is
high than low. However, the results in Table 2 show the absolute hierarchical status x perceived supervisor aggression interaction was not significant on constructive problem-solving. Therefore, Hypotheses 3(a) is not supported.

Hypotheses 3(b), 3(c), and 3(d) predict similar moderation effects for absolute hierarchical status such that the positive relationships between perceived supervisor aggression and (H3b) retaliatory aggression, (H3c) displaced aggression (organization, coworker, and customer displaced aggression) and (H3d) withdrawal will be stronger when absolute hierarchical status is low than high. The results show the absolute hierarchical status x perceived supervisor aggression interaction was not significant on retaliatory aggression or withdrawal. Therefore, Hypotheses 3(b) and 3(d) are not supported.

For displaced aggression, the perceived supervisor aggression x absolute hierarchical status interaction was significantly related to organization and customer displaced aggression, but not to coworker displaced aggression. Contrary to my predictions, Figure 10 shows that the relationship between perceived supervisor aggression and organization displaced aggression was positive when absolute hierarchical status was high, and the relationship was negative when absolute hierarchical status was low. Similarly, the pattern of the slopes in Figure 11 show that the relationship between perceived supervisor aggression and customer displaced aggression was also positive when absolute hierarchical status is high, but that the relationship was not significant when absolute hierarchical status was low ($t = - .47$, n.s.). Therefore, Hypothesis 3(c) is not supported.
Chapter 2 Figure 10
Interaction of Supervisor Aggression and Absolute Hierarchical Status on Organization Displaced Aggression

Chapter 2 Figure 11
Interaction of Perceived Supervisor Aggression and Absolute Hierarchical Status on Customer Displaced Aggression
The Moderating Effects of Individual Factors

Trait anger. Hypotheses 4(a) and 4(b) predict similar moderation effects for trait anger such that the positive relationships between perceived supervisor aggression and (H4a) retaliatory aggression and (H4b) displaced aggression (organization, coworker, and customer displaced aggression) such that the relationship will be stronger when trait anger is high than low. The trait anger x perceived supervisor aggression interaction was significantly related to retaliatory aggression. As predicted, Figure 12 shows that the positive relationship between perceived supervisor aggression and retaliatory aggression was stronger when trait anger was high than low. Therefore, Hypothesis 4(a) is supported.
The results show the trait anger x perceived supervisor aggression interaction was not significantly related to any of the displaced aggression variables. Therefore, Hypothesis 4(b) is not supported.

Hypotheses 4(c) and 4(d) predict similar moderation effects for trait anger such that the positive relationships between perceived supervisor aggression and (H4c) constructive problem-solving and (H4d) withdrawal will be stronger when trait anger is low than high. However, the results show the anger x perceived supervisor aggression interaction was not significantly related to constructive problem-solving or withdrawal. Therefore, Hypotheses 4(c) and 4(d) are not supported.

The need for social approval. Hypotheses 5(a) and 5(b) predict similar moderation effects for need for social approval such that the positive relationships between perceived supervisor aggression and (H5a) constructive problem-solving and (H5b) withdrawal such that the relationship will be stronger when need for social approval is high than low. The results show the need for social approval x perceived supervisor aggression interaction was not significantly related to constructive problem-solving or withdrawal. Therefore, Hypotheses 5(a), and 5(b) are not supported.

Hypotheses 5(c) and 5(d) predict similar moderation effects for need for social approval such that the positive relationships between perceived supervisor aggression and (H5c) retaliatory aggression and (H5d) displaced aggression (organization, coworker, and customer displaced aggression) will be stronger when need for social approval is low than high. The results show the need for social approval x perceived supervisor aggression interaction was not significantly related to retaliation. Therefore, Hypothesis 5(c) was not supported.
For displaced aggression, the perceived supervisor aggression x need for social approval interaction was significantly related to organization and customer displaced aggression, but not to coworker displaced aggression. Figure 13 shows that the relationship between perceived supervisor aggression and organization displaced aggression was negative when need for social approval was low. Contrary to my expectations, high need for social approval did not significantly influence the relationship ($t = 1.34$, n.s.). Figure 14 shows the relationship between perceived supervisor aggression and customer displaced aggression was positive when need for social approval was low. Although the pattern suggest a negative trend for high need for social approval, the relationship was not significant ($t = -1.15$, n.s.). Because need for social approval only influenced the relationship between perceived supervisor aggression and customer displaced aggression as predicted, Hypothesis 5(c) is partially supported.

**Chapter 2 Figure 13**
Interaction of Supervisor Aggression and Need for Social Approval on Organization Displaced Aggression
The purpose of this study was to investigate how employees respond to perceived supervisor aggression. The typology developed suggests reactions can be categorized based on the form (aggression versus non-aggression) and the direction of the behavior (toward the perceived aggressor versus not toward the perceived aggressor). Based on these two dimensions, four categories of reactions were described: retaliatory aggression, displaced aggression, constructive problem-solving, and withdrawal. Drawing from the aggression literature, I then explored which factors influence employees’ reactions. Specifically, I tested the moderating effects of fear of retaliation, aggressive modeling, absolute hierarchical status, trait anger, and the need for social approval. The results provided some support for my predictions, as well as some contradictory findings. I elaborate on these findings in more detail below.
The Influence of Situational Factors on Reactions to Perceived Supervisor Aggression

Social psychologists have argued for some time that fear of retaliation influences reactions to perceived aggression (e.g., Bandera, 1983; Dollard et al., 1939). In particular, they contend fear of retaliation inhibits retaliatory reactions because individuals believe that the harmdoer will seek retribution if they aggress against them. The results of this study provide support for these contentions. As predicted, the relationship between perceived supervisor aggression and retaliatory aggression was stronger when fear of retaliation was low than high. High fear of retaliation weakened retaliatory reactions to supervisor aggression.

Fear of retaliation also moderated the relationship between perceived supervisor aggression and all forms of displaced aggression (organization, coworker and customer), although not as predicted. Contrary to Dollard et al.’s (1939) contentions, high fear of retaliation did not strengthen displaced aggression reactions to perceived supervisor aggression. Instead, it appeared to have the opposite effect. Dollard et al. describe displaced aggression as a cathartic reaction in that when individuals are harmed by another and they fear retaliation from that person, they become highly frustrated. The inability to aggress against the harmdoer causes the victim to redirect or “displace” their frustration on other targets. In this way, displaced aggression allows victims to vent their hostility without fear of recourse from the harmdoer. However, the results of this study show that the positive relationship between perceived supervisor aggression and displaced aggression was not stronger when fear of retaliation was high than low. Rather, in general, high fear of retaliation negatively influenced the relationship, whereas low fear of retaliation positively influenced the relationship. The pattern of the results suggests that individuals victimized by an aggressive supervisor were less likely to displace aggression when they highly feared retaliation from the supervisor (particularly against the
organization and coworkers). However, when fear of retaliation was low, the relationship between perceived supervisor aggression and displaced aggression was positive. As perceptions of supervisor aggression increased, individuals were more likely to displace aggression toward their coworkers and customers.

In hindsight, these results actually make much sense. Individuals who are abused by an aggressive supervisor, who they also fear, may wish to avoid engaging in any behaviors that would instigate more attacks against them. In short, victims might be particularly conscious to manage their own behavior, trying to not give the supervisor reasons to aggress against them further (such as displacing aggression toward the organization, coworkers or customers). These arguments are consistent with the principles of psychological reactance and learned helplessness (Segilman, 1975; Wortman & Brehm, 1975). Accordingly, individuals who are dealing with threatening situations which they believe they cannot change, attempt to regain a sense of personal control by adapting their own behavior (Wortman & Brehm, 1975). Thus, not displacing aggression allows the victim to avoid future attacks from the aggressive supervisor, which may enhance their perceived control over the situation.

Further, engaging in aggression toward others (like coworkers) may also worsen circumstances, particularly when individuals fear retaliation. For example, the stress literature suggests one way individuals cope with threatening and stressful situations (i.e., an abusive and fearful supervisor) is by harnessing social support (see Turner & Roszell, 1994, for a review). Social support helps victims deal with the stressful situation. Yet, if individuals displace aggression against their coworkers, they most likely would not be able to rely on their coworkers for social support. According to social exchange theory, work relationships are based on reciprocal interactions (Cropanzano & Mitchell, 2005). Good treatment promotes good
treatment (i.e., the positive norm of reciprocity); mistreatment promotes mistreatment (i.e., the negative norm of reciprocity) and damages relationships (Gouldner, 1960). Should individuals engage in displaced aggression against coworkers, they may damage valued social support and promote further acts of aggression by coworkers. Thus, in situations where supervisors are highly aggressive and fear of retaliation is high, employees may need as much socioemotional support from others as possible to deal with their working conditions effectively. Consequently, they would not be more likely to aggress against their coworkers.

Fear of retaliation was also predicted to influence the relationship between perceived supervisor aggression and constructive problem-solving. Specifically, I predicted individuals with little fear of retaliation would be more willing to engage in constructive problem-solving in response to supervisor aggression. The findings show, however, that the positive relationship between perceived supervisor aggression and constructive problem-solving was stronger when fear of retaliation was high rather than low. Although levels of constructive problem-solving were similar for high and low fear of retaliation, when perceived supervisor aggression was low, as perceived supervisor aggression increased, constructive problem-solving activities increased, but only when fear of retaliation was high. Therefore, individuals victimized by an aggressive supervisor who they also highly fear, were more likely to engage in constructive problem-solving. The contrary findings seem consistent with research in the stress literature. Accordingly, in addition to using social support as a method of coping with highly stressful events, individuals may also engage in constructive activities. Constructive coping activities (like constructive problem-solving) allow the individual to try to resolve the problem and, at the same time, effectively cope with the situation at hand (e.g., Folkman & Lazarus, 1985; Thoits, 1994). Thus, as is the case of seeking out social support from coworkers, perhaps individuals
who were victimized by an aggressive supervisor (who they also highly feared) felt that constructive problem-solving was a particularly effective way to handle the volatile situation.

Aggressive modeling was predicted to strengthen aggressive reactions to perceived supervisor aggression. The results suggest the source of aggressive modeling is particularly relevant in understanding reactions to supervisor aggression. Specifically, supervisor aggressive modeling did not moderate reactions to supervisor aggression; instead, it seemed to influence retaliatory reactions directly and positively. However, supervisor aggressive modeling did not affect any other reactions to supervisor aggression, which suggests that when supervisors model aggressive behaviors, employees may believe aggressive reactions to supervisor behavior are more appropriate.

Coworker aggressive modeling did significantly moderate reactions to supervisor aggression. The results suggest coworker aggressive modeling strengthened aggressive reactions to perceived supervisor aggression. For example, the positive relationship between perceived supervisor aggression and retaliatory aggression was stronger when coworker aggressive modeling was high than low. Further, the relationship between perceived supervisor aggression and coworker displaced aggression was positive when coworker aggressive modeling was high, but the relationship was negative when coworker aggressive modeling was low. Thus, individuals victimized by an aggressive supervisor were more likely to retaliate against the supervisor and displaced aggression on coworkers when they had more frequent exposure to aggressive coworkers. In contrast, individuals who had less exposure to aggressive coworkers were far less likely to displace aggression on coworkers.

As predicted, the relationship between perceived supervisor aggression and constructive problem-solving was stronger when coworker aggressive modeling was low than high.
Specifically, for high coworker aggressive modeling, the relationship was positive, and for low coworker aggressive modeling the relationship was not significant. Interestingly, for high coworker aggressive modeling, constructive problem-solving remained at relatively high levels over the perceptions of supervisor aggression, and for low coworker aggressive modeling, constructive problem-solving increased to similar levels of that of high coworker aggressive modeling. Therefore, the results suggest that when individuals are dealing with an aggressive supervisor and are frequently exposed to aggressive coworkers, they maintain high levels of constructive problem-solving activities. However, when coworker aggressive modeling is low, as perceptions of supervisor aggression increase, constructive problem-solving activities also increase. Again, these results are consistent with research from the stress literature that suggest that one of the ways individuals cope with highly stressful situations (like being victimized by an aggressive supervisor and exposed to aggressive coworkers) is by engaging in constructive problem-solving activities.

Altogether, these results support principles of social learning theory (Bandera, 1983) and social information processing theory (Salancik Pfeffer & 1978), which suggests individuals learn which behaviors are appropriate and inappropriate by observing the behavior of others. Frequent exposure to aggressive coworkers strengthened reactions of retaliatory and coworker displaced aggression to perceived supervisor aggression. Although frequent exposure did not significantly influence constructive problem-solving reactions to perceived supervisor aggression, less exposure strengthened constructive problem-solving reactions to perceived supervisor aggression.

Coworker aggressive modeling did not significantly influence reactions of organization or customer displaced aggression to perceived supervisor aggression. At first, it may seem that
these results reflect individuals’ reactions to negative social exchange. Because social exchange theory suggests negative reciprocity norms promote destructive behavior (i.e., the negative norm of reciprocity, Gouldner, 1960), it may appear individuals victimized by an aggressive supervisor, who are also exposed to aggressive coworkers, may have reacted against coworkers as a form of retaliation. However, in the analysis, I control for coworker aggression; therefore, the influence on coworker displaced aggression appears to be something more than reciprocity.

Alternatively, according to social psychology research, they may have been displacing aggression against targets that appeared similar to the source of the aggression (i.e., the aggressive supervisor). A recent meta-analysis in social psychology demonstrated that individuals were more likely to displace aggression against targets that were more similar to the source of the harm (see Marcus-Newhall et al., 2000). Therefore, individuals may have been more likely to displaced aggression against coworkers when the coworkers were aggressive because they perceived the coworkers as similar to the aggressive supervisor.

Further, coworker aggressive modeling may also be viewed as an individual perception of the organization’s work climate. Organizational climate involves shared perceptions of formal and informal work norms, policies and practices (Reichers & Schneider, 1990). Thus, it is possible that the combination of an aggressive supervisor with aggressive coworkers suggests the climate of the organization is aggressive (i.e., an aggressive climate). Nevertheless, had aggressive modeling represented an aggressive climate of the organization, one would expect it to have influenced all reactions to perceived supervisor aggression. This was not the case. Further, in general, climate perceptions are “shared” among organizational members, meaning the perceptions are collectively understood by the majority as accepted norms and practices. Given the sample and measures used in this study, it was not possible to aggregate responses to
assess “shared perceptions” of aggression. Nevertheless, understanding the influence of climate on reactions to perceived aggression should be considered in future research.

Research by Aquino and colleagues (Aquino & Douglas, 2003; Aquino et al., 2001; in press) suggests individuals’ absolute hierarchical status influences the types of reactions individuals engage in as a consequence of perceived aggression. Aquino and colleagues’ research suggests that individuals in low-status positions are more likely to respond to aggression with aggression and that those in high-status positions do not engage in behaviors that can be viewed by others as unprofessional. The results of this study, however, suggest the opposite: individuals in high-status positions were more likely to respond to supervisor aggression with aggression than individuals in low-status positions. Specifically, when absolute hierarchical status was high, the relationships between perceived supervisor aggression and organization and customer displaced aggression were positive. In contrast, when absolute hierarchical status was low, the relationship with organization displaced aggression was negative and the relationship with customer displaced aggression was not significant. Overall, the results suggest that high-status employees were more likely to displace aggression toward the organization and customers than low-status employees, and low-status employees were far less likely to displace aggression (particularly against the organization).

Because high-status individuals were more likely to react with aggression against the organization and customers, the findings of this study suggest that perhaps high-status employees were more likely to displace aggression on targets when it can go unnoticed. In particular, when individuals are in high-status positions, aggression against the organization or customers may not be reported or checked, unlike acts of aggression against organizational members (e.g., aggressing against one’s supervisor or coworkers). In contrast, aggressing against the
organization or customers might be particularly difficult for lower-status employees who are more closely supervised. Essentially then, higher-status employees may aggress against the organization and customers “because they can,” unlike lower-status employees. In short, displacing aggression toward the organization and customers may allow high-status victims to vent hostilities about an aggressive supervisor without negatively impugning their status.

These contradictory findings may be explained by comparing the studies by Aquino and colleagues (Aquino & Douglas, 2003; Aquino et al., 2001) to this study. First, the samples used in the Aquino studies differ from the sample used in this study. In Aquino and colleagues’ studies, they used more bureaucratic and government-oriented samples. For example, Aquino and Douglas (2003) used three organizations: a transportation company, a school system, and a municipality. In Aquino et al. (2001), they used government employees. Due to the bureaucratic nature of these samples, perhaps it is easier for lower-status employees to engage in aggressive behaviors than employees in higher-status positions, who are more closely watched by the general public. As a consequence, higher-status employees might be particularly careful not to engage in aggressive behaviors (particularly against the organization or customers). In contrast, this study used a random sample of individuals called for jury duty, who represented a wide-range of positions and job types. Thus, the broader range of organizations and job suggests individuals in higher-status positions might be less constrained and more willing to engage in aggression toward the organization and customers.

A last difference in the Aquino studies from this study involves the overall design of the studies themselves. Aquino et al. (2001) and Aquino et al. (in press), used a critical incident technique. Specifically, they asked respondents to reflect back on a time when someone offended them in their current organization, and then asked them about revenge and
reconciliation reactions to that particular offense. Asking respondents to recall past events (and reactions to those events) may promote demand characteristics and self-enhancement bias (Aronson, Ellsworth, Carlsmith, & Gonzales, 1990). In this study, respondents were not asked about a specific aggressive event or specific reactions to that aggressive event. Rather, they were asked about the aggressive treatment by others (from different sources), as well as various behaviors that they may have engaged in throughout the course of a year. None of the questions specifically asked about revenge or retaliation, unlike the Aquino et al. studies, making demand characteristics and self-enhancement bias less likely. Therefore, the different findings from the Aquino studies and this study may also be due to asking respondents about a specific event rather than behaviors experienced and engaged in over the course of a year.

**The Influence of Individual Factors on Reactions to Perceived Supervisor Aggression**

The findings for trait anger suggest trait-angry individuals were more likely to respond to supervisor aggression will retaliatory aggression. As predicted, the positive relationship between perceived supervisor aggression and retaliatory aggression was stronger when trait anger was high than low. The results are consistent with the argument that because high trait-angry individuals have the tendency to perceive a variety of situations as anger-provoking and also react intensely to provocation, they are more likely to react aggressively. However, trait anger did not moderate the relationship of perceived supervisor aggression and displaced aggression. Previous research suggests that trait anger enhances cathartic expressions of anger (see Perrowé & Spector, 2002, for a review). Yet, the results of this study suggest that trait anger heightened targeted reactions against the provoking source of aggression rather than aggressive reactions in general. Previous research has provided results consistent with these findings. For example, Martinko and Douglas (2001) found that when respondents believed the harmdoer purposefully
and wrongfully offended them, high trait anger strengthened revenge. Further, in his review of trait anger, Deffenbacher (1992) found that individuals high in trait anger experienced more intense negative reactions to personal attacks (i.e., verbal threats, intimidation). Consequently, Deffenbacher Oetting et al. (1997) investigated these findings further and found that, although trait anger increases the intensity of anger over various situations, high trait-angry individuals became particularly antagonistic (both verbally and physically) against the provoker of personal attacks. Therefore, perhaps high trait anger also heightens motivations to get even with the transgressor.

The results in the study did not provide support for moderating effects of need for social approval on the relationship between perceived supervisor aggression and non-aggressive reactions (i.e., constructive problem-solving or withdrawal). However, some support was found for its influence on the relationship between perceived supervisor aggression and aggressive reactions. Specifically, the relationship of perceived supervisor aggression and organization displaced aggression was negative when need for social approval was high. The relationship was not significant when need for social approval was low. Therefore, individuals with a high need for social approval were less likely to displace aggression on the organization when dealing with an aggressive supervisor compared to individuals with a low need for social approval. Further, although the relationship between perceived supervisor aggression and customer displaced aggression was not significant when need for social approval was high, the relationship was positive when need for social approval was low. For individuals low in need for social approval, as perceived supervisor aggression increased, customer displaced aggression increased. Overall, the pattern of results supports the notion that individuals who have a high need for social approval avoid threatening and conflictive situations (like aggressing against others). Thus, high
need for social approval individuals may be less likely to displace aggression (particularly against the organization) in response to an aggressive supervisor, whereas low need for social approval individuals may be more likely to displace aggression (particularly against customers) in response to an aggressive supervisor.

Because research has shown that high need for social approval-individuals are more likely to engage in help-seeking and approval-seeking activities, it is surprising that need for social approval did not moderate the relationship between perceived supervisor aggression and constructive problem-solving. It could be that constructive problem-solving behaviors might instigate discussions about a situation. Research on need for social approval has found that those high in this need retreat from situations or interactions that imply negative affiliation (e.g., Exline, 1963; Mehrabian & Ksionzky, 1974; Terhune, 1968). Therefore, individuals high in need for social approval may feel that discussing the problem might reflect negatively on them, particularly for discussions directly with the aggressive supervisor, and therefore they may not engage in constructive problem-solving.

It is important to highlight that none of the variables moderated the relationship between perceived supervisor aggression and withdrawal. Rather, it seemed as if variables that contribute to more destructive work environments directly influenced withdrawal behaviors. In particular, perceived coworker aggression and coworker aggressive modeling were significantly and directly related to withdrawal. These results may be explained through principles of reactance and learned helplessness (deCharms, 1968; Seligman, 1975; Wortman & Brehm, 1975). When individuals are dealing with threatening situations (like perceived supervisor aggression), psychological reactance occurs (Brehm, 1966). Generally speaking, reactance involves the victim trying to change the situation effectively; however, if change is not possible, individuals
then feel helpless (Wortman & Brehm, 1975). As a consequence, Rothbaum, Weisz, and Synder (1982) argue that helplessness promotes individuals to modify their own behavior in order to regain a sense of personal control (e.g., withdrawal). Perhaps victims of supervisor aggression, who are also exposed to coworker aggression—meaning they are victim to coworker aggression and coworkers actively act out aggressively at work (modeling)—feel helpless, and the only thing they can do to cope with their circumstances is to withdraw.

Limitations

As with all studies, this research has some limitations. First, because cross-sectional data was used, inferences of causality cannot be made. Although it is argued that supervisor aggression elicits different types of reactions from employees, employees’ reactions (particularly aggression and withdrawal) may elicit what is perceived by the employee as aggressive behavior by the supervisor. Therefore, future research should examine the causal dynamics of reactions to aggression within an experimental setting or through a longitudinal design.

Second, the use of single-source data raises concerns about common method variance. Researchers have argued that common method variance may not present a biasing problem when the measures of the variables used have been properly developed (Spector, 1987). Nevertheless, I followed Podsakoff et al.’s (Podsakoff, MacKenzie, Lee, & Podsakoff, 2003) recommendation and conducted the Harmon’s single-factor test. Principle components analysis was conducted on all scale items included in this study. If common method variance is present, the analysis should reveal either one single factor or a dominant general factor that accounts for a majority of the variance in the responses. Neither of these emerged; instead, no factor contributed to more than 18.69% of the overall cumulative variance (of 72.14%). Further, Podsakoff et al. recommend other, non-statistical methods for reducing common method variance. In particular, they
recommend protecting respondents’ anonymity and ensuring them that the survey contains questions in which there are no “right or wrong answers.” These steps reduce respondents’ evaluation apprehension and allow for more accurate responses. Not only do the instructions on the survey explicitly state that responses will be held in absolute anonymity and that there are no right and wrong answers to the survey questions, but also the researcher discussed these specific issues when describing the nature of this study to the participants.

Third, the use of self-reported measures to assess sensitive behavior (e.g., aggression and withdrawal) may enhance social desirability bias. Indeed, some researchers contend the use of objective data is warranted in workplace aggression research (e.g., Greenberg & Folger, 1988); however, objective data also suffer from criterion deficiency because organizations generally only report these types of behaviors if the employee has been caught and reprimanded (Fox & Spector, 1999). In contrast, self-reports can potentially offer more accurate reflections of employees enacted behavior, particularly if anonymity is assured and they believe their employers will not punish them for reporting their behavior (Lee, 1993). The sample used in this study provides a situation in which fear of future punishments is not a concern for respondents and anonymity was assured. Further, methodological precautions were taken by controlling for social desirability in the analysis.

A last limitation involves measurement. In particular, a lack of measurement of other dependant variables may explain the lack of results. The measures used in this study strove to best capture the categories of behaviors identified in the typology. Nevertheless, the lack of findings may be explained by a lack of measurement of other types of reactions to perceived supervisor aggression. For example, perhaps the targets of displaced aggression were limited and did not include other potential targets (i.e., strangers, family, friends). Further, this study
assessed only task withdrawal. However, other forms of withdrawal also may occur (i.e., job withdrawal—exiting the organization, transferring departments, being absent; Hanisch & Hulin, 1991). Similarly, the constructive problem-solving measure may not have included the broad-range of constructive reactions that an individual may have engaged in as a consequence of perceived supervisor aggression. Thus, the limited forms of assessed dependent variables might explain the non-supported results in the study.

**Implications**

The possible limitations and the nature of some of the unexpected findings highlight a number of directions worth pursuing in future research. Appendix D provides a table that summarizes the overall findings of the study. Findings that were significant and as predicted are highlighted in yellow. Findings that were significant but contrary to predictions are highlighted in green and non-significant findings are white. I use this table as a baseline for my discussions for future research.

One variable that consistently moderated reactions to perceived supervisor aggression is fear of retaliation. Indeed, fear of retaliation influenced the relationship between perceived supervisor aggression and all reactions but withdrawal. Consistent with Dollard et al.’s (1939) frustration-aggression theory, fear of retaliation inhibited retaliatory reactions to aggression. However, the results do not support Dollard et al.’s contentions about displaced aggression. Instead, fear of retaliation seemed to weaken the relationship of perceived supervisor aggression and all forms of displaced aggression (toward the organization, coworkers and customers). Thus, individuals victimized by an aggressive supervisor were far less likely to displace aggression when they feared retaliation from the supervisor than those with low fear of retaliation.
These findings do not suggest displaced aggression is as much of an emotional, cathartic reaction as Dollard et al. proposed. Instead, individuals may have chosen not vent their frustration on others either because it would potentially trigger further attacks by their supervisor or promote aggression against them by others. These findings are consistent with both Miller (1948) and Sears (1948), who argued that learned experiences may preclude aggressive reactions. Similarly, in their review of the frustration-aggression theory, Tedeschi and Felson (1994) found some studies suggest individuals may discriminate when to or not to displace aggression. Thus, the question becomes “to whom do employees displace aggression?” Social psychology research has identified factors that influence the target of displaced aggression (e.g., similarity of the target to the source of the harm, triggering events; cf. Marcus-Newhall et al., 2000). The results of this study suggest how “safe” it is to displace aggression on the target may also be an issue. Nevertheless, further investigation is needed to understand displaced aggression as a reaction to perceived supervisor aggression.

The results of aggressive modeling suggest coworkers rather than supervisors provide a strong basis of normative learning effects. One of the basic tenants of social learning theory is that individuals learn from social models (Bandera, 1983), particularly agents of an organization (i.e., supervisors). The results of this study suggest otherwise. Rather, work group members appear to be a better source of vicarious learning. This argument is consistent with O’Reilly and Caldwell (1985), who contend normative expectations of the work group set the tone for how things “ought to be done” rather than how things “should be done” at work. Stated differently, employees learn more about expected and appropriate work behaviors by observing other employees than through organizational rules and policies. According to O’Reilly and Caldwell, normative expectations develop through work group interactions; and when group members
exert pressure to conform to central attitudes and behaviors, they create behavioral standards. The results of this study provide support for these contentions, suggesting that employees learn more about the appropriateness (and inappropriateness) of aggressive behavior from coworkers than supervisors. Overall, the results indicate that frequent exposure to aggressive coworkers strengthens aggressive reactions (both against the aggressive supervisor and coworkers). Further, when individuals are not frequently exposed to aggressive coworkers, victims of perceived supervisor aggression were less likely to displace aggression on coworkers and more likely to engage in constructive problem-solving.

These findings beg the question of “from whom do employees learn constructive behavior?” Although low coworker aggressive modeling did strengthen constructive problem-solving reactions to perceived supervisor aggression, perhaps frequent exposure to constructive behaviors by work group members might strengthen these types of reactions to aggression even further. In sum, more investigation is needed to fully understand the impact of social learning effects on reactions to perceived aggression.

Further, if constructive or destructive behaviors are norms shared among many organizational members, this is suggestive of an organizational climate. Shared perceptions of aggressive behaviors would suggest the organization has an “aggressive climate,” whereas shared perceptions of constructive behaviors would suggest an organization has a “constructive climate.” If coworker modeling influences reactions to perceived supervisor aggression, then firm-wide shared beliefs of appropriate norms and behaviors might also influence reactions as well. This too is an area for future research.

The lack of findings for the individual personality moderators is also noteworthy. A long stream of research has evolved in social psychology aggression research that demonstrates the
effects of various individual characteristics (see Anderson & Bushman, 2002, for a review). Consistent effects of personality were not captured in this study. However, rather than abandon research on individual characteristics, it may be useful to consider if different individual factors might influence reactions to perceived aggression. For example, perhaps individual factors such as proactive orientation or moral identity would have a stronger influence on reactions to perceived aggression.

Another pattern that emerged from the findings is that the variables seemed to more consistently influence retaliatory reactions to supervisor aggression. Although qualitative research suggests that individuals do not always engage in retaliation (e.g., Tripp & Bies, 1997), the results of this study suggest retaliation might be a more dominant response. Yet, further investigation is necessary to determine whether individuals principally seek to retaliate against the source of harm and whether retaliation is an initial reaction. For example, if an individual retaliates and is thereafter still angry, maybe then he/she will engage in displaced aggression, or withdrawal. Therefore, future research should explore primary and secondary reactions to aggression to see whether an order effect occurs.

Aside from an ordering effect, retaliation might have been a dominant response because other types of reactions were not adequately assessed. In the previous section, I noted that aspects of the model warrant reconsideration. Specifically, the results might also be explained by assessing different forms of the dependent variables (e.g., job withdrawal, different targets of displaced aggression and other forms of constructive problem-solving). One other explanation is that non-behavioral reactions are also important to understand reactions to perceived aggression. In this study, I purposefully limited the scope of reactions to behavioral reactions. However, research in the stress and aggression literatures suggest emotional and psychological reactions
guide behavioral choices to aversive events. For example, Anderson and Bushman (2002) developed an integrated model of aggression, which suggests emotional reactions feed into psychological processes that form the basis of cognitive appraisals of aversive events. They argue that emotions and psychological states, therefore, mediate evaluations of aversive events and behavioral choices. Similarly, the stress literature suggests that individuals may engage in emotion-based coping to buffer the damaging consequences of the situation at hand (see Turner & Roszell, 1994, for a review). For example, individuals may decide to count to ten or talk with others (“venting”; cf. Folkman, 1984; Folkman & Lazarus, 1980). Therefore, future research should be conducted to not only identify the full range of behavioral reactions to perceived aggression but also explore the influence of emotional and psychological states on behavioral reactions.

In sum, the results of this study suggest a great deal of research is yet to be conducted to understand employees’ reactions to perceived supervisor aggression. Future research should consider the broad range of reactions to aggression, as well as the factors that influence those reactions. Further, future research should also consider any underlying processes (e.g., emotions and psychological states) that might influence the behaviors individuals choose to engage in as a consequence of perceived supervisor aggression. Overall, the discussion suggests a more elaborate model may necessary to fully understand reactions to aggression. Although this study specifically limited the scope to behavioral reactions (versus emotional, physical or psychological reactions), understanding these types of processes that guide behavioral choices is also clear next step.
Conclusion

Workplace aggression researchers have spent considerable effort investigating the nature and general costs of aggression (see Neuman & Baron, 1998, 2005, for reviews). Consequently, we know a great deal about why individuals engage in aggressive behavior at work (see Baron, 2004). Further, we know a great deal about the sources and types of aggression that individuals engage in at work (see Neuman & Baron, 2005). However, much of this research focuses on explaining why individuals engage in workplace aggression rather than explaining how individuals respond to aggression. This study addresses this issue especially with regard to reactions to perceived supervisor aggression.

The typology and model presented serve as a necessary step in understanding employee reactions to aggression. Given the growing nature and prevalence of aggression in the workplace (Bureau of Justice Statistics, 1999), understanding which factors influence individual responses is an important step to addressing the problem of aggression in the workplace. Unfortunately, this places an enormous burden on organizational decision-makers, who are responsible for creating safe and healthy work conditions. Although this study sought identify various factors that mitigate dysfunctional reactions (i.e., retaliatory aggression, displaced aggression, and withdrawal) and enhance more constructive solutions to perceived aggression (i.e., constructive problem-solving), clearly more work is to be done in the future.
APPENDIX A

EXPLORATORY FACTOR ANALYSIS FACTOR LOADINGS FOR CONSTRUCTIVE PROBLEM-SOLVING, AND WITHDRAWAL BEHAVIORS AND FEAR OF RETALIATION
### Constructive Problem-Solving (alpha=.95)

<table>
<thead>
<tr>
<th>Item</th>
<th>Factor 1</th>
<th>Factor 2</th>
<th>Factor 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Discussed the problem with my immediate supervisor.</td>
<td>.69</td>
<td>-.08</td>
<td>.05</td>
</tr>
<tr>
<td>2. Asked coworkers for advice about the problem.</td>
<td>.69</td>
<td>.05</td>
<td>.19</td>
</tr>
<tr>
<td>3. Tried to change the situation to benefit all parties involved.</td>
<td>.81</td>
<td>-.03</td>
<td>.01</td>
</tr>
<tr>
<td>4. Asked the individual to clarify the problem.</td>
<td>.97</td>
<td>-.09</td>
<td>.03</td>
</tr>
<tr>
<td>5. Asked the individual for more explanation about the problem.</td>
<td>.99</td>
<td>-.09</td>
<td>.01</td>
</tr>
<tr>
<td>6. Discussed with the office manager how I felt about the problem.</td>
<td>.83</td>
<td>-.08</td>
<td>-.02</td>
</tr>
<tr>
<td>7. Tried to reconcile with the person I was having trouble with.</td>
<td>.80</td>
<td>-.18</td>
<td>.05</td>
</tr>
<tr>
<td>8. Tried to convince the person to reassess the problem.</td>
<td>.86</td>
<td>-.21</td>
<td>.10</td>
</tr>
</tbody>
</table>

### Withdrawal (alpha=.92)

<table>
<thead>
<tr>
<th>Item</th>
<th>Factor 1</th>
<th>Factor 2</th>
<th>Factor 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. I lost motivation to do my assigned job duties well.</td>
<td>.04</td>
<td>.77</td>
<td>.24</td>
</tr>
<tr>
<td>2. I called in sick because I didn’t feel like working on my job.</td>
<td>-.20</td>
<td>.66</td>
<td>.12</td>
</tr>
<tr>
<td>3. I put in less effort into my assigned job duties.</td>
<td>-.05</td>
<td>.91</td>
<td>.12</td>
</tr>
<tr>
<td>4. I began to do less work.</td>
<td>-.05</td>
<td>.87</td>
<td>-.04</td>
</tr>
<tr>
<td>5. I showed up late because I was not in the mood to work.</td>
<td>-.17</td>
<td>.60</td>
<td>-.06</td>
</tr>
<tr>
<td>6. I quite caring about my job.</td>
<td>-.11</td>
<td>.79</td>
<td>.24</td>
</tr>
<tr>
<td>7. I avoided tasks and assignments.</td>
<td>-.09</td>
<td>.75</td>
<td>.22</td>
</tr>
<tr>
<td>8. There were days where I just didn’t put much effort into my work.</td>
<td>-.06</td>
<td>.83</td>
<td>.15</td>
</tr>
</tbody>
</table>

### Fear of Supervisor Retaliation (alpha=.82)

<table>
<thead>
<tr>
<th>Item</th>
<th>Factor 1</th>
<th>Factor 2</th>
<th>Factor 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. I am afraid of reacting against my supervisor for fear of future punishments.</td>
<td>.01</td>
<td>.11</td>
<td>.64</td>
</tr>
<tr>
<td>2. I would not do something against my supervisor because he/she would get me back in some way.</td>
<td>.12</td>
<td>.18</td>
<td>.82</td>
</tr>
<tr>
<td>3. I would not act out against my supervisor for fear he/she would retaliate against me.</td>
<td>.03</td>
<td>.11</td>
<td>.99</td>
</tr>
</tbody>
</table>
APPENDIX B

EXPLORATORY FACTOR ANALYSIS
<table>
<thead>
<tr>
<th>Item</th>
<th>1</th>
<th>2</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Factor</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Perceived Coworker Aggression (alpha=.94)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. My coworkers judged and criticized my work unfairly.</td>
<td>.90</td>
<td>.09</td>
</tr>
<tr>
<td>2. My coworkers told me my thoughts or feelings are stupid.</td>
<td>.82</td>
<td>.15</td>
</tr>
<tr>
<td>3. My coworkers ridiculed me.</td>
<td>.87</td>
<td>.06</td>
</tr>
<tr>
<td>4. My coworkers have been rude to me.</td>
<td>.88</td>
<td>.09</td>
</tr>
<tr>
<td>5. My coworkers made negative comments about me to others.</td>
<td>.88</td>
<td>.15</td>
</tr>
<tr>
<td>6. My coworkers put me down in front of others.</td>
<td>.86</td>
<td>.29</td>
</tr>
<tr>
<td>7. My coworkers prevented me from expressing myself.</td>
<td>.68</td>
<td>.16</td>
</tr>
<tr>
<td><strong>Perceived Customer Aggression (alpha=.89)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Customers put me down in front of others.</td>
<td>.10</td>
<td>.89</td>
</tr>
<tr>
<td>2. Customers yelled or shouted at me.</td>
<td>.15</td>
<td>.79</td>
</tr>
<tr>
<td>3. Customers interrupted me while I was speaking or working.</td>
<td>.12</td>
<td>.86</td>
</tr>
<tr>
<td>4. Customers ridiculed me.</td>
<td>.01</td>
<td>.61</td>
</tr>
<tr>
<td>5. Customers were rude to me.</td>
<td>.16</td>
<td>.75</td>
</tr>
<tr>
<td>6. Customers swore or cursed at me.</td>
<td>.23</td>
<td>.76</td>
</tr>
</tbody>
</table>
APPENDIX C

SUMMARY OF FINDINGS FOR THE HYPOTHESIZED RELATIONSHIPS
**Hypothesis 1:** Fear of retaliation will moderate the positive relationships between perceived supervisor aggression and (a) displaced aggression and (b) withdrawal such that the relationships will be stronger when fear of retaliation is high rather than low, and the positive relationships between perceived supervisor aggression and (c) retaliatory aggression and (d) constructive problem-solving will be stronger when fear of retaliation is low rather than high.

<table>
<thead>
<tr>
<th>Dependent Variable</th>
<th>Regression Results</th>
<th>Interaction Description</th>
<th>Overall Support</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>H1(a). Displaced aggression</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Organization displaced aggression</td>
<td>$\beta = -.12$ $p &lt; .05$</td>
<td>Not as predicted, the relationship was negative when fear of retaliation was high; the relationship was not significant when fear of retaliation was low (Figure 2)</td>
<td>Not supported</td>
</tr>
<tr>
<td>Coworker displaced aggression</td>
<td>$\beta = -.20$ $p &lt; .001$</td>
<td>Not as predicted, the relationship was negative when fear of retaliation was high; the relationship was positive when fear of retaliation was low (Figure 3)</td>
<td>Not supported</td>
</tr>
<tr>
<td>Customer displaced aggression</td>
<td>$\beta = -.20$ $p &lt; .001$</td>
<td>Not as predicted, the relationship was not significant when fear of retaliation was high; the relationship was positive when fear of retaliation was low (Figure 4)</td>
<td>Not supported</td>
</tr>
<tr>
<td><strong>H1(b). Withdrawal</strong></td>
<td>$\beta = -.05$ n.s.</td>
<td></td>
<td>Not supported</td>
</tr>
<tr>
<td><strong>H1(c). Retaliatory aggression</strong></td>
<td>$\beta = -.17$ $p &lt; .001$</td>
<td>As predicted, the positive relationship was stronger when fear of retaliation was high than low (Figure 5)</td>
<td>Supported</td>
</tr>
<tr>
<td><strong>H1(d). Constructive productive-solving</strong></td>
<td>$\beta = .15$ $p &lt; .01$</td>
<td>Not as predicted, the relationship was not significant when fear of retaliation was low; the relationship was positive when fear of retaliation was high (Figure 6)</td>
<td>Not supported</td>
</tr>
</tbody>
</table>
**Hypothesis 2:** Aggressive modeling will moderate the positive relationships between perceived supervisor aggression and (a) retaliatory aggression and (b) displaced aggression such that the relationships will be stronger when aggressive modeling is high rather than low, and the positive relationships between perceived supervisor aggression and (c) constructive problem-solving and (d) withdrawal will be stronger when aggressive modeling is low rather than high.²

<table>
<thead>
<tr>
<th>Dependent Variable</th>
<th>Regression Results</th>
<th>Interaction Description</th>
<th>Overall Support</th>
</tr>
</thead>
</table>
| **H2(a). Retaliatory aggression** | $\beta = .15$  
$p < .05$ | As predicted, the positive relationship was stronger when coworker aggressive modeling was high than low (Figure 7) | Supported |
| **H2(b). Displaced aggression** |  |  |
| Organization displaced aggression | $\beta = .06$  
n.s. |  | Not supported |
| Coworker displaced aggression | $\beta = .19$  
$p < .01$ | As predicted, the positive relationship was stronger when coworker aggressive modeling was high than low; for high coworker aggressive modeling, the relationship was positive; for low coworker aggressive modeling, the relationship was negative (Figure 8) | Supported |
| Customer displaced aggression | $\beta = .07$  
n.s. |  | Not supported |
| **H2(c). Constructive productive-solving** | $\beta = -.18$  
$p < .05$ | As predicted, the positive relationship was stronger when coworker aggressive modeling was low than high; for low coworker aggressive modeling, the relationship was positive; for high coworker aggressive modeling, the relationship was not significant (Figure 9) | Supported |
| **H2(d). Withdrawal** | $\beta = -.03$  
n.s. |  | Not supported |

² Supervisor aggressive modeling did not significantly moderate any of the dependent variables. The results provided are only for coworker aggressive modeling.
**Hypothesis 3:** Absolute hierarchical status will moderate the positive relationship between perceived supervisor aggression and (a) constructive problem-solving such that the relationship will be stronger when absolute hierarchical status is high rather than low, and the positive relationship between perceived supervisor aggression and (b) retaliatory aggression, (c) displaced aggression, and (d) withdrawal will be stronger when absolute hierarchical status is low rather than high.

<table>
<thead>
<tr>
<th>Dependent Variable</th>
<th>Regression Results</th>
<th>Interaction Description</th>
<th>Overall Support</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>H3(a). Constructive productive-solving</strong></td>
<td>$\beta = .10$</td>
<td>Not as predicted, the relationship was positive when absolute hierarchical status was high; the relationship was negative when absolute hierarchical status was low (Figure 10)</td>
<td>Not supported</td>
</tr>
<tr>
<td></td>
<td>n.s.</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>H3(b). Retaliatory aggression</strong></td>
<td>$\beta = -.02$</td>
<td></td>
<td>Not supported</td>
</tr>
<tr>
<td></td>
<td>n.s.</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>H3(c). Displaced aggression</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Organization displaced aggression</td>
<td>$\beta = .21$</td>
<td></td>
<td>Not supported</td>
</tr>
<tr>
<td></td>
<td>$p &lt; .001$</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Coworker displaced aggression</td>
<td>$\beta = -.05$</td>
<td></td>
<td>Not supported</td>
</tr>
<tr>
<td></td>
<td>n.s.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Customer displaced aggression</td>
<td>$\beta = .16$</td>
<td></td>
<td>Not supported</td>
</tr>
<tr>
<td></td>
<td>$p &lt; .01$</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>H3(d). Withdrawal</strong></td>
<td>$\beta = -.05$</td>
<td></td>
<td>Not supported</td>
</tr>
<tr>
<td></td>
<td>n.s.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Hypothesis 4: Trait anger will moderate the positive relationships between perceived supervisor aggression and (a) retaliatory aggression and (b) displaced aggression such that the relationships will be stronger when trait anger is high rather than low, and the positive relationships between perceived supervisor aggression and (c) constructive problem-solving and (d) withdrawal will be stronger when trait anger is low rather than high.

<table>
<thead>
<tr>
<th>Dependent Variable</th>
<th>Regression Results</th>
<th>Interaction Description</th>
<th>Overall Support</th>
</tr>
</thead>
</table>
| **H4(a). Retaliatory aggression** | $\beta = .13$  
$p < .01$ | As predicted, the positive relationship stronger when trait anger was high than low (Figure 12) | Supported |
| **H4(b). Displaced aggression** |  |  |  |
| Organization displaced aggression | $\beta = -.03$  
n.s. |  |  |
| Coworker displaced aggression | $\beta = -.01$  
n.s. |  |  |
| Customer displaced aggression | $\beta = .04$  
n.s. |  |  |
| **H4(c). Constructive productive-solving** | $\beta = .02$  
n.s. |  |  |
| **H4(d). Withdrawal** | $\beta = .01$  
n.s. |  | Not supported |
**Hypothesis 5:** The need for social approval will moderate the positive relationships between perceived supervisor aggression and (a) constructive problem-solving and (b) withdrawal such that the relationship will be stronger when need for social approval is high rather than low, and the relationship between perceived supervisor aggression and (c) retaliatory aggression, (d) displaced aggression will be stronger when need for social approval is low rather than high.

<table>
<thead>
<tr>
<th>Dependent Variable</th>
<th>Regression Results</th>
<th>Interaction Description</th>
<th>Overall Support</th>
</tr>
</thead>
</table>
| **H5(a).** Constructive productive-solving | $\beta = -.09$  
n.s. | Not supported |
| **H5(b).** Withdrawal | $\beta = -.02$  
n.s. | Not supported |
| **H5(c).** Retaliatory aggression | $\beta = -.06$  
n.s. | Not supported |
| **H5(d).** Displaced aggression | | |
| Organization displaced aggression | $\beta = -.10$  
$p < .05$ | Not as predicted, the relationship was not significant for low need for social approval; the relationship was negative for high need for social approval (Figure 13) | Not supported |
| Coworker displaced aggression | $\beta = -.01$  
n.s. | Not supported |
| Customer displaced aggression | $\beta = -.15$  
$p < .01$ | As predicted, the relationship stronger for low than high need for social approval; the relationship was positive when need for social approval was high; the relationship was not significant when need for social approval was low (Figure 14) | Supported |
APPENDIX D

SUMMARY OF FINDINGS
<table>
<thead>
<tr>
<th>Moderator</th>
<th>Retaliatory Aggression</th>
<th>Organization Displaced Aggression</th>
<th>Coworker Displaced Aggression</th>
<th>Customer Displaced Aggression</th>
<th>Constructive Problem-Solving</th>
<th>Withdrawal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fear of Retaliation</td>
<td>−</td>
<td>−</td>
<td>−</td>
<td>−</td>
<td>+</td>
<td></td>
</tr>
<tr>
<td>Supervisor Aggressive Modeling</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Coworker Aggressive Modeling</td>
<td>+</td>
<td>+</td>
<td>−</td>
<td>−</td>
<td>−</td>
<td></td>
</tr>
<tr>
<td>Absolute Hierarchical Status</td>
<td></td>
<td>+</td>
<td></td>
<td>+</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Trait Anger</td>
<td>+</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Need for Social Approval</td>
<td>−</td>
<td></td>
<td>−</td>
<td>−</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
APPENDIX E

IRB APPROVAL FOR SURVEY STUDY
July 19, 2005

Marie S. Mitchell
Ph.D. Candidate
University of Central Florida
Department of Management
BA 339B
Orlando, FL 32816-1400

Dear Ms. Mitchell:

With reference to your protocol #05-2711 entitled, “Employee Reactions and Perceived Insensitivity at Work” I am enclosing for your records the approved, expedited document of the UCFIRB Form you had submitted to our office. This study was approved on 7/13/05 and the expiration date will be 7/12/06. Should there be a need to extend this study, a Continuing Review form must be submitted to the IRB Office for review by the Chairman or full IRB at least one month prior to the expiration date. This is the responsibility of the investigator. Please notify the IRB office when you have completed this research study.

Please be advised that this approval is given for one year. Should there be any addendums or administrative changes to the already approved protocol, they must also be submitted to the Board through use of the Addendum/Modification Request form. Changes should not be initiated until written IRB approval is received. Adverse events should be reported to the IRB as they occur.

Should you have any questions, please do not hesitate to call me at 407-823-2901.

Please accept our best wishes for the success of your endeavors.

Cordially,

Barbara Ward, CIM
IRB Coordinator

Copies: IRB File

BW: bw
References


Allen, D., & Erickson, J. 1989. *Sexual harassment of faculty at the University of Illinois.* Champaign, IL: Union of Professional Employees, University of Illinois at Urbana-Champaign.


*Psychological Review*, 80: 252-283.


CHAPTER 3

STUDY 2: EXPERIMENTAL DESIGN

Understanding Responses to Aggression: An Experimental Investigation of Personality and Fear of Retaliation on Aggressive and Non-Aggressive Behaviors

Today’s workplace is often portrayed as an arduous and harsh reality, particularly given the rise in media coverage of aggressive acts at work (Stone, 1995; Stuart, 1992). Some even argue that incidents of workplace aggression are as commonplace as car accidents (Stussie, 2002). It appears these sentiments are not entirely unfounded. A study by Pinkerton of Fortune 1000 companies suggests workplace aggression is the leading security threat facing corporate America today (Security, 2001). According to the Society for Human Resource Management (SHRM; 2005) a major reason for this security threat is that aggression is never completely preventable and threatens the physical and psychological safety of organizational members. For example, the Bureau of Justice Statistics (BJS) reported more than 1,000 workplace homicides occur annually and 12% of non-fatal violent crimes resulted in the injuries to victims (Warchol, 1998). However, workplace aggression does not only involve violence (or physical assault). According to the BJS, of the 9 million accounts of workplace aggression reported between the years 1992 and 1996, 6 million were non-violent incidents (e.g., verbal attacks, threats, intimidation) (BJS, 1998).

Although considerable efforts have been made to understand workplace aggression, less attention has been given to identifying specific reactions to aggression. We know much about factors that intensify aggression at work (see Baron, 2004 and Neuman & Baron, 1998 for reviews). We also know much of the different types of aggression individuals engage in at work (see Neuman & Baron, 2005 for a review). However, we know far less about how individuals
react to aggression and what influences those reactions. Aggression researchers suggest aggressive reactions are normal and instinctual reaction, and therefore aggression is a likely response to aggression (e.g., Lorenz, 1966; Geen, 1990). Still, we also know that individuals do not always react aggressively; some even react constructively (e.g., Keashly, Trott, & MacLean, 1994; Tepper, Duffy, & Shaw, 2001).

Aggression researchers contend that characteristics of the situation and the individual perceiving the act influence reactions to aggression (e.g., Anderson & Bushman, 2002; Baron, 2004). For example, Baron (2004) argues reactions depend on restraining factors of the situation, like fear of future punishments or retaliation from the harmdoer. Further, aggression research has identified a number of personality traits that influence individuals’ reactions to aggression (e.g., trait anger, locus of control) (see Anderson & Bushman, 2002 for a review). Therefore, in order to understand reactions to aggression and what causes an individual to react aggressively or non-aggressively, it is important to consider factors that might influence those reactions.

The purpose of this paper is to investigate behavioral reactions to perceived aggression. In particular, I investigate what makes individuals react aggressively or non-aggressively to perceived aggression. In doing so, I explore factors that aggression researchers suggest influence aggressive and non-aggressive reactions to aggression. Specifically, I investigate the moderating effects of fear of retaliation, trait anger, locus of control, and need for social approval.

**Aggression and Perceived Aggression**

Aggression theorists argue that aggression involves “any form of behavior directed toward the goal of harming or injuring another living being who is motivated to avoid such treatment” (Baron & Richardson, 1994: 7). One defining characteristic of aggression is that it is
behavior driven by motives to harm the target. Intention to harm, however, is not something that


can be easily observed, but is more or less inferred from the behavior itself (Geen, 1990).

Tedeschi and colleagues (Brown & Tedeschi, 1976; Tedeschi & Bond, 2001) argue that acts are


considered aggression when an observer “attributes harmful intentions” about the behavior


(Tedeschi & Bond, 2001: 258). Therefore, aggression is defined by the recipient of the behavior.


Thus, in the context of understanding reactions to aggression, taking the recipient or


victim’s point of view is particularly important. Simply put, individuals who do not believe they


are intentionally harmed will not perceive the act as aggression and, therefore, may not react.


Even if the offender intends to harm the victim, if the victim does not perceive the behavior as


intentionally harmful, the behavior may not elicit a response. Consequently, the offender’s


intention is irrelevant. Should the victim respond to behavior that is not perceived to be


intentionally harmful, whatever reactions that do occur are not in response to aggression. Only


behavior that is perceived to be intentionally harmful by the victim are considered aggression,


and only behaviors that the victim perceives as aggression can stimulate a response to


aggression. Therefore, in this study, I consider only behaviors that the victim believes were


carried out with the intention to inflict harm.


**Aggressive and Non-Aggressive Reactions to Aggression**


There is considerable research evidence that suggests aggression promotes the instigation


of aggression (see Anderson & Bushman, 2002 and Berkowitz, 1998 for reviews). In fact, some


argue that interpersonal aggression is the most important single instigator of human aggression


(e.g., Berkowitz, 1993; Geen, 1990). Berkowitz (1993, 1998) contends that aggression promotes


affective reactions, and when emotions involve anger, fight responses are triggered (i.e.,


aggression). Tedeschi and Felson (1994) argue that individuals react to aggression with
aggression in order to stop further attacks. Essentially, they argue that aggressive reactions
try to punish the harmdoer, thereby preventing future attacks against the initial victim.
Indeed, research provides support for this notion (e.g., Axelrod, 1984; Bies & Tripp, 1998).

Workplace aggression researchers argue that aggressive reactions to aggression can also
seek to “make the wrongdoer pay” for the harm befallen the victim (e.g., Bies, 2001; Bies &
Tripp, 1996; Folger & Skarlicki, 1998). For example, Bies and colleagues (Aquino, Tripp, &
Bies, 2001; Bies & Tripp, 1996, 1998) argue that when individuals are mistreated they may
engage in revenge, defined as “an action in response to some perceived harm or wrongdoing by
another party that is intended to inflict damage, injury, discomfort, or punishment on the party
judged responsible” (Aquino et al., 2001: 53). Similarly, Skarlicki and Folger (2005) contend
retaliation may occur to “even the score” or “get back at” the harmdoer.

Workplace aggression research provides evidence that aggression instigates retaliatory
reactions. For example, research shows perceived mistreatment positively influences retaliation
(Skarlicki & Folger, 1997; Skarlicki, Folger, & Tesluk, 1999) and revenge (Bies & Tripp, 1996,
1998). More specifically, Aquino et al. (2001) found that when individuals felt the harmdoer
was to blame for their mistreatment, they sought revenge. These results suggest that acts
perceived to be intentionally harmful promote retaliatory behavior. From this research, Jones
(2003) sought to investigate aggression (reactions that intend to inflict harm) as a response to
mistreatment. He found that individuals differentiate the source of the harm with their reactions
and specifically and intentionally target aggression toward source of the mistreatment.

Yet, social psychologists suggest that individuals do not always retaliate. Dollard, Doob,
Miller, Mowrer, and Sears’ (1939) argued that, although individuals generally wish to retaliate
against the source of the harm, some situations do not allow for it. The literature suggests there
are two main reasons individuals refrain from retaliation: (1) the source is not available (therefore the victim lacks opportunity to aggress) and (2) further attacks are feared and expected from the source (Marcus-Newhall, Pedersen, Carlson, & Miller, 2000).

Dollard et al. argue that aggression is a natural reaction to frustrating events (like perceived aggression), and when victims are unable to react aggressively against the perceived harmdoer, they “displace” (or redirect) their aggression on other, more available targets. Similarly, Buss (1961) argued that reactions to aversive events are based on learned responses. Buss contends that aggressive reactions not targeted at the harmdoer allow victims to respond without penalty of recourse.

Although specific investigations of displaced aggression are rare in workplace aggression research, studies that have investigated forms of displaced aggression suggest individuals do react against targets that are not the source of their hostilities (e.g., Aquino & Douglas, 2003; Fox & Spector, 1999). Further, a meta-analysis of psychology experiments found displaced aggression was a consistent and robust response to provocation when respondents were unable to retaliate against the provoking source (see Marcus-Newhall et al., 2000).

In short, research provides substantial support for the notion that perceived aggression influences aggressive reactions; however, we also know individuals do not always react aggressively. According to Berkowitz (1983, 1989), non-aggressive reactions occur because non-angry emotions (e.g., fear, anxiety) dominate reactions. Miller (1941, 1948) suggested that when non-aggressive responses are strengthened by the situation, individuals are less likely to aggress and more likely to react non-aggressively. Similarly, Sears (1941) argued that reactions depend on learned responses. Therefore, individuals’ learned experiences guide what is an appropriate reaction to perceived aggression. For example, memories and vicarious learning that
trigger aggressive reactions influence aggression; memories and vicarious learning that trigger constructive solutions elicit more positive reactions.

The stress literature suggests that individuals may engage in non-aggression to deal with the situation effectively (e.g., Folkman, 1984; Folkman & Lazarus, 1980, 1985; Lazarus & Folkman, 1983). For example, problem-solving activities allow victims to try to solve the problem encountered (D’Zurilla, Nezu, & Maydeu-Olivares, 2004). Yet, not all problem-solving activities are “constructive.” Indeed, some may even be considered aggressive (e.g., retaliation). Constructive problem-solving is a specific type of coping activity where individuals seek to better the situation for themselves and generally for all involved. Thoits (1994) calls constructive activities “reversals,” where the victim attempts to convert the negative situation into a positive one or, at least, minimize the negative one. The justice and satisfaction literatures describe these acts as “voice” (Farrell, 1983; Rusbult, Farrell, Rogers, & Mainous, 1988; Lind & Tyler, 1988; Tyler, 1987). In essence, when individuals are mistreated (which also enhances dissatisfaction), they may feel empowered to speak out and remedy the problem.

Interesting, constructive problem-solving behaviors have not been a traditional focus of workplace aggression research. However, research suggests individuals may react non-aggressively and in a constructive manner. For example, in a qualitative study on emotional abuse, Keashly et al. (1994) found some individuals tried to reconcile with the harmdoer; some others asked for help to stop the abuse. Further, Tepper et al. (2001) conducted survey study on resistance strategies to abusive supervision. They found that, while some individuals engaged in aggressive resistance, which they called dysfunctional resistance (e.g., purposefully avoid the supervisor), others engaged in constructive resistance (e.g., ask the supervisor to clarify the problem).
Overall, this review suggests individuals may react to perceived aggression with aggression or non-aggression. Victims of perceived aggression may react with retaliatory aggression. If, however, retaliation is not an option, they may displace their aggression on others. Further, others still may attempt to resolve the situation constructively. I recognize that individuals may react to perceived aggression with reactions other than retaliatory aggression, displaced aggression, and constructive problem-solving. However, the purpose of this paper is not to delineate the broad scheme of reactions to aggression, but rather to test what makes individuals react aggressively or non-agonistically, and constructive problem-solving behaviors represent an opposite reaction to aggression.

Aggression researchers argue that characteristics of the situation and the individual influence reactions to aggression (e.g., Anderson & Bushman, 2002; Baron, 2004). Therefore, I now consider the moderating effects of factors suggested to influence aggressive and non-aggressive behaviors; specifically, fear of retaliation, trait anger, locus of control, and need of social approval.

**Situational and Individual Moderators of Reactions to Perceived Aggression**

**Fear of Retaliation as a Situational Moderator of Reactions to Perceived Aggression**

Some researchers argue that the threat of future punishment can influence reactions to aversive events, like aggression (Dollard et al., 1939; Tedeschi & Felson, 1994). In particular, they argue dominant aggressive tendencies can be weakened through expected punishments. Dollard et al. (1939) stated that “the strength of inhibition of any act of aggression varies positively with the amount of punishment anticipated to be a consequence of that act” (Dollard et al., 1939: 33). From this notion, fear of punishment has been integrated by workplace aggression researchers to study preventative strategies of workplace violence (e.g., Braverman, 1999).
According to Craig (2005), acts of aggression communicate intimidating social demeanor, which provoke fear in others and act to control their actions by building expectations of future aggressive attacks. Within the context of perceived aggression, victims who feared retaliation may not engage in retaliatory aggression because they believe the aggressor would seek retribution shortly thereafter.

Essentially, fear of retaliation is a learned inhibition. Individuals learn by watching their environment, others around them, or through their own experiences that aggressing against a harmdoer promotes further attacks against them (Bandura, 1983; Berkowitz, 1983, 1998). They evaluate the situation to assess the potential consequences of their own behavior. If further attacks are expected, they may refrain from reacting with retaliation. However, aggression research suggests that because individuals differ in what they know, reactions may vary (Berkowitz, 1998).

Research suggests that fear of retaliation heightens displaced aggression, while lessening retaliatory aggression. For example, Fox and Spector (1999) found that fear of retaliation was the strongest, negative predictor of counterproductive workplace behavior (CWB). Those who feared retaliation engaged in more incidents of CWBs targeted against the organization than against specific individuals. Further, Marcus-Newhall et al. (2000) conducted a meta-analysis of aggression experiments in the social psychology literature and found when individuals feared retaliation from the provoking source they were more likely to displace aggression.

Research also suggests fear of retaliation influences constructive problem-solving behaviors. Studies on sexual harassment have shown that victimization strengthens fear of retaliation and perceptions of hopelessness; essentially, victims believe that nothing can be done to change the situation (e.g., Allen & Erikson, 1989; Koss, Goodman et al., 1994). Sexual
harassment research also suggests victims who feared retaliation from their harasser were less likely to report them (Fitzgerald, 1993; Fitzgerald & Ormerod, 1993; Hesson-McInnis & Fitzgerald, 1992). These results are consistent with the whistleblowing literature, which also shows that fear of retaliation lessens the likelihood that victims report wrongdoings (e.g., Near & Miceli, 1986, 1996).

Overall, the review suggests fear of retaliation will influence reactions to perceived aggression. Specifically, high fear of retaliation will strengthen the relationship between perceived supervisor aggression and displaced aggression, but will weaken the relationship of perceived aggression and retaliatory aggression and constructive problem-solving. Therefore, I predict:

**Hypothesis 1**: Fear of retaliation will moderate the positive relationship between perceived aggression and (a) displaced aggression such that the relationships will be stronger when fear of retaliation is high rather than low, and the positive relationships between perceived aggression and (b) retaliatory aggression and (c) constructive problem-solving will be stronger when fear of retaliation is low rather than high.

**Individual Characteristics as Moderators of Reactions to Perceived Aggression**

**Trait Anger**. Researchers have argued for some time that anger promotes aggression (see Anderson & Bushman, 2002 for a review). Berkowitz (1983, 1993) argued that thoughts, feelings, and action tendencies are linked in memory, such that individuals with a past history of anger would be more likely to engage in aggression when they become angry. Similarly, Spielberger (1991, 1996) argued anger can be a stable trait, in which individuals hold the predisposition to respond to situations with hostility. Research suggests individuals with high trait anger experience anger more easily, particularly when they are dealing with annoying
conditions (Spielberger, 1996; Spielberger, Krasner, & Solomon, 1988). Given this tendency, understanding the influence of trait anger is highly relevant in the context of reactions to perceived aggression.

Indeed, research provides support for the notion that trait anger heightens aggressive reactions. For instance, Deffenbacher (1992) found trait anger intensified negative reactions to personal attacks. Likewise, workplace aggression research has shown that high trait anger strengthens aggression. Douglas and Martinko (2001) found respondents high in trait anger believed that the harmdoer purposefully and unnecessarily offended them, which thereby strengthened revenge attitudes. Fox and Spector (1999) found trait anger was positively related to counterproductive workplace behaviors. Further, a meta-analysis of antecedents of workplace aggression shows trait anger is a significant predictor of workplace aggression (Hershcovis, Turner, Barling, Arnold, Dupré, Inness, LeBlanc, & Sivanathan, in press).

However, research also suggests trait anger influences non-aggressive reactions as well. For example, in experimental study using a prisoner’s dilemma, Kassinove, Roth, Owens, and Fuller (2002) found that while trait anger strengthened competitive reactions, it also weakened neutral and cooperative reactions. Further, Deffenbacher (1992) found high trait angry individuals were less able to engage in constructive coping activities when they were personally attacked (Deffenbacher, 1992).

Based on these arguments, I predict trait anger will moderate reactions to perceived aggression such that trait anger will strengthen the positive relationship between perceived aggression and aggressive reactions (both retaliatory and displaced aggression), but will weaken the relationship of perceived aggression and non-aggressive reactions (i.e., constructive problem-solving). Therefore, I predict:
Hypothesis 2: Trait anger will moderate the positive relationships between perceived aggression and (a) retaliatory aggression and (b) displaced aggression such that the relationships will be stronger when trait anger is high rather than low, and the positive relationship between perceived supervisor aggression and (c) constructive problem-solving will be stronger when trait anger is high rather than low.

Locus of Control (LOC). Rotter (1966) developed the concept of locus of control (LOC) to describe individuals’ attributions of their own successes and failures. He argued individuals’ LOC influences beliefs about the extent to which individuals believe events are contingent on their own behavior. Individuals with a strong sense of LOC have an internal orientation and believe life events are based on their motivation, abilities and other factors of self. In contrast, individuals with a low LOC hold an external orientation, and believe that events are the consequence of luck, fate, powerful others or other complex forces.

In general, research suggests LOC affects individuals’ ability to cope effectively with stressful situations, like perceived aggression (Anderson, 1977; Kobasa, Maddi, & Kahn, 1982). For example, Spector and O’Connell (1994) found that externals felt more threatened and experienced more stress when dealing with interpersonal conflict than internals. Researchers argue that internals are better able to handle stress because they see themselves as “causal agents,” who are able to change situations directly (Fiske & Taylor, 1984). In contrast, externals, guided by futility beliefs, are less able to see opportunities to control stressful situations (Greenberger & Strasser, 1991). Research by Hahn (2000) supported these contentions; he found internals engaged in more problem-focused activities than externals.

Aggression theorists argue that LOC also affects aggressive reactions (Baron & Richardson, 1994). Because internals see themselves as causal agents, they engage in behavior
to subvert harm, whereas if externals aggress, they do so to vent their hostility. In this way, internals aggress to control the situation directly, whereas external aggress to express anger. Research provides support for these contentions (e.g., Blass, 1991; Buss, 1961; Dengerink, O’Leary, & Kasner, 1975; Feshbach, 1984).

Overall, this research suggests an individual’s LOC will influence aggressive and non-aggressive reactions to perceived aggression. Specifically, because internals believe they can control their own fate, they would be more likely to react to aggression by either retaliating (attempting to stop the harmdoer from aggressing further) or through constructive problem-solving (attempting to handle the situation in a constructive manner directly). In contrast, externals, guided by fatalistic beliefs, are more inclined to react with hostility, but not directly at the aggressor. Retaliatory acts by an external would only heighten fear of future attacks. Consequently, they would be more likely to displace their hostilities on other targets. Thus, I predict:

**Hypothesis 3**: Locus of control will moderate the positive relationships between perceived aggression and (a) retaliatory aggression and (b) constructive problem-solving such that the relationships will be stronger when locus of control is high rather than low, and the positive relationships between perceived aggression and (c) displaced aggression will be stronger when locus of control is low rather than high.

**Need for Social Approval**. Martin (1984) argued that social contact is an important motivator of human behavior; however, some individuals become more motivated than others. Specifically, research suggests that individuals differ in their interest in social support, and that some individuals actively engage in more activities to harness social support than others (e.g., Hill, 1987, 1991; Hill & Christensen, 1989). Research suggests social contact provides
individuals with a sense of belonging, recognition or praise, and emotional support (Hill, 1987). Consequently, individuals who have a strong need for social approval engage in activities to enhance social contact with others in order to receive these felt benefits (Hill, 1987).

Research shows that individuals who feel a strong need for social approval are more likely to engage in help-seeking behaviors (e.g., Nadler, 1983), particularly when they fail to resolve problems on their own (e.g., DePaulo, 1982; DePaulo, Dull, Greenberg, & Swaim, 1989). In essence, individuals with a strong need for social approval believe that social contact will harness comfort, sympathy, and protection (Hill, 1991). Further, because of their tendencies, individuals with high need for social approval are better able to read social cues. As a result, they avoid or “retreat” from threatening situations or situations that produce negative emotions (e.g., Exline, 1963; Mehrabian & Ksionzky, 1974; Terhune, 1968). Hill (1991) argues that aversive situations are particularly punishing to those with high need for social approval.

This review suggests that individuals with a high need for social approval will most likely respond to perceived aggression with non-aggression. Instigating further aggression against their harmdoer or against others would be far too threatening, making retaliatory aggression and displaced aggression unlikely. Instead, those with a high need for social approval would more likely seek out social contact and support as a consequence of perceived aggression.

**Hypothesis 4**: Need for social approval will moderate the positive relationship between perceived aggression and (a) constructive problem-solving such that the relationship will be stronger when need for social approval is high rather than low, and the positive relationship between perceived aggression and (b) retaliatory aggression and (c) displaced aggression will be stronger when need for social approval is low rather than high.
Methods

Subjects and Study Design

Participants were business school undergraduates from a large, southeastern university. The experiment was masked within an undergraduate management course. At the onset of the course, students were given informed consent material, which explained that various learning activities may be used for research studying sensitive issues in the workplace. Seventy-seven students volunteered to participate. Participants’ average age was 23.7 ($SD = 4.79$); 46.8% were female, 70.1% were white (6.5% were Black; 13% were Hispanic), and 93.5% were undergraduate seniors (6.5% were juniors). Eight students had volunteered but were not included in the study because they either did not attend class the day of the experiment ($n=7$) or the student left the classroom during the experiment and was not allowed to return ($n=1$)\(^3\).

The study was a 2 x 2 design, with participants randomly assigned into conditions (aggression: yes/no; fear of retaliation: high/low). Approximately an equal number of subjects (ranging from 16 to 19) were assigned to each cell of the design. However, the 2x2 design was essentially only used to test for the fear of retaliation hypothesis. With all other hypotheses, only perceived aggression was manipulated (high/low).

Procedure

At the beginning of the semester, participants completed a questionnaire, which included the personality variables of interest to this study. The actual experiment and manipulations took place a week following the course’s first exam.

\(^3\) The student who left the classroom did not leave because of the experiment. Rather, the student was going to the restroom. However, because the student saw the instructor sitting outside the classroom, the student understood the exam appraisal was an activity, and was unable to return to the experiment. The student was immediately debriefed on the true nature of the experiment.
The day of the experiment, participants were seated as they enter the classroom, and provided a cover story for the experiment. Students were told that their instructor was not available; however, the researcher was attending their class to pass out assignments for the instructor and ask for their help on behalf of the Management Department’s administration. Specifically, the researcher was to (1) pass out their graded exams, (2) have them complete a peer evaluation form, and (3) ask them to complete an Instructor Evaluation form and general services questionnaire for the Management Department.

The researcher first distributed the exams to the students, which included the perceived aggression manipulation. The instructor’s comments, which were handwritten on the exams, were the source of perceived aggression. (See Table 1 for a Summary of the Manipulations.) Students were told that because the researcher could not discuss the nature of the exam, if they had any questions or comments, they should feel free to write them for the instructor on the back of the exam (i.e., constructive problem-solving).
### Chapter 3 Table 1
Summary of Manipulations

<table>
<thead>
<tr>
<th>Manipulation</th>
<th>Level</th>
<th>Text of Manipulation</th>
</tr>
</thead>
</table>
| Perceived aggression   | High   | *Four comments were written on each high provocation exam, such that for each exam four comments were randomly selected and then written on the exam.*  
  - This answer is a joke.  
  - My 3-year old niece could have written a better answer.  
  - Could you have written about any more nonsense?!  
  - I can’t believe they let you into college.  
  - This answer is simply moronic.  
  - Are these your answers? Well, don’t quit your “day job.”  
  - I see a career in fast food – but not in management.  
  - I’m not impressed—maybe it’s your lack of talent. |
| Low                    |        | *Four comments were written on each low provocation exam, such that for each exam four comments were randomly selected and then written on the exam.*  
  - Ok  
  - Alright  
  - Fine  
  - Average  
  - Suitable  
  - Adequate  
  - Sufficient  
  - √ |
| Fear of retaliation    | High   | *Participants will be given an instructor evaluation form, which will require them to fill out their name, their teacher’s name, and the course and section numbers. They will then be told:*  
  We will provide your instructor with a copy of your evaluation within the next day or so. |
|                        | No     | *Participants will be given an instructor evaluation form, which will not require them to fill out their name, but will include their teacher’s name and the course and section numbers. They will then be told:*  
  Your evaluations will not be provided to your instructor. Only the Department administration will review your responses. |
After ten minutes, the exams were collected, and the researcher then distributed the Instructor Evaluation Form (i.e., assessment for retaliatory aggression) and Peer Evaluation Form (i.e., assessment for displaced aggression) to the participants. The researcher also set up the fear of retaliation manipulation at this time. Fear of retaliation was manipulated with information about whether or not the instructor was going to see the students’ completed Instructor Evaluation form.

Upon completion of the evaluation forms, participants were given a final questionnaire to complete. This questionnaire contained the manipulation checks. However, the students were told that the final questionnaire was to evaluate the Department’s services (e.g., books, courses offered). Once all students completed the final questionnaire, the researcher thanked them for their time, asked them to wait one minute more, and left the classroom. The instructor for the class was waiting outside the classroom to assist with the debriefing. The researcher immediately entered the room with the instructor and began to debrief the students about the true nature of the experiment.

Debriefing. The researcher explained that the comments provided on the exam were “phony” answers to best depict a perceived aggression (or intentionally harmful comments) by the instructor. The researcher explained that the comments in no way reflect the true feelings of the instructor nor do they represent the true comments of the instructor regarding the students’ performance on the exams or their class standing. The discussion continued until the participants appeared to fully understand and accept the nature of the study, as well as the use of deception (Greenberg & Folger, 1988). Further, in this undergraduate course, part of the curriculum is learning about workplace aggression and the impact of insensitive treatment. Therefore, the debriefing discussions were also used as a learning exercise to highlight this course material.
Afterwards, the students then received their actually-graded exams. (See Appendix C: Debriefing Procedure.)

**Manipulations**

**Pilot Testing the Manipulations.** Two pilot studies were conducted to test the manipulations. The first pilot study was conducted requiring subjects to evaluate the validity of the perceived aggression manipulation. The second pilot study was conducted requiring subjects to both the perceived aggression and fear of retaliation manipulations through a scenario-based exam setting. The subjects were drawn from the same population as the main study. I discuss each pilot study in detail below.

**Pilot Study 1.** The purpose of the first pilot study was to identify instructor comments that would be perceived as most harmful and anger-provoking (perceived aggression), and those that were considered neutral and low anger-provoking (no perceived aggression). In the first pretest, 39 students volunteered to participate for course credit, and were asked to evaluate 39 comments that an instructor might write on one of their exams. For each comment, students were asked to indicate how constructive or destructive the statement appeared (1=very constructive, 2=constructive, 3=somewhat constructive, 4=neutral, neither constructive nor destructive, 5=somewhat destructive, 6=destructive, 7=very destructive). Constructive comments were defined as those that were helpful, considerate, supportive, and provide useful feedback for the work. Destructive comments were defined as discouraging, threatening, pessimistic, and might be viewed as a personal attack. Further, for each comment, students were asked to indicate how the statement made them feel (1=not at all angry, 2=not very angry, 3=somewhat angry, 4=angry, 5=very angry, 6=highly angry, 7=extremely angry).
Each statement was evaluated based on its average of destructiveness and provoked anger. Eight statements were identified to represent perceived aggression; in particular, comments perceived to be the most destructive (i.e., harmful) (averages ranged from 6.08 to 6.82; \(SD = 1.06\) and .45, respectively) and the most anger-provoking (averages ranged from 5.38 to 5.90; \(SD = 1.59\) and 1.37, respectively). Eight separate statements were identified to represent low perceived aggression. These statements averaged more closely to neutral on the constructive/destructive scale (averages ranged from 3.49 to 4.0; \(SD = .82\) and .71, respectively) and were low on anger-provocation (averages ranged from 1.41 to 2.10; \(SD = .79\) and 1.33 respectively). The final 16 statements are provided in Table 1, Summary of Manipulations.

**Pilot Study 2.** The purpose of the second pilot test was to the perceived aggression manipulation and the fear of retaliation manipulation within a scenario-based exam setting. Overall, 88 students volunteered to participate for course credit. The scenario was divided into two different sections. The first section assessed the perceived aggression manipulation. The second section assessed the fear of retaliation manipulation.

To evaluate the perceived aggression manipulation, the first section of the second pilot test asked the students to:

Imagine you received an exam back in one of your classes. Your grade was the grade you typically receive and was about what you expected. In looking through the exam, you find the instructor wrote the following comments:

Reflecting on these comments, students were then asked to respond to a series of questions about the scenario. Two items asked to rate the comments on a 7-point scale (1=not at all, 7=extremely) about how the comments made them feel (specifically, whether they felt anger and frustration) (alpha=.90). Participants were also asked to evaluate the instructor (which would allow the researcher to see if the perceived aggression manipulation positively influenced
retaliatory reactions). The 6-item measure asked them to rate the instructor on a Likert-like scale (1=strongly disagree, 7=strongly agree) (alpha=.92). Sample items include “The instructor is insensitive” and “The instructor has respect and dignity for students (reverse coded). Lastly, students were asked to evaluate the overall nature of the comments, which was the manipulation check for the instructor comments. The 5-item measure asked participants to rate the comments on a Likert-like scale (1=strongly disagree, 7=strongly agree) (alpha=.86). Sample items include “The comments provided by the instructor were mean-spirited” and “I felt the comments written by the instructor were more personal attacks than constructive criticism.”

To evaluate the fear of retaliation manipulation, the second part of the scenario asked students to imagine that after they received the exam feedback, a Department representative asked them to evaluate their instructor. In the scenario for the high fear of retaliation condition, the students were told that the Department asked them to write their name, class section and instructor name on the form, and the Department representative told them that the instructor would see their completed evaluations within the next day or so. In the scenario for the low fear of retaliation condition, students were not required to write their names on the instructor evaluation form, and were told that the instructor would not receive a copy of the evaluation; only the Department administration would see the responses. Students were then asked to answer a series of questions based on the scenario in the second section. The 5-item fear of retaliation measure asked respondents to rate the questions on a Likert-like scale (1=strongly disagree, 7=strongly agree) (alpha=.95). Example items are “I would feel that my Instructor was going to get back at me because of my comments on the evaluation form” and “Based on my evaluation, I would be fearful that my Instructor would get back at me in some way in the remainder of the course.”
In general, the manipulation checks illustrated that the experimental conditions had the intended effects. Perceptions of the aggressive nature of the comments (the manipulation check) were lower in the low perceived aggression condition than the high perceived aggression condition ($M = 3.43$ vs. $5.81; F = 84.09, p < .001$). Participants also experienced less negative emotions in the low perceived aggression condition than the high perceived aggression condition ($M = 2.87$ vs. $5.33; F = 52.75, p < .001$). Further, the results of the instructor evaluations suggested that the perceived aggression manipulation positively influenced retaliatory reactions in that the instructor evaluations were higher in the low perceived aggression condition than the high perceived aggression condition ($M = 4.77$ vs. $3.03; F = 55.88, p < .001$). Moreover, participants’ responses to the fear of retaliation manipulation suggest perceptions of fear of retaliation were lower in the low fear of retaliation condition than the high fear of retaliation condition ($M = 2.08$ vs. $4.55; F = 69.57, p < .001$).

**Perceived Aggression Manipulation.** Perceived aggression was manipulated with written instructor comments on the students’ exams. High perceived aggression comments were those that were considered most harmful (or destructive) and anger-provoking. Examples of comments in the high perceived aggression condition include, “This answer is simply moronic”, “I’m not impressed—maybe it’s your lack of talent” and “I can’t believe they let you into college.” Low perceived aggression comments were considered neutral and were not anger-provoking. Examples of comments in the low perceived aggression condition include, “ok”, “√” and “Suitable.” The researcher felt that if students had received the same and all of the eight comments on their exam that the comments might be perceived as artificial. Therefore, for each exam, four comments were randomly selected from the overall sample of eight comments, and were hand-written throughout the written portion of the exam.
**Fear of Retaliation Manipulation.** Fear of retaliation was manipulated through information provided to the students by the researcher about the Instructor Evaluation Form. Specifically, in the high fear of retaliation condition, students were required to fill out their name, the instructor’s name, and the course and section number on the Instructor Evaluation Form. (See Appendix A: Instructor Evaluation Form—High Fear of Retaliation Condition.) Before passing out the evaluation forms, the researcher told these students, “We will provide your instructor with a copy of your evaluation within the next day or so.” Students in the low fear of retaliation condition were not required to fill out their name on the Instructor Evaluation form and were told, “Your evaluations will not be provided to your instructor. Only the Department administration will review your responses.” (See Appendix B: Instructor Evaluation Form—Low Fear of Retaliation Condition.) Low fear of retaliation instructor forms were coded in order to match the evaluation form with the subject.

**Measures**

**Outcomes.** The outcome variables were retaliatory aggression, displaced aggression and constructive problem-solving. Each measure is described below.

*Retaliatory aggression.* Retaliatory aggression was assessed with the completed instructor evaluation forms. Two evaluation forms were used, depending on the fear of retaliation condition. High fear of retaliation instructor forms required students to write their names on the form (Appendix A), whereas low fear of retaliation instructor evaluation forms did not require students to write their names (Appendix B). The 20-item instructor evaluation form asked subjects to rate their instructor’s performance throughout the semester on a 5-point scale (1=excellent, 5=poor) (alpha=.97). The items were averaged for analysis, such that low scores reflect low retaliatory aggression and high score reflect high retaliatory aggression. Sample
items include, “The instructor’s interest in your learning” and “The instructor’s organization for the course.”

*Displaced aggression.* Displaced aggression was assessed with a team peer evaluation form (Appendix D: Peer Evaluation form). The peer evaluation form assesses individual team member performance and contributions to team work activities. Students rated team members on a 5-point scale (1=causes major problems, 2=not enough, 3=enough, 4=most of the time, 5=all the time). Sample items include, “Notifies other members if going to miss class or a meeting, or if s/he will be late” and “Contributes equally to team assignments.” Items were reverse-scored (to reflect displaced aggression) and averaged. The items were then averaged to produce an overall team member evaluation score; such that low scores reflect low displaced aggression and high score reflect high displaced aggression (alpha=.68).

*Constructive problem-solving.* Lastly, constructive problem-solving was assessed through the comments written by the students to the instructor on the back of their exams. A total of ten students wrote comments on the back of the exam to the instructor. Because not all of the statements may be considered constructive, two judges, who were blind to the experiment, rated the ten statements based on a Likert-like scale (1=not at all constructive, 7=extremely constructive). The ratings from the judges held an Interrater reliability of .90, suggesting the judges had consistent agreement in their evaluations of the statements. One of the statements was judged “not at all constructive” and was excluded from the analysis.

A separate set of seven judges, who were also blind to the experiment, then assessed the remaining items in terms of their constructiveness. These ratings would be used in the analysis. The judges rated the comments on a 5-point scale (1=not very constructive, 2=somewhat constructive, 3=constructive, 4=very constructive, 5=extremely constructive). The average
measure intraclass correlation (ICC = .88) indicated the judges consistently rated the statements. Glick (1985) suggests ICC ratings of .60 are appropriate when items rated by judges are averaged and included in analysis. Therefore, the judges’ evaluations of the 9 statements constituted the items for constructive problem-solving; all other observations received a 0, which produced an overall 6-point scale (0=no comments received, 1=not very constructive, 5=extremely constructive).

**Personality questionnaire.** The personality questionnaire included a variety of personality traits. Of interest to this study are: trait anger, locus of control, and need for social approval. (See Appendix E: Personality Questionnaire.)

*Trait anger.* The anger subscale of Buss and Perry’s (1992) Aggression Questionnaire was used, which assesses an individual’s dispositional tendency toward anger in everyday life. Participants can express agreement on a five-point scale (1= very slightly true of me, 5 = very highly true of me) (alpha=.87). Example items include, “I flare up quickly but get over it quickly” and “I am an even-tempered person” (reverse-coded).

*Locus of control.* The Interpersonal Locus of Control subscale of the Spheres of Control measure (Paulhus, 1983) was used. This scale measures expectancies regarding outcomes of interpersonal situations. Subjects will respond to a scale using a 7-point Likert scale (1=strongly disagree, 7=strongly agree). High scores indicate an internal locus of control (alpha=.70). Example items include, “I can usually achieve what I want if I work hard for it” and “I can learn almost anything if I set my mind to it.”

*The need for social approval.* The 9-item Martin-Larsen Approval Motivation measure (MLAM; Martin, 1984) assesses an individuals approval seeking. Participants were asked to rate their agreement on a 7-point Likert scale (1=strongly disagree, 7=strongly agree) (alpha=.78).
Sample items are “In order to get along and be liked, I tend to be what people expect me to be” and “If there is any criticism or anyone says anything about me, I can take it” (the second item is reverse-coded).

**Post-Experimental Questionnaire.** The post-experimental questionnaire was disguised as a Management Department services evaluation, and included various items that assessed the department’s effectiveness (e.g., the quality of books, quality of class scheduling, overall fairness of the department), as well as the manipulation checks. (See Appendix F: Post-Experimental Questionnaire.)

**Manipulation checks.** The perceived aggression manipulation was assessed with a 5-item measure. Respondents were asked to rate each item on a 5-point Likert-like scale (1=strongly disagree, 5=strongly agree) (alpha=.90). Sample items include, “The comments provided by the instructor were mean-spirited” and “I felt that the comments written by the instructor were more personal attacks than constructive criticism.” The fear of retaliation manipulation was assessed with a 4-item measure. Respondents were asked to rate each item on a 5-point Likert-like scale (1=strongly disagree, 5=strongly agree) (alpha=.89). Sample items include, “I would fear that my Instructor was going to see my evaluation responses” and “I would feel that my Instructor was going to get back at me because of my comments on the evaluation form.”

**Control.** Organizational justice research suggests that the outcomes individuals receive (e.g., a grade on an exam) may influence reactions to perceived mistreatment, particularly when outcomes received are not what is expected (e.g., Greenberg, 1993). Therefore, in this study, grades were not manipulated; rather, students received their actual grades on their exams. Further, to ensure reactions were the consequence of perceived aggression rather than the grade
students received on the exam, it was necessary to control for the students’ actual grade in the analysis.

**Social Desirability Check.** In order to assess for socially desirable responses in the trait anger measure, the correlations between individual self-reported items to those of social desirability was assessed. Social desirability was assessed with an 18-item short version of the Paulhus (1991) measure (alpha = .63). Consistent with previous research (Aquino et al., 1999), I eliminated items that correlated greater than .30 with the Paulhus items. Three trait anger items were eliminated from the original set (“When frustrated, I let my irritation show” \( r = .33 \), “I sometimes feel like a powder keg ready to explode” \( r = .41 \), and “I have trouble controlling my temper” \( r = .41 \)). All other items showed low correlations with social desirability (i.e. \( r < .30 \)). The remaining trait anger items were retained and used in the analysis (alpha=.76).

**Results**

**Manipulation Checks**

In general, the manipulation checks illustrated that the experimental conditions had the intended effects. Perceptions of the aggressive nature of the comments were lower in the low perceived aggression condition than the high perceived aggression condition \( (M = 2.59 \text{ vs. } 3.58; F = 13.91, p < .001) \). Further, perceptions of fear of retaliation were lower in the low fear of retaliation condition than the high fear of retaliation condition \( (M = 1.41 \text{ vs. } 2.19; F = 13.26, p < .001) \).

**Descriptive Statistics and Correlations**

Table 2 provides the descriptive statistics and correlations for the variables used to test our hypotheses.
### Chapter 3 Table 2
Descriptive Statistics and Correlations

<table>
<thead>
<tr>
<th>Variable</th>
<th>M</th>
<th>SD</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Perceived aggression (0=low)</td>
<td>.49</td>
<td>.50</td>
<td>---</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Fear of retaliation (0=low)</td>
<td>.47</td>
<td>.50</td>
<td>.01</td>
<td>---</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Trait anger</td>
<td>2.14</td>
<td>.86</td>
<td>-.13</td>
<td>-.16</td>
<td>---</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Locus of control</td>
<td>5.88</td>
<td>.56</td>
<td>-.09</td>
<td>.01</td>
<td>-.01</td>
<td>---</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Need for social approval</td>
<td>2.74</td>
<td>1.05</td>
<td>.06</td>
<td>-.20</td>
<td>.20</td>
<td>-.44**</td>
<td>---</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>6. Retaliatory aggression</td>
<td>1.79</td>
<td>.79</td>
<td>.19</td>
<td>.14</td>
<td>-.18</td>
<td>-.15</td>
<td>.19</td>
<td>---</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. Displaced aggression</td>
<td>1.01</td>
<td>.04</td>
<td>-.10</td>
<td>-.01</td>
<td>-.15</td>
<td>-.31**</td>
<td>.27*</td>
<td>.03</td>
<td>---</td>
<td></td>
</tr>
<tr>
<td>8. Constructive problem-solving</td>
<td>.35</td>
<td>1.00</td>
<td>-.30**</td>
<td>.19</td>
<td>.04</td>
<td>-.06</td>
<td>.12</td>
<td>.20</td>
<td>-.04</td>
<td>---</td>
</tr>
<tr>
<td>9. Exam grade</td>
<td>80.94</td>
<td>11.60</td>
<td>-.03</td>
<td>-.02</td>
<td>-.03</td>
<td>.09</td>
<td>.08</td>
<td>-.23</td>
<td>.22</td>
<td>-.19</td>
</tr>
</tbody>
</table>

The phi-coefficient is reported for perceived aggression and fear of retaliation. Point-biserial correlations are reported for all dichotomous and continuous variables, and zero-order correlations are shown for all continuous variables.

\[ n = 77; \] * \( p < .05 \), ** \( p < .01 \), *** \( p < .001 \)
Tests of Hypotheses

The moderated regressions used to test our hypotheses are shown in Table 3. Following the recommendation of Cohen, Cohen, West, and Aiken (2003), measured predictor variables were mean-centered to reduce multicollinearity. Variance inflation factor (VIF) scores were assessed for the measured predictive variables; all were well below the 10.0 standard (Ryan, 1997), suggesting multicollinearity did not present a biasing problem. Values representing plus or minus one standard deviation from the mean were used to generate the plotted regression lines for all personality moderators (Cohen et al., 2003).
Hypothesis 1(a-c) predicts fear of retaliation will moderate the positive relationship between perceived aggression and (a) displaced aggression such that the relationship will be stronger when fear of retaliation is high than low, but that the positive relationships between
perceived aggression and (b) retaliatory aggression and (c) constructive problem-solving will be stronger when fear of retaliation is low than high. The results show the fear of retaliation x perceived aggression interaction was not significantly related to displaced aggression or constructive problem-solving. Therefore, Hypotheses 1(a) and 1(c) were not supported.

The fear of retaliation x perceived aggression interaction was significantly related to retaliatory aggression. As with perceived aggression, fear of retaliation was manipulated (with values of 0=low and 1=high). Means and standard deviations for the perceived aggression and fear of retaliation manipulations are reported in Table 4. Bonferroni post hoc test results revealed the mean of the no aggression/low fear of retaliation condition was significantly different from all other categories ($p<.05$), and that none of the other conditions were significantly different from one another. However, the difference in the mean between the no aggression/low fear of retaliation condition was marginally significantly different from the no aggression/high fear of retaliation condition ($p<.10$).

<table>
<thead>
<tr>
<th>Low fear of retaliation</th>
<th>High fear of retaliation</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>M</strong></td>
<td><strong>SD</strong></td>
</tr>
<tr>
<td>Low perceived aggression</td>
<td>1.32&lt;sup&gt;a&lt;/sup&gt;</td>
</tr>
<tr>
<td>High perceived aggression</td>
<td>2.03&lt;sup&gt;b&lt;/sup&gt;</td>
</tr>
</tbody>
</table>

*Note:* Within each row and column, means sharing a common subscript do not differ from one another; those with different subscripts are different from one another.

Figure 1 shows the interaction exhibited a pattern consistent with Hypothesis 1(b). In the low fear of retaliation condition, the relationship between perceived aggression and retaliatory
aggression was positive; such that subjects in the no aggression condition engaged in significantly lower levels of retaliation than subjects in the aggression condition. Although the pattern of the slope suggests a negative trend for high fear of retaliation, the means between no aggression/high fear of retaliation and aggression/high fear of retaliation were not significantly different (see Table 4). Overall, the results provide support for Hypothesis 1(b).

Hypothesis 2(a-c) predicts trait anger will moderate the positive relationships between perceived aggression and (a) retaliatory aggression and (b) displaced aggression such that the relationship will be stronger when trait anger is high than low, but that the positive relationship between perceived aggression and (c) constructive problem-solving will be stronger when trait anger is low than high. Contrary to my predictions, the trait anger x perceived aggression
interaction was not significantly related to displaced aggression or constructive problem-solving. Therefore, Hypothesis 2(b) and 2(c) were not supported.

The results show the trait anger x perceived aggression interaction was significantly related to retaliatory aggression. Figure 2 shows the interaction does not exhibit a pattern consistent with Hypothesis 2(a). The relationship between perceived aggression and retaliation was positive when trait anger was low, such that as perceived aggression increased, retaliatory aggression increased. However, the relationship was not significant when trait anger was high. Therefore, Hypothesis 2(a) was not supported.

![Chapter 3 Figure 2: Interaction of Perceived Aggression and Trait Anger on Retaliatory Aggression](image)

Hypothesis 3(a-c) predicts locus of control will moderate the positive relationship between perceived aggression and (a) retaliatory aggression and (b) constructive problem-solving such that the relationship will be stronger when locus of control is high than low, but the positive relationship between perceived aggression and (c) displaced aggression will be stronger
when locus of control is low than high. Contrary to the predictions, the perceived aggression x locus of control interaction was not significantly related to any of the dependent variables. Therefore, Hypothesis 3(a), 3(b), and 3(c) were not supported.

Hypothesis 4(a-c) suggests need for social approval will moderate the positive relationship between perceived aggression and (a) constructive problem-solving such that the relationship will be stronger when need for social approval is high than low, but the positive relationship between perceived aggression and (b) retaliatory and (c) displaced aggression will be stronger when low need for social approval is low than high. Contrary to the predictions, the results show the perceived aggression x need for social approval interaction was not significantly related to any of the dependent variables. Therefore, Hypotheses 4(a), 4(b) and 4(c) were not supported.

**Discussion**

This study sought to understand individuals’ reactions to perceived aggression. Although some theorists contend aggression is a primary reaction to perceived aggression (e.g., Dollard et al., 1939; Lorenz, 1962), we also know individuals may not always react aggressively (e.g., Keashly et al., 1994; Tripp & Bies, 1997). Aggression research suggests what influences aggressive versus non-aggressive reactions are restraining factors and characteristics of the victim (see Anderson & Bushman, 2002 and Baron, 2004, for reviews). The results of this study suggest that fear of retaliation and trait anger moderate the relationship between perceived aggression and retaliatory reactions. However, only fear of retaliation influenced the relationship as predicted. Further, the results did not provide support for the moderating effects of locus of control or the need for social approval. I discuss the findings in more detail below.
Fear of Retaliation as a Situational Moderator of Reactions to Perceived Aggression

The theory of frustration—aggression (Dollard et al., 1939) suggests fear of retaliation can influence aggressive reactions to aggression. Accordingly, victims of aggression who fear retaliation from the harmdoer refrain from retaliating against the source of harm. Doing so, however, causes individuals to become highly frustrated and, consequently, displace their aggression on other targets. The results of this study provide some support for these contentions, but not fully. Specifically, fear of retaliation influenced retaliatory reactions to perceived aggression. As predicted, the relationship between perceived aggression and retaliatory aggression was stronger when fear of retaliation was low rather than high. However, high fear of retaliation did not significantly weaken retaliatory reactions to perceived aggression, as suggested by Dollard et al. Rather, the differences in the means between the no aggression and aggression conditions for high fear of retaliation were not significantly different. Nevertheless, the results do suggest that when fear of retaliation was low, students were more likely to respond with retaliation in the aggression condition compared to the non-aggression condition.

The difference in the means in the no aggression condition suggests the high fear of retaliation manipulation might not have instigated high fear, as intended. Specifically, individuals in the no aggression/high fear of retaliation condition responded similarly to individuals in the high aggression condition. It appears the fear of retaliation manipulation elicited responses similar to the aggression manipulation. Rather than elicit fear of retaliation, the manipulation appears to be interpreted as another form of aggression.

High fear of retaliation was manipulated by telling the students that they were required to write their names on the Instructor Evaluation form and telling them that their instructor would see the evaluations within the next day or so. In general, students are used to filling out
Instructor Evaluations at the end of the semester. The end of the semester evaluations are anonymous and students know that instructors will not see responses until after semester grades are posted. Thus, the sharp contrast in the instructions may have angered (rather than incited fear in) the students because the Instructor Evaluation instructions were particularly different in the experiment versus at the end of the year. In short, perhaps the high fear of retaliation manipulation did not adequately inhibit retaliatory reactions because the instructions were interpreted as another form of aggression.

The experiment was not successful in demonstrating the moderating effects of fear of retaliation on the relationship between perceived aggression and displaced aggression. The lack of findings for fear of retaliation of displaced aggression is perplexing, particularly given its support in social psychology experiments (cf., Marcus-Newhall et al., 2002). One explanation for the non-finding may be that the relationships students hold with fellow team members was not worthy of ruin. Displaced aggression in this study would provide for catharsis, meaning students could release their negative and aggressive energy on their fellow team members. However, both Miller (1941) and Sears (1941) argued that individuals may not choose to engage in aggression if learned experiences suggest it is not an appropriate response. Similarly, in a review of the frustration—aggression theory, Tedeschi and Felson (1994) argued that research has not consistently demonstrated cathartic effects of displaced aggression; rather some forms of displaced aggression are better explained through learning effects. In particular, they argued that experience and learned history allow individuals to discriminate when to be or not to be aggressive, suggesting displaced aggression can be a cognitive reaction as well.

In this study, the experiment took place relatively early in the semester (after the first exam). This was purposeful in order to ensure students were not previously exposed to the
instructor’s exam grading style. However, team projects were only just starting to gear up for the semester. Perhaps students refrained from aggressing against fellow team members because they do not want to jeopardize the emerging relationships with their team members, particularly in a class that allows students to decide on the overall distribution of team grades to individual team members. If students understand from past experience that aggressing against team members would only hurt them in the long run (i.e., they feared retaliation from fellow team members), then they may refrain from displacing aggression. Therefore, students may not have displaced aggression because they did not believe they have a safe target for their displaced aggression.

With this in mind, I conducted post-hoc analysis to explore whether or not individuals might displace aggression on other targets—safer targets. Specifically, in the study’s post-experimental questionnaire, students evaluated some of the Management Department’s services (i.e., quality of books and classes). If students wanted to vent their hostilities, they may have safely displaced their aggression toward the Management Department by rating their services poorly. Therefore, I tested the moderating effects of fear of retaliation on the relationship between perceived aggression and other forms of organization-targeted displaced aggression (evaluations of the quality of books, quality of the classes offered, and overall fairness of the department). The regression results show the statistical models were not significant for evaluations of the quality of the classes ($F=.70, n. s.$) or books ($F=1.37, n. s.$). However, the statistical model for the analysis of overall fairness of the Management Department was significant ($R^2=.31$, $Adj. R^2=.19$, $F=2.59, p<.01$), and the results show the perceived aggression x fear of retaliation interaction was significant at the $p<.10$ level ($b=.47$, $se=.27$, $\beta=.35$, $p<.10$).

Pedhazur and Schmelkin (1991) argue that interactions at the $p<.10$ level are worthy of further exploration. Therefore, the plotted interaction for overall fairness evaluations is shown in Figure
3. The pattern provides support for the prediction that the positive relationship between perceived aggression and displaced aggression will be stronger when fear of retaliation is high than low. As perceived aggression increased, subjects in the high fear of retaliation condition evaluated the overall fairness of the Department more poorly (i.e., displacing aggression) than subjects in the low fear of retaliation condition. Although overall fairness of the Management Department is not an exact measure of overall assessments of the Management Department, they do represent a “safer” target of displaced aggression. The results, therefore, provide some support for Dollard et al.’s contention that fear of retaliation from the source of the harm may enhance reactions of displaced aggression to perceived aggression.

The lack of findings for the other, “safer,” forms of displaced aggression (i.e., evaluations of the quality of classes and books) compared to the findings with overall fairness displaced aggression is also worthy of further comment. The differences in the findings suggest it might also be similarity of the target of displaced aggression to the source of the perceived aggression that affects individuals’ displaced aggression. Research on displaced aggression in social psychology has demonstrated that individuals are more likely to displace aggression against targets that are more similar to the harmdoer (see Marcus-Newhall et al., 2002, for a review). This may be the case here; the overall fairness measure asked students to evaluate the fairness of treatment provided by Management Department instructors (i.e., “Overall, I’m treated fairly in courses” and “For the most part, instructors treat students fairly”). Therefore, subjects may have rated the overall fairness of the Management Department more poorly because the treatment described was treatment by instructors, in general, in the Management Department—a similar target to the source of the perceived aggression in this study (the instructor who wrote the comments on their exam).
Fear of retaliation also did not moderate constructive problem-solving reactions to perceived aggression. Rather, fear of retaliation was positively and directly related to constructive problem-solving, suggesting fear of retaliation enhanced these reactions. These findings are in contrast to the sexual harassment and whistleblowing literatures, which suggest that individuals who fear retaliation from the harmdoer refrain from trying to reconcile or resolve the problem with that individual. However, the nature of this experiment was slightly different than that of sexual harassment or whistleblowing (where an individual is dealing with illegal and potentially immoral acts against them). Students may have engaged in constructive problem-solving in this setting because the setting of the experiment itself was a learning environment (i.e., a class setting), where the role of the instructor is to provide feedback on performance. Therefore, if students wanted to understand more about how they performed on their exam,
regardless if they knew the instructor was going to see the completed instructor evaluation, they might ask the instructor about the exam.

One last comment on fear of retaliation is worth noting. The difference between the means of the high and low fear of retaliation conditions was relatively small, although statistically significant. Therefore, the manipulation may not have evoked considerable fear of retaliation from those in the high fear of retaliation condition to influence reactions to perceived aggression. Specifically, had the differences in means been larger, fear of retaliation may have more strongly influenced the relationship between perceived aggression and retaliatory aggression. Similarly, there may have been effects for displaced aggression. Lastly, had individuals more strongly felt fear of retaliation from the instructor, they may have been less inclined to engage in constructive problem-solving behaviors.

**Individual Characteristics as Moderators of Reactions to Perceived Aggression**

Although trait anger was predicted to strengthen aggressive reactions to perceived aggression, trait anger only influenced retaliatory reactions. Contrary to my predictions, the relationship between perceived aggression and retaliatory aggression was stronger when trait anger was low rather than high. For high trait anger, the relationship between perceived aggression and retaliatory aggression was not significant. High trait-angry individuals maintained generally high levels of retaliation whether or not they received aggressive comments on their exam. This pattern suggests that high trait-angry individuals reacted more negatively to the exercise in general. In contrast, low trait-angry individuals reacted more aggressively when they received aggressive comments on the exam and their levels of retaliation increased, accordingly.
The results did not provide support for the moderating effects of locus of control. Although the stress and aggression literatures suggest locus of control influences direct reactions to conflict situations (i.e., retaliatory aggression and constructive problem-solving), locus of control did not influence reactions in this study. However, the lack of findings could be due to the fact that individuals who are high in locus of control (or who have an internal focus) believed that they were responsible for the improving the situation and, therefore, might have engaged in other types of behaviors. For example, a student who had an internal focus might have gone to report the instructor to Administration or might have decided to change their study habits to improve for the next exam. Students with a low locus of control (or external focus) might have felt as though the situation was entirely out of their control and, therefore, did not feel any reaction was necessary.

The results also did not provide support for the moderating effects of need for social approval. Further, research on the need for social approval suggests high need for social approval enhances help-seeking behaviors, such as writing comments to an instructor about one’s exam. The lack of findings may be due to the nature of the situation. Although individuals who have a high need for social approval engage in activities to enhance social contact and seek approval of others, they also retreat from negative and threatening situations (i.e., perceived aggression). Therefore, perhaps the instructor comments were too threatening and, therefore, this form of constructive problem-solving was not a feasible way to address the problem for those with high need for social approval. Rather, high need for social approval individuals may have sought out other means to handle the situation constructively (e.g., talking with peers or team members).
Implications

The purpose of this study was to investigate which factors influence aggressive and non-aggressive reactions to perceived aggression. I drew from the theory of frustration-aggression (Dollard et al., 1939) and personality research to test the influence of fear of retaliation and individual characteristics on reactions to perceived aggression. Only two of the tests of the hypotheses revealed significant effects—and only one of the two was significant as predicted. (See Appendix G, Summary of Findings.) The unexpected findings highlight the need to reconsider the theoretical framework under which the hypotheses were developed and to further examine the measures used to capture the variables in this study.

The findings for fear of retaliation with respect to retaliatory reactions to perceived aggression are consistent with Dollard et al.’s (1939) frustration-aggression theory. Individuals in the low fear of retaliation condition were more likely to retaliate when they received aggressive comments on their exam. However, I expected retaliatory reactions to be weakened when fear of retaliation was high. Although the slope for the high fear of retaliation condition suggests a negative trend, the differences in the means from the no aggression to aggression conditions were not significantly different. Therefore, the high fear of retaliation manipulation did not significantly to inhibit retaliatory reactions, as predicted by Dollard et al. (1939).

Further, Dollard et al. contend that if individuals fear retaliation from the source of the harm, they displace or redirect their aggression on other targets. Essentially, they describe displaced aggression as a cathartic response to perceived aggression. However, the results of this study suggest displaced aggression may be more of a cognitive reaction than Dollard et al. proposed. I argued that perhaps subjects did not displace aggression on their fellow team members because doing so might be ruining potential social support and might also worsen their
conditions by promoting further aggression. To further explore these arguments, I then assessed whether subjects displaced aggression on safer targets. Post hoc analysis revealed fear of retaliation did strengthen displaced aggression reactions to aggression. However, not all “safe” targets/forms of displaced aggression were affected. Rather, fear of retaliation only influenced the displaced reactions to aggression that were directed toward a target similar to the initial instigator (specifically, instructors). The overall results of this study suggest displaced aggression is a fairly complex phenomenon that warrants further investigation. Specifically, it is important for future research to not only identify the targets of displace aggression, but also to understand what motives instigate displaced aggression on that particular target.

Aside from fear of retaliation, this study also investigated the influence of personality traits on reactions to perceived aggression. Trait anger did influence retaliatory reactions, however not as expected. Research on trait anger suggests high trait-angry individuals react more strongly to personal attacks (see Deffenbacher, 1992, for a review). The results of both experimental conditions suggest that high trait-angry individuals found the different conditions generally anger-provoking. For example, high trait-angry individuals engaged in similar levels of retaliation whether or not they received aggressive comments on their exam. In contrast, low trait-angry individuals became particularly agitated when they received aggressive comments on the exam. Consequently, they retaliated more strongly than those high in trait anger when they received aggressive comments.

Interestingly, none of the other personality traits influenced reactions to perceived aggression. Aggression research in social psychology has demonstrated the effects of various individual characteristics on reactions to perceived aggression (see Anderson & Bushman, 2002, for a review). However, the moderating effects of locus of control and need for social approval
were not found in this study. Two explanations may explain the lack of findings. First, the non-findings may be due to a lack of adequate power in the statistical model, suggesting that perhaps more subjects might be required to adequately produce results. Secondly, the personality traits identified in this study may not adequately influence the reactions to perceived aggression explored in this study. Therefore, further research is required to identify the individual characteristics that better capture differences in aggressive and non-aggressive reactions to perceived aggression.

Another pattern that emerged in the results is that retaliation appears to be a more primary reaction to perceived aggression. Although subjects did displace aggression via their ratings of the overall fairness of the Management Department, in the main, retaliatory reactions seemed to be the most dominant response. This result begs the question: “Is retaliation a primary reaction to perceived aggression?” For example, perhaps individuals first retaliate out of anger and then displace aggression on others later. Thus, further research is necessary to explore primary and secondary reactions to aggression to see whether an order effect occurs.

The lack of findings for the displaced aggression and constructive problem-solving warrants further discussion. An explanation for the non-findings could be due to (1) a measurement issue and (2) more complex, underlying processes may better predict behavioral reactions.

First, perhaps the measures of displaced aggression and constructive problem-solving did not adequately capture these reactions to perceived aggression. The post hoc analyses revealed that different forms of displaced aggression matter in predicting whether an individual displaced aggression in response to perceived aggression. The same argument could apply to constructive problem-solving. This study identified a very specific form of constructive problem-solving:
writing comments to the instructor on the back of the exam. Perhaps subjects were willing to engage in constructive problem-solving behavior, but those reactions were not captured in this study. For example, students may have planned to go see the instructor after class or write the instructor an e-mail. Further, students may have decided to engage in other reactions, not described in this study. For instance, students may have decided to drop the class (a form of withdrawal), or talk with their friends about the situation (a form of “venting”). Thus, the lack of results may be explained by the studies limited measures of reactions to perceived aggression. Consequently, future research should seek to identify the broad range of behavioral reactions to perceived aggression.

A second explanation for the lack of findings is that underlying processes might have influenced the reactions to aggression. Social psychology researchers argue that emotions and psychological states guide the behavioral choices, which ultimately influence the behaviors individuals decide to engage in when they perceive aversive events (see Anderson & Bushman, 2002, for a review). Anderson and Bushman (2002) developed an integrative model of aggression, called the General Aggression Model (GAM). According to GAM, after individuals perceive the aversive event (like perceived aggression), reactions are processed through the psychological state. The psychological state involves cognitive (e.g., thoughts, memories), emotional (e.g., fear, anger) and physical reactions (e.g., excitement, arousal). The psychological state then influences the decision-making process. Individuals may react immediately, which are generally based on an over-riding emotion (e.g., anger). However, they may also engage in secondary decision-making processes, whereby they analyze the situation further (e.g., expected punishments for retaliation), their own psychological state (e.g., burnout) and their emotions to see if they are valid. These secondary decision-making processes may be
critical mediators that influence behavioral reactions to aggression. Therefore, future research should further explore these underlying processes to better predict how individuals respond to perceived aggression.

**Conclusion**

Theorists have argued that aggression produces the instigation of aggression (e.g., Berkowitz, 1998; Dollard et al., 1939). Aggression is said to be a natural, instinctual reaction (Geen, 1991; Lorenz, 1966). However, Miller (1941) provided an important clarification to the theory: “[aggression] produces instigations to a number of different responses, one of which is an instigation to some form of aggression” (338). The results of this study provide support for aggressive reactions—and, in particular, retaliatory aggression. However, the variables considered in this study did not successfully influence other types of reactions to aggression (displaced aggression and constructive problem-solving). Although the results provide some support the notion that individuals generally like to retaliate against those who harm them, we also know that not everyone retaliates. In order to progress our understanding of aggression, it is important for future research to continue to identify and test factors that may influence reactions and, in particular, non-destructive reactions (like constructive problem-solving).
APPENDIX A

INSTRUCTOR EVALUATION FORM: HIGH FEAR OF RETALIATION CONDITION
**STUDENT EVALUATION OF THE INSTRUCTOR**

This form provides you an opportunity to express your views about your instructor and his/her teaching abilities. The purpose of this evaluation is to obtain information to improve instruction and provide data in evaluating the instructor.

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<td>2. The instructor's feedback concerning your performance in this course</td>
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<td>3. Use of class time</td>
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<td>4. The instructor's interpersonal skills</td>
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APPENDIX B

INSTRUCTOR EVALUATION FORM: LOW FEAR OF RETALIATION CONDITION
STUDENT EVALUATION OF THE INSTRUCTOR

This form provides you an opportunity to express your views about your instructor and his/her teaching abilities. The purpose of this evaluation is to obtain information to improve instruction and provide data in evaluating the instructor.

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APPENDIX C

DEBRIEFING PROCEDURES
Debriefing Procedure

1. Thank everyone and slowly introduce the topic of the experiment.
   a. Thank you for your time and for filling in the number of evaluations and questionnaires today.
   b. First, let me ask... Do you have any questions about what took place today?
   c. Did you all feel that the materials were correct?
   d. While reviewing your exam, did you feel that the comments might not have been correct?
   e. Is there any reason to disagree or disbelieve the presented material?
   f. What we did today was actually a “class exercise”.

2. Discuss the true nature of the experiment.
   b. We used the comments written on your exams as the source of insensitive treatment. All comments written on your exam were bogus.
   c. So, the comments varied in terms of their tone. We were interested in your reactions to these different types of comments. In general, when you get treated insensitively, folks want to react in some way.

3. Discuss the nature of insensitive and mistreatment in organizations and individuals’ reactions.
   a. Understanding responses to insensitive behavior is important for workplace research, particularly with regard to workplace mistreatment.
   b. We wanted to understand how the level of insensitivity influences individual’s reactions.
   c. For example, we randomly assigned different types of comments on your exam. Half of you received rude comments, and the other half received neutral comments. We believe the really interesting reactions result when individuals deal with very rude and insensitive behavior; not many individuals like to be treated in that way.
   d. We also wanted to understand how different individual characteristics (e.g., personality traits) and situational variables influence reactions. Earlier in the semester, you completed personality tests.
      i. Of the many inventories you completed, we were particularly interested in locus of control, trait anger, and desire for social approval. Since these are variables you have already discussed in class, what type of response do you believe is warranted when individuals hold these types of personality traits? Based on other personality variables you’ve studied, what else do
you believe may influence individuals’ reactions to insensitive or abusive treatment? How does this translate to the work environment?

ii. A last variable of interest in this study is fear of future penalty. Each class has been told different things with regard to whether or not the Instructor would be able to see the students’ completed Instructor Evaluations. Your class was told X (the researcher will fill this in depending on what the class was told). Based on your readings of conflict, power and influence, what are your thoughts on reactions if individuals believe their instructor would see the students’ completed evaluations? How does this translate to the work environment? In what situations would individuals feel this way?

e. We were looking at three types of reactions in class today:
   i. Those directed against the Instructor (Instructor Evaluation ratings)
   ii. Those displaced on other students (Peer Evaluation ratings), and
   iii. Those efforts that sought a reasonable solution to the problem (comments written on the back of the exam).

f. Assure the students that the comments do not reflect the students’ performance on the exam or the instructor’s perceptions of their performance on the exam or them personally.
   i. Although the grade noted on the exam was the accurate grade you earned on the exam, the comments were random and not based on the answers you provided on the exam. Please disregard any of the comments, as they in no way reflect your instructor’s perceptions of your answers on the exam or your instructor’s perceptions of you.
   ii. Your actually graded exams (with the true comments from the instructor) will be available from your instructor at the end of the class period.
   iii. Again, the comments were simply used to allow us to investigate potential reactions to insensitive behavior.
   iv. I can assure you that none of the responses to any of the questions you filled out today will affect your grade in the course.

4. Discuss how we will ensure confidentiality.
   a. Your responses will not be revealed to a third party under any circumstances, which means no one other than the researchers will ever see the specific comments you wrote on the back of the exam, the responses on the Instructor Evaluation form, or the responses on the Peer Evaluation forms – no one: not your instructor, not your classmates, not other students, no one.
   b. Instead, the responses will be combined with over all others and all results will be presented as “40% of respondents said X” or “60% said Y.” As a result, no one other than the researcher will ever see individual responses, and no one will ever be able to tell one individual from another in the results.

5. Provide information regarding the results of this study.
a. I am still in the process of collecting data, and am unable to reveal the results at this time. However, when everything is collected and analyzed, I will post a summary of the results on my website.

b. I will provide additional resources that touch on the nature of this workplace issue, should you want to additional information on the topic.

c. Further, If you would like to see the results of this study, once everything is completed, please feel free to visit my website at www.bus.ucf.edu/mmitchell or you can feel free to drop by my office at BA371B, or contact me at my official business address and numbers:

   Marie S. Mitchell  
   Department of Management  
   College of Business Administration  
   P.O. Box 161400  
   Orlando, FL 32816-1400  
   Voice: (407) 823-1715  
   Email: marie.mitchell@bus.ucf.edu

6. Ask students not to discuss the experiment with other students outside of this class.
   a. Because the study is still on-going, I very much appreciate it if you do not discuss today’s session with other students outside of this class.

7. Close out discussions and thank students for participating in the exercise.
   a. I again thank you for your time, efforts and support with my research!
APPENDIX D

PEER EVALUATION FORM
Peer Performance Review

Team Name: _____________________________________ Student Name _____________________________________

Instructions:
1. Write all of your team members' names in the first row. Do not include your own name.
2. Using the following scoring scale, assign numerical values in the rows numbered 1 through 10, then add up the Total Score. Consider each team member separately from the others. You must provide justification for very low and very high scores.
3. Write any additional comments on the back of this page about the effectiveness of any or all of your team members.
4. Place this form in a sealed envelope to insure confidentiality. Your responses will not be revealed to your teammates in any form in which you will be identifiable.
5. Peer evaluation scores will be tabulated and overall team points will be assigned based on percentage of the total possible score.

Scoring: 5 = All the time 4 = Most of the time 3 = Enough 2 = Not Enough 1 = Causes Major Problems

<table>
<thead>
<tr>
<th>Team members’ names → (Do not write in your own name)</th>
<th>5</th>
<th>4</th>
<th>3</th>
<th>2</th>
<th>1</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Attends all classes, meetings, and events, and is on time or early.</td>
<td></td>
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<tr>
<td>2. Notifies other members if going to miss class or a meeting, or if s/he will be late.</td>
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<tr>
<td>3. Is professional and polite. Treats others (and their opinions) with respect.</td>
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<tr>
<td>4. Demonstrates honesty, integrity, and responsibility.</td>
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<tr>
<td>5. Listens attentively and doesn’t interrupt. Is open to any and all ideas.</td>
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<tr>
<td>6. Contributes equally to team assignments.</td>
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<tr>
<td>7. Completely fulfills his/her obligations by deadlines. Does what s/he agreed to do.</td>
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<tr>
<td>8. His/her own work is high quality.</td>
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<tr>
<td>9. Gives constructive criticism, and takes same seriously and without being defensive.</td>
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<tr>
<td>10. Coaching is high quality, on target, and delivered tactfully.</td>
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</tr>
</tbody>
</table>

Total Score:
Personality Questionnaire

Please complete the demographic information below.

<table>
<thead>
<tr>
<th>Question</th>
<th>Answer Options</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. What is your age?</td>
<td></td>
</tr>
<tr>
<td>2. What is your sex?</td>
<td>Male, Female</td>
</tr>
<tr>
<td>3. What is your race?</td>
<td>American Indian or Alaskan Native, Hispanic, Asian or Pacific Islander, White (not Hispanic), Black (not Hispanic), Other: ____________________ (Please write in)</td>
</tr>
<tr>
<td>4. What is your academic level?</td>
<td>Freshman, Sophomore, Junior, Senior</td>
</tr>
<tr>
<td>5. What is your major?</td>
<td></td>
</tr>
</tbody>
</table>

Listed below is a series of statements that represent feelings that you might hold in general with people. Please indicate your agreement with each statement by circling the appropriate number.

**Locus of Control Measure**

<table>
<thead>
<tr>
<th>Statement</th>
<th>Strongly disagree</th>
<th>Strongly agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. I can usually achieve what I want if I work hard for it.</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>2. Once I make plans, I am almost certain to make them work.</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>3. I prefer games involving some luck over games requiring pure skill.</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>4. I usually do not set goals because I have a hard time following through on them.</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>5. I can learn almost anything if I set my mind to it.</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>6. Bad luck has sometimes prevented me from achieving things.</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>7. Most of what happens in my career is beyond my control.</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>8. My major accomplishments are entirely due to my hard work and ability.</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>9. I find it pointless to keep working on something that's too difficult for me.</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>10. Almost anything is possible for me if I really want it.</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
</tbody>
</table>
Listed below is a series of statements that represent behaviors you may have conducted. Please indicate the degree of your agreement with each statement by circling the appropriate number.

**Social Desirability Measure**

<table>
<thead>
<tr>
<th>Statement</th>
<th>Strongly disagree</th>
<th>Strongly agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. I sometimes tell lies if I have to.</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>2. I never cover up my mistakes.</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>3. There have been occasions where I have taken advantage of someone.</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>4. I never swear.</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>5. I sometimes try to get even rather than forgive and forget.</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>6. I always obey laws, even if I’m unlikely to get caught.</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>7. I have said something bad about a friend behind his or her back.</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>8. When I hear people talking privately, I avoid listening.</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>9. I have received too much change from a salesperson without telling him or her.</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>10. When I was young I sometimes stole things.</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>11. I have never dropped litter on the street.</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>12. I sometimes drive faster than the speed limit.</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>13. I have done things that I don’t tell other people about.</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>14. I never take things that don’t belong to me.</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>15. I have some pretty awful habits.</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>16. I don’t gossip about other peoples’ business.</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>17. I have taken sick-leave from work or school even though I wasn’t really sick.</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>18. I have never damaged a library book or store merchandise without report.</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
</tbody>
</table>

Listed below is a series of statements that represent feelings that you might hold in general. Please indicate your agreement by circling the appropriate number.

**Proactive Personality Measure**

<table>
<thead>
<tr>
<th>Statement</th>
<th>Strongly disagree</th>
<th>Strongly agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. I am constantly on the lookout for new ways to improve my life.</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>2. Wherever I have been, I have been a powerful force for constructive change.</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>3. Nothing is more exciting than seeing my ideas turn into reality.</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>4. If I see something I don’t like, I fix it.</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>5. No matter what the odds, if I believe in something I will make it happen.</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>6. I love being a champion for my ideas, even against others’ opposition.</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>7. I excel at identifying opportunities.</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>8. I am always looking for better ways to do things.</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>9. If I believe in an idea, no obstacle will prevent me from making it happen.</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>10. I can spot a good opportunity long before others can.</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
</tbody>
</table>
Listed below is a series of statements that represent feelings that you might hold in general. Please indicate your agreement by circling the appropriate number.

### Need for Social Approval Measure

<table>
<thead>
<tr>
<th>Statement</th>
<th>Strongly disagree</th>
<th>Strongly agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. I am willing to argue only if I know that my friends will back me up.</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>2. In order to get along and be liked, I tend to be what people expect me to be.</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>3. I find it difficult to talk about my ideas if they are contrary to group opinion.</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>4. I change my opinion (or the way that I do things) in order to please someone else.</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>5. I am careful at parties and social gatherings for fear that I will do or say things that others won’t like.</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>6. If there is any criticism or anyone says anything bad about me, I can take it.</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>7. I would rather be myself than do something else but be well thought of.</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
</tbody>
</table>

### Need for Affiliation

<table>
<thead>
<tr>
<th>Statement</th>
<th>Strongly disagree</th>
<th>Strongly agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. One of the most enjoyable things I can think of that I like to do is just watching people and seeing what they are like.</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>2. I think being close to others, listening to them, and relating to them on a one-to-one level is one of my favorite and most satisfying past-times.</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>3. Just being around others and finding out about them is one of the most interesting things I can think of doing.</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>4. I feel like I have really accomplished something valuable when I am able to get close to someone.</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>5. I find it very satisfying to be able to form new friendships with whomever I like.</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>6. I usually do not change my position when people disagree with me.</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
</tbody>
</table>

### Trait Anger

<table>
<thead>
<tr>
<th>Statement</th>
<th>Very slightly true of me</th>
<th>Very highly true of me</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. I flare up quickly but get over it quickly.</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>2. When frustrated, I let my irritation show.</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>3. I sometimes feel like a powder keg ready to explode.</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>4. I am an even-tempered person.</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>5. Some of my friends think I’m a hothead.</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>6. Sometimes I fly off the handle for no good reason.</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>7. I have trouble controlling my temper.</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
</tbody>
</table>
Listed below is a series of statements that may or may not apply to you. Choose a number for each statement to indicate the extent to which you agree or disagree with that statement.

**Big 5 Personality Inventory**

<table>
<thead>
<tr>
<th></th>
<th>1: Disagree strongly</th>
<th>2: Disagree a little</th>
<th>3: Neutral</th>
<th>4: Agree a little</th>
<th>5: Agree strongly</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>I am kind to almost everyone.</td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>2</td>
<td>I like to cooperate with others.</td>
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<td></td>
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</tr>
<tr>
<td>3</td>
<td>I am helpful and unselfish with others.</td>
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<td></td>
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</tr>
<tr>
<td>4</td>
<td>I have a forgiving nature.</td>
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</tr>
<tr>
<td>5</td>
<td>I am generally trusting.</td>
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<tr>
<td>6</td>
<td>I tend to find fault with others.</td>
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<tr>
<td>7</td>
<td>I start quarrels with others.</td>
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<tr>
<td>8</td>
<td>I can be cold and aloof.</td>
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<tr>
<td>9</td>
<td>I am sometimes rude to others.</td>
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<tr>
<td>10</td>
<td>I do a thorough job.</td>
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<tr>
<td>11</td>
<td>I do things efficiently.</td>
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<tr>
<td>12</td>
<td>I make plans and follow through.</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>13</td>
<td>I am a reliable worker.</td>
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<tr>
<td>14</td>
<td>I persevere until the task is finished.</td>
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</tr>
<tr>
<td>15</td>
<td>I am easily distracted.</td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>16</td>
<td>I can be somewhat careless.</td>
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<td></td>
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</tr>
<tr>
<td>17</td>
<td>I tend to be lazy.</td>
<td></td>
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<tr>
<td>18</td>
<td>I tend to be disorganized.</td>
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<tr>
<td>19</td>
<td>I can be moody.</td>
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</tr>
<tr>
<td>20</td>
<td>I am sometimes depressed or blue.</td>
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<td></td>
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<tr>
<td>21</td>
<td>I get nervous easily.</td>
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<td></td>
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</tr>
<tr>
<td>22</td>
<td>I can be tense.</td>
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<tr>
<td>23</td>
<td>I worry a lot.</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>24</td>
<td>I remain calm in tense situations.</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>25</td>
<td>I am emotionally stable, not easily upset.</td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>26</td>
<td>I am relaxed and handle stress well.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>27</td>
<td>I am inventive.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>28</td>
<td>I am original, come up with new ideas.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>29</td>
<td>I value artistic experiences.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>30</td>
<td>I have an active imagination.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>31</td>
<td>I like to reflect and play with ideas.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>32</td>
<td>I am sophisticated in art and music.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>33</td>
<td>I am ingenious, a deep thinker.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>34</td>
<td>I am curious about many things.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>35</td>
<td>I prefer work that is routine.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>36</td>
<td>I have few artistic interests.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>37</td>
<td>I am outgoing and sociable.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>38</td>
<td>I am talkative.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>39</td>
<td>I have an assertive personality.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>40</td>
<td>I generate a lot of enthusiasm.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>41</td>
<td>I am full of energy.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>42</td>
<td>I am often reserved.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>43</td>
<td>I am sometimes shy or inhibited.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>44</td>
<td>I tend to be quiet.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

That's it. Thanks for your help!
APPENDIX F

POST-EXPERIMENTAL QUESTIONNAIRE
Name: 

Class/Section: 

**Department of Management, College of Business Questionnaire**

Please complete the demographic information below.

<table>
<thead>
<tr>
<th>Circle correct answer or fill in appropriate blank below:</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. What is your age?</td>
</tr>
<tr>
<td>2. What is your sex?</td>
</tr>
<tr>
<td>3. What is your race?</td>
</tr>
<tr>
<td>4. What is your academic level?</td>
</tr>
</tbody>
</table>

3. What is your race?

- American Indian or Alaskan Native
- Hispanic
- Asian or Pacific Islander
- White (not Hispanic)
- Black (not Hispanic)
- Other: ____________________

(Please write in)

4. What is your academic level?

- Freshman
- Sophomore
- Junior
- Senior

**Listed below is a series of behaviors that you may have engaged in on behalf of the Management Department in the College of Business at UCF. Please circle the most appropriate response for each statement.**

<table>
<thead>
<tr>
<th><strong>Bogus Measure</strong></th>
<th>Never</th>
<th>Always</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. I defend UCF’s Management Department even when others criticize it.</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>2. I encourage others to take the Department of Management’s classes.</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>3. I show pride when representing myself as a student from the Department of Management.</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
</tbody>
</table>
Listed below is a series of feelings you may have felt about completing the evaluation of your instructor for the Management Department. Please circle your level of agreement for each statement.

### Fear of Retaliation Manipulation Check

<table>
<thead>
<tr>
<th>Statement</th>
<th>Strongly disagree</th>
<th>Strongly agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. I feared that my Instructor was going to see my evaluation responses.</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>2. I felt that my Instructor was going to get back at me because of my comments on the evaluation form.</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>3. I felt that my Instructor will be able to identify me because of my responses on the evaluation form.</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>4. Based on my evaluation of the Instructor, I was fearful that my Instructor would get back at me in some way in the remainder of the course.</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
</tbody>
</table>

The following statements represent how you may feel about courses you've taken from the Management Department in the College of Business at UCF. Please circle the number that best matches your response.

### Bogus Measure

<table>
<thead>
<tr>
<th>Statement</th>
<th>Strongly disagree</th>
<th>Strongly agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Overall, I’m treated fairly in courses.</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>2. Usually, the way things work in the classroom is not fair.</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>3. In general, I can count on instructors to be fair.</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>4. For the most part, instructors treat students fairly.</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>5. In general, the treatment I receive in the classroom is fair.</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>6. Most of the students say they are often treated unfairly.</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
</tbody>
</table>

The following statements represent how you may feel about classes from the Management Department in the College of Business at UCF. Please circle the most appropriate response for each statement (1=strongly disagree, 3=not applicable, 5=strongly disagree).

### Bogus Measure

<table>
<thead>
<tr>
<th>Statement</th>
<th>Strongly disagree</th>
<th>Strongly agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Classes are scheduled at a convenient time.</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>2. I am able to sign up for classes without administrative hassle.</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>3. Core class curriculum is available when I need it.</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>4. The Management Department offers relevant &quot;electives&quot; (non-required classes).</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
</tbody>
</table>

Listed below is a series of feelings that you may have felt with regard to the to the last exam feedback you received in this course. Please circle your level of agreement for each statement.

### Perceived Aggression Manipulation Check

<table>
<thead>
<tr>
<th>Statement</th>
<th>Strongly disagree</th>
<th>Strongly agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. The comments provided by the instructor were mean-spirited.</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>2. I thought the comments written by the instructor were well-intended.</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>3. I felt that the comments written by the instructor were more personal attacks than constructive criticism.</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>4. I thought the comments written on my exam were helpful and relevant.</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>5. I felt the exam comments were highly insensitive.</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
</tbody>
</table>
The following statements represent how you may feel about the Management Department in the College of Business at UCF. Please circle the most appropriate response for each statement (1=strongly disagree, 3=not applicable, 5=strongly disagree).

<table>
<thead>
<tr>
<th>Bogus Measure</th>
<th>Strongly disagree</th>
<th>Strongly agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. I would be very happy to finish my degree in Management.</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>2. I do not feel a strong sense of “belonging” to the Department of Management.</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>3. I do not feel “emotionally attached” to my degree in Management.</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>4. My degree from the Department of Management has a great deal of personal meaning for me.</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
</tbody>
</table>

The following statements represent how you may feel about classes from the Management Department in the College of Business at UCF. Please circle the most appropriate response for each statement (1=strongly disagree, 3=not applicable, 5=strongly disagree).

<table>
<thead>
<tr>
<th>Bogus Measure</th>
<th>Strongly disagree</th>
<th>Strongly agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Books are appropriately priced.</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>2. I keep books and materials I receive from my Management classes.</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>3. The books and materials from Management classes are relevant.</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>4. The books and materials I receive from Management classes are necessary to facilitate learning.</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
</tbody>
</table>

Please indicated in the space provided below whether anyone discussed the questionnaires you completed today for Management Department prior to your entering the classroom today.

That’s it! Thank you very much for your time. We greatly appreciate your help.
<table>
<thead>
<tr>
<th>Moderator</th>
<th>Retaliatory Aggression</th>
<th>Displaced Aggression</th>
<th>Constructive Problem-Solving</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fear of Retaliations</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Trait Anger</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Locus of Control</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Need for Social Approval</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

- Significant and as predicted
- Significant but not as predicted
- Not significant
APPENDIX H

IRB APPROVAL FOR THE EXPERIMENTAL STUDY
July 29, 2005

Marie Mitchell
University of Central Florida
Department of Management
College of Business Administration
BA 335B
Orlando, FL 32816-1400

Dear Ms. Mitchell:

With reference to your protocol #05-2715 entitled, "An Experimental Investigation of Employee Reactions to the Insensitive Behavior of Others" I am enclosing for your records the approved, expedited document of the UCFIRB Form you had submitted to our office. **This study was approved on 7/28/05 and the expiration date will be 7/27/06.** Should there be a need to extend this study, a Continuing Review form must be submitted to the IRB Office for review by the Chairman or full IRB at least one month prior to the expiration date. This is the responsibility of the investigator. **Please notify the IRB office when you have completed this research study.**

Please be advised that this approval is given for one year. Should there be any addendums or administrative changes to the already approved protocol, they must also be submitted to the Board through use of the Addendum/Modification Request form. Changes should not be initiated until written IRB approval is received. Adverse events should be reported to the IRB as they occur.

Should you have any questions, please do not hesitate to call me at 407-823-2901.

Please accept our best wishes for the success of your endeavors.

Cordially,

Barbara Ward, CIM
IRB Coordinator

Copies: IRB File
References


CHAPTER 4
CONCLUSION

Overall Discussion

The purpose of my dissertation was to identify and explore behavioral reactions to the perceived aggression of others. Specifically, I examined individuals’ reactions to behavior they perceive as intentionally harmful. I developed a typology of behavioral reactions to aggression. The typology identifies two primary dimensions: the form of the behavior (aggression versus non-aggression) and the direction of the behavior (toward the perceived aggressor versus not toward the perceived aggressor). The two dimensions produce four categories of reactions: retaliatory aggression, displaced aggression, constructive problem-solving, and withdrawal. Building primarily from theories of aggression, I also modeled situational and individual factors that influence employee reactions to aggression, and tested predictions from this model in two studies. The first study used a cross-sectional survey design and investigated the moderating effects of fear of retaliation, aggressive modeling, absolute hierarchical status, trait anger and need for social approval. The second study used a 2x2 experimental design and investigated the moderating effects of fear of retaliation, trait anger, locus of control and need for social approval. Although the results of the studies provide support for some of the predictions, by and large many were not supported. The unexpected findings draw issue with the theoretical framework and conceptual model that were used to develop the hypotheses. To assess the conceptual framework, I discuss patterns that emerged over both studies with regard to the moderator variables and the reactions in general.
The Role of Fear of Retaliation: An Evaluation of the Theory of Frustration-Aggression

According to Dollard et al.’s (1939) theory of frustration-aggression, fear of retaliation from the source of the harm may influence reactions to aggression. They argued that when individuals fear retaliation from the harmdoer, they are less likely to respond to aggression with retaliation and more likely to displaced aggression on other targets. Thus, high fear of retaliation should inhibit retaliatory reactions to aggression because individuals would not want to provoke future attacks from the harmdoer. This inability to retaliate, however, heightens frustrations, which ultimately causes individuals to redirect or “displace” aggression on other targets. Thus, Dollard et al. describe displaced aggression as a cathartic response to frustrating events (like perceived aggression).

In both studies, when fear of retaliation was low, the relationship between perceived aggression and retaliatory aggression was more strongly positive than when fear of retaliation was high. This pattern provides support for Dollard et al.’s contentions that fear of retaliation inhibits retaliatory reactions to perceived aggression. However, the results of both studies do not support Dollard et al.’s arguments that fear of retaliation strengthens displaced aggression reactions to perceived aggression. Instead, the results suggest that displaced aggression is a more complex phenomenon. In the survey study, by and large, high fear of retaliation negatively influenced the relationship between perceived supervisor aggression and all forms of displaced aggression (toward the organization, coworkers and customers), whereas low fear of retaliation positively influenced the relationship. In contrast, the fear of retaliation x perceived aggression interaction was not significant in the experimental study, meaning fear of retaliation did not influence displaced aggression reactions. Nevertheless, the results of both studies in general do
not support Dollard et al.’s cathartic predictions about displaced aggression; rather, they suggest individuals choose to whom to displace and not to displace aggression.

The different findings for displaced aggression from the survey and experimental study suggest the context in which the perceived aggression takes place may influence to the target of displaced aggression. The experiment involved relationships that were relatively short-term and students’ grades were based on assessments made by both the instructor and team members. In this class, students were told they were to assess the overall distribution of team grades at the end of this semester. Because of this, I argued that students might not consider displacing aggression against team members for fear they might retaliate in the future (specifically, with the amount of points they received for the team grade). Further, the instructor did not consider how the students treated one another as a basis of the grades they would receive. This setting differs from a usual work context. In general, supervisors are the only individuals responsible for assessing employees’ work performance. Thus, if a supervisor saw or learned that an employee displaced aggression on others (the organization, coworkers and customers) it would most likely reflect the supervisor’s assessment of the employee’s work performance. Hence, employees would be less likely to displace aggression within an organizational context because they would not want to provide the aggressive supervisor further reasons to be punitive and aggressive, particularly when they feared retaliation from that supervisor. Consequently, when fear of retaliation is high in a work setting, it makes sense that victims of an aggressive supervisor would be less likely to displace aggression than those who have little or no fear of retaliation from the supervisor. Indeed, when fear of retaliation was low, victims of perceived aggression were more likely to displace aggression. In the classroom setting, however, students had to worry about maintaining relationships with both the instructor and their team members because both had decision
authority over their grades. Because team members were not the source of perceived aggression, they did not displace aggression (or may not have even considered displacing aggression, whether fear of retaliation from the supervisor was high or low) against team members for fear of future recourse. The different context, therefore, may explain why fear of retaliation negatively influenced the relationship between perceived aggression and displaced aggression in the work setting but not the classroom setting.

Altogether, the results for both studies support Tedeschi and Felson’s (1994) observations that some forms of displaced aggression are better explained by learning effects rather than cathartic reactions. In both studies, individuals discriminated when to or not to displace aggression. Also, they discriminated to whom to displace or not to displace aggression. The results of both studies suggest individuals might be less likely to displace aggression against targets when doing so will lead to future recourse—whether from the source of the initial harm or by the target of the displaced aggression. Further, individuals seemed to displace aggression in response to perceived aggression when doing so was safe (meaning the target would be less likely to seek retribution) and the target was similar to the source of the harm. Therefore, future research might consider a variety of different forms of displaced aggression (e.g., based on the safeness or similarity to the aggressor), as well as different work context (e.g., 90 degree performance appraisal systems, 360 degree performance appraisal systems, versus only supervisor to employee performance appraisal systems) to further explore these ideas.

Although fear of retaliation did not moderate the relationship between perceived aggression and constructive problem-solving in the experimental study, it did moderate the effects in the survey study. The results, however, did not support my predictions that fear of retaliation would weaken constructive problem-solving reactions. Rather, the results shows that
fear of retaliation enhanced rather than weakened constructive problem-solving behavior. In the experimental study, fear of retaliation did not moderate the relationship between perceived aggression and constructive problem-solving, but it did significantly and directly influence constructive problem-solving.

The differences in the survey and the experimental studies may be due to the lack of variety of constructive problem-solving activities assessed in the experimental study compared to those in the survey study, as well as the time frame involved in which individuals had to consider engaging in constructive problem-solving. In the experimental study, subjects were limited to only one form of constructive problem-solving (writing comments on the back of the exam) within a very limited time frame (an hour at most). If they had more time, they might have engaged in other types of constructive problem-solving (e.g., e-mailing the instructor, going to see the instructor). The survey study, in contrast, assessed different types of constructive problem-solving behaviors that individuals may have engaged in over the course of a year (e.g., asked the supervisor to clarify the problem, tried to change the situation to benefit all parties involved). Therefore, whether an individual engages in constructive problem-solving activities in reaction to a feared and aggressive individual might depend on the variety of choices they have in terms of constructive problem-solving, as well as how long they have to consider their options.

In general, the pattern of results may support research in the stress literature. Since fear of retaliation directly influenced constructive problem-solving in the experimental study and moderated the effects in the survey study may suggests high fear of retaliation enhanced stress reactions. The stress literature suggests individuals engage in coping behaviors to help buffer the negative effects of the stressful situation (such as dealing with an aggressive supervisor who you
also fear). Constructive coping activities (like constructive problem-solving) allow the individual to try to resolve the problem in an effort to reduce the level of the stress (e.g., Folkman & Lazarus, 1985; Thoits, 1994). Therefore, the more stressful the situation is perceived, the more likely an individual would engage in constructive problem-solving.

The Role of Personality: The Influence of Trait Anger and Need for Social Approval

Based on previous aggression research (see Perrowé & Spector, 2002, for a review), trait anger was predicted to heighten aggressive reactions to perceived aggression. I argued that because trait-angry individuals view a variety of situations as anger-provoking and have intense reactions to personal attacks, high trait-angry individuals would be more likely to react to perceived aggression with aggression. Consistent with these arguments, trait anger strengthened retaliatory reactions to perceived aggression in the survey study. However, trait anger did not strengthen retaliatory reactions in the experimental study. Rather, individuals who were high in trait anger seemed to maintain high levels of retaliation whether they received aggressive or non-aggressive comments on their exam. In contrast, and consistent with the survey results, individuals with low levels of trait anger found the perceived aggression unnecessarily hostile and retaliated, accordingly.

The differences in results from the survey and experimental studies suggest that perhaps different forms of aggression may heighten retaliatory motives more than other forms of perceived aggression. Many of the items in the perceived supervisor aggression measure asked about behaviors that might be experienced with others seeing them, suggesting perceived supervisor aggression is a particularly humiliating and public form of aggression. The aggressive comments on the students’ exams were only viewed by the student and not others in the class. Consequently, high trait-angry individuals might be more motivated to retaliate
against an aggressive supervisor because they may view the behavior as a public and personal attack. Future research could investigate this idea by comparing how high (and low) trait anger individuals respond to aggression that varies based on its “publicness.”

Need for social approval was also investigated in both studies. Although the experimental design did not show need for social approval moderated the relationship between perceived aggression and reactions, the survey study found need for social approval moderated the relationship with two forms of displaced aggression (coworker and customer). Consistent with my expectations, individuals with high need for social approval were less likely to displace aggression on coworkers and customers than those with low need for social approval in response to perceived supervisor aggression. Over both studies, however, need for social approval did not influence constructive problem-solving reactions. This was surprising because research on need for social approval suggests individuals high in need for social approval engage in more help-seeking and approval-seeking behaviors (e.g., Hill, 1991; Nadler, 1983). Thus, I argued that given these tendencies, they would be more likely to engage in constructive problem-solving because these types of activities generally involve seeking guidance about the perceived aggression in an effort to resolve the issue. However, in hindsight, the results make much sense. Research also shows that individuals high in need for social approval also have the tendency to retreat from threatening and harmful situations (e.g., Exline, 1963; Mehrabian & Ksionzky, 1974; Terhune, 1968). Therefore, individuals with high need for social approval would avoid behaviors that would be threatening (such as seeking help from the source of aggression).

Other Patterns and Trends across Study 1 and Study 2

One pattern that emerged across the survey and experimental studies was that retaliation seemed to be a dominant response to aggression. This pattern begs the questions as to whether
or not retaliation is a primary reaction, and whether the lack of findings for the other dependent variables might be explained by an order effect. For example, perhaps individuals initially try to retaliate; however, if they continue to be angry, they may then displace aggression or withdraw. If they become worried or fearful, they might engage in constructive problem-solving. This is an issue for future research to consider.

A second and problematic trend across both studies was the lack of and mixed findings for many of the predicted relationships. Overall, the unexpected findings suggest aspects of the theoretical model deserve further consideration. Two issues, in particular, pose limitations to the conceptual framework: (1) measurement of the dependent variables and (2) the influence of non-behavioral reactions to aggression (e.g., emotional and psychological reactions). With regard to measurement, it could be argued that the lack of findings resulted from the measurement of only limited forms of the dependent variables. Results for retaliation may have been more dominant because retaliation can take on one general form: intentionally harmful behaviors targeted against the source of the harm. In contrast, other forms of displaced aggression, constructive problem-solving and withdrawal might not have been measured and assessed in the studies. One example of this is displaced aggression. Post hoc tests of other forms of displaced aggression within the experiment suggest that, depending on the target of the displaced aggression, the predictions may or may not have been supported. The post hoc evaluations demonstrated that one form of displaced aggression (evaluations of the overall fairness of the Management Department) was consistent with Dollard et al.’s (1939) contentions. Therefore, other forms of displaced aggression (e.g., those targeted against family, strangers) might also support Dollard et al.’s arguments. Similarly, it could be argued that because I only assessed a limited form of constructive problem-solving and withdrawal, the results did not support the predicted
relationships. For example, students may not have engaged in the form of constructive problem-solving assessed in the experiment, but they might have engaged in other forms (e.g., e-mailing the instructor or dropping by the instructor’s office). Further, for withdrawal, the survey design only focused on task withdrawal, but other forms of withdrawal may have been influenced (e.g., job withdrawal—leaving the organization, transferring, absenteeism).

To explore this further, I also conducted post hoc analysis with the survey study data on turnover intentions. In general, turnover intentions do not represent actually-enacted behaviors; however, they are perceptions about whether or not the individual intends to remain in the organization. The results show that the fear of retaliation x perceived supervisor aggression interaction was moderately significant ($\beta=.11, p<.10$). Figure 1 shows that the pattern of the slope is consistent with my predictions. Specifically, fear of retaliation strengthens the positive relationship between perceived supervisor aggression and turnover intentions, such that for high fear of retaliation, as perceptions of supervisor aggression increased, intentions to leave the organization also increased. Therefore, the lack of findings may be explained by the limited forms of the dependent variables that were assessed in each of the studies.
The second explanation for the lack of findings is that other, non-behavioral reactions might influence reactions to aggression. Research in the stress and aggression literatures suggests emotional and psychological reactions guide behavioral choices to aversive events. For example, Anderson and Bushman (2002) developed an integrated model of aggression, which suggests emotional reactions feed into psychological processes that form the basis of cognitive appraisals of aversive events. They argue that individuals may react immediately and instinctually to aggressive events and these immediate reactions are generally guided by experienced emotion (e.g., fear promotes flight responses, whereas anger promotes fight responses; Berkowitz, 1983). However, if resources (e.g., time, cognitive ability) are available, individuals may not react immediately. Instead, they may wait to further assess the situation.
(e.g., fear of retaliation, acceptance of aggression), their own psychological state (e.g., job burnout, distress), as well as whether their experienced emotions are valid. This suggests that a more elaborate process model may be necessary to understand behavioral choices and reactions to aggression.

**Future Research Directions**

Based on the results of both studies and the limitations and unexpected findings that emerged, I have identified a number of areas I plan to explore further in the future. Each is discussed in more detail below.

**Investigating the Range of Reactions to Aggression: Multi-Dimensional Scaling Analysis**

One of the primary limitations to my dissertation is the issue of whether or not I captured the broad-range of behavioral reactions to perceived aggression. To address this issue, I plan to conduct a multi-dimensional scaling analysis (MDS; Kruskal & Wish, 1978). MDS is a technique that has been useful for producing inductive, but empirically derived typologies. Essentially, MDS provides a geometric interpretation and logical translation of the coordinates of underlying cognitive structures. The resultant “map” will identify the similar and different perceptions of reactions to perceived aggression. It is my hope that MDS will produce a comprehensive classification of reactions to perceived aggression, as well as their underlying dimensions. Consequently, once the categories of reactions and underlying dimensions have been empirically identified, researchers can better explore behavioral reactions to perceived aggression.

**Investigating Emotional and Psychological Mediators: A Process Model**

A second critical limitation to the conceptual model presented in my dissertation is the lack of non-behavioral reactions to perceived aggression. Both the aggression and stress
literatures suggest that behaviors are guided by experienced emotions and psychological states. As discussed earlier, aggression researchers argue that emotions and psychological states form the basis of behavioral choices (e.g., Anderson & Bushman, 2002; Berkowitz, 1983). These arguments stem from Berkowitz’s (1983) cognitive neoassociation theory, which states that aversive events (like perceived aggression) instigates emotional reactions (e.g., fear, anger) which then triggers thoughts, memories and expressive motor reactions. Ultimately, these factors promote fight or flight reactions; fight reactions rudiment in feelings of anger, whereas flight reactions rudiment in feelings of fear. New and integrated models of aggression present a similar framework, suggesting emotions and psychological states guide decisions, which ultimately lead to a behavioral choice: whether or not to engage in aggression. Given the number of unexpected findings regarding behavioral reactions in my dissertation studies, the question of whether or not a more elaborate process model is necessary seems to be an appropriate, clear next step.

Therefore, in the future, I plan to explore the role of mediators, such as emotional and psychological reactions, to see if they influence the type of reactions individuals choose to engage in as a consequence of perceived aggression. For example, based on Berkowitz’s (1983, 1990) models of aggression, it seems likely that the experience of fear may strengthen constructive problem-solving and job withdrawal reactions, whereas it might also weaken retaliatory and displaced aggression. In contrast, experienced anger may strengthen retaliation, displaced aggression and job withdrawal, but weaken constructive problem-solving reactions. Yet, individuals may also experience other types of emotions in reaction to perceived aggression (e.g., helplessness) that warrant further consideration as well.
Further, research in the stress literature suggests psychological reactions are also influential. For example, the experience of job burnout might weaken constructive problem-solving, retaliation, displaced aggression and task withdrawal, but might heighten job withdrawal. Organizational justice research suggests the perceptions of injustice might heighten retaliation, displaced aggression against similar targets (given the importance of social comparisons), constructive problem-solving (i.e., voice) and job withdrawal; however, it might weaken displaced aggression (particularly against unsafe and dissimilar targets to the source).

Therefore, in order to progress understanding of behavioral reactions to aggression, it is also important to understand the underlying processes that guide decisions about behavioral reactions.

**Investigating Primacy of Reactions: Is There an Order Effect?**

Based on the results of the studies of my dissertation, I also plan to explore the potential order effect of reactions to perceived aggression. The results of both studies suggest retaliation was a primary and dominant reaction to perceived aggression. However, retaliation might have been primary simply because other types of reactions were not measured and assessed. These other types of reactions could have been behavioral (e.g., different forms of displaced aggression, constructive problem-solving and withdrawal) or non-behavioral (e.g., emotions, psychological states). Therefore, before exploring the potential for order effects, it is first necessary to conduct the MDS analyses as well as explore potential process variables that influence reactions to perceived aggression.

**Conclusion**

My dissertation sought to identify and explore individuals’ behavioral reactions to the perceived aggression of others. Overall the results suggest fear of retaliation is a consistent
moderator of reactions to aggression. Further, the results suggest retaliation may be a primary reaction to aggression. Nevertheless, the unsupported and unexpected findings draw issue with the conceptual framework of the typology and model presented. The first next step is to explore the broad-range of behavioral reactions to aggression and empirically validate my typology through multi-dimensional scaling analysis. The second clear step is to explore the “black box” of reactions to aggression. Stated differently, it is important to integrate ideas from stress and aggression models that suggest emotional and psychological reactions influence decisions about behavioral choices. Exploring the influence of these non-behavioral reactions may help broaden our understanding of what makes individuals react one way or another. Lastly, once the typology and theoretical model have been further explored, it is also necessary to investigate whether certain reactions are more primary than others, and which factors influence secondary reactions. In short, much more work is to be done to understand the types of reactions individuals engage in and which factors influence reactions to aggression.
References


