ABSTRACT

FURTHER VALIDATION OF THE DISPLACED AGGRESSION QUESTIONNAIRE

By

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The predictive validity of the Displaced Aggression Questionnaire (DAQ) was studied by allowing participants to engage in both displaced and direct aggression. Participants were given the DAQ and the Buss-Perry Aggression Questionnaire (AQ), assessments of trait displaced and direct aggression, respectively. Participants were then provoked and given the opportunity to engage in both direct and displaced aggression. Results indicated that both the DAQ and the AQ were positively correlated with both displaced and direct aggression. Furthermore, the type of aggression dependent measure (viz., physical versus verbal) did not moderate these effects. Finally, there was a significant negative correlation between the DAQ and the Differentiation of Self Questionnaire, which measures the process of separating from ones multigenerational family, indicating that higher levels of trait displaced aggression are associated with negative differentiation from one's family of origin. Implications for both predicting and reducing aggressive behavior are discussed.

FURTHER VALIDATION OF THE DISPLACED AGGRESSION QUESTIONNAIRE

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CHAPTER 1

INTRODUCTION

Two workers at a retail store, Jennifer and Leslie, are insulted by a customer who was not satisfied by a product he purchased. Leslie becomes upset and argues with the customer and ultimately refuses to grant a refund. Jennifer, on the other hand, does not say anything to the insulting customer but instead 30 minutes later snaps at another customer who asks for help while she is putting merchandise away.

This anecdote illustrates different ways how individuals might handle their anger. Leslie directed her anger directly at its source (viz., the insulting customer). However, Jennifer did not confront the source of her anger but rather displaced it on an innocent customer. The current study will be investigating both direct and displaced aggression.

Denson, Pedersen, and Miller (2006) developed a self-report measure to assess trait displaced aggression, the Displaced Aggression Questionnaire (DAQ). This new questionnaire separates itself from other trait aggression measures by measuring the propensity to engage in displaced aggression as opposed to direct aggression. An example of a personality assessment of direct aggression is the Aggression Questionnaire (AQ; Buss & Perry, 1992). Previous to the work of Denson et al. (2006), there were no other questionnaires that measured trait displaced aggression. The primary contribution of the current study is that it extends previous work on the DAQ. Specifically, it provides further validation of the DAQ because in previous studies which employed the DAQ

participants were only given the opportunity to displace their aggression against targets other than the original provocateur. That is, participants were only given the option to engage in displaced aggression. In the current study, participants will be allowed to engage in both direct and displaced aggression thus allowing for an assessment of the discriminant predictive ability of the DAQ and AQ.

The current study makes two additional contributions. First, although meta-analytic work argues for the interchangeability of both verbal and physical measures of aggressive behavior (Carlson, Marcus-Newhall, & Miller, 1989), no previous study has orthogonally manipulated the type of aggression dependent variable (physical vs. verbal) across the other factors in the design. The current study contains such a feature. Second, because the opportunity for direct aggression will be manipulated, the current study also provides a test of the catharsis hypothesis (Berkowitz, 1970) which argues that engaging in aggression will reduce the magnitude of subsequent aggressive behavior.

In the remaining portion of the Introduction, I will first discuss direct aggression and the AQ (Buss & Perry, 1992) followed by an overview of the displaced aggression literature and the development of the DAQ (Denson et al., 2006). I will then discuss the final personality construct assessed in the current study--differentiation of self (Kerr & Bowen, 1988). Finally, an overview of the catharsis hypothesis is provided along with a review of the literature testing this theoretical model.

Direct Aggression and the Aggression Questionnaire (AQ)

Aggression can be defined as any behavior directed towards another individual that is carried out with the proximate (immediate) intent to cause harm (Anderson & Bushman, 2002). Furthermore, the aggressor must believe that there will be harm done

and that the other individual will want to avoid this harm (Anderson & Bushman, 2001; Baron & Richardson, 1994; Berkowitz, 1993; Geen, 2001). There are many theories that try to explain this behavior. Five such theories include the Cognitive Neoassociation Theory (Berkowitz, 1989, 1990, 1993), Social Learning Theory (Bandura, 1983, 2001), Script Theory (Huesmann, 1986, 1998), Excitation Transfer Theory (Zillmann, 1983), and Social Interaction Theory (Tedeschi & Felson, 1994). These theories overlap considerably and therefore the General Aggression Model (GAM) has been developed to unify these mini-theories (Anderson, Bushman, & Groom, 1997).

The GAM states that there are many factors that influence aggressive behavior including features of the situation and features of the person (Anderson & Bushman, 2002). Person factors that influence aggression include personality traits, gender, beliefs, attitudes, values, long-term goals, and scripts. Situational factors include aggressive cues, provocation, frustration, pain and discomfort, drugs, and incentives.

The Buss-Perry (Buss & Perry, 1992) AQ is one of the most common trait measures of the propensity to engage in direct aggression (i.e., aggressing against the provocateur; Bushman & Wells, 1998; Eamon, Munchua, & Reddon, 2001; Fong, Frost, & Stansfield, 2001; Freeman & Roca, 2001; Giancola, 2002; Harris, 1997; Ireland & Archer, 2004; Lundahl, 1995; Mejovsek, Budanovac, & Sucur, 2001; Russell & Arms, 1995; Wang & Diamod, 1999). According to Garcia-Leon et al. (2002), the AQ has strong reliability, construct validity and convergent validity. Alpha coefficients assessing internal consistency of the four subscales are high and range from .72 to .85. Measures of test-retest reliability were also strong and the scale was correlated in the predicted fashion with various personality traits (e.g., emotionality, self-consciousness, etc.). The

AQ has been translated into Spanish and the reliability and validity of the Spanish version has been established and published (Rodriguez, Fernandez, & Gomez, 2002).

The AQ (Buss & Perry, 1992) was specifically developed with the goals to update the Hostility Inventory (Buss & Durkee, 1957), and to ensure adequate reliability and validity as a psychometric instrument. The current AQ consists of 29 items in a self-report format in which participants rate each item on a 5-point scale ranging from 1 (extremely uncharacteristic of me) to 5 (extremely characteristic of me). Factor analysis of the AQ yields four subscales: (a) Physical Aggression (e.g., "Given enough provocation, I may hit another person"); (b) Verbal Aggression (e.g., "My friends say that I'm somewhat argumentative"); (c) Anger (e.g., "I sometimes feel like a powder keg ready to explode"); and (d) Hostility (e.g., "I wonder why sometimes I feel so bitter about things"). Although many instances acts of aggression observed in real world settings are acts of retaliation against a provoking agent (viz., direct aggression), other acts of aggression are directed at targets other than the original provocateur (viz., displaced aggression).

Displaced Aggression and the Displaced Aggression Questionnaire

Preliminary research by Marcus-Newhall, Pedersen, Carlson, and Miller (2000) determined that displaced aggression is a reliable phenomenon. Their research showed that individuals who are provoked and unable or unwilling to retaliate are reliably more likely to respond aggressively toward an innocent individual than an individual that had not been provoked. A meta-analysis of laboratory studies on the construct yielded a moderate effect size ($d = +.54$). Furthermore, regression analyses showed various moderators of the magnitude of displaced aggression. Specifically, greater initial

provocation intensity is associated with less displaced aggression. This is true whether provocation is from a human or from a situation. This would be supported by Berkowitz and Knurek's (1969) notion of judgmental contrast, which suggests that the stronger a prior negative experience the more likely a neutral target of displaced aggression will be seen as a nice person.

A second moderator was the similarity between the provocateur and the target of displaced aggression. The more similar was the target of the participant's aggression to the instigator of provocation, the greater the displaced aggression. N. Miller's (1948) model predicts a curvilinear relationship between similarity and aggression when both approach and avoidance tendencies are high.

The third moderator was the similarity between the participant and the target of displaced aggression. This is the extent to which the participant and the target of participant's aggression were similar. In situations that are more negative, the interactions between participant and the target of displaced aggression function much like triggering events. They are likely to prime negative thoughts and reactions, and thereby increase displaced aggression (Berkowitz, 1993).

The fourth moderator was the negativity of the situation in which participants and targets interact. Specifically, the more negative the situation, the larger the magnitude of displaced aggression. Small provoking triggering acts on the part of the target or characteristics of the target function to justify subsequent aggressive responding.

Affective processes also contribute to the effect of negative interactions, producing greater levels of displaced aggression. Individuals who are in a negative mood perceive events to be more negative overall as compared to those who are in a positive

mood and view events through rose-colored glasses (Isen, 1984, 1987; Isen & Shalker, 1982; Isen, Shalker, Clark, & Karp, 1978). Negative affect such as anger have a priming function that directs attention toward negatively valenced stimuli (Higgins & King, 1981). Those who have been provoked but who are unwilling or unable to retaliate will tend to interpret subsequent negative interactions even more negatively. This augmentation process will more likely lead them to displace their aggression against new targets regardless if these new targets have emitted behavior ordinarily seen as deserving of aggressive retaliation.

Consistent with N. Miller's (1948) extrapolation from the principle of stimulus generalization and Marcus-Newhall et al.'s (2000) reinterpretation of its implication within the context of paradigms that uniformly reduce the salience of avoidance cues, the more similar the target of the participant's aggression to the instigator of provocation, the greater the displaced aggression. N. Miller's model predicts a curvilinear relationship between similarity and aggression when both approach and avoidance tendencies are high. This prediction was confirmed by Marcus-Newhall et al., buttressing Berkowitz's (1997) reanalysis of Fitz (1976). In summary, Marcus-Newhall et al. stated that their findings suggest that displaced aggression is indeed a reliable effect and that contemporary social psychology needs to reconsider its neglect or rejection of the concept.

Researchers have explored a number of dimensions related to aggressive personality including the tendency to engage in verbal and physical aggression, the frequent experience of hostility and anger (Buss & Perry, 1992); the chronic accessibility of aggressive constructs (Dill, Anderson, & Deuser, 1997) often resulting from exposure

to violent media (Anderson & Bushman, 2001); gender (Bettencourt & Miller, 1996); anger expression (Spielberger, Reheiser, & Sydeman, 1995); narcissism and self-esteem (Bushman & Baumeister, 1998); and frontal EEG asymmetry and approach-withdrawal tendencies (Harmon-Jones & Allen, 1998; Hewig, Hagemann, Seifert, Naumann, & Bartussek, 2004). Recent research by Denson et al. (2006) has studied the individual differences in the tendency to displace aggression and these researchers have developed a new measure to assess trait displaced aggression, the DAQ.

Validation of construct convergent validity and discriminant validity of this new measure was determined by comparing the DAQ's relationship to measures of domestic abuse and road rage. It is believed that those high in trait displaced aggression differ in an important manner from those high in general trait aggressiveness. Specifically, unlike direct aggressors, individuals with a strong tendency to exhibit displaced aggression are hypothesized to be behaviorally inhibited when provoked. These individuals tend to possess traits that tend to make them engage in displaced aggression rather than direct aggression.

There are three related but distinct components of trait displaced aggression as assessed by the DAQ: (a) an affective component consisting of the tendency to focus on one's anger following a provocation (angry rumination), (b) a cognitive component referring to the tendency to hold a grudge for a prior provocation and plan for retaliation (revenge planning), and (c) a behavioral component referring to a general tendency to behave aggressively toward those other than the source of the initial provocation (behavioral displaced aggression).

The DAQ's three components, angry rumination, revenge planning, and behavioral displaced aggression, measure specific traits of individuals. Angry rumination (i.e., "When angry, I tend to focus on my thoughts and feelings for a long period of time") was shown to be positively correlated with hostility, anger, negative affect, rumination, and neuroticism. There was also a moderately positive correlation with behavioral inhibition even though a negative correlation is usually observed with trait measures of anger and direct aggression (e.g., Harmon-Jones, 2003; Harmon-Jones & Allen, 1998; Hewig et al., 2004). Furthermore, angry rumination was negatively correlated with positive affect and self-esteem, conscientiousness, agreeableness, social desirability, and was unrelated to extroversion, openness to experience, reflection, and behavioral approach. Displaced aggression (i.e., "When someone makes me angry, I can't stop thinking about how to get back at this person") was positively correlated with trait anger, anger-out, negative affect, neuroticism, and behavioral inhibition, while being negatively correlated with anger control, agreeableness, conscientiousness, and social desirability. However, displaced aggression was unrelated to extroversion, openness to experience, and behavioral approach (Denson et al., 2006). Revenge planning (i.e., "When somebody offends me, sooner or later I retaliate") was positively correlated with direct physical aggression, trait hostility, and most strongly correlated with the norm of negative reciprocity. Revenge planning was negatively related to anger control, agreeableness, conscientiousness, and social desirability and was unrelated to openness to experience and reflection.

Test-retest reliability of the DAQ was assessed in two studies (Denson et al., 2006). In the first study, 133 participants completed the 31 items of the DAQ via the

internet. Four weeks later, the participants were contacted through e-mail and told to complete the second portion of the study. Test-retest coefficient for the whole scale was acceptable, $r = .77$, $p < .001$. Individual coefficients for the subscales were also acceptable: angry rumination, $r = .80$, $p < .01$, revenge planning, $r = .75$, $p < .01$, and behavioral displaced aggression, $r = .78$, $p < .01$.

In the second study, 101 participants completed the DAQ on-line and 11 weeks later were contacted via e-mail and informed to complete the second half of the study. Test-retest coefficients for this study were excellent, $r = .87$, $p < .001$. Individual coefficients of the sub-scales were acceptable: angry rumination, $r = .89$, $p < .01$, revenge planning, $r = .86$, $p < .01$, and behavioral displaced aggression, $r = .78$, $p < .01$.

Furthermore, by correlating the DAQ with theoretically relevant measures such as neuroticism, conscientiousness, agreeableness, general trait aggressiveness, anger expression, social desirability, a general measure of self-focused rumination, road rage, and domestic abuse demonstrated concurrent validity. In addition, the DAQ was shown to be a good predictor of displaced aggression in two laboratory studies. In summary, the DAQ has shown to be a reliable measure as well as having good construct validity. However, previous studies used in the development of the DAQ did not allow for the opportunity for participants to engage in both direct and displaced aggression. The current study addresses this issue.

Differentiation of Self

Bowenian theory is a widely used approach in marriage and family therapy (Skowron & Friedlander, 1998). Its six main points are differentiation of self, triangulation, family projection process, fusion, emotional cutoff, and multigenerational

transmission process. However, differentiation of self is the most central concept in Bowen's theory.

According to Jenkins, Buboltz, and Schwartz (2005), differentiation of self can be understood as a process of differentiating from ones family of origin through the emergence of oneself from a multigenerational family system characterized by various levels of emotional attachments and projections of anxiety. This process requires that an individual separate the self from the family without cutting off the family (Bowen, 1978; Kerr & Bowen, 1988). If an individual can properly separate emotional attachment from the family, then relationships will be able to be maintained. However, if the individual has problems differentiating, then separating the fusion with the parents or family members will be difficult or there will be complete cutoff with the parents or family (Johnson & Waldo, 1998; Kerr & Bowen, 1988).

Differentiation of self can also be understood as a personality characteristic. A scale from 1-6 (1 being undifferentiated and 6 complete differentiation) has been developed that measures an individual's level of differentiation in certain intrapsychic and interpersonal characteristics (Bowen, 1978; Johnson & Waldo, 1998). According to Skowron and Friedlander (1998) intrapsychic differentiation refers to the ability to balance thoughts and emotions and interpersonal differentiation refers to the ability to experience deep intimacy without endangering one's sense of independence.

Both intrapsychic and interpersonal differentiations are correlated with the amount of emotional reactivity an individual will exhibit (Skowron & Friedlander, 1998). If an individual shows high level of differentiation, then the individual is less likely to show emotional reactivity. Individuals with low differentiation then are more likely to

show emotional reactivity. The key components of differentiation can be demonstrated through four categories: (a) a clear "I position," (b) emotional cutoffs from others, (c) fusion with others, and (d) emotional reactivity (Skowron & Friedlander, 1998).

Bowen (1978) stated that differentiating of self is needed for relational and psychological adjustments. Low levels of differentiation can lead to chronic anxiety, psychological and physical distress, choice of intimate partner with a similar low level of differentiation, marital dissatisfaction, emotional reactivity, and triangulation (R. Miller, Anderson, & Keala, 2004). Other similar research has shown the negative effects of low differentiation of self (Bohlander, 1999; Elieson & Rubin, 2001; Griffin & Apostal, 1993; Harvey & Bray, 1991; Skowron, Homes, & Sabatelli, 2003).

It is possible that there is a correlation between differentiation of self and displaced aggression. Although investigating the DAQ with the Differentiation of Self Questionnaire (DSQ) is novel, both scales are known to measure some form of negative affect. Low scores in the DSQ are associated with negative characteristics in an individual. It is possible that these negative characteristics influence a persons' level of aggression or type of aggression. For example, an individual who scores low in the DSQ is likely to be low on emotional reactivity. This would cause an individual to not react when he is angered but possibly find another form of letting his anger out, such as on another individual (viz., displaced aggression). Therefore, this possible relationship is examined in the current study.

The DAQ can be further utilized to test other theories. Since the DAQ is a novel measure, there are many potential uses for it. Such a use would be with the catharsis theory.

Catharsis Hypothesis

Society has long believed that it is not healthy to hold in your emotions. It is often said that one should express yourself or to "let it out." It is a common belief that if people bottle up their emotions, they will negatively impact their physical and psychological health (Bushman, Baumeister, & Phillips, 2001). Freud's therapeutic ideas are characterized as Hydraulic Model of anger which suggests that unexpressed anger can builds up inside a person similar to hydraulic pressure. Eventually this pressure must be released. Modern day theories of anger catharsis have a fundamental basis with Freud's therapeutic ideas on emotional catharsis (Geen & Quanty, 1977). By releasing the pressure (emotions) through catharsis, the anger is let out and should not negatively affect the individual in the short term.

Recent research, however, has produced findings that are inconsistent with catharsis theory. Specifically, there have been many empirical studies that have produced effects that are opposite in direction from those predicted by catharsis theory (Berkowitz, 1970; Bushman, Baumeister, & Stack, 1999; Geen & Quanty, 1977; Geen, Stonner, & Shope, 1975; Warren & Kurlychek, 1981). Instead of a reduction in aggression following the release of anger, participants have shown to increase aggression when not inhibited in their behavior. Geen et al. (1975) demonstrated that individuals who were instructed to shock their experimenter during a second task (and had been provoked by the experimenter in an earlier task) would induce a higher level of shock to the experimenter during a third task. Participants, who were not instructed to shock their experimenter during the second task, would not induce a high level shock to the experimenter during the third task. Furthermore, Bushman et al. (1999) had similar findings in which

participants who read and believed that cathartic relief would help relax and reduce anger were more likely to aggress than participants who read the opposite of cathartic release.

The current study will allow for an assessment of catharsis theory. In order to test the anger catharsis theory properly, a person must have a cathartic release and then have the subsequent opportunity to aggress against another individual. Given that this study has two time periods in which a subject can aggress, the subject will be allowed to either aggress or not aggress (cathartic release) during Time 1 and then in Time 2 there will always be an opportunity to aggress. If the catharsis theory is correct, then there should be less aggression at Time 2 when a subject had the opportunity to aggress at Time 1 compared to when no such opportunity to aggress was present at Time 1. However, if the opposite findings occur, then the cathartic theory will not be supported. Present research by Bushman et al. (1999) would support the latter hypothesis.

Hypotheses

The hypotheses for the current study are as follows.

Hypothesis #1: The trait aggressiveness (as assessed by the DAQ) but not trait displaced aggression (as measured by the AQ) will predict levels of displaced aggression.

Hypothesis #2: The AQ but not the DAQ will predict levels of direct aggression.

Hypothesis #3: The results described in Hypotheses #1 and #2 will be the same regardless of what type of aggression measure is employed (i.e., physical versus verbal).

Hypothesis #4: When participants have the opportunity to aggress at Time 1 they will behave more aggressively (not less aggressively) at Time 2. This prediction runs counter to catharsis theory but is in line with recent research discussed above.

Hypothesis #5: Differentiation of self (as measured by the DSQ) will negatively correlate with the DAQ.

CHAPTER 2

METHOD

Participants and Design

In exchange for extra course credit, 357 undergraduate volunteers (301 females and 56 males) from California State University, Long Beach were involved in this study. The design was a 2 (Opportunity for direct aggression: yes / no) x 2 (Type of direct aggression: physical / verbal) x 2 (Trigger: yes / no) between subjects design under constant initial provocation.

Materials

The DAQ (see Appendix A) measures the likelihood that a participant will displace their aggression as opposed to directing it to the source of the initial provocation. There are 31 Likert-type questions on a scale of 1-7 (1 = extremely uncharacteristic of me through 7 = extremely characteristic of me). The DAQ is composed of three subscales: angry rumination, revenge planning, and displaced aggression. Ten questions are in the angry rumination subscale (i.e., Whenever I experience anger, I keep thinking about it for a while), 11 questions for displaced aggression (i.e., When angry, I have taken it out on people close to me), and 10 questions for revenge planning (i.e., If somebody harms me, I am not at peace until I can retaliate).

The Buss-Perry (Buss & Perry, 1992) AQ (see Appendix B) is a trait measure that is linked with direct aggression. The AQ consists of 29 Likert questions on a scale of 1-5

(1 = extremely uncharacteristic of me through 5 = extremely characteristic of me). There are four subscales: anger (e.g., I sometimes feel like a powder keg ready to explode), hostility (e.g., I wonder why sometimes I feel so bitter about things), physical aggression (e.g., Given enough provocation, I may hit another person), and verbal aggression (e.g., My friends say that I'm somewhat argumentative).

The Differentiation of Self Scale is a measure of the process of separating oneself from your multigenerational family system characterized by various levels of emotional attachments and projections of anxiety. This process requires that an individual separate the self from the family without cutting off the family (Bowen, 1978; Kerr & Bowen, 1988). The DSQ (see Appendix C) is composed of four components: a clear "I position," emotional cutoffs from others, fusion with others, and emotional reactivity (Skowron & Friedlander, 1998). There are 43 questions that must be answered on a Likert-type scale of 1 (not at all true of me) to 6 (very true of me).

During the course of the study, several other materials were also employed. Specifically, an anagram task (see Appendix D) consisting of 15 scrambled words that are difficult to decipher (e.g., elunanteit = lieutenant). Participants were required to complete as many anagrams as possible within three and a half minutes. Previous research has shown that most individuals complete and average of 4 to 5 anagrams within the three and a half minutes (Pedersen, Gonzales, & Miller, 2000). This anagram task was used as a means to provoke the subject when he or she performed poorly on the task.

Second, a NASA task (see Appendix E) that asked participants to list six desirable traits in an astronaut was used. Participants exchanged their NASA task with a confederate subject in order to evaluate each other's work. This task allowed the subject

to further form an impression of the confederate subject by evaluating each other's work in the NASA task. More importantly, the feedback from the confederate that participants received on this task is the means by which the trigger variable is manipulated.

Third, participants completed a Food Preference Form (as supposedly did the experimenter and the confederate:see Appendix F). This form consists of 10 questions (e.g., "I like spicy foods [e.g., hot sauce, curry]") on a scale of -10 (Strongly disagree) to +10 (strongly agree). The purpose of this form is to further validate the cover story and to show participants that neither the experimenter nor the confederate subject (depending on condition) like hot sauce. Furthermore, when given the opportunity to engage in physical aggress with hot sauce; the subject knew that he/she made the experimenter/confederate subject eat something they did not like.

Also, two cups with 10 pieces of folded paper in each cup were used for a supposed random drawing. In one cup, the pieces of paper had written "experimenter" and in the other cup "participant." This supposed random drawing was designed to determine who the subject must decide how much food that other person (experimenter or participant) will consume.

A bogus personality questionnaire (see Appendix G) was used in conditions that do not allow the subject the opportunity to engage in direct aggression (viz., the first independent variable in the current study). The questionnaire consisted of 20 questions on a Likert scale (1-extremely uncharacteristic of me, to 7-extremely characteristic of me) with questions such as "I enjoy taking a walk when I am under a lot of stress." The purpose of this questionnaire is to provide a simple task that takes approximately the same amount of time to complete as would the procedure to engage in direct aggression.

Finally, an evaluation supposedly from the Psychology Department (see Appendix H) indicating that the experimenter (or the confederate) is being "evaluated for a highly coveted position and feedback will be beneficial for the decision making part of it" was used to measure verbal aggression. The evaluation form had five questions such as, "I recommend this experimenter to be a Graduate Student Research Assistant" (Likert questions, 1-strongly agree, to 7-stongly disagree) that the subject must answer.

Procedure

The experimenter introduced him or herself as a graduate student to the real subject and to the confederate. Participants were initially told that the purpose of the experiment is to examine the relationship of personality, academic ability, and how people form impressions of other individuals. After initial documents were completed (e.g., consent form) the confederate was told by the experimenter that he/she will continue the rest of the experiment in another room.

Participants were then asked to complete a personality packet as honestly as possible. This packet included the DAQ, AQ, and DSQ. They then completed a Food Preference Form in which they indicate what types of food they like and dislike. Participants were told that food tasting would occur later in the experiment. This procedure provided the opportunity to engage in physical aggression via the administration of hot sauce to the target. Research by Bushman, Bonacci, Van Dijk, and Baumeister (2003) and McGregor et al. (1998) has shown that hot sauce can be used as a method to measure aggression. This method entails participants administering varying amounts of hot sauce to another "participant" known to dislike spicy foods (Lieberman, Solomon, Greenberg, & McGregor, 1999). Also, there have been documented cases of

child abuse in which children have been forced to eat spicy food, as well as incidents where restaurant cooks have laced customers' food with hot sauce (Lieberman et al., 1999). The amount of physical aggression will be measured by the amount (measured in grams) of hot sauce the subject will pour unto a styrofoam cup. The subject believed that the target had to consume all the hot sauce placed in the cup.

Once the forms were completed, participants were told that in order to collect the food preference data more quickly, both participants in the experiment as well as the experimenter would participate in the food tasting aspect of the study. Furthermore, the participants were told that a random drawing would occur in which each person would determine the individual for whom they would select a quantity of food that must be consumed. In this random drawing the subject would pick a piece of paper (from a cup with 10 pieces of paper) with the word "participant" or "experimenter" (note: "participant" refers to the confederate). The result of this drawing was to determine for whom the participant would get to choose a quantity of food. In actuality, the drawing is rigged such that all the pieces of paper in the cup either say "participant" or "experimenter" depending on the experimental condition. This was done in order to control who the subject would be able to aggress against. In other words, this would determine whether the subject will have the ability to physically aggress against the provocateur (viz., the experimenter) or displace physical aggression against the other participant (viz., the confederate). For example, if the subject is in a physical aggression condition (type of aggression: physical vs. verbal), then the subject would decide how much food the experimenter will consume (vice versa for the verbal condition).

The participants were then reminded that one of the goals is to look at personality and academic performance. Therefore, they were asked to complete 15 anagrams in 3-1/2 minutes. These anagrams are designed to be difficult and previous experiments indicate that participants complete an average of approximately four to five of the 15 anagrams (Pedersen et al., 2000).

After 3-1/2 minutes had elapsed, participants were told to stop and put the anagram form back inside the envelope. They were then given an information packet which indicates that a group of students who took the anagram test last semester performed extremely well on the task. Meanwhile, the experimenter was in another room correcting the completed anagram task from the subject. The experimenter then walked into the room and provoked the participant by saying the following in an exacerbated tone of voice:

> You really got a lot of these wrong. We normally hope that Participants in this study will score at about the same level as the Engineering student sample. This gives us a comparison group for some of the later tasks you will perform. I should really give you another anagram task to do over again. However, to be perfectly honest with you, I don't want to waste my time.

Previous research has shown this to be a significant method of provocation (Pedersen et al., 2000). The experimenter then moved forward to the next task.

Since the experiment has a condition for "opportunity to aggress" (yes or no) and "type of aggression" (physical or verbal) the participants received either (a) a Food Preference form supposedly completed by the experimenter and the Selection of Food and Instruction form (physical aggression condition; see Appendix I), (b) the Evaluation Form from the Psychology Department (verbal aggression condition), or (c) the bogus Personality Questionnaire (no opportunity to aggress condition). This manipulates

whether participants are able to engage in direct aggression either verbally or physically against to the experimenter. For example, a subject randomly assigned to the "opportunity to aggress: yes" / "type of aggression: physical" condition had the opportunity to engage in direct aggression and this was done by giving hot sauce to the experimenter who reported via the Food Preference form that he/she does not like hot sauce.

After the participants completed the previous task they then are given the NASA task and asked to complete it. This form asks participants to list six desirable traits in an astronaut. Furthermore, they are informed that they will exchange their answers with the other subject (confederate) and evaluate one another's performance. After the subject evaluated the confederate's NASA task (see Appendix E), the subject then received either a positive or negative evaluation on their own NASA task. This evaluation measures the degree to which their performance on the astronaut task exhibited originality, quality, effort, a variety among traits listed, and made sense. In addition, an overall evaluation was provided. In the trigger (negative evaluation) condition the individual ratings and overall evaluation was 3, 4, 3, 3, 4, and 4 respectively on 7-point Likert-type scales (1 = no good at all, 7 = extremely good). In addition, space was available for participants to indicate additional comments. In this space, the following statement was written: "The performance was not great and I think a college student could do better." In the no trigger (positive evaluation) condition, participants received a neutral evaluation (6, 5, 6, 5, 5, and 5) and the following statement: "My partner did a decent job. I think the task was well done."

At this point, the experimenter did the opposite of what was done during the Time 1 aggression task. That is, if participants had the opportunity to engage in physical aggression at Time 1 (against the experimenter) then they were given the opportunity to engage in verbal aggression at Time 2 against the confederate (or vice versa).

Finally, the subject received a final packet consisting of manipulation checks and other secondary dependent variables (DVs). Specifically, these are a trigger manipulation check (measuring an affective reaction to the trigger; see Appendix J), the MACL (used as a provocation manipulation check; see Appendix K), and a Reactions to the Triggering Event form (see Appendix L). The Reactions to the Triggering form consists of five questions (two measure negative affect and three measure evaluation-based attributions) and five filler questions. Afterwards, the subject was debriefed and all aspects of deception were clarified.

CHAPTER 3

RESULTS

Hypothesis 1

A set of correlational analyses were employed to test the first hypothesis to determine if the DAQ but not the AQ would predict levels of displaced aggression. The results were mixed. Specifically, the results showed the expected significant positive correlation between the DAQ (as a whole) and displaced aggression, $r(349) = +0.148$, $p = .006$ (see Table 1). In addition, two of the three subscales of the DAQ were significantly correlated with displaced aggression--revenge planning, $r(351) = +0.157$, $p = .003$ and displaced aggression, $r(355) = +0.135$, $p = .011$. The third subscale, angry rumination, was positively correlated with displaced aggression but did not reach standard levels of statistical significance, $r(355) = +0.078$, $p = .14$.

Contrary to expectations, the AQ was also significantly correlated with displaced aggression, $r(348) = +0.175$, $p = .001$. Additional analysis of the four subscales of the AQ indicated that (a) physical aggression, $r(354) = +0.116$, $p = .028$, (b) anger, $r(353) = +0.152$, $p = .004$, and (c) hostility, $r(354) = +0.162$, $p = .002$ were positively correlated with displaced aggression. Only the verbal aggression subscale of the AQ was unrelated to displaced aggression, $r(355) = +0.013$, $p = .804$.

TABLE 1. Correlation Results of the DAQ and AQ on Direct and Displaced Aggression

Questionnaire	Displaced aggression			Direct aggression		
	n	*r*	*p*	*n*	*r*	*p*
DAQ, subscale 1 (angry rumination)	355	.078	.140	177	.175	.020
DAQ, subscale 2 (displaced aggression)	355	.135	.011	177	.152	.043
DAQ, subscale 3 (revenge planning)	351	.157	.003	176	.146	.053
DAQ, total	351	.148	.006	176	.181	.016
AQ, subscale 1 (physical aggression)	354	.116	.028	177	.144	.056
AQ, subscale 2 (anger)	353	.152	.004	176	.096	.203
AQ, subscale 3 (verbal aggression)	355	.013	.804	177	.082	.276
AQ, subscale 4 (hostility)	354	.162	.002	177	.158	.036
AQ total	348	.175	.001	175	.157	.038

Hypothesis 2

Another set of correlational analyses were performed to assess the second hypothesis that the AQ but not the DAQ, will predict levels of direct aggression. As was the case with Hypothesis #1, the results here were mixed. As hypothesized, there was a significant positive correlation between the AQ and direct aggression $r(175) = +0.157$, $p = .004$. Furthermore, as seen in Table 1, the hostility subscale of the AQ was correlated with direct aggression, $r(177) = +0.158$, $p = .036$, the physical aggression subscale was marginally correlated, $r(177) = +0.144$, $p = .056$, and the anger and verbal aggression subscales were in the predicted positive direction but did not reach statistical significance (p-values of .203 and .276, respectively).

However, contrary to expectations, there was also a positive correlation between the DAQ and direct aggression, $r(176) = +0.181$, $p = .016$. In addition, both the angry rumination, $r(177) = +0.175$, $p = .020$, and the displaced aggression, $r(177) = +0.152$, $p =$

.043, subscales were significantly correlated with direct aggression and the revenge planning subscale was marginally correlated, $r(176) = +0.146$, $p = .053$.

In summary, there was mixed support for Hypotheses #1 and #2. Specifically, whereas the DAQ and the AQ were correlated with their respective outcome variables as predicted (viz., displaced aggression and direct aggression, respectively), both measures were also significantly correlated with the constructs that there were not expected to predict (viz., direct aggression for the DAQ and displaced aggression for the AQ). This outcome is most likely due to the high degree of correlation of the DAQ and the AQ in the current sample, $r(346) = +0.732$, $p < .001$.

Hypothesis 3

The third hypothesis states that the predicted findings of Hypotheses #1 and #2 will be the same regardless of what type of aggression measure is employed (i.e., physical or verbal). In other words, the type of aggression dependent variable should not moderate the results. A series of regression analyses were used to test this hypothesis wherein the predictor variables were (a) a trait measure of aggressiveness (viz., either the DAQ or the AQ), (b) the type of aggression DV (viz., physical vs. verbal), and (c) the interaction of the above two variables. The criterion variable was either behavioral displaced aggression or behavioral direct aggression. The combination of these predictor and criterion variables yielded a total of four separate regression analyses.

The first two regression analyses assessed the potential moderating effect of aggression measure in the context of the predictions made in Hypothesis #1 (i.e., the relationship of both the DAQ and the AQ to levels of displaced aggression). The key result in each of these analyses is the interaction term (in order to assess for moderation).

Neither the DAQ x type of aggression measure interaction (β = -.106, *p* = .151) nor the AQ x type of aggression measure interaction (β = -.071, *p* = .259) were significant. As such, the type of aggression dependent variable (physical vs. verbal) did not moderate the effects testing Hypothesis #1.

The final two regression analyses yielded similar results to those stated above. Specifically, neither the DAQ x aggression measure nor the AQ x aggression measure interactions on direct aggression were significant (β = -.004, p = .967 and β = .069, *p* = .445, respectively). The type of aggression measure, therefore, did not moderate the effects of the AQ and DAQ on direct aggression that were seen in tests assessing Hypothesis #2.

Hypothesis 4

A one way between subjects ANOVA was used to assess whether the ability to behave aggressively at Time 1 using direct aggression would impact the magnitude of displaced aggression at Time 2. The results were not significant, $F(1,353) = 0.69$, $p = .408$, but there was a slight trend for participants to engage in less aggression at Time 2 if they aggressed at Time 1 ($M = -0.05$) than if they did not have the opportunity to be aggressive previously ($M = 0.03$; see Figure 1). Mean values represent z scores because there were two different types of aggression, physical and verbal, each with a different scale of measurement.

As a follow-up, analysis were performed in which the DV was separated by type of aggression (physical and verbal) and separate *t*-tests were performed for each dependent variable. Results of a between-Ss *t*-test indicated that when a measure of

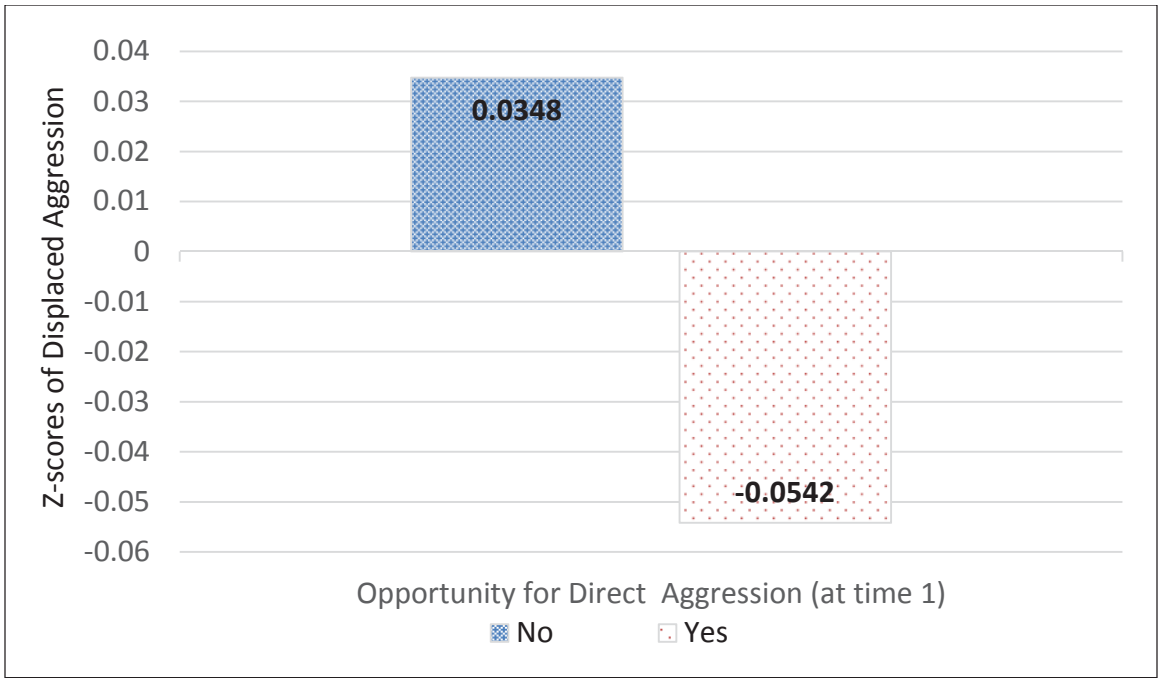

FIGURE 1. Comparison of displaced aggression z-scores by opportunity for direct aggression at Time 1 (Hypothesis 4).

physical aggression was employed, those who did not have an opportunity to aggress at Time 1 (M = 6.03, SD = 10.79) did not differ from participants who did aggress at Time 1 (M = 8.01, SD = 17.96), $t(175) = -0.89$, $p = .37$ (see Figure 2). These results indicate that the opportunity for direct aggression at Time 1 does not impact physical displaced aggression at Time 2. Another between-Ss t-test was conducted to compare these same groups when the dependent measure at Time 2 was verbal aggression. Results indicated that those who did aggress at Time 1 (M = 2.79, SD = 1.09) engaged in significantly *less* verbal aggression at Time 2 relative to those who did aggress at Time 1 (M = 3.13, SD = 1.16), $t(180) = 2.01$, $p = .046$ (see Figure 2).

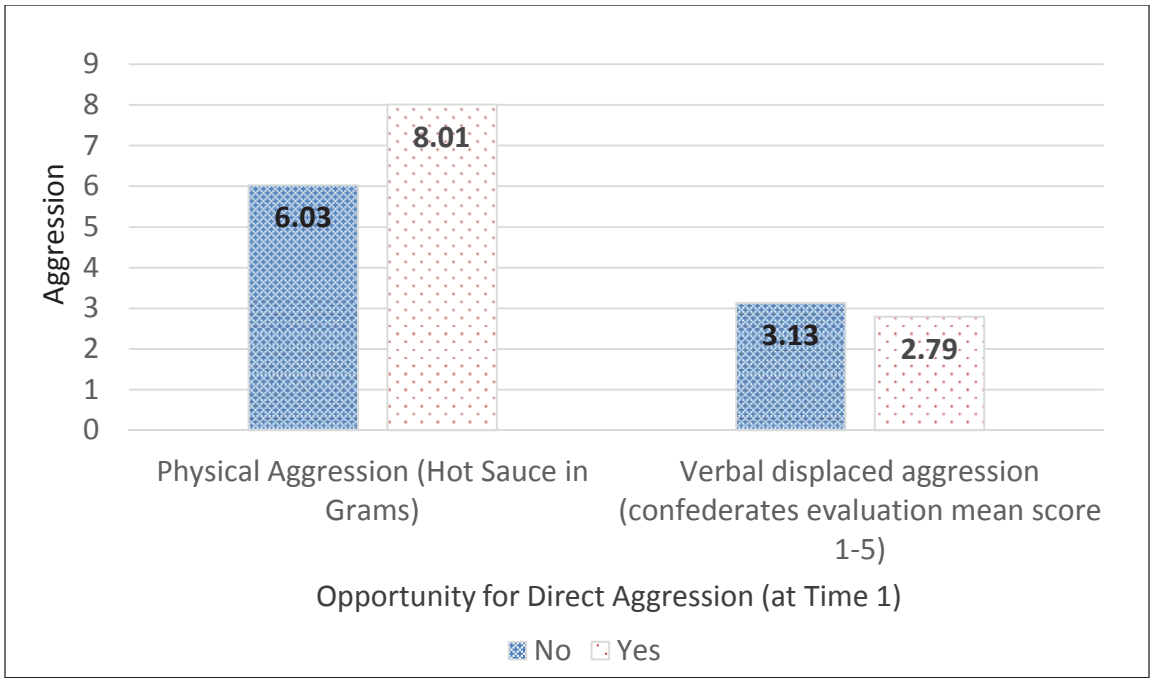

FIGURE 2. Comparison of displaced aggression scores by opportunity for direct aggression at Time 1 (Hypothesis 4).

Hypothesis 5

A correlation analysis between the DAQ and the DSQ was used to assess Hypothesis #5. As predicted, there was a significant negative correlation between the two measures, $r(320) = -0.581$, $p < .001$. To further test the hypothesis, correlations were calculated between the three subscales of the DAQ and the four subscales of the DSQ. Results indicated that eleven of the twelve resulting correlations were statistically significant (see Table 2). Specifically, the DSQ subscale reactivity was negatively correlated with the DAQ subscales of rumination, $r(347) = -0.539$, $p < .001$, displaced aggression, $r(347) = -0.460$, $p < .001$, and revenge planning, $r(343) = -0.310$, $p < .001$. The DSQ subscale I Position was negatively correlated with the DAQ subscales of rumination, $r(340) = -0.385$, $p < .001$, displaced aggression, $r(340) = -0.406$, $p < .001$,

and revenge planning, $r(336) = -0.260$, $p < .001$. The DSQ subscale emotional cutoff was negatively correlated with the DAQ subscales of rumination, $r(340)$ -0.298, $p < .001$, displaced aggression, $r(340) = -0.309$, $p < .001$, and revenge planning $r(336) = -0.347$, $p < .001$. Finally, the DSQ subscale fusion was negatively correlated with the DAQ subscales of both rumination, $r(349) = -0.122$, $p = .022$, and displaced aggression, $r(349) = -0.114$, $p = .033$, but not revenge planning, $r(345) = +0.026$, $p = .625$.

TABLE 2. Correlation Analysis Between the Displaced Aggression Questionnaire (DAQ) and the Differentiation of Self Questionnaire (DSQ)

Questionnaire	DAQ Total			Subscale #1 Angry rumination			Subscale #2 Displaced aggression			Subscale #3 Revenge planning		
	n	*r*	*p*	*n*	*r*	*p*	*n*	*r*	*p*	*n*	*r*	*p*
DSQ, Total	322	-.581	< .001	326	-.544	< .001	326	-.535	<.001	322	-.391	< .001
Subscale #1 Reactivity	345	-.522	< .001	349	-.539	< .001	349	-.460	<.001	345	-.310	< .001
Subscale #2 I Position	338	-.412	< .001	342	-.385	< .001	342	-.406	<.001	338	-.260	< .001
Subscale #3 Cutoff	338	-.373	< .001	342	-.298	< .001	342	-.309	<.001	338	-.347	< .001
Subscale #4 Fusion	347	-.092	.088	351	-.122	.022	351	-.114	.033	347	.026	.625

CHAPTER 4

DISCUSSION

Hypothesis 1 and 2 produced mixed results in that each measure predicted both behavioral direct and displaced aggression. Specifically, the results assessing Hypothesis 1 showed a significant correlation between the DAQ and displaced aggression as predicted, however the AQ was also correlated with displaced aggression. In a similar fashion, the data used to analyze Hypothesis 2 showed significant correlations between both the DAQ and the AQ with direct aggression. As mentioned, the strong correlation between the DAQ and the AQ in the current data ($r = 0.732$) is a potential reason why both personality scales were correlated with both displaced and direct aggression.

Hypothesis 3 stated that the findings of Hypothesis 1 and 2 will not vary depending on the type of aggression dependent variable (i.e., physical or verbal). The results supported this hypothesis since the interactions between personality measure and type of aggression DV were not significant. Lack of statistical significance can result from either (a) making a correct decision to not reject the null hypothesis (i.e., the null hypothesis that type of aggression measure does not moderate the effect is in fact true) or (b) making a Type II error (i.e., moderation does exist but we failed to detect it). Although no test can definitely determine which of these scenarios is occurring in the current set of analyses, a post-hoc power analysis will indicate whether there was a reasonable chance to detect an effect if it in fact exists. Power analyses were conducted

using the online program G-Power (Faul, Erdfelder, Lang, & Buchner, 2007). As can be can be seen in Table 3, the first and second regression analyses had high power (.76 and .86, respectively). This finding bolsters our confidence that the type of aggression measure does not moderate the effect of either the DAQ or the AQ on displaced aggression. Unfortunately, the power levels for the third and fourth regression analyses dealing with direct aggression were relatively low (i.e., .46 and .33, respectively).

TABLE 3. Power Analysis for Hypothesis 3 Regression Interactions

Questionnaire	Criterion variable	Trait measure by type of aggression DV interaction Sig.	Power analysis
DAQ	Displaced aggression	.151	.76
AQ	Displaced aggression	.259	.86
DAQ	Direct aggression	.967	.46
AQ	Direct aggression	.445	.33

Hypothesis 4 was not supported. Specifically, there was no difference in Time 2 displaced aggression between those who did or did not have the opportunity to engage in direct aggression at Time 1 (see Figure 1). There was, however, a slight directional effect in which participants who aggressed at Time 1 were somewhat less aggressive at Time 2. This trend (although not significant) is in line with the catharsis hypothesis (Geen & Quanty, 1977) which predicts that an individual will be less aggressive if they previously had the opportunity to engage in aggressive behavior and hence vent any pent up anger or hostility. Although the combined DVs (physical and verbal) produced results that were non-significant but with a trend in line with the catharsis hypothesis, analyzing the DVs

separately produced conflicting trends (see Figure 2). Specifically, when a verbal aggression dependent measure was employed at Time 2, those who engaged in direct aggression at Time 1 were less aggressive at Time 2. This finding is consistent with the predictions of the catharsis hypothesis. In contrast, when the DV at Time 2 was physical aggression, a (albeit non-significant) trend in the opposite direction was observed with those who engaged in Time 1 aggression subsequently displaying more physical aggression at Time 2. This latter trend is consistent with the more recent findings of Bushman and colleagues.

Hypothesis 5 was supported by significant correlational findings. Specifically, the DSQ, which measures the process of differentiating from ones family of origin through the emergence of oneself from a multigenerational family system characterized by various levels of emotional attachments and projections of anxiety, was negatively correlated with the DAQ as hypothesized. Moreover, the four subscales of the DSQ were also significantly correlated with the three subscales of the DAQ. Out of total 12 possible correlations, there were 11 significant negative correlations with the DSQ and DAQ subscales, the exception being fusion and revenge planning. The relationship between these two questionnaires is novel and it appears that both the DAQ and DSQ have similar personality measurement characteristics (e.g., inability to initially express oneself, dwelling on negative past events, feelings of inhibition) that need to be further examined. For example, people who score high on the DAQ tend to dwell on negative moments or situations which can cause them to separate themselves from others. This isolation can lead to low differentiation of self since they are not able to resolve these negative situations or issues in their lives.

This study adds to the displaced aggression research literature. Specifically, it replicates the effects demonstrated in Denson et al. (2006) and also investigates the discriminant predictive ability of the DAQ and the AQ on displaced aggression. Although the findings indicate that both the DAQ and the AQ predict levels of displaced aggression, this is most likely due to the high correlation between these two measures. This overlap might in part be attributed to the procedure of the study which had participants complete both measures back-to-back. Future studies should separate when the AQ and the DAQ are collected in order to lessen the chance for possible inflation in the correlation between the two personality scales.

To my knowledge, this study is also the first to allow participants to engage in both physical and verbal aggression. This can be valuable when attempting to discern if different types of personality traits and environmental factors differentially impact distinctive types of aggressive responding.

This study also adds to the research literature concerning the catharsis hypothesis. Overall, the analyses which combined the aggression measures were not significant (see the results for Hypothesis 4). Follow-up exploratory analyses, however, produced some interesting (and contradictory) effects. Specifically, when a verbal measure of aggression was used at Time 2, those who had the opportunity to engage in direct aggression at Time 1 demonstrated significantly less aggression at Time 2. This finding supports the catharsis hypothesis. In contrast, when the dependent variable at Time 2 was physical aggression, those who aggressed at Time 1 displayed a trend to be more aggressive at Time 2. Although this latter effect did not reach standard level of statistical significance in the current sample, the direction of the findings support Baumeister and colleagues

contention that the catharsis hypothesis is problematic and that engagement in an initial bout of aggressive behavior will increase (not decrease) subsequent aggression. Subsequent studies should attempt to ascertain why the type of aggression measure (i.e., verbal versus physical) should produce differential findings (as was seen in the current study).

Last, this study is also novel in that it is the first time the DAQ and the DSQ are compared. This is critical when you consider that people who are low in the DSQ have problems expressing themselves. Since the DAQ and DSQ are negatively correlated, it would be possible to use these questionnaires as a tool for anger issues. For example, if someone has issues with displaced aggression and they scored low on the DSQ, it may be effective to address the causes of their low differentiation of self which in turn may decrease their subsequent displaced aggression. In other words, the DSQ can be used to help identify underlying problems that are causing a person to display displaced aggression by looking at the subscales of the DSQ. For example, someone with attachment problems might keep to themselves and never really express how they feel, including when they get angry. However, this person may tend to displace their aggression towards a person they might be close to because they have allowed that individual to become close, such as a girlfriend or boyfriend. Initially this person with attachment problems may be seen as having displaced anger problems, but through the use of the DSQ, it may be determined that there are other underlying problems that stem from the family of origin. Specifically, the DSQ can measure levels of emotional cutoff from others and emotional reactivity. If it is determined that this person with attachment

problems scores low in these areas, counseling or other intervention can be used to improve these areas.

Limitations

There are some limiting factors to this study. The most obvious one is that this study had far more females (n = 301) than males (n = 56). Also, most participants (74.8%) are 18 or 19 years old, with a range of 17 to 48. This fact limits the generalizability of the findings.

Another limitation to this study is the complexity of the experimental process. Specifically, there are many different types of forms that had to be completed as the participants move from one part of the study to the next (e.g., anagram task, food preference form, NASA task, etc.). The complexity of this study can impact the participant's reaction to the provocation as well as how they decide to handle their emotions such as anger. Although it is important for the participant to not realize the true purpose of the study, participants might feel somewhat confused due to the complexity of the experimental procedure.

Future Research and Direction

Future research can investigate other factors that may influence when or how we display our aggression. Such factors can be the type of environment or the setting we are in, such as close quarters settings (i.e., a confined space such as an office) or family settings. Many times our setting influences how we behave and what we say. Investigating different types of settings can help to identify if there are any characteristics that may impact the predictive ability of the DAQ. For example, a close quarter or confined setting may inhibit a person's normal level of displaced aggression because it

can feel more dangerous than a larger area where one can flee from danger. Whereas a family setting may encourage higher levels of displaced aggression because it can be felt as a safer environment. Furthermore, different types of provocation methods (such as provocation on a participants emotions or provoking them by attacking something they care about) could be utilized (within ethical standards) to see if the type of provocation has a different effect on a person's aggression level or type (viz., displaced or direct).

This research has the potential to be used in many different manners to help people with aggression issues. Specifically, this study investigates whether or not catharsis is a good method to release aggression or frustrations. Moreover, future research can help to understand how to control aggression based on the type of aggression that a person exhibits. By being aware of one's aggression type (displaced or direct) and the factors that bring out that aggression, future research can develop a method or treatment for controlling one's aggression. Also, the strong correlation between the DAQ and the DSQ warrants further investigation into their similarities. It may be possible to help a person control their aggression by knowing how they score on the DSQ. For example, people who have displaced aggression problems and score low on the DSQ might have problems expressing themselves. This could potentially be identified by seeing how they score on the four components of the DSQ. Once identified, proper therapy can be utilized based on the component that they scored low on.

Conclusion

Although not all hypotheses were supported, this study demonstrates that there is enough value in the DAQ to continue testing its boundaries. Also, continued research in the area of displaced aggression will help to determine how to better differentiate

between direct aggression and displaced aggression. Such insight would allow treatment for aggressive behavior to be more effective. Finally, this study also demonstrates that the DAQ is related to other important personality traits (e.g., the DSQ) that impact how people interact with their families of origin.

APPENDICES

APPENDIX A

DISPLACED AGGRESSION QUESTIONNAIRE

Displaced Aggression Questionnaire

Directions: Fill out the following questionnaire to the best of your ability. Please be completely honest. Your responses will remain strictly confidential.

Rate each of the items below using the scale below. Write the number corresponding to your rating on the blank line in front of each statement.

1----------2----------3----------4----------5----------6----------7

Extremely Uncharacteristic of Me — Extremely Characteristic of Me

Take your time and pay attention to the wording. Sometimes the items are worded differently.

(1) _____ When angry, I tend to focus on my thoughts and feelings for a long period of time.
(2) _____ When someone makes me angry I can't stop thinking about how to get back at is person.
(3) _____ If another person hurts you, it's alright to get back at him or her.
(4) _____ I have long living fantasies of revenge after the conflict is over.
(5) _____ When somebody offends me, sooner or later I retaliate.
(6) _____ I often find myself thinking over and over about things that have made me angry.
(7) _____ When feeling bad, I take it out on others.
(8) _____ I would get frustrated if I could not think of a way to get even with someone who deserves it.
(9) _____ Sometimes I get so upset by work or school that I become hostile toward family or friends.
(10) _____ I get "worked up" just thinking about things that have upset me in the past.
(11) _____ When angry, I have taken it out on people close to me.
(12) _____ If somebody harms me, I am not at peace until I can retaliate.
(13) _____ I re-enact the anger episode in my mind after it has happened.
(14) _____ If I have had a hard day at work or school, I'm likely to make sure everyone knows about it.
(15) _____ I take my anger out on innocent others.
(16) _____ When I am angry, I don't care who I lash out at.
(17) _____ The more time that passes, the more satisfaction I get from revenge.
(18) _____ If someone made me angry I would likely vent my anger on another person.
(19) _____ If a person hurts you on purpose, you deserve to get whatever revenge you can.
(20) _____ After an argument is over, I keep fighting with this person in my imagination.
(21) _____ I never help those who do me wrong.

(22) _____ I often daydream about situations where I'm getting my own back at people.
(23) _____ Sometimes I get upset with a friend or family member even though that person is not the cause of my anger or frustration.
(24) _____ I keep thinking about events that angered me for a long time.
(25) _____ Whenever I experience anger, I keep thinking about it for a while.
(26) _____ I think about ways of getting back at people who have made me angry long after the event has happened.
(27) _____ When things don't go the way I plan, I take out my frustration at the first person I see.
(28) _____ When someone or something makes me angry I am likely to take it out on another person.
(29) _____ Sometimes I can't help thinking about times when someone made me mad.
(30) _____ I feel angry about certain things in my life.
(31) _____ I think about certain events from a long time ago and they still make me angry.

APPENDIX B

AGGRESSION QUESTIONNAIRE

Aggression Questionnaire

Directions: Fill out the following questionnaire to the best of your ability. Please be completely honest. Your responses will remain strictly confidential. Rate each of the items below using the scale below. Write the number corresponding to your rating on the blank line in front of each statement.

1----------2----------3----------4----------5----------6----------7

Extremely Uncharacteristic of Me — Extremely Characteristic of Me

(1) _____ Sometimes I fly off the handle for no good reason.
(2) _____ If somebody hits me, I hit back.
(3) _____ Some of my friends think I'm a hothead.
(4) _____ When people are especially nice, I wonder what they want.
(5) _____ When frustrated, I let my irritation show.
(6) _____ I know that "friends" talk about me behind my back.
(7) _____ I am suspicious of overly friendly strangers.
(8) _____ I have trouble controlling my temper.
(9) _____ I sometimes feel that people are laughing at me behind my back.
(10) _____ I often find myself disagreeing with people.
(11) _____ I have become so mad that I have broken things.
(12) _____ I tell my friends openly when I disagree with them.
(13) _____ When people annoy me, I may tell them what I think of them.
(14) _____ Once in a while I can't control the urge to strike another person.
(15) _____ I am an even-tempered person.
(16) _____ I can think of no good reason for ever hitting a person.
(17) _____ My friends say that I'm somewhat argumentative.
(18) _____ Other people always seem to get the breaks.
(19) _____ I sometimes feel like a powder keg ready to explode.
(20) _____ I can't help getting into arguments when people disagree with me.
(21) _____ There are people who pushed me so far that we came to blows.
(22) _____ If I have to resort to violence to protect my rights, I will.
(23) _____ I wonder why sometimes I feel so bitter about things.
(24) _____ At times I feel I have gotten a raw deal out of life.
(25) _____ I have threatened people I know.
(26) _____ I get into fights a little more than the average person.
(27) _____ I flare up quickly but get over it quickly.
(28) _____ I am sometimes eaten up with jealousy.
(29) _____ Given enough provocation, I may hit another person.

APPENDIX C

DIFFERENTIATION OF SELF QUESTIONNAIRE

Differentiation of Self Questionnaire

These are questions concerning your thoughts and feelings about yourself and relationships with others. Please read each statement carefully and decide how much the statement is *generally true* of you on a 1 (not at all) to 6 (very) scale. If you believe that an item does not pertain to you (e.g. you are not currently married or in a committed relationship, or one or both of your parents are deceased), please answer the item according to your best guess about what your thoughts and feelings would be in that situation. Be sure to answer every item and try to be as honest and accurate as possible in your responses.

Not at all true of me — Very true of me

1----------2----------3----------4----------5----------6

_____ 1. People have remarked that I'm overly emotional.
_____ 2. I have difficulty expressing my feelings to people I care for.
_____ 3. I often feel inhibited around my family.
_____ 4. I tend to remain pretty calm even under stress.
_____ 5. I'm likely to smooth over or settle conflicts between two people I care about.
_____ 6. When someone close to me disappoints me, I withdraw from him or her for a time.
_____ 7. No matter what happens in my life, I know that I'll never lose my sense of who I am.
_____ 8. I tend to distance myself when people get too close to me.
_____ 9. It has been said (or could be said) of me that I am still very attached to my parent(s).
_____ 10. I wish that I weren't so emotional.
_____ 11. I usually do not change my behavior simply to please another person.
_____ 12. My spouse or partner could not tolerate it if I were to express to him or her my true feelings about some things.
_____ 13. Whenever there is a problem in my relationship, I'm anxious to get it ettled right away.
_____ 14. At times my feelings get the best of me and I have trouble thinking clearly.
_____ 15. When I am having an argument with someone, I can separate my thoughts about the issue from my feelings about the person.
_____ 16. I'm often uncomfortable when people get too close to me.
_____ 17. It's important for me to keep in touch with my parents regularly.
_____ 18. At times, I feel as if I'm riding an emotional roller coaster.
_____ 19. There's no point in getting upset about things I cannot change.
_____ 20. I'm concerned about losing my independence in intimate relationships.
_____ 21. I'm overly sensitive to criticism.
_____ 22. When my spouse or partner is away for too long, I feel like I am missing a part of me.
_____ 23. I'm fairly self-accepting.

_____ 24. I often feel that my spouse or partner wants too much from me.
_____ 25. I try to live up to my parents' expectations.
_____ 26. If I have an argument with my spouse or partner, I tend to think about it all day.
_____ 27. I am able to say no to others even when I feel pressured by them.
_____ 28. When one of my relationships becomes very intense, I feel the urge to run away from it.
_____ 29. Arguments with my parents(s) or sibling(s) can still make me feel awful.
_____ 30. If someone is upset with me, I can't seem to let it go easily.
_____ 31. I'm less concerned that others approve of me than I am about doing what I think is right.
_____ 32. I would never consider turning to any of my family members for emotional support.
_____ 33. I find myself thinking a lot about my relationship with my spouse or partner.
_____ 34. I'm very sensitive to being hurt by others.
_____ 35. My self-esteem really depends on how others think of me.
_____ 36. When I'm with my spouse or partner, I often feel smothered.
_____ 37. I worry about people close to me getting sick, hurt, or upset.
_____ 38. I often wonder about the kind of impression I create.
_____ 39. When things go wrong, talking about them usually makes it worse.
_____ 40. I feel things more intensely than others do.
_____ 41. I usually do what I believe is right regardless of what others say.
_____ 42. Our relationship might be better if my spouse or partner would give me the space I need.
_____ 43. I tend to feel pretty stable under stress.

APPENDIX D

ANAGRAM ANSWER SHEET

Anagram Answer Sheet

Directions: Unscramble the letters to form a word and write that word on the line directly across from the letters. Please complete all 15 anagrams in the allotted time. Feel free to show your work.

1. meit _____

2. shaonc _____

3. zapzi _____

4. latailvee _____

5. rsasg _____

6. sems _____

7. cconiftesa _____

8. rsxeeptie _____

9. dmmpaiunneo _____

10. eduohlohs _____

11. smteron _____

12. elunanteit _____

13. tophhapogr _____

14. nvtnimereon _____

15. iosunttinti _____

APPENDIX E

NASA TASK

NASA Task

Instructions**:** In this task you must think of six useful characteristics for an astronaut of a space station crew.

THE SITUATION AND PROBLEM: In the year 2010, NASA will have a fully operational orbiting space station around the earth. Teams of 7 to 8 persons will be stationed there for a period of six months at a time. What characteristics would be useful traits, qualities, or beliefs for a member of the space station crew? That is, think of six (6) characteristics that are likely to enhance an astronaut's performance in terms of either attitudes, interests, skills, education, personality traits, experiences, or beliefs. For instance, a useful quality for a member would be the ability to follow orders. You are provided with the space below on which to write the six qualities you actually chose. Most people complete this task in three minutes, but if you need another minute, that's fine.

Six characteristics:

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____

APPENIDIX F

FOOD PREFERENCE FORM

FOOD PREFERENCE FORM

Part #1: Using the following list of the three people involved in the study, please circle who you are:

Participant in RM 426 (original experiment room) Participant in RM 424 Experimenter

Part #2: Please use the following scale to indicate how much you like each of the food items listed below.

-10 -9 -8 -7 -6 -5 -4 -3 -2 -1 0 +1 +2 +3 +4 +5 +6 +7 +8 +9 +10
strongly disagree strongly agree

(1) _____ I like dairy products (e.g., milk, cheese, ice cream).
(2) _____ I like spicy foods (e.g., hot sauce, curry).
(3) _____ I like snack foods (e.g., crackers, chips, pretzels).
(4) _____ I like seafood (e.g., shrimp, scallops, lobster, crab).
(5) _____ I like desserts (e.g., cookies, cakes, candy).
(6) _____ I like sour foods (e.g., lemons, limes, grapefruits).
(7) _____ I like vegetables (e.g., cauliflower, broccoli, carrots).
(8) _____ I like fast food (e.g., hamburgers, french fries).

Part #3: If you want to, please write any additional comments below:

_____

_____

_____

APPENDIX G

BOGUS PERSONALITY QUESTIONNAIRE

Bogus Personality Questionnaire

Directions: Please indicate the degree to which the following 10 statements are true of you personally. Use the scale below which indicates that your answers can range anywhere between 1 (extremely uncharacteristic of me) to 7 (extremely uncharacteristic of me). Write the number corresponding to your rating on the blank line in front of each statement.

1----------2----------3----------4----------5----------6----------7

Extremely Uncharacteristic of Me — Extremely Characteristic of Me

(1) _____ I like to be around others.
(2) _____ I can often become easily bored with what is going on around me.
(3) _____ I can become frightened or startled very easily.
(4) _____ I consider myself an independent person.
(5) _____ I have a strong desire to do well in any task that is placed before me.
(6) _____ Other people regard me as a flexible individual.
(7) _____ I feel that it is important to spend time with your family.
(8) _____ I sometimes fall into conversations with strangers.
(9) _____ I sometimes read books for fun.
(10) _____ I like to go to places that are quiet and secluded.
(11)_____ I liked to be competitive in anything I do.
(12)_____ I believe it is important to always tell the truth.
(13)_____ I enjoy watching movies with friends.
(14)_____ I often try to please others.
(15)_____ I enjoy taking a walk when I am under a lot of stress.
(16)_____ I get excited when I am out with my friends.
(17)_____ I almost never get along with my family.
(18)_____ I tend to worry about everything.
(19)_____ I feel ashamed when I do not do as my parents say.
(20)_____ I usually make other people laugh.

APPENDIX H

PSYCHOLOGY DEPARTMENT EVALUATION FORM

Psychology Department Evaluation Form

Important Instructions (PLEASE READ THE FOLLOWING):

The CSULB Psychology Department has initiated a new procedure for the hiring of Graduate Student Research Assistant (GSRA) positions. As you can imagine, these positions are very attractive because they look good on a resume and they offer a reasonable salary. Because the Psychology Department has received more applicants than the number of GSRA positions available, we have decided to gather input from participants in research studies to help us make our hiring decisions. The **Experimenter** conducting your study today is a Graduate Student in the Psychology Department and an applicant for this position. We would like your feedback (on the 5 questions below) regarding this individual's suitability for a GSRA position. We would ask you to please take this task seriously.

When you are finished with this evaluation, please place it back in the envelope and then deposit the envelope in the sealed box with the opening on top. This puts your evaluation with all the other subjects who have completed this task recently thereby keeping your evaluation anonymous. After you have done this, please knock on the door to let the Experimenter know that you are ready for the next part of the study.

Experiment: Personality, Impression Formation, & Food Preference

GSRA Applicant: #8

Directions: Please use the 7-point scale below to individually answer the following statements. Please do not write your name, student ID number, or any other identifying mark on this sheet since we want the answers to be completely anonymous.

1	2	3	4	5	6	7
strongly agree	moderately agree	slightly agree	neither agree nor disagree	slightly disagree	moderately disagree	strongly disagree

1. I recommend this experimenter to be a Graduate Student Research Assistant. _____
2. I think that the experimenter is a competent individual. _____
3. I like the experimenter. _____
4. I think that the experimenter is friendly. _____
5. The experimenter is intelligent. _____

APPENDIX I

SELECTION OF FOOD AND INSTRUCTION FORM

Selection of Food and Instruction Form

It has been randomly chosen that the other individual in this study (either the experimenter or the subject in Room 424) will eat Hot Sauce and that you will eat Pretzels.

You will decide the quantity of Hot Sauce the other individual will consume. Please follow the directions below. The other individual will also be deciding the amount of pretzels that you will consume. As a reminder, the food tasting will occur at the end of the study.

Directions:

Step #1: Unscrew the cap of the Hot Sauce.

Step #2: Using a cup, pour **any amount** of Hot Sauce that you would like the other individual to consume.

Step #3: Cover the cup with a lid so that no one can see the amount of Hot Sauce in the cup.

Step #4: When you are done, knock on the door so that the experimenter knows that you are finished.

APPENDIX J

TRIGGER MANIPULATION CHECK FORM

Trigger Manipulation Check Form

Directions: Using the scale below, please circle the response that best assesses your opinion. Read the questions carefully.

1. I was irritated with the other subject's evaluation of my NASA task.

1----------2----------3----------4----------5----------6----------7
strongly agree ... strongly disagree

2. I was happy with the other subject's evaluation of my NASA task.

1----------2----------3----------4----------5----------6----------7
strongly agree ... strongly disagree

3. I was angered or upset with the other subject's evaluation of my NASA task.

1----------2----------3----------4----------5----------6----------7
strongly agree ... strongly disagree

4. I was pleased with the other subject's evaluation of my NASA task.

1----------2----------3----------4----------5----------6----------7
strongly agree ... strongly disagree

5. I was annoyed with the other subject's evaluation of my NASA task.

1----------2----------3----------4----------5----------6----------7
strongly agree ... strongly disagree

APPENDIX K

MACL FORM

MACL Form

Directions: Each of the following words describes feelings or moods. Please use the list to describe your feeling **after finishing the anagram task you completed at the beginning of the study**. If the word definitely describes how you felt about the anagram task, circle the double check (√√) to the right of the word. For example, if the word is relaxed and you were definitely feeling relaxed after completing the anagram task, circle the (√√) as follows:

relaxed (√√) √ ? no (This means you definitely felt relaxed after completing the anagram task)

If the word only slightly applies to your feelings about the anagram task, circle the single check √ as follows:

relaxed √√ (√) ? no (This means you felt slightly relaxed after completing the anagram task)

If the word is not clear to you or you cannot decide whether or not it applies to your feelings regarding the anagram task, circle the question mark as follows:

relaxed √√ √ (?) no (This means you cannot decide whether you were relaxed or not)

If you definitely decide the word does not apply to your feelings about the anagram task, circle the no as follows:

relaxed √√ √ ? (no) (This means you definitely were not relaxed after completing the anagram task)

Work rapidly. Your first reaction is best. Work down the first column, then to the next. Please mark all the words. This should take only a few minutes. Please begin.

angry	√√	√	?	no	**alone**	√√	√	?	no
down	√√	√	?	no	**curious**	√√	√	?	no
concentrating	√√	√	?	no	**irritable**	√√	√	?	no
distressed	√√	√	?	no	**scornful**	√√	√	?	no
regretful	√√	√	?	no	**pleased**	√√	√	?	no
uncertain	√√	√	?	no	**annoyed**	√√	√	?	no
defiant	√√	√	?	no	**loathing**	√√	√	?	no
fearful	√√	√	?	no	**suspicious**	√√	√	?	no
playful	√√	√	?	no	**grouchy**	√√	√	?	no
overjoyed	√√	√	?	no	**vigorous**	√√	√	?	no
hostile	√√	√	?	no	**skeptical**	√√	√	?	no
sad	√√	√	?	no	**frustrated**	√√	√	?	no
disgusted	√√	√	?	no	**happy**	√√	√	?	no

APPENDIX L

REACTIONS TO TRIGGERING EVENT FORM

Reactions to Triggering Event Form

Directions: Think about the evaluation you received from the other subject on the NASA (astronaut trait) task. Please read each statement, and indicate your agreement or disagreement with it using the scale below. Please write your response in the line next to the statement.

1--------2--------3--------4--------5--------6--------7--------8--------9--------10

Strongly Disagree — Strongly Agree

1. The NASA task evaluation I received was fair. _____
2. The NASA task evaluation I received angered me. _____
3. The NASA task evaluation I received was reasonable. _____
4. The NASA task evaluation I received really bothered me. _____
5. My partner was justified in evaluating my NASA task performance as he/she did. _____
6. The NA SA task evaluation I received was overly critical. _____
7. The NASA task evaluation I received pleased me. _____
8. The NASA task evaluation I received was harsh. _____
9. The NASA task evaluation I received was nasty. _____
10. My partner's evaluation is an accurate reflection of my NASA task performance. _____

REFERENCES

REFERENCES

Anderson, C. A., & Bushman, B. J. (2001). Effects of violent video games on aggressive behavior, aggressive cognition, aggressive affect, physiological arousal, and prosocial behavior: A meta-analytic review of the scientific literature. *Psychological Science, 12,* 353-359.

Anderson, C. A., & Bushman, B. J. (2002). Human aggression. *Annual Review Psychology, 53*, 27-51.

Anderson, C. A., Bushman, B. J., & Groom, R. W. (1997). Hot years and serious and deadly assault: Empirical tests of the heat hypothesis. *Journal of Personality and Social Psychology, 16*, 1213-1223.

Bandura, A. (1983). Psychological mechanisms of aggression. In R. G. Geen & E. Donnerstein (Eds.), *Aggression: Theoretical and empirical reviews* (vol. 1, pp. 11-40). New York, NY: Academic.

Bandura, A. (2001). Social cognitive theory: An agentic perspective. *Annual Review Psychology, 52*, 1-26.

Baron, R. A., & Richardson, D. R. (1994). *Human aggression* (2nd ed.). New York, NY: Plenum.

Berkowitz, L. (1970). Experimental investigations of hostility catharsis. *Journal of Consulting and Clinical Psychology, 35*, 1-7.

Berkowitz, L. (1989). Frustration–aggression hypothesis: Examination and reformulation. *Psychological Bulletin, 106,* 59-73.

Berkowitz, L. (1990). On the formation and regulation of anger and aggression: A cognitive-neoassociationistic analysis. *American Psychologist, 45,* 494-503.

Berkowitz, L. (1993). Pain and aggression: Some findings and implications. *Motivation and Emotion, 17*, 277-293.

Berkowitz, L. (1997). Some thoughts extending Bargh's argument. In R. S. Wyer (Ed.), *Advances in social cognition* (vol. 10, pp. 83-94). Mahwah, NJ: Erlbaum.

Berkowitz, L., & Knurek, D. A. (1969). Label-mediated hostility generalization. *Journal of Personality and Social Psychology, 13*, 200-206.

Bettencourt, B. A., & Miller, N. (1996). Gender differences in aggression as a function of provocation: A meta-analysis. *Psychological Bulletin, 119,* 422-447.

Bohlander, R. W. (1999). Differentiation of self, need fulfillment, and psychological well being in married men. *Psychological Reports, 84*, 1274-1280.

Bowen, M. (1978). *Family therapy in clinical practice.* New York, NY: Aronson.

Bushman, B. J., & Baumeister, R. F. (1998). Threatened egotism, narcissism, self-esteem, and direct and displaced aggression: Does self-love or self-hate lead to violence? *Journal of Personality and Social Psychology, 75,* 219-229.

Bushman, B. J., Baumeister, R. F., & Phillips, C. M. (2001). Do people aggress to improve their mood? catharsis beliefs, affect regulation opportunity, and aggressive responding. *Journal of Personality and Social Psychology, 81*(1), 17-32.

Bushman, B. J., Baumeister, R. F., & Stack, A. D. (1999). Catharsis, aggression, and persuasive influences: Self-fulfilling or self-defeating prophecies? *Journal of Personality and Social Psychology, 76,* 367-376.

Bushman, B. J., Bonacci, A. M., Van Dijk, M., & Baumeister, R. F. (2003). Narcissism, sexual refusal, and aggression: Testing a narcissistic reactance model of sexual coercion. *Journal of Personality and Social Psychology, 84,* 1027-1040.

Bushman, B. J., & Wells, G. L. (1998). Trait aggressiveness and hockey penalties: Predicting hot tempers on the ice. *Journal of Applied Psychology, 83*, 969-974.

Buss, A. H., & Durkee, A. (1957). An inventory for assessing different kinds of hostility. *Journal of Consulting Psychology, 21*, 343-349.

Buss, A. H., & Perry, M. (1992). The aggression questionnaire. *Journal of Personality and Social Psychology, 63*, 452-459.

Carlson, M., Marcus-Newhall, A., & Miller, N. (1989). Evidence for a general construct of aggression. *Personality and Social Psychology Bulletin, 15*, 377-389.

Denson, T. F., Pedersen, W. C., & Miller, N. (2006). The displaced aggression questionnaire. *Journal of Personality and Social Psychology, 90*, 1032-1051.

Dill, K. E., Anderson, C. A., & Deuser, W. E. (1997). Effects of aggressive personality on social expectations and social perceptions. *Journal of Research in Personality, 31*, 272-292.

Eamon, K. C., Munchua, M. M., & Reddon, J. R. (2001). Effectiveness of an anger management program for women inmates. *Journal of Offender Rehabilitation, 34*, 45-60.

Elieson, M. V., & Rubin, L. J. (2001). Differentiation of self and major depressive disorders: A test of Bowen theory among clinical, traditional, and internet groups. *Family Therapy, 29*, 125-142.

Faul, F., Erdfelder, E., Lang, A.-G., & Buchner, A. (2007). G*Power 3: A flexible statistical power analysis program for the social, behavioral, and biomedical sciences. *Behavior Research Methods, 39*, 175-191.

Fong, G., Frost, D., & Stansfield, S. (2001). Road rage: A psychiatric phenomenon? *Social Psychiatry & Psychiatric Epidemiology, 36*, 277-286.

Fitz, D. (1976). A renewed look at Miller's conflict theory of aggression displacement. *Journal of Personality and Social Psychology, 6*, 725-732.

Freeman, T. W., & Roca, V. (2001). Gun use, attitudes towards violence, and aggression among combat veterans with chronic posttraumatic stress disorder. *Journal of Nervous and Mental Diseases, 189*, 317-320.

Garcia-Leon, A., Reyes, G. A., Vila, J., Perez, N., Robles, H., & Ramos, M. M., (2002). The aggression questionnaire: A validation study in student samples. *Spanish Journal of Psychology, 5*(1), 45-53.

Geen, R. G. (2001). *Human aggression* (2nd ed.). Philadelphia, PA: Open University Press.

Geen, R. G., & Quanty, M. B. (1977). The catharsis of aggression: An evaluation of hypothesis. In L. Berkowitz (Ed.), *Advances in experimental social psychology* (vol. 10, pp. 1-37). New York, NY: Academic.

Geen, R. G., Stonner, D., & Shope, G. L. (1975). The facilitation of aggression by aggression: Evidence against the catharsis hypothesis. *Journal of Personality and Social Psychology, 31*, 721-726.

Giancola, P. R. (2002). Alcohol-related aggression in men and women: The influence of dispositional aggressivity. *Journal of Studies on Alcohol, 63*, 696-708.

Griffin, J. M., & Apostal, R. A. (1993). The influence of relationship enhancement training on differentiation of self. *Journal of Marital and Family Therapy, 19*, 267-272.

Harmon-Jones, E. (2003). Anger and the behavioral approach system. *Personality and Individual Differences, 35*, 995-1005.

Harmon-Jones, E., & Allen, J. B. (1998). Anger and frontal brain activity: EEG asymmetry consistent with approach motivation despite negative affective valence. *Journal of Personality and Social Psychology, 74*, 1310-1316.

Harris, J. A. (1997). A further evaluation of the aggression questionnaire: Issues of validity and reliability. *Behavior Research and Therapy, 35*, 1047-1053.

Harvey, D. M., & Bray, J. H. (1991). Evaluation of an intergenerational theory of personal development: Family process determinants of psychological and health distress. *Journal of Family Psychology, 4*, 298-325.

Hewig, J., Hagemann, D., Seifert, J., Naumann, E., & Bartussek, D. (2004). On the selective relation of frontal cortical asymmetry and anger-out versus anger-control. *Journal of Personality and Social Psychology, 87*, 926-939.

Higgins, E. T., & King, G. (1981). Accessibility of social constructs: Information-processing consequences of individual and contextual variability. In N. Cantor & J. F. Kihlstrom (Eds.), *Personality, cognition, and social interaction* (pp. 69-121). Hillsdale, NJ: Erlbaum.

Huesmann, L. R. (1986). Psychological processes promoting the relation between exposure to media violence and aggressive behavior by the viewer. *Journal of Social Issues 42*, 125-140.

Huesmann, L. R. (1988). An information processing model for the development of aggression. *Aggressive Behavior 14*, 13-24.

Ireland, J. L., & Archer, J. (2004). Association between measures of aggression and bullying among juvenile young offenders. *Aggressive Behavior, 30*, 29-42.

Isen, A. M. (1984). Toward understanding the role of affect in cognition. In R. S. Wyer & T. K. Srull (Eds.), *Handbook of social cognition* (pp. 179-236). Hillsdale, NJ: Erlbaum.

Isen, A. M. (1987). Positive affect, cognitive processes, and social behavior. In L. Berkowitz (Ed.), *Advances in experimental social psychology* (vol. 20, pp. 203-253). New York, NY: Academic Press.

Isen, A. M., & Shalker, T. E. (1982). The influence of mood state on evaluation of positive, neutral, and negative stimuli: When you "accentuate the positive," do you "eliminate the negative"? *Social Psychology Quarterly, 45*, 58-63.

Isen, A. M., Shalker, T. E., Clark, M., & Karp, L. (1978). Affect, accessibility of material in memory and behavior: A cognitive loop? *Journal of Personality and Social Psychology, 36*, 1-12.

Jenkins, S. M., Buboltz, W. C. Jr., & Schwartz, J. P. (2005). Differentiation of self and psychosocial development. *Contemporary Family Therapy: An International Journal, 27*, 251-261.

Johnson, P., & Waldo, M. (1998). Integrating Minuchin's boundary continuum and Bowen's differentiation scale: A curvilinear representation. *Contemporary Family Therapy, 20*, 403-413.

Kerr, M. E., & Bowen, M. (1988). *Family evaluation.* New York, NY: Norton.

Lieberman, J. D., Solomon, S., Greenberg, J., & McGregor, H. A. (1999). A hot new way to measure aggression: Hot sauce allocation. *Aggressive Behavior, 25*, 331-348.

Lundahl, L. H. (1995). Separation of the effects of family history of alcoholism, heavy drinking, and gender on personality functioning and sensitivity to alcohol in college students. *Dissertation Abstracts Internatonal: Section B. The Sciences and Engineering, 56*, 2874.

Marcus-Newhall, A., Pedersen, W.C., Carlson, M., & Miller, N., (2000). Displaced aggression is alive: A meta-analytic review. *Journal of Personality and Social Psychology, 78*, 670-689.

McGregor, H. A., Lieberman, J. D., Greenberg, J., Solomom, S., Arndt, J., Simon, L., & Pyszczynski, T. (1998). Terror management and aggression: Evidence that mortality salience motivates aggression against worldview-threatening others. *Journal of Personality and Social Psychology, 74*, 590-605.

Mejovsek, M., Budanovac, A., & Sucur, Z., (2001). A comparison between recidivists and non-recidivists on aggression and socioeconomic characteristics. *Hrvatska Revija Za Rehabilitacijska Isteazivanja, 37*, 101-110.

Miller, N. E. (1948). Theory and experiment relating psychoanalytic displacement to stimulus-response generalization. *Journal of Abnormal and Social Psychology, 43*, 155-178.

Miller, R. B., Anderson, S., & Keala, D. K. (2004). Is Bowen theory valid? A review of basic research. *Journal of Marital and Family Therapy, 30*, 453-466.

Pedersen, W. C., Gonzales, C., & Miller, N. (2000). The moderating effect of trivial triggering provocation of displaced aggression. *Journal of Personality and Social Psychology, 78*, 913-927.

Rodriguez, J. M. A., Fernandez, M. E. P., & Gomez, J. L. G. (2002). Validation of the Spanish version of the aggression questionnaire. *Psicothema, 12*, 476-482.

Russell, G. W., & Arms, R. L. (1995). False consensus effect, physical aggression, anger, and a willingness to escalate a disturbance. *Aggressive Behavior, 21*, 381-386.

Skowron, E., & Friedlander, M. L. (1998). The differentiation of self inventory: Development and initial validation. *Journal of Counseling Psychology, 45*, 235-246.

Skowron, E. A., Holmes, S. E., & Sabatelli, R. M. (2003). Deconstructing differentiation: Self regulation, interdependent relating, and well-being in adulthood. *Contemporary Family Therapy, 26*, 29 38.

Spielberger, C. D., Reheiser, E. C., & Sydeman, S. J. (1995). Measuring the experience, expression, and control of anger. In H. Kassinove (Ed.), *Anger disorders: Definition, diagnosis, and treatment. Series in clinical and community psychology* (pp. 49-67). Philadelphia, PA: Taylor & Francis.

Tedeschi, J. T., & Felson, R. B. (1994). *Violence*, *aggression*, *& coercive actions*. Washington, DC: American Psychological Associtaion.

Wang, E. W., & Diamod, P. M. (1999). Empirically identifying factors related to violence risk in corrections. *Behavioral Science and the Law, 17*, 377-389.

Warren, R., & Kurlychek, R. T. (1981). Treatment of maladaptive anger and aggression: Catharsis vs behavior therapy. *Corrective and Social Psychiatry and Journal of Behavior Technology, Methods and Therapy, 27*, 135-139.

Zillmann, D. (1983). Arousal and aggression. In R. G. Geen & E. Donnerstein (Eds.), *Aggression: Theoretical and empirical reviews* (vol. 1, pp. 75-102).