# When Research Setting is Important: The Influence of Subordinate Self-Esteem on Reactions to Abusive Supervision

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**http://dx.doi.org/10.1057/omj.2011.24**

# When Research Setting is Important: The Influence of Subordinate Self-Esteem on Reactions to Abusive Supervision

## Abstract

In this paper, we argue that the conflicting theoretical views regarding the role that self-esteem plays in the decision to become aggressive can be explained by the particular research methodology used. Specifically, we examine how individuals respond to a perceived abusive supervisor in two settings: 1) using scenarios and 2) in a field study. Results indicate that individuals with high self-esteem are more likely to become aggressive in response to an abusive supervisor in settings where they are asked what they *would do* (using scenarios). However, in field research settings, where they are asked what they *did do*, individuals with low self-esteem were more likely to become aggressive in response to an abusive supervisor.

Key Words: Self-Esteem, Workplace Aggression, Abusive Supervision

# When Research Setting is Important: The Influence of Subordinate Self-Esteem on Reactions to Abusive Supervision

There is a long history of disagreement in the literature on the role self-esteem plays in aggressive behavior (Baumeister, Smart, & Boden, 1996). On one side, the argument is that individuals with *low* self-esteem are more likely to become aggressive in response to some sort of provocation due to their vulnerability. On the other side is the argument that individuals with *high* self-esteem have more to lose and therefore are more likely to become aggressive when faced with a threat to their self-esteem. We believe that one possible resolution to this disagreement can be found in examining the setting of the research. In this paper, we argue that individuals with high self-esteem are more likely to report an aggressive response to a negative event in settings that employ the use of scenarios (*what would you do?*). However, in field settings, we argue that individuals with low self-esteem are more likely to report an aggressive response to an actual provocation (*what did you do?*). We begin by summarizing the competing theoretical arguments for low versus high self-esteem's relationship to aggression. We then discuss the possibility that the manner in which the studies are conducted may help explain the competing arguments. Finally, we report the results of two studies, a scenario-based study and a survey-based field study, which examine the relationship between abusive supervision (one type of provocation that has been demonstrated to lead to aggressive responses), self-esteem, and aggression.

## Self-Esteem and Aggression

**Low self-esteem**. In general, individuals with high levels of self-esteem feel good about themselves, while individuals with low levels of self-esteem feel poorly about themselves (Brown, 1998). In the self-esteem literature, it has been demonstrated that people with low self-

esteem do not cope as well as individuals with high self-esteem when experiencing failure (Brown & Smart, 1991). It should be pointed out that the term "failure" is used loosely in this literature to refer to any situation that involves negative self-relevant feedback (Brown, 1998). For example, failure could involve interpersonal slights such as having your coworkers leave for lunch without you or failing to have your proposal approved by your boss. Brown and Dutton (1995) found that both high and low self-esteem individuals feel unhappy when they fail, but only individuals with low self-esteem feel ashamed and humiliated (self-relevant emotions). In other words, both people with high and low self-esteem feel bad when they face failure, however, the difference is that people with low self-esteem feel bad about themselves while people with high self-esteem just feel unhappy.

Kernis, Brockner, and Frankel (1989) also found that people with low self-esteem have a tendency to have higher levels of negative mood states than people with high self-esteem, especially after negative feedback. They stated that this tendency for people with low self-esteem to have greater negative affect after failure might be due to a person with low self-esteem over-generalizing their perceived failure. For example, although failure on a specific task should have no bearing on a person's self-esteem, someone with low self-esteem has the tendency to apply their failure to their overall feelings about themselves. In addition, a main premise of our manuscript is that a threat to a person's self-esteem can influence the decision to engage in aggressive behavior (Baumeister et al., 1996). It has been demonstrated that people with low self-esteem experience more psychological pain after negative feedback (Brockner, Derr, & Laing, 1987; Campbell, 1990; Greenier et al., 1999) and believe aggression is more justified when they believe their self-identity is threatened or to restore a sense of justice (Tripp & Bies, 1997).

Note that in the preceding discussion we do not focus on self-esteem's direct relationship with aggression, but rather its indirect relationship. Self-esteem does not cause aggressiveness. Instead, the arguments above indicate that some sort of provocation or threat to self-esteem is necessary to trigger an aggressive response (Brockner, 1988). In this paper, we focus on abusive supervision as the provocation. In the next section we address the alternative theoretical view that individuals with high self-esteem are more likely to become aggressive when provoked.

**High self-esteem**. Although the traditional view is that individuals with low self-esteem are most likely to engage in aggressive behavior when their vulnerable self-image is threatened, Baumeister and colleagues (Baumeister, 2001; Baumeister et al., 1996; Bushman & Baumeister, 1998; Bushman et al., 2009) have criticized this theoretical view as lacking empirical support. Instead, they argue, individuals with high self-esteem are more likely to engage in aggressive behavior when their favorable self-views are threatened. While Baumeister and colleagues tend to focus their research on narcissism (i.e., extremely high, unstable self-esteem), they point out that the disagreement in the literature is not over the role that narcissism plays in aggression, but rather the role that high or low self-esteem plays in aggression (Bushman et al., 2009).

The theoretical arguments against low self-esteem's role in aggression focus on the fact that individuals with low self-esteem are extremely cautious in how they respond to events (Campbell & Lavalle, 1993) since they often feel a sense of uncertainty regarding how to respond to many situations (Brockner, 1988). In addition, it has been argued that individuals with low self-esteem are risk averse, which makes it unlikely they will engage in an aggressive response to a negative event since acting aggressively can be a risky proposition, potentially resulting in a loss of social status, exclusion, and the like (Baumeister, Bushman, & Campbell, 2000).

Instead, compared to individuals with low self-esteem, individuals with high self-esteem are more likely to act aggressively in response to provocations, such as abusive supervision, since these individuals have the most to lose (i.e., loss of esteem since they believe they are good at most things and therefore have more potential threats to their self-worth). Therefore, individuals with high levels of self-esteem may view abusive treatment by their supervisor as especially inappropriate or unfair. Past theoretical arguments have indicated that "challenges to one's favorable self-image are especially likely to produce aggressive reactions because they're decidedly unpleasant" (Berkowitz, 1993, p. 56).

According to self-verification theory (Swann, 1996), individuals have a natural desire to protect their positive views of themselves. When individuals with high levels of self-esteem face a potential threat to their self-worth, they view this threat as inconsistent with their positive self-views and therefore should heed the call to defend themselves (Brockner, 1988). Individuals who have high levels of self-esteem are more likely to become aggressive in response to an attack on their self-worth in order to defend their strongly-held positive self-view (Baumeister et al., 2000; Baumeister et al., 1996; Bushman et al., 2009). On the other hand, when someone has low levels of self-esteem, threats to their self-worth are not likely to cause feelings of dissonance because this feedback is not inconsistent with their negative self-view. Therefore, according to this theoretical view, rather than individuals with low self-esteem, it is individuals with high self-esteem who are the ones who should become aggressive when provoked.

**The Impact of Research Setting**

We believe the arguments provided above regarding low and high self-esteem and the role they play in aggression both have merit. In fact, we believe if one examines the relationship between self-esteem and aggression using different methodologies, one will find support for both

views. And we believe these coexistent, disparate views can be explained theoretically via self-consistency and self-enhancement theories. Self-enhancement theory (Jones, 1973) assumes that individuals have a basic desire to increase their feelings of self worth, whereas self-consistency theory (Swann, 1996) argues that individuals try to maintain their current self-views and act in a way that maintains their self opinion. While there is ample support for both theories (see Sedikides, 1993), we argue that the motivating mechanisms underlying each theory become operational only in certain settings. More than 70 years ago, LaPiere (1938) implied that people interpret and react differently to situations that are hypothetical as opposed to those that are real. Specifically, he argued that when people are presented with an attitudinal question (e.g., a hypothetical situation), they react to it by thinking about what they *would* do (a cognitive reaction). However, in situations where individuals face real, observable behavior, this prompts an affective response and this influences what they *actually* do. Shrauger (1975) built on these ideas and argued that one's reactions to negative feedback can be cognitive or affective in nature. Shrauger (1975) argues that affective reactions to negative feedback (e.g., surprise, suspicion) are consistent with self-enhancement theory, while cognitive reactions to negative feedback (e.g., justification, suppression) fall in the realm of self-consistency theory. Jussim, Yen, and Aiello (1995) found support for this distinction when subjects were faced with either positive or negative feedback. Specifically, they found that self-enhancement motives were consistent with affective responses, while self-consistency motives were consistent with attributions, or cognitive evaluations, of the feedback received.

Thus, we argue that when researchers conduct a scenario-based study depicting, for example, an abusive supervisor, where a subject is asked, "What *would you do* in this situation?" this prompts a cognitive reaction. And, congruent with Shrauger's work, the subject's reaction

to the abusive supervisor should be in line with self-consistency theory. Since individuals with high self-esteem assume they are good at most things, when they receive negative feedback or treatment (in this case from an abusive supervisor) they feel the need to maintain their positive views by "standing up for themselves," and retaliating in some manner. However, when individuals with low self-esteem play the part of a subordinate being "put down" by their supervisor in a scenario, this treatment is consistent with their self-view and therefore does not motivate a response.

On the other hand, in field settings, the reaction to a real (or at least subordinates' perceptions of an) abusive supervisor is likely to be more affective in nature. Therefore, self-enhancement mechanisms should be primed. Recall that both high and low self-esteem individuals experience unhappiness when they receive negative feedback. However, it is only those individuals with low self-esteem who feel bad about themselves (Brown & Dutton, 1995). In other words, individuals with low self-esteem should over-generalize this negative feedback and experience self-relevant emotions. When those with high self-esteem experience an abusive supervisor in a field/work setting, these employees already feel good about themselves (and the abusive supervisor may not make them feel too bad because they have a positive self-view) so they may not feel the need to enhance their self-view through retaliation. Conversely, when individuals with low self-esteem experience an abusive supervisor and have an affective reaction, they are likely to feel the need to restore the self-esteem that was temporarily lost and may engage in retaliation as a method of restoring a sense of equity. Recall that research has demonstrated that individuals with low self-esteem believe aggression is justified when their self-esteem is threatened (Tripp & Bies, 1997).

To test how differences in research setting/methodology influence the relationship between self-esteem and aggression, we refer to the research on abusive supervision and aggression. Abusive supervision is a type of workplace aggression, specifically a subjective assessment made by an employee regarding his or her supervisor's behavior towards him or her. Examples of abusive supervision include a supervisor demeaning, belittling, undermining, or invading the privacy of a subordinate. These behaviors reflect indifference, willed hostility, and oftentimes deviance (Tepper, 2000). Aggression has been defined as any form of behavior that is intended to harm employees of an organization (e.g., supervisors or coworkers) or the organization itself (Baron, Neuman, & Geddes, 1999). In this paper, considering we are examining employee reactions to abusive supervisors, we focus our attention on the concept of employees' *expressions of hostility* toward their supervisor (Neuman & Baron, 1998). Expressions of hostility are primarily verbal or symbolic in nature and include behaviors such as disobeying a supervisor's instructions or "talking back" to a supervisor.

The research is clear that when individuals experience an abusive supervisor, they are likely to respond aggressively (Author et al., 2006; Inness, Barling, & Turner, 2005). In addition, it is likely that a person's self-esteem qualifies this relationship because of the public but self-relevant nature of experiencing abuse from a supervisor. Therefore, we offer the following hypotheses:

*Hypothesis 1: Individuals with high self-esteem are more likely than individuals with low self-esteem to respond aggressively to instances of abusive supervision in a research setting using scenarios where they are asked, "what would you do?"*

*Hypothesis 2: Individuals with low self-esteem are more likely than individuals with high self-esteem to respond aggressively to instances of abusive supervision in field settings where they are asked, "what did you do?"*

In the sections that follow, we describe two studies conducted to test these hypotheses. Study 1 examines our hypotheses using scenario methodology, while study 2 examines these hypotheses in a field setting.

## Method (Study 1)

In this study we used a web-based scenario that has been shown to cause perceptions of abusive supervision and to elicit projections of subsequent aggressive behavior in past research (Author et al., 2006; Author et al., 2005). Greenberg and Eskew (1993) have argued that scenarios can be a useful strategy to determine how someone *would* react in a similar real-life situation. Therefore, the use of scenarios in this study is appropriate given the research question involved. Subjects in this study were instructed to play the part of the employee in the scenario. After reading the scenario, the subjects were asked how likely it was that they would engage in an aggressive response in the near future.

### Procedures

**Phase 1**: Over the course of two years, subjects were recruited from an introductory management class in a business school of a large western United States university. Students earned course credit for their participation in the research. When recruiting the potential subjects, they were told that the research in question involved determining how a person's mood influences their behavior at work. All of the potential subjects were told that their results were anonymous and that there were no right or wrong answers. Subjects who agreed to participate in the research received an email describing the study in more detail. The email also included a

link to a web survey that measured their global self-esteem, negative affectivity, and various demographic variables. After completing this survey, the subjects were informed that they would receive an additional survey in approximately 2 weeks.

To ensure the confidentiality and anonymity of the subjects' answers, no identifiable information was collected (e.g., names, student ID numbers, etc.). Instead, to match the surveys from the two time periods, we used a series of "identifier" questions (e.g., give the first letter of your mother's maiden name) used by Fedor and colleagues (2001).

**Phase 2**: Approximately two weeks after the subjects completed the first survey, they received an email that provided them with a link to a web page that included the scenario for this study. They were instructed to assume they were the employee discussed in the text and were randomly assigned to one of two scenarios. In one scenario, subjects read a situation that depicted a manager becoming very upset at an employee for making a suggestion for workplace improvements. The employee in the scenario is warned to "stop acting like a manager." In the other scenario, the supervisor reacts positively to the suggestion by the employee (please see the appendix for scenarios). After reading the scenario, the subjects answered a series of questions measuring their intentions to become aggressive "in the near future" in response to the behavior depicted by their supervisor. In addition, they were asked to rate the abusiveness of the supervisor. Following their completion of this activity, the participants were directed to a web page where they were debriefed and thanked for their participation.

**Participants**

One hundred fifty individuals agreed to participate in the study and completed the first measure of self-esteem and various demographic variables. Of these individuals, 55.3% (n = 83) were female and 44% (n = 66) were male (one person did not indicate their gender). The

participants' average age was 21.05 (SD = 2.19). Ninety-four percent of the participants were business school students, while the remaining nine subjects had majors outside the business school (e.g., psychology, communications, engineering, etc.). Ninety-six percent of the subjects were juniors or seniors and the subjects averaged 3.9 years of work experience. There were no differences between the participants who completed the study during the first or second year of data collection in regards to self-esteem or any of the demographic variables.

The study was voluntary and some participants decided to remove themselves from the remaining segments of the study. A total of 16 subjects were unable to complete all phases of the study (or we could not match time 1 and time 2 data), yielding a sample size of 134. There were no significant differences between those subjects who completed the entire study and those who did not on self-esteem or any of the demographic variables except for age. Participants who voluntarily left the study (or for who we could not match their time 1 and time 2 data) were slightly older (mean = 22.06) compared to those participants who completed both time periods (mean = 20.93) ($t(147) = -1.98$, $p < .05$). Thus, we have controlled for age in all of our analyses.

**Measures**

**Abusive Supervision**. The participants' perceptions of abusive supervision were measured with 5 items (1 = strongly disagree, 5 = strongly agree) from a scale developed by Tepper (2000). The participants were instructed to answer the questions based on the events of the scenario. Sample items included "employee being put down in front of others" and "telling an employee his or her thoughts or feelings are stupid." Principal axis factor analysis with Varimax rotation revealed one underlying factor. The five items were averaged to form the composite of abusive supervision (Mean = 2.98, SD = 1.30, alpha = .93).

**Self-Esteem Level**. Participants' global level of self-esteem was measured with ten items (e.g., "on the whole, I am satisfied with myself") developed by Rosenberg (1965). Participants were instructed to answer the questions based on how they feel *in general*. Principal axis factor analysis with Varimax rotation revealed two underlying factors with several of the items cross-loading on both factors. However, a scree plot clearly demonstrates one underlying factor and given the long history of research using this scale we created our composite using the approach most consistent with past research. Specifically, the 10 items were summed to form the measure of global self-esteem (Mean = 55.79, SD = 8.49, alpha = .87).

**Intended Aggression/Expressions of Hostility**. After reading the scenario on-line, subjects were asked to indicate (based on the scenario) "how likely" it was that they *would* engage in a list of four activities in the "near future" (1 = never; 5 = highly likely). The four behaviors (e.g., "disobey a supervisor's instructions," "act in a condescending manner toward supervisor," "interrupt supervisor when he is working/speaking," and "talk back to your supervisor") were designed to measure expressions of hostility directed at supervisors (Jawahar, 2002; Neuman & Barron, 1998; Skarlicki & Folger, 1997). Principal axis factor analysis with Varimax rotation revealed one underlying factor. Therefore, we averaged the four items to form the composite of intended expressions of hostility (Mean = 2.45, SD = .84, alpha = .81).

**Negative Affectivity**. A person's natural disposition for negativity was measured to help control for alternative explanations for our findings. Negative affectivity has been shown to influence aggressive behavior (Skarlicki, Folger, & Tesluk, 1999) and is likely to influence the perception of abusive supervision. Respondents were instructed to indicate how they feel, *in general*, to 4 items, i.e., upset, distressed, irritable, and hostile (1 = very slight or not at all; 5 = very much), developed by Watson, Clark, and Tellegen (1988). Principal axis factor analysis

with Varimax rotation yielded one underlying factor. The four items were averaged to form the composite of negative affectivity (Mean = 2.17, SD = .68, alpha = .74).

**Gender and Scenario Realism**. It was also necessary to control for gender in this study because it has been demonstrated that men and women have different preferences for the kinds of aggression they pursue in the workplace (Bjorkqvist, Osterman, & Lagerspetz, 1994). In addition, we controlled for the perceived realism of the scenario. Scenario realism (Mean = 3.53, SD = .98) was measured with one item, "This situation could happen, or has happened, to me or someone I know" (1 = strongly disagree; 5 = strongly agree), developed by Fedor and colleagues (2001).

## Results

The means, standard deviations, and correlation matrix for the variables in this study are presented in Table 1.

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Please insert Table 1 about here

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All analyses were checked for violations of the assumptions of the normal error regression model (e.g., linear function, homogeneity of variance, etc.). In addition, to check that our scenario manipulated perceptions of abusive supervision, independent-sample t-tests were performed. As expected, perceptions of abusive supervision ($t(131) = 9.90$, $p < .001$) were higher in the experimental (Mean = 3.79) condition than in the control (Mean = 2.10) condition.

Hypothesis 1 addressed the moderating effect of self-esteem on the abusive supervision – aggression relationship. Specifically, we predicted that individuals with high self-esteem would be more likely to respond to an abusive supervisor by indicating their *intention* to engage in

aggressive acts. To test this hypothesis, moderated regression analyses were conducted. In step 1, we entered the various control variables (i.e., negative affectivity, gender[i], age, and scenario realism) into the regression equation. In step 2, the independent variable (abusive supervision) and moderator (self-esteem) were entered. Finally, in step 3 the interaction term between abusive supervision and self-esteem was entered. A significant interaction indicates a moderating effect (Baron & Kenny, 1986). We centered all the predictors in the regression due to potential problems with multicollinearity when examining interactions (Aiken & West, 1991; Cohen, 1978; Pedhazur, 1982). Hypothesis 1 was supported, as we found a significant interaction between abusive supervision and self-esteem for intended expressions of hostility (Change in $R^2 = .02$, $F = 4.34$, $p < .05$). To further examine this interaction, we used the approach recommended by Aiken and West (1991) and generated separate regression equations with self-esteem set at +/- 1 standard deviation from its mean. We then plotted these simple regression equations to examine the significant interaction. According to the shape of the plots, individuals with high self-esteem were the ones most likely to respond to an abusive supervisor by indicating they would engage in an aggressive response in the near future (please see Figure 1 and Table 2).

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Please insert Table 2 and Figure 1 about here

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## Study 2

Participants for study 2 were full-time employed MBA students located in the middle, southern, and western United States. The participants were approached in class and granted extra credit for their participation in this study. Individuals who agreed to participate completed

an on-line measure of their perceptions of the abusiveness of their current supervisor as well as various demographic variables. In addition, these participants were asked to give the same survey to at least four of their coworkers who shared the same supervisor. A total of 294 volunteers agreed to participate and complete the various measures. To control for the fact that some individuals may have completed the survey themselves instead of giving it to their coworkers, we chose a conservative approach and eliminated any response that had an identical Internet Protocol (IP) address (i.e., indicating the survey was taken on the same computer as another survey). Our final sample size consisted of 190 individuals. Of these individuals, 45.2% were female, they averaged 32.17 years of age (SD = 8.96), and averaged 2.03 years with their current supervisor (SD = 1.77).

**Measures**

**Abusive Supervision**. Participants in this study answered 15 items from Tepper (2000) designed to measure perceptions of abusive supervision. Respondents used a 7-point scale ranging from 1 = "never" to 7 = "frequently, if not always," to indicate the incidence of supervisor behaviors such as “tells me my thoughts or feelings are stupid,” or “puts me down in front of others.” Principal axis factor analysis with Varimax rotation yielded one underlying factor. We averaged the 15 items to create our measure of abusive supervision (Mean = 1.79, SD = 1.17, alpha = .97).

**Expressions of Hostility.** Subjects in this study were asked to rate the same items that were used in study 1. Principal axis factor analysis with Varimax rotation demonstrated that the items loaded on one factor. We averaged the four items to form our measure of expressions of hostility (Mean = 1.48, SD = .80, alpha = .71).

**Self-esteem Level**. We examined the participants' level of self-esteem using Rosenberg's (1965) scale. Respondents answered ten items measuring self-esteem on a seven-point scale (1 = strongly disagree, 7 = strongly agree). As in study 1, factor analysis demonstrated that the items loaded on two factors, with many cross-loadings. To be consistent with study 1 and the long history of treating this measure as unidimensional, the ten items were summed to form the measure of global self-esteem (Mean = 55.49, SD = 10.96, alpha = .92).

**Negative Affectivity and Gender**. As in study 1, we controlled for the effects of a person's level of negative affectivity and gender. Participants were asked 12 items (Watson, Clark, & Tellegen, 1988) designed to measure their general level of negative affectivity[ii]. We created our composite measure of negative affectivity by averaging the items (Mean = 1.64, SD = .66, alpha = .91).

## Results

All means, standard deviations, and correlations for Study 2 are reported in Table 3. Because up to five subordinates (MBAs and their respective coworkers) could have reported on the abusiveness of the same supervisor, we conducted WABA (within and between analysis) to ensure rater independence for subordinates' reports of abusive supervision. The 15º *E* test for subordinate-rated abusive supervision was indeterminate (*E* ratio = .774), meaning abusive supervision did not vary at the group level, but the determination could not be made that it varies at the individual level. However, this value was quite close to the .767 value which indicates individual-level variance (Dansereau, Alutto, & Yammarino, 1984). And, as Avolio and Yammarino (1990) suggest, when results are equivocal, analysis at the individual level is acceptable. Hence, we proceeded by treating our observations as independent across raters.

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Please insert Table 3

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Hypothesis 2 addressed the moderating effect of self-esteem on the abusive supervision – aggression relationship in field settings. Specifically, we predicted that individuals with low self-esteem would be more likely to respond to an abusive supervisor by engaging in aggressive acts. To test this hypothesis, moderated regression analyses were conducted using centered predictors as in study 1. As expected, we found a significant interaction between abusive supervision and self-esteem (Change in $R^2 = .05$, $F = 12.54$, $p < .001$) after controlling for gender and negative affectivity. As in study 1, we used the approach recommended by Aiken and West (1991) to further examine the significant interactions. According to the shape of the plots, individuals with low self-esteem were the ones most likely to respond to an abusive supervisor by engaging in workplace aggression (please see Figure 2 and Table 4). Hypothesis 2 is supported.

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Please insert Table 4 and Figure 2 about here

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## Discussion

Using two studies with different methodologies, we found that differences in how researchers ask respondents to report their aggressive behavior and/or their intentions toward aggressive behavior influence how individuals with high or low self-esteem respond to a provocation (abusive supervision). More specifically, in our scenario-based study, participants were asked what they *would do* in response to perceptions of an abusive supervisor. In this setting, we found that participants with *higher* global self-esteem were the ones to report that

they would engage in greater expressions of hostility directed at their supervisor. Based on Shrauger's work (1975), we argue that the scenario-based setting evokes a cognitive response to provocation. Hence, based in self-consistency theory, high self-esteem individuals will be likely to act in ways that preserve their positive image of themselves, and are likely to be emboldened to respond to a supervisor in a like fashion. However, in our field study (study 2), where subjects were asked *what they did*, we found that *low* self-esteem individuals were more aggressively reactive to an abusive supervisor. Remember our theory predicted that field settings are likely to prompt affective, "hot" responses and the need for self-enhancement (Shrauger, 1975)—a key desire of those low in self-esteem.

We suggest that when trying to sort out the conflicting findings regarding the role of self-esteem in aggressive reactions, setting matters. That is, in research settings using scenarios, respondents report what they *would do*, and in field settings, respondents report what they *have done*, or others report what subordinates *have done*. Asking respondents to project future actions versus to recall past behavior results in very different reports. While our results may at first seem to suggest that scenario-based methodology is simply inferior to field research, that is, projections of what respondents would do seem unreflective of real behavior, we do not suggest throwing scenario methodology out altogether. Much can be learned from understanding cognitive reactions (via scenarios) to this sort of provocation. Information processing models (see Sloman, 1996; Smith & DeCoster, 2000, for reviews) suggest that individuals can make judgments about identical information via two distinct modes of processing. Analytic processing is characterized by non-automatic, deliberate scrutiny and evaluation of information. In contrast, non-analytic processing is characterized by quick, hasty, emotive reactions to information (Moons & Mackie, 2007). Scenario methodology would seem to mirror analytic cognitive

processing of workplace events and, as such, may suggest that when those low in self-esteem are faced with workplace situations which lend themselves to more careful thought and deliberation, their self-concept seems to agree that they deserve poor treatment. However, when they react "hotly," that is, in an emotional, non-analytic way to poor treatment in the workplace, they are likely to lash out.

This has implications for managerial control of employees' dysfunctional behavior. When managers do a good job of knowing each subordinate on an individual level and managing them each according to employees' individual differences (similar to what is called a high leader-member exchange relationship; e.g., Dansereau, Graen, & Haga, 1975), and when they understand that certain employees are low in self-esteem, managers can provide negative information to employees in a non-provocative, non-hostile way so as not to encourage hot, emotional reactions but rather careful, analytical responses. This is likely to result in lower workplace aggression. On the other hand, such careful handling of high self-esteem employees may not be necessary as per our field setting results. High self-esteem employees' automatic, non-analytical reactions to negative workplace events are less likely to be aggressive.

An important lesson for researchers, therefore, is to ensure we provide information on the methodology used when reporting our findings regarding the role of self-esteem in aggressive behavior. As such, this research may caution those who conduct research in the area of aggressive behavior and self-esteem to formulate research questions and methodology with any eye toward the theoretical guidelines we present here.

**Limitations**

Our studies are not without limitations. First, our studies may have suffered from a common method variance problem. In both studies, both the independent and dependent

variables were assessed using the same method from the same source. However, in study 1, common method variance issues were limited because we collected the measures at different times separated by two or more weeks (Podsakoff, MacKenzie, Lee, and Podsakoff, 2003). In addition, although we could not collect the data in study 2 at different times given the particular constraints of that study, we proactively took steps to control for common method variance by ensuring the participants their responses were anonymous, there were no right or wrong answers, and we used established scales to reduce problems with item ambiguity (Podsakoff et al., 2003).

Second, our differential predictions based on research setting were predicated on the premise that the setting prompts an affective or cognitive response. Yet, we did not measure whether subjects/respondents experienced an affective or a cognitive response to verify that this process mediated the relationship between abusive supervision and aggressive behaviors. As such, this remains an untested theoretical mechanism and direct measurement of the type of response elicited by both research settings would add rigor to the evidence we present here.

Third, in study 2, because MBAs approached coworkers and invited them to participate, it is not possible to estimate response rates because we can not know for sure if all potential respondents received surveys. This may have introduced a degree of sampling bias which we are unable to rule out. In addition, differences in sample populations between the two studies could have biased our results. Specifically, in study 1, the sample consisted of undergraduate students who were in their junior or senior year of college. Study 2 involved working adults. Given the difference in age and work experience, this could account for some of the differences we report in these studies. However, although we do find a significant difference in the amount of work experience and age of the participants in study 1 compared to study 2, the level of self-esteem,

our primary variable of interest in these studies, is not significantly different between the samples.

**Future Research**

While our theory guided and our data supported our predictions regarding the impact of research setting on provocation and self-esteem's association with aggression, we suggest that future research may wish to explore more complicated relationships, with more precise constructs. For example, we acknowledge the recent research of Duffy, Shaw, Scott, and Tepper (2006) which found that fragile self-esteem (the stability of one's self-esteem, not just high or low levels of self-esteem) influences individuals' sensitivity to fairness—something essential to consider under conditions of provocation. In addition, recent research has focused on the role that extremely high, unstable self-esteem, in other words narcissism, plays in aggression (Bushman et al., 2009). As well, beyond self-esteem, a subordinate's status in the group or organization may play a role in the decision to become aggressive in response to a provocateur. Similarly, if subordinates have other employment alternatives, or are otherwise considering leaving the employer anyway, having "nothing to lose" may play a role in determining their aggression reactions. We see these research questions as fruitful topics for related studies.

In addition, it can be argued that the question of how research setting and self-esteem impact the relationship between provocation and aggressive behavior is one that should be answered over multiple research studies. Expanding the net to include multiple types of workplace provocations (e.g., coworker incivility, generalized workplace harassment, undermining by customers) and many types of employee aggressive responses such as organizational and interpersonal retaliation would be a way to gather enough data so that a meta-analysis could be conducted. In this way, the sum total of accumulated empirical evidence could

be brought to bear on the question of how research setting plays a role in determining the interactive effect of provocation and self-esteem on employee aggression.

## Conclusion

The conflicting theoretical arguments as well as empirical findings regarding the impact of self-esteem and provocation on aggressive responses have become an issue that warrants clarity. We feel this research has taken a step in that direction. In essence, our studies offer a cautionary tale for researchers: to fully understand research findings in the area of provocation, employee self-esteem, and aggression, the research setting must be considered.

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**Table 1: Means, Standard Deviations, and Correlations (Study 1 - Scenario)[a, b]**

| Variable | M | SD | 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|---|---|---|
| 1. Abusive Supervision | 2.98 | 1.30 | (.93) | | | | |
| 2. Global Self-Esteem | 55.79 | 8.49 | .13 | (.87) | | | |
| 3. Expressions of Hostility | 2.45 | .84 | .51*** | .02 | (.81) | | |
| 4. Negative Affectivity | 2.17 | .68 | .01 | -.38*** | .07 | (.74) | |
| 5. Scenario Realism | 3.55 | .96 | .05 | .03 | .10 | -.03 | |
| 6. Gender[c] | -- | -- | -.06 | .34*** | .20* | -.25*** | .00 |

[a] *p < .05, **p < .01, ***p < .001 (two-tailed)
[b] Numbers in parentheses are coefficient alpha.
[c] Subject Gender coded as 1 = female, 2 = male

**Table 2: Self-Esteem, Abusive Supervision, and Aggression (Study 1 - Scenario)[a]**

| | ***Intended Expressions of Hostility*** | | |
|---|---|---|---|
| *Variable* | *Std. Beta* | *Std. Beta* | *Std. Beta* |
| Negative Affectivity[b] | .13 | .10 | .10 |
| Gender | .23** | .29*** | .28*** |
| Age | .00 | .04 | .06 |
| Scenario Realism | .10 | .08 | .08 |
| Abusive Supervision | - - | .54*** | .53*** |
| Self-Esteem | - - | -.11 | -.10 |
| Abs. Sup. x Self-Esteem[c] | - - | - - | .15* |
| **Total $R^2$** | **.03** | **.31** | **.33** |
| **Change in $R^2$** | **.03** | **.28*** ** | **.02*** |

[a] * p < .05, ** p < .01, *** p < .001
[b] All predictor variables and their interaction were centered prior to the analyses.
[c] Abs. Sup. x Self-Esteem = Interaction term representing Abusive Supervision and Global Self-Esteem

**Table 3: Means, Standard Deviations, and Correlations (Study 2 - MBA)[a, b]**

| Variable | M | SD | 1 | 2 | 3 | 4 |
|---|---|---|---|---|---|---|
| 1. Abusive Supervision | 1.79 | 1.17 | (.97) | | | |
| 2. Global Self-Esteem | 55.49 | 10.96 | -.24*** | (.92) | | |
| 3. E.O.H.[c] | 1.48 | .80 | .44*** | -.16* | (.71) | |
| 4. Negative Affectivity | 1.64 | .66 | .24*** | -.50*** | .34*** | (.91) |
| 5. Gender[d] | -- | -- | -.07 | .04 | .03 | -.01 |

[a] *p < .05, **p < .01, ***p < .001 (two-tailed)
[b] Numbers in parentheses are coefficient alpha.
[c] E.O.H. = Expressions of Hostility
[d] Employee Gender coded as 1 = female, 2 = male

**Table 4: Self-Esteem, Abusive Supervision, and Aggression (Study 2)[a,b]**

| | ***Expressions of Hostility*** | | |
|---|---|---|---|
| *Variable* | *Std. Beta* | *Std. Beta* | *Std. Beta* |
| Gender | .03 | .06 | .06 |
| Negative Affectivity | .34*** | .28*** | .24*** |
| Abusive Supervision | - - | .39*** | .32*** |
| Global Self-Esteem | - - | .07 | .07 |
| Abs. x Self-Esteem | - - | - - | -.24*** |
| **Total $R^2$** | **.12** | **.26** | **.31** |
| **Change in $R^2$ [e]** | **.12*** ** | **.14*** ** | **.05*** ** |

[a] * p < .05, ** p < .01, *** p < .001

[b] All predictors were centered prior to analyses.

**Figure 1: Interaction of Abusive Supervision and Self-Esteem on Intentions to Engage in Hostility (Study 1 - Scenario)**

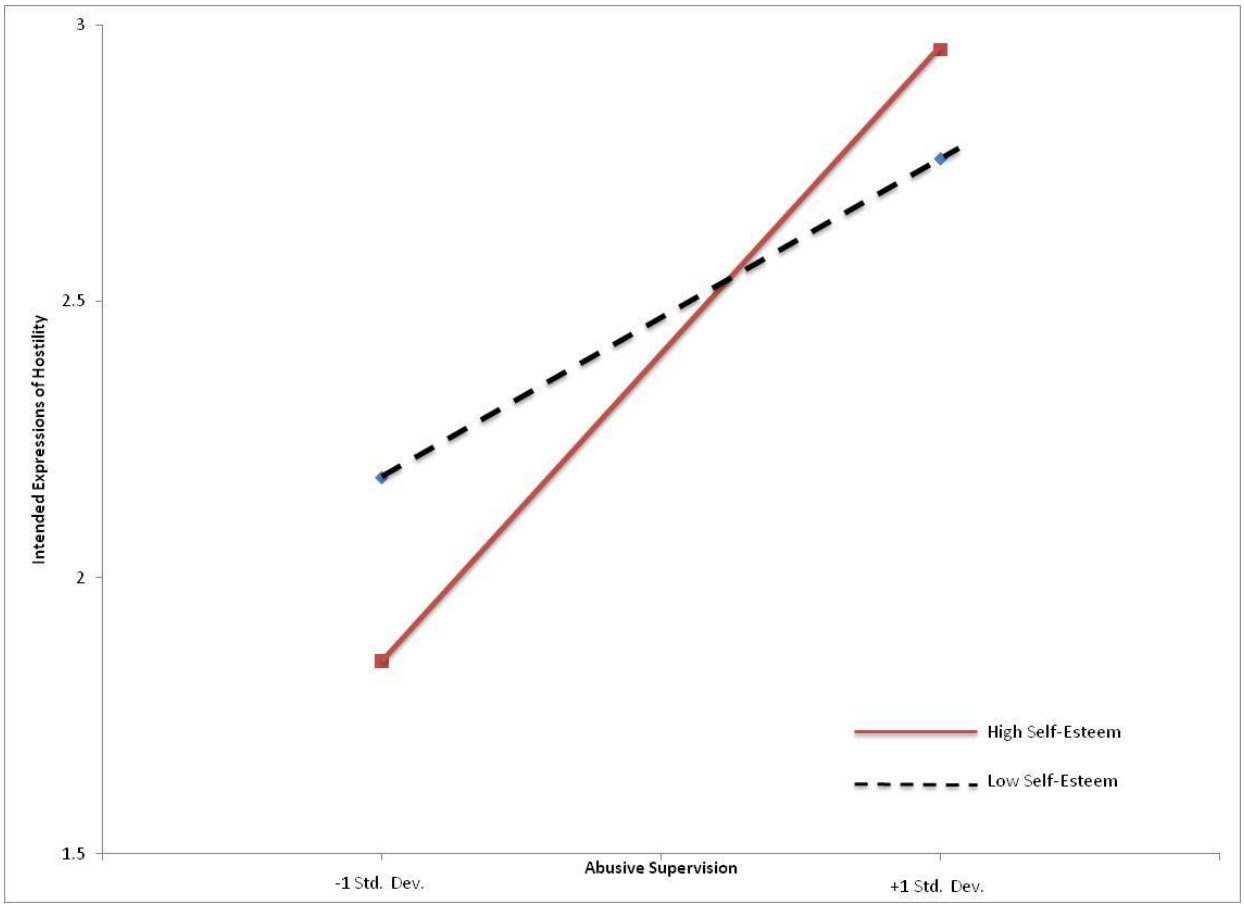
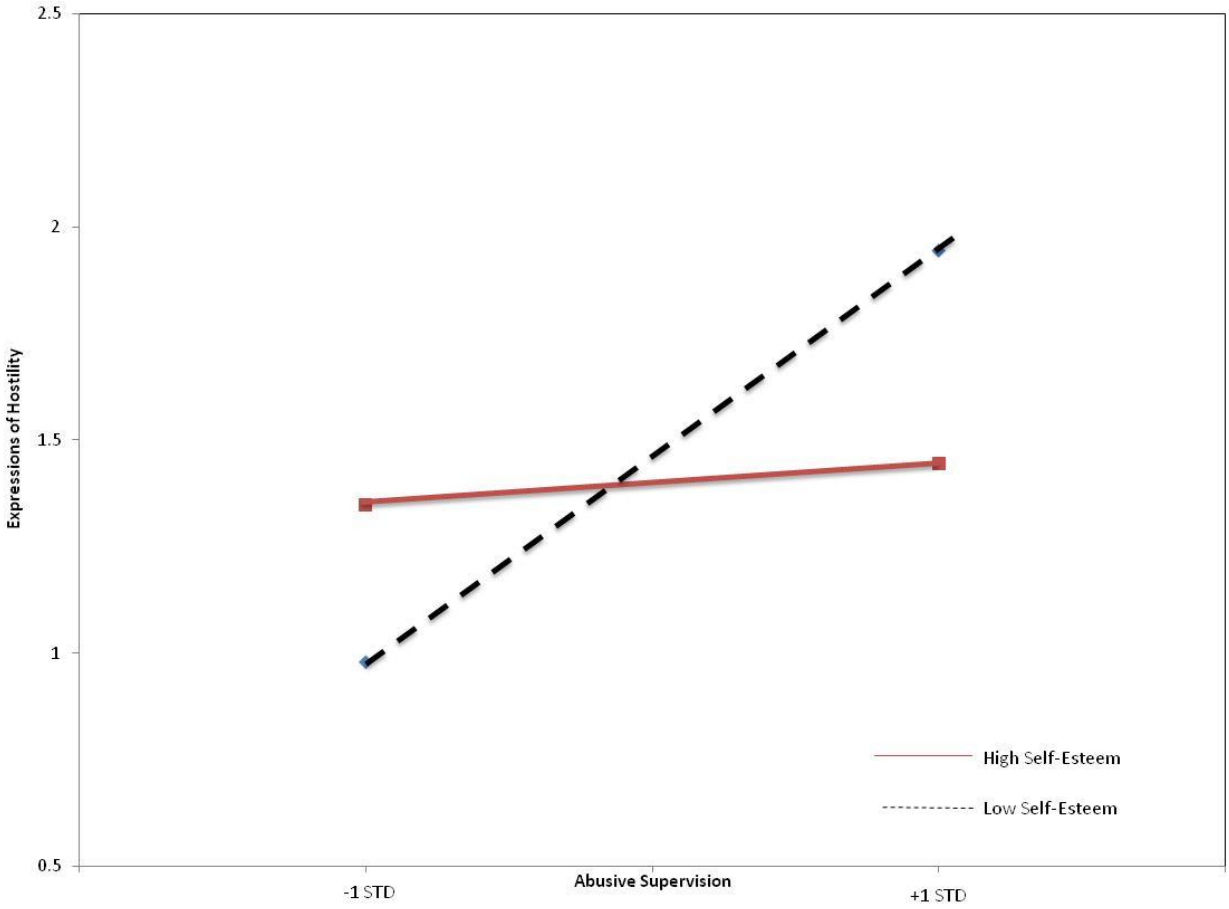


**Figure 2: Interaction of Abusive Supervision and Self-Esteem on Expressions of Hostility (Study 2)**



## Appendix: Study 1 Scenarios

**Instructions:** In the following scenario, please play the role of the subordinate discussed in the text (i.e., ***assume you are the subordinate***). After reading the scenario, please answer the questions that follow. We are interested in your perceptions and expected behavior if you were the employee discussed in the text.

*You have worked in your current position for the past 2 years. Specifically, you work for one of the cafés located throughout campus in academic buildings where students, faculty, and administrators can grab a quick bite to eat, get something to drink, or simply meet and chat. Your duties include serving customers a variety of food and drinks (e.g., coffee, soup, sandwiches, etc.) and collecting payment for these items. Your café has a suggestions-award program. The café encourages its student employees to submit suggestions to improve workplace procedures. Employees receive a lump-sum bonus for successfully implemented suggestions.*

*Currently, your café maintains a separate office where it stores the materials it needs to serve its customers (e.g., coffee cups, soup bowls, napkins, etc.). Recently, you submitted a suggestion to your supervisor that may reduce the current level of supplies on hand in your café. Specifically, you recommend that the department adopt a just-in-time delivery schedule for its inventory. Your suggestion could save your business a lot of money by cutting the cost of maintaining inventory. You went out of your way and checked with suppliers and were assured by them that they could supply the necessary materials to the café within 48 hours of an order.*

### Condition 1

Upon reading your suggestions, your boss becomes angry. In front of your coworkers and visibly upset, he asks to speak to you in private. Once you enter his office, he severely criticizes you. He states to you that if he were to send this type of suggestion to his superiors that you would be making him look bad. He says that his bosses expect him to come up with a suggestion like this, not his employees. He tells you to stop acting like a supervisor and to focus on your own job.

### Condition 2

Two weeks after you make your suggestions to your supervisor, you learn that your idea has been approved for implementation. Your boss thanks you for your suggestion.

[i] Please note that we controlled for gender in this study because several meta-analyses (e.g., Archer 2004; Bettencourt & Miller, 1996) have shown that men generally score significantly higher than women on measures of aggressive behavior. Likewise, in our sample, men were more likely to indicate their intention to engage in aggression toward their supervisor in the near future as compared to women. However, it is also important to note that when gender is not included in the regression analysis, the results do not change.

[ii] Please note that in study 2 we asked subjects to respond to the full abusive supervision and negative affectivity scales, whereas in study 1, only a subset of these items were used. To ensure that differences in the measurement of these two variables did not account for the differences we find in the studies, we conducted the same analyses reported in study 2 with the subset items used in study 1. The results for study 2 using the subset of the items were almost identical to what we report using the full measures.