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**THE ROLE OF POTENTIAL PROTECTIVE FACTORS IN THE  
RELATIONSHIP BETWEEN ANGER AND AGGRESSION: A CROSS-  
CULTURAL INVESTIGATION**

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by

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## Abstract

In the United States, those of Asian descent have been perceived by many as members of a non-aggressive “model minority” (Paciotti, 2005). As a result, little research has been conducted examining the Asian experiences of anger and aggression. Much of the research that has been conducted has been based upon the assumptions that: 1) Asian cultural values include the belief that aggression is unacceptable and results in serious negative consequences and 2) that these beliefs consequently serve as a protective factors against aggression in this population (e.g., Nagayama Hall, Sue, Narang, & Lilly, 2000; Nagayama Hall et al., 2005). However, the validity of these assumptions has not been examined empirically. In the present study, Caucasian and Asian/Asian American participants were asked to rate their tendencies to experience anger, their perceptions of the acceptability of and consequences for aggressing, and their engagement in aggression. The results revealed that, contrary to the predominant stereotypes, Asians/Asian Americans reported engaging in greater direct aggression and found aggression to be more acceptable than Caucasians. Furthermore, endorsement of Asian American values was related to greater reports of engagement in indirect aggression in the Asian sample; however, the belief that aggression is unacceptable served as a protective factor in the relationship between anger and indirect aggression in this group. Finally, whereas these beliefs protected those of Asian descent from engaging in direct aggression when their trait-anger was low, the anticipation of severe consequences for aggression did so when their trait-anger was high. The implications of these findings with respect our understanding of the Asian/Asian American experience, future research and clinical approaches are discussed.

## TABLE OF CONTENTS

List of Tables.....	vii
Acknowledgements.....	ix
Chapter 1: A HISTORICAL PERSPECTIVE OF ANGER AND AGGRESSION.....	1
Chapter 2: UNIQUE BUT RELATED CONSTRUCTS.....	4
Anger.....	4
Aggression.....	6
The General Aggression Model: A Unification of Anger and Aggression Theories.....	7
Limitations in the Current Literature.....	10
Cross-cultural research.....	10
Inhibitory/Protective factors research.....	11
Chapter 3: POTENTIAL INHIBITING FACTORS IN THE RELATIONSHIP BETWEEN ANGER AND AGGRESSION.....	13
Chapter 4: A CROSS-CULTURAL PERSPECTIVE.....	16
Asian American Aggression.....	18
Rationale: Hypotheses 1-2.....	18
Hypothesis 1.....	19
Hypothesis 2.....	19
Rationale: Hypotheses 3-7.....	19
Hypothesis 3.....	19
Hypothesis 4.....	19
Hypothesis 5.....	19
Hypothesis 6.....	20
Hypothesis 7.....	20
Asian American Anger: Findings, Inconsistencies, and Methodological Concerns.....	20
Rationale: Hypothesis 8.....	20
Hypothesis 8.....	21
Asian American Beliefs, Values, Attitudes, and Norms Related to Aggression...23	
Rationale: Hypotheses 9-12.....	23
Hypothesis 9.....	23
Hypothesis 10.....	23
Hypothesis 11.....	24
Hypothesis 12.....	24
Rationale: Hypotheses 13-16.....	24
Hypothesis 13.....	25
Hypothesis 14.....	26

Hypothesis 15.....	26
Hypothesis 16.....	26
Perceived Consequences Related to the Violation of Social Norms.....	26
Rationale: Hypotheses 17-20.....	26
Hypothesis 17.....	28
Hypothesis 18.....	28
Hypothesis 19.....	28
Hypothesis 20.....	28
Rationale: Hypotheses 21-24.....	28
Hypothesis 21.....	29
Hypothesis 22.....	29
Hypothesis 23.....	29
Hypothesis 24.....	29
Additional Analyses and Considerations.....	29
Scale Construction.....	29
Response Biases.....	30
Social desirability response bias.....	31
Neutral response bias.....	34
Chapter 5: METHOD.....	37
Participants.....	37
Two-week test-retest reliability sample.....	38
Materials and Procedure.....	39
Demographics Questionnaire.....	39
Paulhus Deception Scales.....	40
Asian American Values Scale- Multidimensional.....	43
The Aggression Questionnaire.....	44
Indirect Aggression Scale- Aggressor version.....	46
State-Trait Anger Expression Inventory-2.....	48
Endorsement of Aggressive Norms Scale.....	49
Negative Consequences of Aggressing Scale.....	50
State-Trait Anxiety Inventory.....	53
Chapter 6: RESULTS.....	55
Preliminary Data Analyses.....	59
Examination of response tendencies.....	59
Participant characteristics: Age and gender.....	59
Examination of normative information.....	61
Primary Tests of Differences between Groups.....	62
Primary Tests of Mediation.....	63
Mediation of the relationship between anger and direct aggression.....	63
Mediation of the relationship between anger and indirect aggression.....	64
Chapter 7: DISCUSSION.....	65
Interpretation.....	65
Aggression.....	65
Anger.....	66

Unacceptability of aggression.....	66
Consequences for aggressing.....	68
Conclusions and Suggestions for Future Research.....	71
REFERENCES.....	80
Appendix A: Tables.....	94
Appendix B: Demographics Questionnaire.....	122
Appendix C: Paulhus Deception Scales.....	125
Appendix D: Asian American Values Scale- Multidimensional.....	128
Appendix E: The Aggression Questionnaire.....	131
Appendix F: Indirect Aggression Scale- Aggressor version.....	133
Appendix G: State-Trait Anger Expression Inventory-2.....	135
Appendix H: Norms and Negative Consequences of Aggressing.....	139
Appendix I: State-Trait Anxiety Inventory.....	154

## LIST OF TABLES

Table 1. Demographics: Ethnicity.....	94
Table 2. Demographics: Birthplace.....	95
Table 3. Demographics: Gender.....	96
Table 4. Internal Consistency of the PDS Total Score: Item-Total Correlations Not Meeting the Criterion for Inclusion.....	97
Table 5. Internal Consistency of the AAVS-M Total Score: Item-Total Correlations Not Meeting the Criterion for Inclusion.....	99
Table 6. Internal Consistency of the STAXI-2 Scales: Cronbach’s Alpha Analyses.....	100
Table 7. Statistically Significant Correlations ( $r$ ) between Impression Management (IM) and the Primary Measures of Interest.....	101
Table 8. Statistically Significant Correlations ( $r$ ) between Modest Responding and the Primary Measures of Interest.....	103
Table 9. Normative Information for the Primary Measures of Interest: Mean (SD), Range of Scores Observed.....	105
Table 10. Descriptive Statistics for the Negative Consequences of Aggressing Scale: European Americans’ and Asian/Asian Americans’ Scores by Gender.....	107
Table 11. Descriptive Statistics for Direct Aggression: European Americans’ and Asian/Asian Americans’ Scores by Gender.....	108
Table 12. Descriptive Statistics for Direct Aggression: European Americans’ and Asian/Asian Americans’ Scores by Age.....	109
Table 13. Descriptive Statistics for Direct Aggression: European Americans’ and Asian/Asian Americans’ Scores by Age and Gender.....	110

Table 14. Descriptive Statistics for the STAXI-2 Scales: European American and Asian/Asian American by Gender.....	111
Table 15. Descriptive Statistics for the STAXI-2 Scales: European American and Asian/Asian American by Age.....	112
Table 16. Descriptive Statistics for the STAXI-2 Scales: European American and Asian/Asian American by Age and Gender.....	113
Table 17. Mediation of the Relationship between Anger and Direct Aggression .....	116
Table 18. Mediation of the Relationship between Anger and Indirect Aggression.....	119

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## **Chapter 1: A HISTORICAL PERSPECTIVE OF ANGER AND AGGRESSION**

Some researchers have been drawn to the investigation of anger by the universality of this emotion. Specifically, some have been intrigued by Darwin's (1872/1965) claim that the experience of rage is a universal and adaptive characteristic of many species of animals. Interestingly, many of the same researchers have noted that the study of anger is particularly important due to the extraordinarily negative outcomes that can result. This focus on anger as maladaptive, rather than as the adaptive characteristic that Darwin commented upon, is not a new one. In fact, the concept of anger as dysfunctional is hundreds of years old and rooted in the historical conceptualization of anger as a "passion" (for review, see Novaco, 1994), an emotion by which one is "gripped". Being seized by the passion of anger was thought to be particularly dangerous, as this mental loss of control could then result in "insanity" or violence (for review, see Novaco, 1994).

The grave nature of the potential consequences of anger was highlighted in the morality plays of medieval Europe, where the fates of those not able to avoid the seven deadly sins (sloth, greed, wrath, etc.) were more than bleak. Shakespeare's work was heavily influenced by the style of these plays, with his stage villains often embodying of one or more of these sins and his tragic characters often undone by succumbing to their temptation. For example, the fate of Romeo and Juliet is not sealed until Romeo, consumed by anger, murders Tybalt (*Romeo and Juliet*, III.i.118-137). Interestingly, the current conceptualization of the cardinal sins/passions lists wrath as the third most deadly, outranked only by pride and envy.

Therefore, although most researchers today would agree that the experience of anger can be both adaptive and maladaptive, the interest in developing a better understanding of anger has been driven by society's focus on its potentially serious consequences. In fact, present day researchers have stressed the negative and significant consequences anger can produce for both the "experiencer" and those around that individual. For example, frequent experience of anger has been found to be related to various physical ailments, including coronary heart disease (e.g., Diamond, 1982) and hypertension (e.g., Schneider, Egan, Johnson, Drobny, & Julius, 1986), maladies that most people strive diligently to avoid. In addition, anger rarely leads to positive social and interpersonal consequences (e.g., Baumeister, Stillwell, & Wotman, 1990) and may be related to interpersonal violence (Howells, 1989; Leonard & Blane, 1992; Pan, Neidig, & O'Leary, 1994). Overall, Deffenbacher and colleagues (1996) found that high-anger persons report significantly more frequent adverse consequences of their anger, in terms of physical damage to self, physical damage to others and property, relationship damage and lowered self-esteem, with high anger men experiencing the most adverse consequences related to physical expressions of anger. Moreover, these consequences are still generally considered unacceptable by society, as might be supported by the finding that those who are aggressive are often rejected or ostracized by their peers (Baumeister et al., 1990). The similarity between this relatively recent empirical finding and Shakespeare's recounting of Romeo being "banished" (*Romeo and Juliet*, III.ii.69-70) is likely not purely coincidental.

The historical notion that anger can lead to "insanity" might also be seen as being supported by the contemporary understanding of psychopathology. Specifically, anger

plays a role in many formally diagnosed psychological disorders. For example, the DSM-IV-TR (American Psychiatric Association, 2000) criteria for a variety of Axis-I disorders, such as mood and anxiety disorders, include increased anger or irritation. Finally, many Axis-II disorders often include excessive anger as a common symptom, including histrionic, narcissistic and paranoid personality disorders.

In light of the prolific negative consequences of anger and the significant role that anger plays in many psychopathological disorders, an understanding of how to dissolve the relationship between the experience of anger and maladaptive expressions of this emotion would be desirable. In an attempt to begin to develop such an understanding, the present paper has several aims. First, the definitions of anger and aggression will be discussed, highlighting the similarities and differences between these psychological phenomena. Second, the relevant primary theoretical perspectives will be briefly reviewed, including a focus on recent advances in the area of theoretical models of anger and aggression. The importance of continuing to examine the role of anger within a greater psychological system will be emphasized, with a focus on the gaps in the literature concerning possible aggression-inhibiting mechanisms. Finally, the present cross-cultural investigation will be discussed as one means by which to fill some of these gaps, enhance our understanding of the relationship between anger and aggression, and develop an understanding of potential, inhibiting mediators of this relationship.

## **Chapter 2: UNIQUE BUT RELATED CONSTRUCTS**

### Anger

In general, “anger” is defined as an emotional state that consists of feelings, varying in intensity, from mild irritation to fury and rage (Spielberger, Jacobs, Russell, & Crane, 1983) and that is accompanied by activation of neuroendocrine processes and autonomic nervous system (ANS) arousal (Spielberger, 1999). Anger is typically a reaction to an adverse event or situation (Lazarus, 1991) that is most likely to occur (e.g., in comparison to sadness or fear) when the individual perceives him/herself as having the ability to cope with that situation. This perception typically follows an appraisal that there is sufficient power (Roseman, 1991), control (Scherer, 1993) or resources to reinstate the goal state, or acquire the desired outcome (Levine, 1995).

Theoretical perspectives regarding anger have been discussed within the cognitive/cognitive-behavioral and psychodynamic schools of thought, as well as from the perspective of newer psychological models that incorporate an additional emphasis on social learning theory. However, the conceptualization of anger, across all three of these theoretical perspectives, includes a focus on the interrelatedness of angry thoughts, feelings and aggressive behavior.

Cognitive-behavioral theorists view anger as neither necessary nor sufficient for violence to occur, although anger is believed to be partially predictive of aggressive behaviors (e.g., Anderson & Bushman, 2002; Novaco, 1994). This conceptualization of the relationship between anger and aggression is consistent with the findings of cognitive-behavioral treatment outcome studies concerning the efficacy of anger management techniques. These techniques include relaxation training geared towards

reducing subjective feelings of anger-related arousal and cognitive restructuring of hostile attitudes and beliefs. This body of research has also supported the interrelated nature of these constructs (e.g., via feedback mechanisms). Specifically, it has been found that techniques aimed at changing either angry thoughts or feelings are often related to decreases in one another, as well as to decreases in engagement in aggressive behaviors (e.g., Deffenbacher, Huff, Lynch, Oetting, & Salvatore, 2000; Evershed et al., 2003). Focus is also placed on the role of early learning in the development of angry beliefs/attitudes and scripts that determine when aggressive behavior should occur, and some cognitive theorists have claimed that both anger and its expression via aggressive behavior are natural reactions that we learn to control with maturation. For example, Beck's (1999) view suggests that anger exists and goes unchecked in early childhood, only beginning to be restrained by pro-social attitudes and beliefs after the child has integrated society's/his or her parents' values concerning the unacceptability of its expression in the form of aggression. This perspective is very similar to that held by psychodynamically oriented researchers who have suggested that human beings are born with an innate aggressive instinct or drive (aggressionstrieb), and tendencies to express anger in the form of aggression are only restrained later in childhood, following the internalization of parental prohibitions against aggression and development of the superego (e.g., Perelberg, 1999). Furthermore, as the parental prohibitions are likely somewhat congruent with the society's prohibitions against aggression, the superego might also be seen as representing societal views about the unacceptability of aggressive behavior. Thus, the psychological understanding of anger and its relationship to

aggression can be seen as remarkably similar across what are typically considered two very disparate theoretical perspectives.

### Aggression

In contrast to the emotion of anger, aggression has been defined as destructive or punitive behavior that is directed towards people or objects, whether or not that behavior ever results in its intended goal of harm or destruction (for reviews, see Spielberger, 1999; Spielberger et al., 1983). Furthermore, although aggression is conceptualized as a unique construct, it is also often considered to be one behavioral response to the subjective experience of anger. Specifically, aggression is often thought to be a mechanism by which individuals attempt to resolve an adverse, or frustrating, event or situation, particularly when goal-directed behavior is being obstructed (Dollard, Doob, Miller, Mowrer, & Sears, 1939; Lazarus, 1991) or when the individual is exposed to a noxious experience (Berkowitz & Harmon-Jones, 2003).

In particular, it has been theorized that frustrating, stressful or painful conditions can result in an increase in negative affect and arousal. When this negative affect and aroused state occur, aggression may result (e.g., Berkowitz, 1989). Specifically, in order to remove the obstacle blocking the individual from achieving his/her goal, or in order to end the aversive experience, the individual attempts to destroy or remove the target via aggressive behavior (for reviews, see Spielberger, 1999; Spielberger et al., 1983). This response is considered to be more likely than a response related to sadness, fear or another negative affect state (e.g., avoidance) when the individual perceives him/herself as having the ability to impact the frustrating situation (e.g., Levine, 1995; Roseman, 1991; Scherer, 1993). Furthermore, it has been found that when an individual perceives

his/her aggression as being successful (e.g., causing harm to the target), thereby reinforcing the appraisal that he/she has the power to impact the situation, this aggression can intensify (e.g., Baron, 1977; Berkowitz, Cochran, & Embree, 1981).

However, not all aggression is thought to be motivated by anger. In fact, for many years, some researchers have delineated subtypes of aggressive behavior, where anger is conceptualized as only being present in some forms of aggression (e.g., Blanchard & Blanchard, 1984; Moyer, 1976). Nonetheless, it has been posited that when aggression is present, it is likely that it is at least largely motivated by underlying angry feelings (Berkowitz, 1993). This hypothesis has also been supported by recent psychophysiological research, which has found that relative greater left frontal cortical activity is associated with the experience of both greater state- and trait-anger (Harmon-Jones, 2004; Harmon-Jones & Allen, 1997, 1998; Harmon-Jones & Sigelman, 2001; Harmon-Jones et al., 2003) and greater state- and trait-aggression (Harmon-Jones & Allen, 1998; Harmon-Jones & Sigelman, 2001).

#### The General Aggression Model: A Unification of Anger and Aggression Theories

The General Aggression Model (GAM: Anderson & Bushman, 2002) has been a particularly promising addition to the psychological understanding of the interplay between anger and aggression. This model provides a method of discussing the numerous and serious consequences of anger within a system that emphasizes the importance of anger as it is observed, felt physically, experienced subjectively, cognitively considered and behaviorally expressed. The most recent version of the GAM incorporates this conceptualization of the interrelatedness of angry feelings, hostile attitudes and aggression, but it also goes several steps further.

Specifically, the GAM (Anderson & Bushman, 2002) was designed to incorporate the major theories of anger and aggression into one, more parsimonious, theory. It was also designed to provide a better understanding of aggression resulting from mixed motives (e.g., both anger-driven and “cold-blooded” motivations) by incorporating into the model the theory that cognition, affect and arousal (referred to as the three “routes” in the GAM) all interact to mediate the effects of situational and personal factors on aggressive outcomes. Furthermore, these situation-specific and person-specific factors (referred to as “inputs” in the GAM) also interact with one another, within this model. Finally, the GAM serves to provide a framework for the discussion of theories related to the development and persistence of aggressive personalities, including discussions concerning the role of anger in this system. Thus, the GAM preserves the importance of feedback mechanisms in the interconnected nature of angry affect, cognition and behavior, while also including insights into these relationships that have been discussed from various theoretical perspectives (for review, see Anderson & Bushman, 2002).

The first level of the model includes the “inputs,” or person and situation specific factors, including the individual’s personality traits, attitudes and general predispositions. These person factors are seen as stemming largely from the person’s consistent use of schemata, scripts and other knowledge structures (Mischel, 1999; Mischel & Shoda, 1995), and constitute the individual’s preparedness to aggress. They are also thought to be formed during childhood and predictive of future behavior. For example, aggression-related beliefs have been found to significantly predict engagement in future aggressive behaviors (Huesmann & Guerra, 1997), and the family is seen as playing the most important role in the development of these beliefs in children (Patterson, DeBaryshe, &

Ramsey, 1989; Patterson, Reid, & Dishion, 1992). In addition, some situational factors are believed to restrict one's opportunity to aggress. For example, a situation that is characterized by strong social norms against aggressing and that assigns non-aggressive behavioral roles to those present, such as a church setting, would limit the occurrence of aggressive behavior. Thus, input variables influence the outcome through the present internal state that they help to create.

The second level consists of this "present internal state," created by the interplay between the three "routes" of affect, cognition and arousal. For example, the feeling of anger is thought to reduce inhibitions against aggressing by providing one with justification for retaliation (e.g., Barbaree & Serin, 1993; Pithers, 1993). It is also thought to cause disruption at the third level of the model, the level of higher-level cognitive processes that might otherwise have resulted in the judgment that aggression would be inappropriate. Moreover, anger is believed to increase attention toward anger- or provocation-related stimuli, serve as a cue during appraisals of others' intentions and possible ways to respond, prime aggressive thoughts, scripts and associated behaviors, and generally energize behavior by increasing arousal (Anderson & Bushman, 2002).

Finally, Anderson and Bushman (2002) have noted that the above mentioned knowledge structures become very well rehearsed over time. Therefore, the third level, referred to as the "outcomes" level, is where learned patterns may emerge. Specifically, this level includes the underlying appraisal and decision processes that result in either thoughtful or impulsive action. As these appraisals and decisions rely heavily upon the first two levels which can become relatively automatic with rehearsal, the ultimate outcome may also become somewhat predictable over time. Thus, this model allows for

individuals to experience stable patterns in their behavior due, in part, to relatively unconscious action at the inputs and routes levels of the model, much as the psychodynamic perspective would suggest.

In general, one can see the considerable amount of theoretical overlap concerning the relationship between anger, hostility and aggression between theoretical perspectives. Specifically, all of these major theories highlight the importance of early learning in the development of one's predisposition to responding to anger with certain types of thoughts and/or behaviors. Additionally, they all acknowledge the influence that societal beliefs can have in the development of one's own personal beliefs system concerning anger and the acceptability of aggressive or hostile responses. Finally, the notion that anger, cognitions and aggression are related constructs that influence one another is permitted, if not emphasized, within all of these theoretical perspectives.

#### Limitations in the Current Literature

Cross-cultural research. All of the information delineated above has been based on findings regarding anger and aggression in largely Caucasian samples. For example, the anger measurement literature is plagued by a paucity of data regarding the assessment of anger in non-Caucasian populations (for review, see Dzus, 2005b). Additionally, examinations of the effectiveness of anger-management treatments in the reduction of aggressive behaviors have also been conducted with largely Euro-American samples (e.g., Deffenbacher et al., 2000; Deffenbacher, Lynch, Oetting, & Kemper, 1996; Deffenbacher, Oetting, Huff, & Cornell, 1996).

This relative lack of cross-cultural data is particularly interesting in light of the fact that variables related to societal context have been highlighted as particularly

important variables to consider in the study of aggression. For example, certain attitudes (e.g., suspiciousness, egocentrism) and the acceptance of social norms condoning aggression can significantly increase one's likelihood of engaging in violent or aggressive behaviors (e.g., Krahe & Moeller, 2004; Huesmann, 1998). Overall, there is evidence that once anger is present, a variety of factors can make an individual more or less likely to express that anger in destructive ways, and many of these factors are influenced by the society to which an individual belongs (e.g., the development of core beliefs, attitudes, values and long-term goals) (Anderson & Bushman, 2002; Beck, 1999; Perelberg, 1999). Therefore, the fact that very little cross-cultural research has been conducted in this area is particularly striking.

Inhibitory/Protective factors research. Although much attention has been paid to factors that might make one more likely to aggress, relatively little attention has been paid to factors that might be protective in nature. For example, although Anderson and Bushman's (2002) discussion of the GAM is very comprehensive in its delineation of how different factors might lead one to aggress, virtually no reference is made to how one might arrive at the decision to be non-aggressive. Empirical investigations based upon the GAM also reflect this lack of focus on inhibiting factors, (e.g., Anderson & Carnagey, 2004; Bushman & Anderson, 2002; Carnagey & Anderson, 2004).

Even the research concerning anger management treatments have largely neglected discussions of protective factors. Specifically, these treatments primarily focus on how clients can better manage their hostile thoughts and aggressive impulses, once those thoughts or impulses have already occurred, emphasizing techniques for coping with angry feelings (Deffenbacher, Demm, & Brandon, 1986; Deffenbacher & Stark,

1992; Hazaleus & Deffenbacher, 1986) and restructuring maladaptive thoughts including the belief that anger results in positive consequences (Averill, 1983; Deffenbacher et al., 1996). Although these treatments have been found to be effective in reducing anger (Deffenbacher & Stark, 1992; Deffenbacher, Thwaites, Wallace, & Oetting, 1994; Moon & Eisler, 1983; Novaco, 1975), they fail to focus on strategies or techniques that could be used preventatively. However, the GAM states that the most successful treatments for changing aggressive tendencies are those that are implemented with younger clients and those that focus on multiple sources of maladaptive learning.

This comprehensive, early intervention perspective is consistent with the current movement toward the implementation of multisystemic (e.g., teacher, parent, school) and prevention programs in the reduction of behavioral problems in children (e.g., Dadds & Fraser, 2003). Such prevention programs have resulted in significant improvement in conduct disorder symptoms across domains (e.g., with peers, in class and at home) and maintenance of effects up to 15 years post-intervention (e.g., Olds et al., 1998; Webster-Stratton, Reid, & Hammond, 2004). In contrast, treatments implemented later in life, or those more narrow in focus, tend not to be successful (for reviews, see Anderson & Bushman, 2002; Dzus, 2005a). Therefore, both the GAM and the literature pertaining to the treatment of conduct problems can be seen as suggesting that the most promising approach to reducing aggression would be one that is preventative in nature and focuses on more global sources of beliefs and social learning.

### **Chapter 3: POTENTIAL INHIBITING FACTORS IN THE RELATIONSHIP BETWEEN ANGER AND AGGRESSION**

An investigation that approaches the isolation of potential inhibiting factors in the relationship between anger and aggression from a cross-cultural perspective may be the next logical step with respect to research in this area. Specifically, an examination of the literature written by preeminent cognitive/cognitive-behavioral theorists provides some valuable insights. For example, Novaco (1994) noted that a lack of inhibitory beliefs and cognitions concerning the unacceptability of aggression can lead to an increase in one's likelihood of aggressing. Therefore, the presence of such beliefs might be one possible protective factor. Beck (1999) added that if the anticipated damage associated with aggressing exceeds one's capacity to cope, one might not experience the feeling of anger or the desire to aggress. Thus, stringent prohibitions against, or serious consequences for, aggressing might serve as a second type of protective factor.

Furthermore, it has been suggested that aggressive tendencies can be inhibited by empathy, cooperativeness, coping potential, and rational thinking that can correct cognitive distortions and biases associated with hostility and aggression (e.g., Beck, 1999; Miller & Eisenberg, 1988). However, little else can be found in the literature that speaks explicitly to which psychosocial factors may be protective, with regard to aggression. In general, the factors that have been proposed as preventative or inhibitory have been relatively broad constructs, whereas the examination of more specific attitudes and beliefs concerning the acceptability, appropriateness or adaptive nature of aggression have been generally reserved for the research concerning disinhibitory factors.

An investigation that fills these gaps by examining the roles of specific attitudes and beliefs in the inhibition of aggression would constitute a significant contribution to the literature regarding the interrelated nature of angry feelings, thoughts and aggressive behaviors. Moreover, in light of the widely accepted theory that many of the person factors that impact one's tendency to aggress are influenced by both one's experiences in childhood and social/cultural environment (Anderson & Bushman, 2002; Beck, 1999; Perelberg, 1999), it is striking that very little cross-cultural research has been conducted in this area. In fact, this lack of cross-cultural research seems to pervade both the literature concerning expression, experience and assessment of anger, as well as the literature regarding aggression (for review, see Dzus, 2005b).

One notable exception is the recent research concerning protective factors against sexual aggression in Asian American samples. Specifically, Nagayama Hall, Teten, DeGarmo, Sue, and Stephens (2005) found that Asian Americans' concerns regarding "loss of face" constitute an inhibiting/protective factor with regard to this type of aggression. In general, the Asian American culture's prohibitions against aggressing and disrupting interpersonal harmony, along with the serious interpersonal consequence of losing face, are hypothesized to reduce the likelihood of Asian Americans engaging in sexually aggressive behavior (Nagayama Hall & Barongan, 1997). However, even with respect to these recent findings, the hypothesis that it is the underlying attitudes prohibiting aggression and perceptions of significant negative consequences for violating this social norm that give such protective factors their power to influence behavior has yet to be specifically tested.

Consequently, the question of whether or not a better understanding of the cross-cultural role of specific attitudes and core beliefs might lead to the development of more effective strategies for lowering the high levels of violence and aggression that exist in modern societies has been left unaddressed. Researchers might begin to address this question by first, examining specific core beliefs and attitudes concerning the acceptability of aggressive behaviors as potential protective factors in the relationship between anger and aggression, across multiple cultural groups. Additionally, as there would likely be social (e.g., ostracism) or personal (e.g., guilt) consequences for acting out of line with one's cultural core beliefs and attitudes, the examination of the role of anticipated negative consequences in the relationship between the experience of anger and the expression of anger via aggression would also enhance our general understanding of the interrelatedness of these two constructs. Finally, such investigations might provide promising avenues for the very important research that concerns the development of preventative psychological interventions for reducing aggression and violence (McNeil, Eisner, & Binder, 2003). Therefore, an investigation that added to our collective understanding of the relationship between anger and the larger psychological systems to which it belongs, cross-culturally, would serve to fill a substantial gap in the literature concerning these phenomena.

#### **Chapter 4: A CROSS-CULTURAL PERSPECTIVE**

When considering possible inhibiting factors in the relationship between anger and aggression, the literature concerning those societies that seem to be naturally violence-free is particularly informative. For example, there is evidence that some societies have relatively low rates of violence, whereas others (e.g., main-stream American society) are characterized by relatively high rates of aggression. In fact, anthropologists have reported that there are as many as 40 “peaceful societies” in the world, where violence is almost unheard of (for review, see Bonta, 1997). Overall, these societies are reportedly small, secluded and characterized by peaceful worldviews, attitudes and core beliefs which are reinforced in every day activities and situations.

Interestingly, many of these reinforced traits are consistent with Beck’s (1999) proposed protective factors. For example, most of these societies are said to emphasize cooperation, sharing, helpfulness and empathy, while deemphasizing personal achievement, seeing competition as opposed to their core beliefs and related to the actively avoided occurrence of aggression (for review, see Robbins, 2000). One example of such a society is the Amish, where these beliefs are culturally and religiously based.

Furthermore, some less isolated cultures also involve a deliberate focus on many of these same characteristics, and many of these cultures have also been found to enjoy a relatively lower rate of violence and aggression than that which exists in many other societies (for review, see Nagayama Hall, 1996). For example, interpersonal conflict and violence have been found to be relatively minimal in many collectivistic societies, in which the individual’s goals are seen as subordinate to those of the group. Again, these

goals are consistent with Beck's (1999) proposed protective factors of feelings of responsibility/commonality and high levels of cooperativeness.

Additionally, those whose ethnic identification involves a significant sense of collectivism seem to enjoy relatively low rates of violence, even when those individuals live within a country that is relatively individualistic in its orientation. For example, it has been found that Mexican American adolescents are less likely than their European American counterparts to express their anger in verbally aggressive ways (Deffenbacher & Swaim, 1999). Additionally, Asian Americans are arrested for, and self-report involvement in, violent crimes significantly less often than Caucasians (for review, see Nagayama Hall, 1996). However, when lacking ethnic community ties, they have been found to be involved in such crimes more often (for review, see Uba, 1994).

As one's cultural norms determine what types of behavior are appropriate across life domains (Nagayama Hall et al., 2005), it is particularly intuitive that identification and involvement with a culture that stresses interpersonal harmony could serve as a protective factor against aggression. Additionally, the GAM (Anderson & Bushman, 2002) states that differences in aggressive outcomes across ethnic groups should be driven by cultural differences in relationships between anger and anger-related cognitions. Moreover, the GAM states that those who have internalized strong social norms against aggression and those who have been assigned to non-aggressive roles (e.g., collectivists) will not engage in aggressive behaviors. Therefore, the focus of the present investigation will be Asians'/Asian Americans' experiences of anger, attitudes regarding the acceptability of aggression, beliefs about the negative consequences of aggressing and engagement in aggression, as compared to those of European Americans.

## **Asian American Aggression**

### Rationale: Hypotheses 1-2

Surprisingly, little research has been conducted examining aggression within Asian American samples. However, it has been found that those of Asian descent tend to be less violent and aggressive than those from individualistic backgrounds (for reviews, see Nagayama Hall, 1996; Paciotti, 2005). Nonetheless, there is some limited evidence to suggest that Asian samples may report engaging in levels of aggression comparable to those found in Caucasian samples (e.g., Archer, Birring, & Wu 1998; Campano & Munakata, 2004). Additionally, one notable exception can be found in the literature concerning family-based aggression, where some researchers have reported that rates of spousal/child abuse are higher in some Asian American samples than they are in European American samples (e.g., Maker, Shah, & Agha, 2005; Mokuau & Chang, 1991). In contrast, others have found the same aggression rates to be less prevalent in Asian American groups than in both European American samples (Meyers, 2006) and in the general population (Dubanoski & Snyder, 1980).

Therefore, the present investigation seeks to replicate the relatively well-established, although disputed, finding that Asian/Asian Americans engage in less aggression than European Americans. Measures of both direct (e.g., physical and verbal) and indirect (e.g., relational) aggression, will be utilized, as aggression within a collectivistic culture may not be validly assessed by a measure of overt forms of aggression alone. For example, previous research has found that physical aggression becomes more infrequent as it becomes less socially sanctioned, while rates of indirect aggression increase, essentially taking the place of socially unaccepted physical

aggression (e.g., Rivers & Smith, 1994). However, as the GAM model (Anderson & Bushman, 2002) would suggest that levels of all types of aggression should be impacted by one's membership in a group that strives to preserve interpersonal harmony, the same pattern of findings is predicted across both direct and indirect forms of aggressive behaviors.

Hypothesis 1. Asian/Asian Americans will endorse significantly lower levels of direct aggression than will European Americans.

Hypothesis 2. Asian/Asian Americans will endorse significantly lower levels of indirect aggression than will European Americans.

Rationale: Hypotheses 3-7

Furthermore, it has been found that ties to one's ethnic group are predictive of lower rates of aggression in Asian American samples (for review, see Uba, 1994). This has been hypothesized to be due to the resulting identification with collectivistic values. Therefore, the present investigation will also include the examination of the hypothesis that at least one component of the Asian American value system may be serving as a protective factor against aggression.

Hypothesis 3. Asian/Asian Americans will score significantly higher on a measure of Asian American values than will European Americans

Hypothesis 4. Both Asian/Asian Americans' and European Americans' scores on a measure of identification with these collectivistic Asian American values will predict self-reported direct aggression, and these two variables will be associated negatively.

Hypothesis 5. Both Asian'/Asian Americans' and European Americans' scores on a measure of identification with these collectivistic Asian American values will

predict self-reported indirect aggression, and these two variables will be associated negatively.

Hypothesis 6. Once variance due to identification with Asian American values is controlled statistically, the initial difference in Asian/Asian American and European American engagement in direct aggression will no longer be significant.

Hypothesis 7. Once variance due to identification with Asian American values is controlled statistically, the initial difference in Asian/Asian American and European American engagement in indirect aggression will no longer be significant.

### **Asian American Anger: Findings, Inconsistencies, and Methodological Concerns**

#### Rationale: Hypothesis 8

Those who are strongly motivated to maintain connectedness with others may also view emotional experience as a potential threat to interpersonal harmony. Therefore, it is not surprising that those of Asian descent tend to perceive affect as something that must be restrained, moderated and controlled (for reviews, see Heine, Lehman, Markus, & Kitayama, 1999; Klineberg, 1938). In fact, Asian Americans tend to place a high value on self-control, and the experience of anger, in particular, is seen as a loss of control. As a result, it has been suggested that anger, frustration and other ego-focused emotions are not openly displayed in Asian American society (Uba, 1994).

Instead, some have stated that those from individualistic cultures express ego-focused emotions (e.g., pride, frustration, anger) more often and are less likely to control these emotions than those from collectivistic cultures (e.g., Markus & Kitayama, 1991). However, although those of Asian descent do moderate their emotional experience and expression, they tend to do so with respect to positive affects (e.g., happiness, surprise),

not negative affects (e.g., anger, sadness and disgust) (Ekman et al., 1987; Matsumoto, 1993; Tsai & Levenson, 1997). Similarly, the literature tends to show that those of Asian descent self-report significantly less positive affect than those of European descent (e.g., Tsai & Levenson, 1997), but that reported negative affect tends to be either similar across ethnic groups (e.g., Hishinuma, Miyamoto, Nishimura, & Nahulu, 2000) or more prevalent in Asian/Asian American samples (e.g., Leong, Okazaki, & Tak, 2003).

The research directly examining the self-reported experience of anger in Asian American samples also provides little empirical support for the hypothesis that Asian Americans are less angry than European Americans. For example, one recent investigation has suggested that Asian Americans may experience more anger than European Americans (Kim & Zane, 2004). Another has found that Asian American anger scores fall within the average range, a range based upon norms from largely European American samples (Campano & Munakata, 2004). However, one investigation has supported Markus's and Kitayama's (1991) hypothesis, as American children were found to report more anger than their Japanese counterparts (Zahn-Waxler, Friedman, Cole, Mizuta, & Hiruma, 1996).

Hypothesis 8. Asian/Asian Americans will either report more anger than, or comparable levels to, that reported by European Americans.

The inconsistencies in these findings may be explained by the negative impact that response bias can have on the validity of self-report data. For example, if the expression of anger is relatively more unacceptable in Asian than in European American groups (for reviews, see Novaco, 1994; Uba, 1994), Asian American participants may tend to under-report their experience of anger. In contrast, some have suggested that

those of Asian descent tend to engage in a form of modesty that involves devaluation of the self. This modest self-representation is carried out in the interest of the maintenance of interpersonal harmony and reflects a general tendency to focus on working toward self-improvement (for review, see Heine et al., 1999). However, it could also result in Asian/Asian American participants reporting more difficulties than they are actually experiencing (e.g., Diener, Suh, Smith, & Shao, 1995).

The literature concerning modest response tendencies in Asian American populations will also be taken into account in the present investigation. Specifically, although the results of experimental manipulations have supported the notion that European Americans tend to engage in self-enhancement, whereas Asian Americans tend to engage in self-criticism and a focus on the need for self-improvement (e.g., Heine et al., 2001; Kitayama & Uchida, 2003), no direct self-report measures of these Asian American tendencies yet exist. This is likely due to the modesty response tendency and related constructs only recently becoming a focus of research, and future investigations designed to produce a direct measure of these constructs would provide an invaluable contribution to this literature.

However, in the interim, the present investigation will attempt to take these tendencies into account by both: 1) deriving and utilizing a potential measure of this tendency that can be used in tests of the present hypotheses and 2) compiling separate sets of normative information for Asian/Asian American and European American participants for a self-report measure of anger. If Asian/Asian American participants are found to report significantly more anger than European American participants, the use of such separate sets of normative information when interpreting participants' responses

would be an appropriate means of acknowledging the differences in Asian/Asian American and European American response tendencies, particularly if a modest response tendency is also found to be related to the reports of those of Asian descent.

### **Asian American Beliefs, Values, Attitudes, and Norms Related to Aggression**

#### Rationale: Hypotheses 9-12

Open displays of anger and frustration are inconsistent with Asian cultural norms, attitudes, core beliefs and values (e.g., Uba, 1994), and these attitudes and norms are communicated to those of Asian descent at a young age. For example, it has been found that Japanese mothers are significantly less accepting of their children's aggression than are Western mothers (Kornadt, Hayashi, Tachibana, Trommsdorff, & Yamauchi, 1992). However, to date, it has only been assumed that Asian cultural attitudes and norms regarding the unacceptability of aggression are related to the relatively low levels of aggression in these populations. Therefore, the present investigation also involves the direct examination of these relationships, including the relationships between both ethnicity and identification with Asian American values and beliefs regarding the unacceptability of aggression. In this way, the present investigation will yield empirical evidence indicating whether or not the belief that aggression is unacceptable is a specific component of the Asian American value system, one that serves as a protective factor against aggression in Asian American populations.

Hypothesis 9. Asian/Asian Americans will endorse significantly more normative core beliefs related to the unacceptability of aggression than will European Americans.

Hypothesis 10. Asian/Asian American participants will endorse more cultural and religious (e.g., Buddhism) sources of their beliefs than will European Americans. In

contrast, European Americans will endorse more personal-experience sources of their beliefs, consistent with their individualistic orientation. No significant differences are predicted for parental sources of beliefs, as one's primary caregivers are hypothesized to be influential in attitude/belief development across cultures (e.g., for reviews, see Beck, 1999; Uba, 1994).

Hypothesis 11. Identification with Asian American values will predict the endorsement of these normative core beliefs, and the association between these two variables will be positive. Specifically, whereas Asian/Asian Americans will score significantly higher on a measure of Asian American values than will European Americans, both Asians'/Asian Americans' and European Americans' scores on a measure of identification with Asian American values will be associated positively with scores on a measure of beliefs related to the unacceptability of aggression.

Hypothesis 12. Once variance due to the identification with these values is statistically controlled, the initial cross-cultural difference in endorsement of beliefs regarding the unacceptability of aggression will no longer be significant.

Rationale: Hypotheses 13-16

The GAM (Anderson & Bushman, 2002) would suggest that such protective core beliefs could mediate, as described by Baron and Kenny (1986), the relationship between anger and aggression. Moreover, given the recent expansion of the conceptualization of mediation put forth by Kraemer and colleagues (Kraemer & Fairburn, 2002; Kraemer, Stice, Kazdin, Offord, & Kupfer, 2001), the unacceptability of aggression is best described as a specific (proxy) protective factor against aggression. This proxy protective factor is a component of the more global protective factor, the collectivistic Asian

American belief system. The importance of disaggregating larger global factors by isolating specific proxy factors that contribute to the formers' effects is highlighted in Kraemer and colleagues work.

Another benefit of examining the unacceptability of aggression as a proxy protective factor lies in Kramer and colleagues (Kraemer & Fairburn, 2002; Kraemer et al., 2001) explanation that the predictor variable need not have temporal precedence over a proxy protective factor. Instead, these two variables are permitted to influence one another prior to having an effect on the criterion variable. This allows researchers to statistically examine proxy protective factors, even when those factors may interact with the potential mediator (e.g., via feedback mechanisms). Thus, the present investigation can involve the examination of the unacceptability of aggression as a proxy protective factor in the relationship between anger and aggression, even when one's beliefs regarding the acceptability of aggression may impact one's tendency to perceive events as anger-eliciting. Therefore, both the general methods proposed by Baron and Kenny (1986), as well as the inclusion of effect sizes and the examination of both the main effect of the proposed mediator and the interaction effect (e.g., the mediator X the predictor variable) will be utilized in the present statistical analyses of mediation, as delineated by Kraemer and Fairburn (2002).

Hypothesis 13. Regardless of participants' ethnic identifications, the presence of core beliefs stressing the unacceptability of aggression will mediate the relationship between self-reported anger experiences and self-reported engagement in direct aggression.

Hypothesis 14. In light of the possibility that one's beliefs about anger expression might impact one's tendency to experience anger (and vice versa), the interactive effects of anger and beliefs regarding the unacceptability of aggression will also be examined. However, this interaction term (anger X beliefs regarding the unacceptability of aggression) will not be influential enough to significantly mediate the relationship between anger experience and direct aggression outcomes.

Hypothesis 15. Regardless of participants' ethnic identifications, the presence of core beliefs stressing the unacceptability of aggression will mediate the relationship between self-reported anger experiences and self-reported engagement in indirect aggression.

Hypothesis 16. The interaction term (anger X beliefs regarding the unacceptability of aggression) will not be influential enough to significantly mediate the relationship between anger experience and indirect aggression outcomes.

### **Perceived Consequences Related to the Violation of Social Norms**

#### Rationale: Hypotheses 17-20

Multiple theorists have mentioned the importance of perceived negative consequences of aggression. Specifically, it has been suggested that if the costs of aggressing are significant enough, aggressive behavior may be prevented or inhibited (e.g., Beck, 1999; Grisso, Davis, Vesselinov, Appelbaum, & Monahan, 2000; Novaco, 1994). Furthermore, many religions, particularly those with a collectivistic component to their cultures, discourage anger and aggression through a focus on the belief that such negative behavior has severe consequences (e.g., it is an affront against God).

Furthermore, there is substantial peer support among Asians/Asian Americans for

conforming to their value system, while guilt and shame are common negative consequences of breaking from these conventions (Uba, 1994). In fact, in Asian cultures, shame is often conceptualized as an indicator that one has violated the social norms in place to maintain interpersonal harmony (Heine et al., 1999). Moreover, it has also been found that Asian participants tend to focus more upon the consequences of imagined violence, expressing more feelings of self-punishment and guilt, than do American participants (Devos & Murakami, 1974). This focus may be instilled at a young age, as it has been found that Japanese mothers use guilt induction when addressing aggressive behavior in their children, encouraging their children to focus their attention on the consequences for others that occur when they are aggressive, and they have been found to do so significantly more often than American mothers (Zahn-Waxler, Friedman, Cole, Mizuta, & Hiruma, 1996).

In addition, particularly within a collectivistic culture, the threat of social rejection serves as a potent negative consequence for violating the social norms regarding anger and aggression. For example, if an Amish individual was to break his/her society's directive of non-violence, he/she might be "shunned" or entirely banished from that society. However, despite the seemingly protective nature of collectivistic core beliefs and the deterring consequences of breaking from these social norms, the relationship between the perceived consequences for violating these cultural norms, anger experience and aggressive outcomes have yet to be empirically examined. Therefore, the present investigation also uses the GAM (Anderson & Bushman, 2002) as a basis for the prediction that those of Asian descent, with their collectivistic values and belief system, will also associate very negative consequences with aggressive behavior.

Hypothesis 17. Asian/Asian Americans will endorse significantly more severe anticipated negative consequences for aggressing than will European Americans.

Hypothesis 18. Asian/Asian Americans will endorse more severe consequences related to interpersonal harmony (e.g., social rejection, being shamed, feeling guilty for harming another) and a general interpersonal orientation (e.g., loss of respect and esteem from others), whereas European Americans will endorse more severe ego-focused consequences (e.g., fear of retribution, suffering legal consequences, being criticized, being embarrassed, loss of self-respect and self-esteem).

Hypothesis 19. Asian/Asian Americans will score significantly higher on a measure of Asian American values than will European Americans; however, both Asians'/Asian Americans' and European Americans' scores on a measure of identification with collectivistic Asian American values will predict and be associated positively with the severity of anticipated consequences for aggressing.

Hypothesis 20. Once variance due the identification with such values is controlled statistically, the initial cross-cultural difference in the severity of anticipated consequences related to aggression will no longer be significant.

Rationale: Hypotheses 21-24

The GAM (Anderson & Bushman, 2002) would also suggest that the perception of such consequences could mediate the relationship between anger and aggression. This second hypothesized proxy protective factor will also be conceptualized as a component of the more global protective factor of collectivistic Asian American beliefs/attitudes. Specifically, while the perception that there are severe consequences for being aggressive is likely to be more prevalent in Asian/Asian American than in European American

samples, the GAM (Anderson & Bushman, 2002) would suggest that the endorsement of such a perception could inhibit aggression, both regardless of group membership and regardless of the specific type of aggression (e.g., direct, indirect).

Hypothesis 21. Regardless of participants' ethnic identifications, perceptions of the severity of anticipated consequences for aggressing will mediate the relationship between self-reported anger experiences and self-reported engagement in direct aggression.

Hypothesis 22. The interaction term (anger X perceptions of the severity of anticipated consequences) will not be influential enough to mediate the relationship between anger experience and direct aggression.

Hypothesis 23. Regardless of participants' ethnic identifications, perceptions of the severity of anticipated consequences for aggressing will mediate the relationship between self-reported anger experiences and engagement in indirect aggression.

Hypothesis 24. The interaction term (anger X perceptions of the severity of anticipated consequences) will not be influential enough to mediate the relationship between anger experience and indirect aggression.

### **Additional Analyses and Considerations**

#### Scale Construction

Unfortunately, at this time, no measure of one's association of negative consequences with aggressive behaviors seems to exist. Therefore, the present investigation also involves the development of such a scale, based upon an already existing measure of anti-aggressive norms. Specifically, the same descriptions of aggressive behaviors used in the questionnaire assessing normative beliefs about the

acceptability of aggression are presented, but each item is modified such that participants are also asked how severe the consequences for engaging in each behavior would be.

This newly constructed measure will be a valuable tool, as it will allow for the testing of hypotheses related to the role that anti-aggressive core beliefs play in mediating aggression throughout the GAM (e.g., as an input variable differing across cultural lines, as a likely cognitive route and as it is related to the appraisal of likely negative consequences at the outcome level) with a simple and face valid measure. However, the psychometric properties of this new measure will need to be examined prior to its use in any statistical analyses. Therefore, the present investigation will also include the examination of the internal consistency, two-week test-retest reliability, convergent (e.g., utilizing correlations with beliefs regarding the unacceptability of aggression) and discriminant (e.g., utilizing correlations with measures of state- and trait-anxiety) validity of this newly developed measure.

### Response Biases

Given the inherent limitations of self-report forms of measurement, in particular their susceptibility to response biases, additional steps need to be taken in order to ensure the validity of the interpretations of participants' responses. Furthermore, given the social undesirability of anger and aggression, social desirability response bias is of particular concern. Therefore, any differences that are found in self-reported anger experiences, attitudes related to aggression, perceptions of consequences for aggressing, and aggressive behaviors will take potential social desirability response bias into account. However, other response biases will also be considered.

Social desirability response bias. It is likely that both European American and Asian/Asian American participants will have a tendency to mask their anger and anger related thoughts and behaviors with more positive or socially normative self-representations. In neither culture are anger and aggression considered to be positive traits, and both groups highlight the negative consequences of anger and aggression; however, this is particularly true for those of Asian descent (for reviews, see Novaco, 1994; Uba, 1994). Additionally, Asian participants have long been found to hide their negative affect from others, replacing signs of negative affect with indications that they are experiencing positive affect when under observation (e.g., Ekman and Friesen, 1969). Nonetheless, there is substantial inconsistency in the literature regarding the role and measurement of socially desirable response sets in Asian American participants' responding.

For example, Dudley, McFarland, Goodman, Hunt, and Sydell (2005) found that a number of American ethnic minority groups, including Asian Americans, score significantly higher than majority group members on measures of social desirability. Abe and Zane (1990) also found that foreign-born Asian Americans score significantly higher on measures of social desirability than do the American-born. In contrast, others have found no differences between Asians' and North Americans' social desirability scores (e.g., Heine & Lehman, 1995; Lai & Linden, 1993). One possible cause for these inconsistencies in findings may lie in the questionable validity of current measures of social desirability when used in samples of those of Asian descent.

Specifically, Abe and Zane (1990) concluded that existing measures of social desirability are simply not valid measures of this construct when used in Asian American

samples. These researchers based this conclusion upon the finding that while foreign-born Asian Americans engaged in significantly less self-enhancement than did both American-born Asian Americans and European Americans, self-enhancement scores may be confounded by the Asian tendency toward self-effacement/modesty. Finally, as there is currently no measure available for assessing self-effacement/modesty and the related constructs of self-criticism and focus on self-improvement, the validity of measures of self-enhancement within Asian samples remains in question.

However, given the potentially significant impact of socially desirable responding, many researchers have continued to use measures of social desirability in their research. For example, researchers continue to use the Marlowe-Crowne (Crowne & Marlowe, 1960) when conducting research focused on the Asian American experience (e.g., Abe & Zane, 1990; Kim, Li, & Ng, 2005), although the use of the Paulhus Deception Scales (Paulhus, 1991) is more common (e.g., Dudley et al., 2005; Heppner et al., 2006; Lalwani, Shavitt, & Johnson, 2006). Furthermore, there may also be some recent evidence that different subscales of the Paulhus Deception Scales (PDS) may be more or less appropriate for use with those who identify with different ethnic groups.

Specifically, Lalwani and colleagues (2006) examined socially desirable responding across samples of European- and Asian Americans, as well as samples of Americans and Singaporeans. They found that Americans and European Americans scored significantly higher on SDE than did Singaporeans and Asian Americans, respectively, whereas the opposite pattern was found with regards to the findings for IM. Therefore, it might be suggested that the IM subscale of the Paulhus Deception Scales (1991) would be the most appropriate measure of social desirability in samples of Asian

descent, whereas the SDE subscale would be the more appropriate for use with Caucasian samples.

Nonetheless, these results (Lalwani et al., 2006) are both in need of replication and extension, and the validity and reliability of these subscales in Asian and European American groups has yet to be thoroughly assessed. Therefore, this investigation will include the administration of the Paulhus Deception Scales (1991), and the relationship between social desirability scores and scores on other measures (e.g., Trait-Anger, Endorsement of Aggressive Norms, Negative Consequences of Aggressing, Direct Aggression, Indirect Aggression, Asian American Values, State- and Trait- Anxiety) will be examined. When a significant relationship is found, the measure of social desirability will be used as a covariate in any analyses examining scores on the other measure in question.

The same process will be applied when the newly developed measure of modest responding is found to be significantly related to any of these variables. This new measure was constructed by modifying the SDE scale of the PDS. Specifically, it was postulated that if the SDE scale served as a measure of the tendency to present oneself in an overly positive light and give inflated assessments of one's skills and abilities, then reverse scoring SDE scores should yield a measure of the opposite tendency, the tendency to present oneself in an overly negative light and give more modest assessments of one's skills and abilities. As this would appear to be a reasonable measure of the tendency to engage in self-criticism and focus on the need for self-improvement that has been found in Asian/Asian American samples (e.g., Heine et al., 2001; Kitayama & Uchida, 2003), this new scale was utilized as a measure of participants' tendencies to

engage in “modest responding”. However, the internal consistency, temporal stability and validity of this scale were examined before it was utilized in any analyses.

Neutral response bias. Another potential response bias that has been the subject of discourse regarding the self-report method of assessment in Asian/Asian American samples is the neutral response bias. Specifically, it has generally been found that European Americans tend to engage in response bias in one direction (e.g., either yeah-saying or nay-saying), whereas Asian Americans tend to respond to self-report measures with more neutral answers than do other Americans (Uba, 1994). These findings are not surprising given the value placed on: 1) interpersonal harmony, 2) not standing out, and 3) self-control/restraint in Asian cultures (for review, see Heine et al., 1999).

Additionally, the tendency to suppress both positive and negative emotion as a form of self-control that is typical in Asian cultures (Uba, 1994) could also be seen as potentially contributing to such a neutral response bias. Finally, even the view of the self in Asian societies tends to be more moderate than that held by those of European descent.

Specifically, Heine and colleagues (1999) have found that the average Japanese self-evaluation is more moderate and normally distributed than the typical self-evaluation of European Canadians.

In light of such findings, neutral response biases were addressed by limiting the number of neutral response choices provided to participants in the present investigation. In general, changing the response scales of self-report measures in order to eliminate neutral response choices poses potential concerns regarding the psychometric quality of these instruments. However, in the present investigation it is believed that the benefits of making such changes outweigh the potential drawbacks for a number of reasons.

First, each of the measures utilized in the present study was chosen based upon a review of the relevant research and consequent determination that it was the most appropriate instrument for use in testing the specific hypotheses posed within the specific populations under investigation. Unfortunately, none of the measures administered have been thoroughly examined, with respect to their psychometric properties in both European American and Asian/Asian American samples. Therefore, it will be necessary to examine the internal consistency of each instrument, dropping individual items from the measures when those items are not found to meet the threshold for inclusion in both ethnic groups, as will be described in detail later.

Second, it will be necessary to examine the means, standard deviations and ranges of scores with respect to each measure, in order to determine both: 1) whether each measure yields an adequate range of responses in both samples and 2) whether these means, standard deviations and ranges are similar to those found in past research using the original forms of these scales. Moreover, the discriminant validity of the aggression measures utilized in the present investigation will be assessed by examining the correlations between participants' scores on these measures and their scores on the STAI. Finally, past research has shown that 4-point scale versions of measures designed for use in Asian American samples actually tend to possess better psychometric properties than do odd-numbered scales. In fact, the revision of some questionnaires has involved changing the response choice scales from 7-point to 4-point versions due to such findings (e.g., Hong, Kim, & Wolfe, 2005). Therefore, the present investigation will include the modification of odd-numbered response scales such that participants are presented with

comparable 4-point scales (e.g., measures of Asian American values, direct aggression, indirect aggression, impression management, self-deceptive enhancement).

## Chapter 5: METHOD

### Participants

The initial sample consisted of 249 undergraduate students. However, 31 of these participants were excluded based upon a number of criteria. First, two participants were excluded due to their “poor” English reading abilities. Twenty-one were excluded due to their reporting a primary ethnic identification that was not of interest in the present investigation (e.g., African American, Latino) or that represented a combination of individualistic and collectivistic ethnicities (e.g., Caucasian/Asian American), and seven were removed from the sample due to their reporting a secondary ethnic identification that represented a blend of individualistic and collectivistic backgrounds (e.g., French/Korean American). One participant was excluded due to his/her position as an outlier in the sample with respect to age. Finally, an additional nine participants were removed from the sample due to significant ethnic differences in scores on the variables of interest, as were an additional 10 participants who were excluded due to significant differences between those who received monetary versus course credit as compensation. The demographic characteristics of the sample remained relatively stable after the exclusionary criteria were applied.

The final sample consisted of 199 undergraduate students who participated in this investigation in partial fulfillment of course requirements. One-hundred-ten participants identified their ethnicity as Caucasian (55.3%), and 89 identified their ethnicity as Asian/Asian American (44.7%). Of the Asian ethnicities reported, the three most represented were Korean (17.6% of the total sample), Chinese (14.1%) and Indian (6%) (see Table 1). One-hundred-fifty of the participants were born in the United States

(75.4%), whereas 49 were foreign-born (24.6%) (see Table 2). Of the 49 participants born in a country outside of the United States, 18 later obtained United States citizenship.

The participants consisted of 61 males (30.7%) and 138 females (69.3%). The gender distributions of both the Caucasian and Asian/Asian American groups were similar to the gender distribution of the total sample (see Table 3), and the results of a Chi-square test indicated that there was no significant difference between the proportions of males and females across the two ethnic groups. The average age of the participants was 19.90 years ( $SD = 2.65$ , range = 18-33 years). However, there were both significantly different amounts of variance in age (Levene's test for Equality of Variances:  $F(1, 197) = 22.37$ ,  $p < 0.001$ ) and significant differences in age across the two ethnic groups,  $t(1, 167.16) = 4.37$ ,  $p < 0.001$ , with Caucasian participants having more variability in age and being significantly older (mean = 20.57,  $SD = 3.13$ ) than Asian/Asian American participants (mean = 19.08,  $SD = 1.57$ ).

Two-week test-retest reliability sample. A subset of the sample participated in a second administration of the testing materials, in order to allow for the examination of the two-week-retest reliability of a number of measures included in this investigation. The second administration occurred approximately 14 days after the first (mean = 14.00,  $SD = 0.17$ ). The length of time between administrations did not differ significantly between ethnic groups. This second administration resulted in the collection of additional data from a subset of 72 of the participants, and the characteristics of this subset of the sample were similar to those of the total sample. Specifically, 41 of these participants identified as Caucasian (56.9%), whereas 31 identified as Asian/Asian American (43.1%). The three most represented Asian ethnicities were Chinese (20.8%), Korean (13.9%) and

Indian (4.2%) (see Table 1). Fifty-four of the participants were born in the United States (75.0%), whereas 18 were foreign-born (25.0%) (see Table 2). Of those who were born outside of the United States, seven participants later established United States citizenship.

Finally, of the 72 participants who completed the second administration, 28 were male (38.9%) and 44 were female (61.1%). This approximate ratio of one male to every two females observed in the full sample was also characteristic of the Caucasian group that completed the second administration (31.7% male, 68.3% female). However, there was a slightly higher percentage of males in the group of Asian/Asian Americans that participated in the second administration (43.2% male, 56.8% female) (see Table 3). Nonetheless, the results of a Chi-square test indicated that there was no significant difference between the proportions of males and females across the two ethnic groups.

### Materials and Procedure

Participants completed the following nine measures, in the order in which they are presented.

Demographics Questionnaire. Participants were asked to provide nine types of personal information. First, participants indicated their ages and genders. They then rated how well they read both in their native languages and in English (1 = very well, 4 = poorly). Next, they indicated their citizenship and country of birth, including the year in which they moved to the United States, if applicable. Participants also reported their generational status (e.g., first-generation, fifth-generation), and indicated both their primary (e.g., Asian American) and secondary (e.g., Chinese American) ethnic identifications (see Appendix A).

Paulhus Deception Scales (PDS: Paulhus, 1991). The PDS consists of two separate scales assessing participants' use of two types of social desirability response bias, the Impression Management (IM) Scale and the Self-Deceptive Enhancement (SDE) Scale. IM measures one's tendency to misrepresent one's behavior and experience to appear more normatively appropriate, whereas SDE measures one's tendency to present oneself in an overly positive light and give inflated assessments of one's skills and abilities. Both IM and SDE have been found to possess adequate internal consistency, test-retest reliability, convergent validity and divergent validity. PDS total scores have been found to be correlated with other measures of this response bias ( $r$  ranging from 0.71 to 0.80), supporting the concurrent validity of the measure (Paulhus, 1991).

Both IM and SDE are 20-item measures, and examples of items from each scale include, "I never swear" (IM) and "Many people think that I am exceptional" (SDE). The response scale was modified for the purposes of the present study such that all responses were made on 4-point response scales (1 = not true, 4 = very true). After responses to 10 IM and 10 SDE items are reverse scored, scale scores are computed by adding one point to each extreme response (e.g., a response of "4") and summing participants' responses. This scoring is designed to ensure that only those who respond to items on this measure in an exaggerated manner will obtain high scores. Scores range from 20 to 100, with higher scores indicating relatively greater use of the relevant type of response bias.

The Paulhus Deception Scales have been used frequently in investigations involving the assessment of social desirability response bias in Asian American samples (e.g., Dudley et al., 2005). However, past findings have suggested that SDE may be more appropriate for use with European Americans, whereas IM may be more appropriate for

use with Asian Americans (Lalwani et al., 2006) (see Appendix B). Therefore, the internal consistency of this measure was examined in order to determine whether or not the SDE, IM and total scores yield appropriate measures of their related constructs in both ethnic groups.<sup>1</sup>

A total of 14 items did not meet the criteria for inclusion in the PDS total score based upon internal consistency analyses.<sup>2</sup> Moreover, it was determined that one item did not meet the criteria for inclusion in the SDE subscale with respect to the Caucasian sample, and that this subscale was not an appropriate measure of this construct in the Asian/Asian American sample.<sup>3</sup> Three items did not meet the criteria for inclusion in the IM subscale score.<sup>4</sup> Based upon both the consideration of the respective relevance of each form of social desirability to the hypotheses in question and the findings of internal consistency analyses, it was decided that only IM would be used in the present

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<sup>1</sup> The same criteria were applied to the analyses of internal consistency throughout the present investigation. Specifically, item-total correlations for each of the measures were computed separately for each ethnic group, and only individual items with item-total correlations above 0.25 in both ethnic groups were retained (Pedhazur & Schmelkin, 1991). The remaining items were then used in Cronbach's alpha analyses, and were only retained if both: 1) the alpha for the whole scale was at least 0.70 and 2) dropping the items did not result in a substantial increase in alpha (Cortina, 1993) in both ethnic groups.

<sup>2</sup> With respect to item-total correlations, over 25% of the items (12 items) did not meet the criterion for inclusion in the Asian/Asian American sample, and the vast majority of these items were items from the SDE subscale. One of these items and an additional two items did not meet the inclusion criterion in the Caucasian sample (see Table 4). Cronbach's alpha analyses revealed that dropping none of the remaining items resulted in a substantial increase in alpha, neither in the Caucasian sample ( $\alpha = 0.79$ ) nor in the Asian/Asian American sample ( $\alpha = 0.78$ ).

<sup>3</sup> Only one item ("The reason I vote is because my vote can make a difference") failed to meet the inclusion criterion based upon item-total correlation results ( $r = 0.15$ ,  $p > 0.05$ ), and this item failed to do so only in the Caucasian sample. However, the results of Cronbach's alpha analyses revealed that whereas dropping none of the remaining items substantially raised alpha in the Caucasian sample ( $\alpha = 0.75$ ), in the Asian/Asian American sample, alpha ( $\alpha = 0.69$ ) did not meet the criterion for the retention of this scale and dropping none of the items raised alpha.

<sup>4</sup> The following three items failed to meet the criterion for inclusion in the Asian/Asian American sample based upon the results of item-total correlations: 1) "I always obey laws, even if I'm unlikely to get caught" ( $r = 0.21$ ,  $p < 0.05$ ), 2) "I have received too much change from a salesperson without telling him or her" ( $r = 0.23$ ,  $p < 0.05$ ), and 3) "I always declare everything at customs" ( $r = 0.14$ ,  $p > 0.05$ ). In contrast, all of the item-total correlations within the Caucasian sample met the threshold for inclusion. Additionally, the results of Cronbach's alpha analyses revealed that dropping no items raised alpha in either ethnic group (Caucasian sample  $\alpha = 0.79$ , Asian/Asian American sample  $\alpha = 0.77$ ).

investigation (after the removal of three of the 20 IM items, IM scores utilized in the present investigation could range from 17 to 85)<sup>5</sup>.

Additionally, as: 1) the potential influence of a self-effacing/modest response bias on participants' scores (with respect to Asian/Asian American participants in particular) and 2) the lack of an existing measure of this form of response bias, a measure of modesty-driven response bias was derived from SDE. Specifically, SDE responses were reverse scored, yielding a measure of one's tendency to present oneself in an overly negative light and give more modest assessments of one's skills and abilities. Item-total correlations were then examined, and six items did not meet the criteria for inclusion.<sup>6</sup> However, after dropping these items, this scale proved to be an internally consistent measure for both ethnic groups. Modest responding scores ranged from 14 to 70, with higher scores indicating a relatively greater use of this response tendency.

The temporal stability of this measure was also assessed, and scores on this measure were found to be reliable over a two-week period in both Caucasian ( $r = 0.88$ ,  $p < 0.001$ ) and Asian/Asian American samples ( $r = 0.85$ ,  $p < 0.001$ ). Additionally, as a tendency toward self-effacement has been predicted to be correlated with relatively

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<sup>5</sup> Missing data was replaced when a participant was missing no more than 10% of the responses used to calculate any given scale score. When this criterion was met, the average of the participant's responses to the remaining items in the scale was calculated and this mean score was used to replace the missing value(s). Whenever the results of internal consistency analyses resulted in the removal of items from a scale, missing data replacement values were recalculated using this same procedure.

<sup>6</sup> Five items did not meet the criteria for inclusion based upon the scores of Caucasian participants. These items included: 1) "My first impressions of people usually turn out to be right" ( $r = 0.24$ ,  $p < 0.05$ ) 2) "Once I've made up my mind, other people can seldom change my opinion" ( $r = 0.15$ ,  $p > 0.05$ ) 3) "I don't care to know what other people really think of me" ( $r = 0.20$ ,  $p < 0.05$ ), 4) "The reason I vote is because my vote can make a difference" ( $r = -0.13$ ,  $p > 0.05$ ), and 5) "My parents were not always fair when they punished me" ( $r = -0.07$ ,  $p > 0.05$ ). In contrast, when the scores of Asian/Asian American participants were examined, only one item failed to meet the criteria for inclusion based upon item-total correlations. This item reads, "I rarely appreciate criticism" ( $r = 0.22$ ,  $p < 0.05$ ). Cronbach's alpha analyses revealed that dropping none of the remaining items increased alpha in either the Caucasian ( $\alpha = 0.78$ ) or the Asian/Asian American sample ( $\alpha = 0.72$ ).

higher self-reported tendencies to experience negative affect (for review, see Uba, 1994), the relationship between scores on this measure of modest response tendencies and trait-anxiety scores was examined. Modest responding was found to be correlated with trait-anxiety in both the Caucasian ( $r = 0.63, p < 0.001$ ) and Asian/Asian American samples ( $r = 0.61, p < 0.001$ ). Furthermore, as modest responding should not be expected to be related to one's perception of the likely consequences for engaging in aggressive behavior, the divergent validity of this measure was assessed by examining the relationship between modest responding and the anticipated consequences for aggressing. The results of these analyses revealed that there was no correlation between these measures in either ethnic group. Finally, additional analyses confirmed that the convergent and divergent validity coefficients significantly differed from one another in both the Caucasian [ $t(1, 107) = 4.50, p < 0.01$ ] and Asian/Asian American samples [ $t(1, 85) = 3.93, p < 0.01$ ], further supporting the discriminant validity of this measure.<sup>7</sup>

Asian American Values Scale- Multidimensional (AAVS-M: Kim, Li, & Ng, 2005). The AAVS-M is a 42-item measure that assesses components of the Asian American value system that differentiate it from the general European American value system, including: 1) collectivism, 2) conformity to norms, 3) emotional self-control, 4) family recognition through achievement, and 5) humility. Across a series of investigations, Kim and colleagues (2005) have found substantial evidence for the internal consistency of this scale. Finally, significant support has also been found for the two-week-retest reliability, as well as for the concurrent and discriminant validity of the AAVS-M.

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<sup>7</sup> The procedures delineated by Cohen and Cohen (1975) were followed, here and throughout the present paper.

Examples of items include, “One should recognize and adhere to the social expectations, norms, and practices,” and “It is better to show emotions than to suffer quietly.” All responses were made on a 4-point response scale (1 = strongly disagree, 4 = strongly agree). Internal consistency analyses were conducted and revealed that 10 items did not meet the criteria for inclusion.<sup>8</sup> Therefore, a modified 32-item AAVS-M scale was used in the remainder of the analyses, with possible scores ranging from 32 to 128. Higher scores are indicative of relatively greater identification with Asian American values, after 13 AAVS-M items are reverse scored (see Appendix C).

The Aggression Questionnaire (AQ: Buss & Perry, 1992). The AQ is a 29-item measure of aggression as a personality trait comprised of four components, each of which is assessed through a subscale score. The first two components reflect what Buss and Perry conceptualized as the behavioral component of aggression: 1) verbal aggression (5 items) and 2) physical aggression (9 items). The third and fourth components assess what they conceptualized as the cognitive and affective components, respectively: 3) hostility (8 items) and 4) anger (7 items). The present investigation used a modified version of the AQ, with a 4-point response scale (1 = not at all characteristic, 4 = extremely characteristic). Furthermore, only the verbal and physical aggression subscales were examined, as the proposed hypotheses were best addressed using a direct aggression measure that was not confounded by constructs of anger and hostility. Thus summing participants’ responses to the physical and verbal aggression subscales created a

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<sup>8</sup> Six items did not meet the criterion for inclusion based upon the responses of European American participants, whereas three of these same items and four additional items did not meet the criterion for inclusion based upon the responses of Asian/Asian American participants (see Table 5). Cronbach’s alpha analyses were conducted, and the results supported the internal consistency of the modified scale in both European American ( $\alpha = 0.86$ ) and Asian/Asian American ( $\alpha = 0.85$ ) samples. Dropping no items substantially increased alpha.

composite score ranging from 14 to 56. Higher scores represent relatively greater engagement in overt forms of aggression than lower scores, after two AQ items are reverse scored. The AQ has been found to be a reliable and valid measure in both adult and adolescent populations, and normative information for each subscale and the overall scale is available (Buss & Perry, 1992). In addition, this measure has been successfully used within Asian samples (e.g., Archer et al., 1998; Campano & Munakata, 2004), with Asian students' scores falling in the "normal" range (Buss & Perry, 1992) (see Appendix D).

Internal consistency analyses also supported the use of the revised direct aggression composite score, in both European American and Asian/Asian American samples.<sup>9</sup> Moreover, two-week-retest reliability of this modified scale revealed that it was temporally reliable in both European American ( $r = 0.88$ ,  $p < 0.001$ ) and Asian/Asian American samples ( $r = 0.87$ ,  $p < 0.001$ ). Additionally, the convergent validity of this measure was examined through correlations between direct aggression scores and Anger Expression-Out scores. As predicted, scores on these two measures were significantly correlated in both European American ( $r = 0.63$ ,  $p < 0.001$ ) and Asian/Asian American groups ( $r = 0.61$ ,  $p < 0.001$ ). Discriminant validity was examined through correlations between direct aggression scores and both state and trait anxiety. Consistent with previous research showing that correlations between aggression and anxiety can be significant but modest in Caucasian samples (Deffenbacher & Swaim, 1999), it was found that the scores of European Americans' were modestly correlated with their scores

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<sup>9</sup> All items met the criteria for inclusion based upon both item-total correlations and Cronbach's alpha analyses (both Caucasian and Asian/Asian American samples  $\alpha = 0.90$ ). Dropping no items increased alpha in either ethnic group.

on trait- ( $r = 0.27, p < 0.01$ ) and state-anxiety ( $r = 0.29, p < 0.01$ ). Nonetheless, the convergent validity correlation significantly differed from both divergent correlations [state-anxiety:  $t(1, 107) = 3.61, p < 0.01$ ; trait-anxiety:  $t(1, 107) = 4.05, p < 0.01$ ], supporting the discriminant validity of the AQ in this population. In comparison, Asian/Asian Americans' state- and trait-anxiety scores were not significantly correlated with direct aggression scores, and the convergent correlations were significantly higher than the divergent correlations supporting its discriminant validity in the total Asian sample [trait-anxiety:  $t(1, 86) = 3.90, p < 0.01$ ], as well as in those who were foreign born [state-anxiety:  $t(1, 45) = 3.56, p < 0.01$ ] and domestically born [state-anxiety:  $t(1, 37) = 3.20, p < 0.01$ ].

Indirect Aggression Scale- Aggressor version (IAS-A: Forrest, Eatough, & Shevlin, 2005). The IAS-A is a 25-item measure of the frequency of adults' engagement in indirect aggression. Indirect aggression is defined as social manipulation designed to cause harm to a target individual. Indirect aggression does not involve a direct physical or verbal attack upon a victim and is a less observable form of aggression. Types of behaviors considered to be indirectly aggressive include purposefully leaving another out of activities, using sarcasm to insult another, and using another's feelings to coerce him/her.

All responses were made on 4-point response scales (1 = never, 4 = regularly) and could range from 25 to 100, with higher scores indicating relatively greater engagement in indirect aggression. The developers of this measure have found that it possesses adequate internal consistency reliability and convergent validity (see Appendix E). Nonetheless, this measure had yet to be utilized with an Asian American sample.

However, the results of the present internal consistency analyses provide support for its use in this population.<sup>10</sup> Moreover, the two-week-retest reliability demonstrated temporal stability in both European American ( $\underline{r} = 0.89, \underline{p} < 0.001$ ) and Asian/Asian American samples ( $\underline{r} = 0.80, \underline{p} < 0.001$ ). Additionally, correlations between indirect aggression scores and Anger Expression-Out scores were significant in both European American ( $\underline{r} = 0.59, \underline{p} < 0.001$ ) and Asian/Asian American groups ( $\underline{r} = 0.52, \underline{p} < 0.001$ ), demonstrating its convergent validity.

Examination of discriminant validity showed that although the IAS was modestly correlated with Caucasians' scores on both state ( $\underline{r} = 0.40, \underline{p} < 0.001$ ) and trait anxiety ( $\underline{r} = 0.34, \underline{p} < 0.001$ ) both divergent validity correlations significantly differed from the convergent validity correlations [state-anxiety:  $\underline{t}(1, 107) = 2.07, \underline{p} < 0.01$ ; trait-anxiety:  $\underline{t}(1, 107) = 2.74, \underline{p} < 0.01$ ], supporting the discriminant validity of the IAS in Caucasian samples. Domestically-born Asian participants' IAS scores were also modestly correlated with their responses to the measure of state-anxiety ( $\underline{r} = 0.43, \underline{p} < 0.01$ ); however, this correlation did not significantly differ from the convergent validity coefficient [ $\underline{t}(1, 37) = 0.17, \underline{p} > 0.05$ ]. Nonetheless, there was no relationship between these measures for the foreign-born ( $\underline{r} = -0.13, \underline{p} > 0.05$ ) or between Asian/Asian Americans' reports of indirect aggression and trait-anxiety ( $\underline{r} = 0.21, \underline{p} > 0.05$ ). Additionally, these last two discriminant validity coefficients significantly differed from the convergent correlations [state-anxiety in the foreign born:  $\underline{t}(1, 45) = 3.80, \underline{p} < 0.01$ ; trait-anxiety in the overall Asian/Asian American sample:  $\underline{t}(1, 86) = 3.41, \underline{p} < 0.01$ ]. Therefore, the vast majority of these

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<sup>10</sup> With respect to both European American and Asian/Asian American samples, both the results of item-total correlations and Cronbach's alpha analyses resulted in the retention of all IAS-A items (Caucasian sample  $\alpha = 0.90$ , Asian/Asian American sample  $\alpha = 0.86$ ). Again, dropping no items increased alpha in either ethnic group.

findings suggest that the IAS possesses adequate discriminant validity in Asian/Asian American samples.

State-Trait Anger Expression Inventory-2 (STAXI-2; Spielberger, 1999). The STAXI-2 is a 57-item measure of the experience, expression and control of anger that consists of six scales. The State-Anger scale measures the present emotional experience of anger, marked by feelings ranging from irritation to rage. The Trait-Anger scale measures individual differences in the tendency to perceive situations as anger-provoking and to respond to these situations with increased anger experience. Anger Expression-Out assesses how often angry feelings are expressed, whereas Anger Expression-In measures the tendency to experience anger but not express it. In contrast, Anger Control-In measures how often one attempts to control anger by calming down or cooling off, whereas Anger Control-Out assesses one's tendency to prevent the expression of anger through the control of outward expression of angry feelings.

The STAXI-2 utilizes 4-point scales of response choices. State-Anger scores range from 15 to 60, and Trait-Anger scores range from 10 to 40. Higher scores on the State- and Trait-Anger scales indicate more intense and frequent experiences of anger, respectively. All of the Anger Expression and Control scale scores range from 8 to 32, with higher scores representing more frequent usage of the respective type of expression or control of anger. Example items from the STAXI-2 include, "I am furious" (State-Anger) and "I am quick tempered" (Trait-Anger). Extensive normative and psychometric information is provided in the STAXI-2 manual (Spielberger, 1999), and there is substantial evidence supporting its factor structure, internal consistency, retest reliability, convergent validity, divergent validity and criterion validity (e.g., Spielberger, 1988,

1996, 1999; van der Ploeg, 1988). There is also some research supporting its reliability and validity within Asian samples (see Appendix F).

In the current study, item-total correlations demonstrated adequate internal consistency in both ethnic groups. Additionally, Cronbach's alpha results showed that all scales, with the exception of Anger Expression-Out, also possessed adequate internal consistency in both ethnic groups (see Table 6), and dropping no items substantially increased alpha.<sup>11</sup> Nonetheless, as: 1) this scale was not used in the main analyses, 2) the alpha for the scale approached the level necessary for inclusion, and 3) normative information based upon the whole scale would provide a greater contribution to the literature than would normative information based upon a modified version of the scale, the Anger Expression-Out scale was left intact, and the normative information reported includes all STAXI-2 items.

Endorsement of Aggressive Norms Scale (Krahe & Moeller, 2004). This measure was constructed to assess children's endorsement of pro-aggression norms (Krahe & Moeller, 2004) and consists of 15 items that inquire about the acceptability of aggression. Response choices are made on a 4-point-scale of acceptability (3 = totally OK, 0 = not at all OK). Examples of items include, "To spread rumors about others is..." and, "To threaten to gang up with others to beat someone up is..." Higher scores reflect a relatively greater perception of aggression as acceptable.

The scale has been shown to possess adequate internal consistency and criterion validity (Krahe & Moeller, 2004). However, males scored significantly higher than

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<sup>11</sup> The Anger Expression-Out scale did not meet the stringent criteria for inclusion used in the present investigation, with respect to the Asian/Asian American sample ( $\alpha = 0.69$ ), unless one item was dropped from the scale. Specifically, dropping the item that reads, "I make sarcastic remarks to others," raised alpha to 0.71.

females on the physical aggression subscale. Normative information for this scale is available, although they were based on a German, child sample. Participants' responses are summed to create a total score for this measure, with scores ranging from 0 to 45. In the present investigation, after responding to each item, participants indicated all significant sources of these beliefs, with response choices including: 1) my culture, 2) my religion, 3) my parents, 4) my experiences and 5) other. They also indicated the degree to which each of these sources influenced their beliefs regarding the acceptability of the behavior in question on a 10-point scale (1 = not at all, 10 = extraordinarily). Scores reflecting the relative influence of sources of beliefs of the acceptability of aggression were computed by summing responses to the 15 items within each of these domains. Thus, five domain scores were derived, each ranging from 15 to 150. Higher scores represented a relatively greater impact of that domain on the development of one's perception of the acceptability of aggression (see Appendix G). The internal consistency of this scale was assessed in both Asian/Asian American and European American samples, and all items were retained.<sup>12</sup>

Negative Consequences of Aggressing Scale. The Negative Consequences of Aggressing Scale was developed for use in the present investigation. The development of this scale involved revising the items from the Endorsement of Aggressive Norms Scale to reflect the extent to which participants would expect to encounter negative consequences for engaging in acts of physical or relational aggression. Items from this scale included, "If I were to spread rumors about others, the negative consequences I would experience would be..." and, "If I were to push others around when I was really

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<sup>12</sup> The results of item-total correlation analyses resulted in the retention of all items. Cronbach's alpha was 0.84 in the Caucasian sample and 0.82 in the Asian/Asian American sample. Dropping no items substantially increased alpha in either ethnic group.

angry, the negative consequences I would experience would be...” Responses were made on a 4-point-scale of severity of the anticipated negative consequence (3 = extremely severe, 0 = not at all severe). Higher scores indicated relatively greater severity of anticipated negative consequences related to aggression, and possible scores on this measure ranged from 0 to 45.

Finally, following each item, participants were asked to rate the anticipated severity of the 18 types of negative consequences for engaging in each aggressive behavior. Examples include, “Others would avoid/exclude me,” “I would feel guilty,” and “I would lose others’ respect.” Participants indicated the likely severity by responding using a 10-point scale (1 = not at all severe, 10 = extremely severe). Scores were computed by summing participants’ responses across each of the 15 types of aggressive behaviors assessed. Thus, 18 scores were derived representing the anticipated severity of each potential consequence of engaging in aggressive behavior. Each score ranged from 15 to 150. Higher scores indicated that the participant anticipated that this consequence for engaging in aggression would be relatively severe (see Appendix G).

This measure was found to possess adequate internal consistency in both Asian/Asian American and European American samples.<sup>13</sup> The two-week-retest reliability of this scale, based on a subset of 41 European- and 31 Asian American participants, revealed that European Americans’ ( $r = 0.77$ ,  $p < 0.001$ ) and Asian/Asian Americans’ responses ( $r = 0.73$ ,  $p < 0.001$ ) were consistent over time. The convergent validity of this measure was assessed through the examination of correlations conducted

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<sup>13</sup> The results of item-total correlation analyses resulted in the retention of all items, and Cronbach’s alpha was 0.86 in both the Caucasian sample and the Asian/Asian American sample. Dropping no items substantially increased alpha in either ethnic group.

between its scores and those of the Endorsement of Aggressive Norms scale, as it would be expected that those who find aggression unacceptable would also be likely to believe that negative consequences will follow engagement in unacceptable behavior. There was a significant and negative correlation between the acceptability of aggression and the severity of anticipated consequences for aggressing, in both European American ( $r = -0.42, p < 0.001$ ) and Asian/Asian American ( $r = -0.31, p < 0.01$ ) samples.

Additionally, discriminant validity was assessed by examining correlations with the STAI, as one's perception of the consequences associated with the hypothetical engagement in a given behavior would not be related to one's current experience of anxiety or to one's tendency to be anxious over time. European Americans' ( $r = -0.12$ ), domestically-born Asian/Asian Americans' ( $r = -0.18$ ), and foreign-born Asian/Asian Americans' ( $r = 0.12$ ) scores on this scale were found to be unrelated to state-anxiety, and, in all but one case, these correlations significantly differed from the convergent validity coefficients computed for each subset of the sample [Caucasian:  $t(1, 100) = -2.57, p < 0.05$ ; foreign-born Asian:  $t(1, 43) = -2.21, p < 0.05$ ; domestically-born Asian:  $t(1, 37) = -0.58, p > 0.05$ ]. Moreover, there were no significant correlations found between European Americans' ( $r = 0.03$ ) and Asian/Asian Americans' ( $r = -0.12$ ) scores on trait-anxiety and the Negative Consequences of Aggression Scale. However, only in the Caucasian sample was the comparison between this divergent validity coefficient and the convergent validity correlation found to be significant [Caucasian:  $t(1, 100) = -3.89, p < 0.01$ ; Asian/Asian American:  $t(1, 78) = -1.36, p > 0.05$ ]. Therefore, the discriminant validity of this measure was supported within the Caucasian sample, and mixed results were found within the Asian/Asian American sample.

Nonetheless, domestically-born Asian/Asian Americans' responses to the STAI seemed to be underlying the absence of a significant difference in a number of these comparisons. Given that: 1) for the domestically-born individuals, similar results were found with respect to the use of the STAI in the IAS discriminant validity analyses and 2) the STAI was the only measure on which the domestically-born significantly differed from their foreign-born counterparts, it is the discriminant validity of the STAI that is called into greater question with respect to its use in this subset of the Asian sample. Moreover, as the divergent validity of this measure was supported for the foreign-born, and as these participants constituted the majority of the Asian/Asian American sample, it was determined that there was insufficient data to necessitate the removal of the Negative Consequences of Aggression Scale from the present investigation.

State-Trait Anxiety Inventory (STAI: Spielberger, Gorsuch, & Lushene, 1970).

The STAI is a commonly used measure of both trait-anxiety (e.g., the typical amount of anxiety that one experiences) and state-anxiety (e.g., the amount of anxiety one is experiencing at the moment). The STAI consists of a 20-item Trait-Anxiety subscale and a 20-item State-Anxiety subscale. Response choices are made on 4-point scales of the frequency or intensity of anxiety experienced. Items include, "I am a steady person," and, "I am tense." After reverse scoring a number of items, participants' responses are summed. Higher scores indicate the presence of relatively more trait- or state-anxiety than lower scores. Previous research supports the internal consistency reliability, test-retest reliability, convergent and discriminant validity of this measure (e.g., Spielberger et al., 1983).

The STAI has also been the most thoroughly examined measure of anxiety within Asian populations, and its reliability and validity have been supported within adult, adolescent, clinical, and non-clinical, samples (e.g., Hishinuma et al., 2001; Hishinuma et al., 2000; Leong et al., 2003) (See Appendix H). Internal consistency analyses resulted in the removal of only one item from the state-anxiety scale, and this modified measure (possible scores ranging from 19 to 76) was used in the remaining analyses.<sup>14</sup>

In the present sample, there was a significant difference between foreign- and domestically born Asians/Asian Americans with respect to state-anxiety scores  $t(1, 95) = 2.38, p < 0.05$ , with foreign-born participants endorsing more intense state-anxiety (mean = 42.29, SD = 9.76) than did those born in the United States (mean = 37.29, SD = 10.87). Consequently, it was determined that in those analyses involving the examination of state-anxiety, foreign- and domestically-born Asian/Asian Americans would be considered separate groups. In all other analyses, European- and Asian/Asian Americans were the two ethnic groups used for comparison.

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<sup>14</sup> The results of item-total correlations revealed that one State-Anxiety item (“I feel over-excited and rattled”) did not meet the criterion for inclusion in the Asian/Asian American sample ( $r = 0.20, p > 0.05$ ). After this item was removed from the State-Anxiety scale, Cronbach’s alpha analyses were conducted on both the Trait-Anxiety (Caucasian sample  $\alpha = 0.92$ , Asian/Asian American sample  $\alpha = 0.90$ ) and the modified State-Anxiety (Caucasian sample  $\alpha = 0.94$ , Asian/Asian American sample  $\alpha = 0.91$ ) scales. In both ethnic groups, dropping no items increased alpha, neither with respect to the Trait- nor State-Anxiety scale.

## Chapter 6: RESULTS

The data analyses were conducted in three phases: 1) preliminary data analyses, 2) tests of differences between groups and 3) tests of mediation. Overall, a total of six sets of correlations, five Multivariate Analyses of Variance (MANOVAs), two Multivariate Analyses of Covariance (MANCOVAs) and 16 series of regressions were conducted. All correlations and MANOVAs were conducted in the first phase. All MANCOVAs and eight series of regressions were included in the second phase of analyses, and the final tests of mediation consisted of eight additional series of regressions.

In the preliminary data analyses phase, potential confounding variables were assessed. First, a MANOVA was conducted with ethnicity as the independent variable and the two measures of response tendencies (impression management and modest responding) as the dependent variables.<sup>15</sup> Additionally, as variance in age had been found to be unequal across ethnic groups, correlations between age and these forms of response bias were conducted cross-culturally. Finally, two sets of correlations examined the relationship between response biases and the 12 remaining variables of interest (both forms of aggression, the STAXI-2 scales, acceptability of aggression, consequences for aggressing, state- and trait-anxiety, and Asian American values). When either form of response bias was found to: 1) significantly differ across ethnic groups, 2) be significantly correlated with age or 3) be significantly correlated with a number of the main variables of interest, that form of response bias was entered as a covariate in further analyses.

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<sup>15</sup> Here and throughout the present paper, univariate tests of significant differences between groups are presented only when the multivariate test is significant. Furthermore, Hotelling's Trace was used as the univariate test, as it is the most appropriate for use with an independent variable consisting of two groups.

Participant characteristics have been found to be related to scores on many of the measures of interest in both European- and Asian American samples (e.g., Hishinuma et al., 2000; Spielberger, 1999). Therefore, two additional sets of preliminary analyses were conducted. First, correlations between age and the 12 main variables were conducted separately for each ethnic group. If age was found to be significantly related to a number of these variables, it was entered as a covariate in the remaining analyses.

Moreover, four additional MANOVAs were conducted separately for each ethnic group. In the first pair, gender was the independent variable and both forms of response bias were the dependent variables. In the second, gender remained the independent variable, and the following variables were dependent variables, as anger, aggression and related beliefs were hypothesized to be interrelated: 1) direct aggression, 2) indirect aggression, 3) trait-anger, 4) state-anger, 5) anger expression-out, 6) anger expression-in, 7) anger control-out, 8) anger control-in, 9) unacceptability of aggression, and 10) consequences for aggressing. When significant differences were found, gender was entered as a covariate in all further analyses.<sup>16</sup> Finally, for all of the measures to be used in the main analyses, normative information (means, standard deviations and ranges in scores observed) was compiled for both ethnic groups.

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<sup>16</sup> Gender was not examined as a potential additional independent variable for a number of reasons. First, examining gender as an additional variable would nearly double the number of analyses necessary; however, given the size of the sample, it would be reasonable to challenge any related significant results, due to the increased likelihood of spurious findings. This problem would also be compounded by the ratio of approximately two females to every one male in the sample, and relatively the small number of both Caucasian (N=30) and Asian/Asian American (N=31) males recruited. In contrast, the combination of the examination of gender differences on the main variables of interest and the use of gender as a covariate in the remaining analyses allows for: 1) some insight into the role gender plays with respect to anger, aggression and related constructs, 2) confidence that the findings presented are not confounded by gender but reflect true overall ethnic differences, and 3) minimizing the number of analyses necessary and the likelihood of spurious findings.

In the second phase, primary tests of differences between groups were examined with respect to: 1) aggression, 2) anger, 3) unacceptability of aggression and 4) consequences for aggressing. Two statistical approaches were used. First, a MANCOVA was conducted, where impression management, modest responding, age and gender were entered as covariates.<sup>17</sup> Ethnicity was entered as the independent variable, and the following were entered as dependent measures: 1) direct aggression, 2) indirect aggression, 3) trait-anger, 4) the belief that aggression is unacceptable, 5) the severity of consequences for aggressing, 6) 18 specific negative consequences for aggressing and 7) Asian American values. All of these dependent measures were included in the MANCOVA, as it was likely that these variables would be interrelated. In fact, the underlying premise of the primary tests of mediation involved hypothesized relationships between anger, aggression, aggression-related beliefs and expectations, and Asian American values. Furthermore, participants were asked to indicate how significant parental, cultural, religious and personal experience-based sources had been in the development of their beliefs regarding the unacceptability of aggression. For this data, a MANCOVA was conducted with ethnicity as the independent variable and these four potentially related influences as the dependent measures.

To determine whether collectivistic Asian American values protected against aggression, eight hierarchical regressions were conducted with age, gender, impression management and modest responding as covariates. Within each ethnic group, four regressions were conducted, with Asian American values as the predictor variables and:

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<sup>17</sup> These covariates were used in all further analyses, as well. Furthermore, as all of the dependent variables of interest were believed to be associated with one another, all 8 primary variables were included in this analysis. The found ethnic differences will be presented throughout the present paper, as the relevant constructs are discussed.

1) direct aggression, 2) indirect aggression, 3) unacceptability of aggression, and 4) anticipated consequences for aggressing as the dependent variables. When no ethnic differences in these dependent measures had been found during the preliminary data analyses, Asian American values were not examined as mediators of the relationship between ethnicity and these dependent variables. Moreover, when Asian American values failed to predict a significant portion of the variance in aggression-related beliefs, these beliefs could not be examined as proxy protective factors (specific protective beliefs related to the more general construct of collectivistic Asian American values). However, mediational analyses were still conducted for these two dependent variables, as they could still be functioning as protective factors in the relationship between anger and aggression in either ethnic group, independent of collectivistic values.

Finally, in the third phase of analyses, four primary tests of mediation were conducted to determine if beliefs about the unacceptability of aggression and the severity of consequences associated with aggressing served as proxy protective/protective factors with regard to aggression (Kenny, 1986; Kraemer & Fairburn, 2002). Four tests examining the interaction terms (predictor X mediator) as potential proxy protective/protective factors were also conducted. With respect to each step of these regression analyses, tests of statistical significance were conducted, and effect sizes were derived from the  $R^2 \Delta$  term associated with each pair of variables. For a variable to be considered a protective factor, it had to be found to be both a statistically significant mediator of the effect between the predictor and criterion variable and associated with at least a medium effect size (Cohen, 1988). All regression analyses were conducted separately on European- and Asian American groups.

### Preliminary Data Analyses

Examination of response tendencies. There was a multivariate effect of ethnicity on impression management (IM) and modest responding [ $F(2, 195) = 5.91, p < 0.01$ ]. The univariate test [ $F(1, 196) = 11.85, p < 0.01$ ], revealed that this was due to an ethnic difference in IM, where Asian/Asian Americans (mean = 43.36, SD = 9.94) engaged in more of this response style than European Americans (mean = 38.58, SD = 9.50). Moreover, IM was found to be correlated with scores on 12 of the main variables of interest (see Table 7). Therefore, it was decided that IM scores would be entered as covariates in all of the primary tests of differences between ethnic groups.

No significant ethnic differences were found in the use of modest responding. However, the correlation between age and modesty was significant in the Asian/Asian American sample, with greater use of modest responding associated with younger age ( $r = -0.25, p < 0.05$ ). Moreover, significant gender differences were found in the Caucasian sample [multivariate test:  $F(2, 107) = 6.41, p < 0.01$ ; univariate test:  $F(1, 108) = 9.08, p < 0.01$ ], with females engaging in more modesty than males (female mean = 39.90, SD = 7.50; male mean = 34.87, SD = 8.57). Modest responding was also correlated with scores on 8 of the main variables of interest (see Table 8). Therefore, it was decided that modest responding would be entered as a covariate in all of the primary tests of differences between ethnic groups. In contrast, no gender differences in response tendencies were found in the Asian/Asian American sample [multivariate test:  $F(2, 85) = 1.99, p > 0.05$ ].

Participant characteristics: Age and gender. Pearson correlations revealed that with increasing age Caucasians tended to endorse less Trait-Anger ( $r = -0.20, p < 0.05$ ), less outward expression of anger (Anger Expression-Out:  $r = -0.21, p < 0.05$ ), and greater

use of both methods of Anger Control-Out,  $r = 0.21$ ,  $p < 0.05$ , and Anger Control-In,  $r = 0.25$ ,  $p < 0.01$ ). These results were consistent with those noted by the developer of the STAXI-2, who found that scores on this measure tended to decrease with age (Spielberger, 1999).

Within the Asian/Asian American sample, the only significant correlation occurred between age and direct aggression, with more advanced age associated with greater self-reported engagement in direct aggression ( $r = 0.24$ ,  $p < 0.05$ ). Moreover, significant differences in both the variability in age (Levene's test for Equality of Variances:  $F(1, 197) = 22.37$ ,  $p < 0.001$ ) and age itself [ $t(1, 167.16) = 4.37$ ,  $p < 0.001$ ] had been found while examining the demographic characteristics of the sample across ethnic groups. Therefore, age was entered as an additional covariate in all of the primary analyses.

The results of a MANOVA revealed significant multivariate effects of gender on aggression and perceptions of aggression within the Caucasian sample [ $F(10, 91) = 6.07$ ,  $p < 0.001$ ]. Subsequent univariate ANOVAs showed gender differences on :1) direct aggression [ $F(1, 100) = 16.29$ ,  $p < 0.001$ ], 2) Anger Control-Out [ $F(1, 100) = 9.38$ ,  $p < 0.01$ ], 3) Anger Control-In [ $F(1, 100) = 5.28$ ,  $p < 0.05$ ], 4) acceptability of aggression [ $F(1, 100) = 5.73$ ,  $p < 0.05$ ], and 5) perceived consequences for aggressing [ $F(1, 100) = 12.80$ ,  $p < 0.01$ ]. Males endorsed greater engagement in direct aggression (male mean = 31.33, SD = 6.28; female mean = 25.39, SD = 6.74), greater use of both methods of anger control (AC-O: male mean = 25.34, SD = 3.87; female mean = 22.05, SD = 5.12 and AC-I: male mean = 24.31, SD = 4.46; female mean = 21.44, SD = 5.75), and greater acceptability of aggression (male mean = 10.61, SD = 7.31; female mean = 7.81, SD =

4.26). In contrast, females anticipated greater consequences for aggressing (mean = 30.82, SD = 6.05) than males (mean = 25.98, SD = 5.63). Although there was also a significant multivariate effect of Gender in the Asian/Asian American sample,  $F(10, 65) = 2.31, p < 0.05$ , there were far fewer univariate effects compared to the European American sample. The only significant difference occurred in scores on a measure of Anger Expression-Out [ $F(1, 74) = 4.38, p < 0.05$ ], with females endorsing expressing angry feelings more often (mean = 15.74, SD = 3.31) than males (mean = 14.06, SD = 3.04). In light of the numerous gender differences in the main variables of interest, it was decided that gender would be entered as a fourth covariate.

Examination of normative information. The observed means, standard deviations and ranges suggested that all measures examined are appropriate for use in investigations involving both European American and Asian/Asian American samples (see Table 9). The descriptive statistics were also comparable to those found in past research (Abe & Zane, 2004; Archer et al., 1998; Bishop & Quah, 1998; Buss & Perry, 1992; Campano & Munakata, 2004; Forrest et al., 2005; Hishinuma et al., 2000; Kim et al., 2005; Paulhus, 1991; Spielberger, 1999; Spielberger et al., 1970), with the exception of the Endorsement of Aggressive Norms Scale. The present adult sample described aggressive behaviors as more unacceptable than the original child sample (Krahe & Moeller, 2004).

Additionally, as the preliminary analyses revealed significant gender differences in perceived consequences for aggressing, direct aggression and STAXI-2 subscale scores, the normative information for these measures was reported separately for males and females. Moreover, as significant age differences in direct aggression and STAXI-2 subscale scores were found, it was decided that the normative information for these

measures should also be reported separately by age group. However, given the limited variability in participant age, past research was used as a guide for developing meaningful age groups. Specifically, Spielberger's (1999) age brackets (16-19, 20-29 and 30 and over) were used, both due to their being found to be appropriate groupings in past research and as their use would allow for more direct comparisons between the normative information reported here and that previously published (see Table 10 – Table 16).

### Primary Tests of Differences between Groups

There was a significant multivariate effect of ethnic group on anger, aggression, associated consequences, beliefs, and values,  $F(23, 150) = 3.17, p < 0.001$ . However, there were no univariate effects of ethnicity on engagement in direct or indirect aggression, trait anger, overall views on the unacceptability of aggression, or the severity of anticipated consequences for aggressing, [all  $p$ -values  $> 0.05$ ].<sup>18</sup> Additionally, with respect to 18 possible consequences for aggressing, the only significant ethnic difference was on anticipated severity of negative consequences in the afterlife/next life,  $F(1, 172) = 8.77, p < 0.01$ , with Asian/Asian Americans anticipating more severe consequences (mean = 47.66, SD = 35.86) than Caucasians (mean = 33.77, SD = 28.45).<sup>19</sup> In contrast, although a second MANCOVA revealed a multivariate effect of ethnicity on sources of beliefs regarding the unacceptability of aggression [multivariate test:  $F(4, 182) = 3.67, p < 0.05$ ], no univariate effects of ethnic group on cultural-, religious-, parental- and personal experience-related sources of beliefs were found [all  $p$ -values  $> 0.05$ ].

However, Asians/Asian Americans did endorse greater agreement with collectivistic

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<sup>18</sup> As only nine participants responded to the “other sources” item, meaningful analyses could not be conducted with respect to this variable.

<sup>19</sup> As only four participants responded to the “other consequences” item, meaningful analyses could not be conducted with respect to this variable.

values (mean = 83.10, SD = 9.85) than European Americans (mean = 76.31, SD = 9.96)  $F(1, 172) = 15.95, p < 0.001$ .

The results of hierarchical regression analyses indicated that identification with Asian American values did not predict a significant portion of the variance in direct aggression in either sample. The same was found when examining the relationship between these values and: 1) indirect aggression for Caucasians 2) the belief that aggression is unacceptable cross-culturally, and 3) the anticipated severity of consequences for aggressing in both Caucasians and Asian/Asian Americans. However, Asian American values were found to predict a significant portion of the variance in Asian/Asian Americans' engagement in indirect aggression [ $F(5, 81) = 8.77, p < 0.001$ , Adjusted  $R^2 = 0.31, \beta = 0.24$ ], where identification with these values explained 5% of the variance in indirect aggression [ $R^2\Delta = 0.05, F\Delta = 6.71(1, 81), p < 0.01$ ]. However, given the lack of ethnic differences in engagement in direct aggression, indirect aggression and general aggression-related beliefs, Asian American values were not examined as a mediator of the relationship between ethnicity and these variables. Moreover, the primary tests of mediation no longer involved examining aggression-related beliefs as proxy protective factors in the relationship between anger and aggression. Instead, these beliefs were examined simply as potential protective factors, independent of collectivistic Asian American values.

#### Primary Tests of Mediation

Mediation of the relationship between anger and direct aggression. Trait-anger was found to predict direct aggression, as well as all but one of the potential mediators across cultures, failing to predict the severity of anticipated consequences for aggressing

in both ethnic groups. All three of the remaining potential mediators significantly predicted direct aggression cross-culturally. However, once variability due to these mediators was accounted for, trait-anger continued to predict direct aggression in both groups (see Table 17). Therefore, none of these variables was found to be a protective factor against direct aggression, neither in the Caucasian sample nor in the Asian/Asian American sample.

Mediation of the relationship between anger and indirect aggression. Again, trait-anger was found to predict engagement in aggression in both Caucasians and Asians/Asian Americans. Furthermore, across ethnic groups, both the unacceptability of aggression and anger X unacceptability were found to predict engagement in indirect aggression. However, anger X consequences was found to do so only marginally and only with respect to the Caucasian sample. Nonetheless, the latter variable was not found to be a protective factor in the relationship between anger and indirect aggression for European Americans. In fact, the only protective factors identified were the unacceptability of aggression and anger X unacceptability, which were found only in the Asian/Asian American group (see Table 18). In further exploring the protective nature of the interaction term, the results of an ANCOVA revealed that those both low in trait-anger and low in the endorsement of aggression as acceptable engaged in less indirect aggression [mean = 33.85 (4.92)] than all other participants of Asian descent [Low Trait-Anger/High Acceptability of Aggression: mean = 39.85 (9.75), High Trait-Anger/Low Acceptability of Aggression: mean = 40.31 (8.48), High Trait-Anger/High Acceptability of Aggression: mean = 41.05 (6.65)].

## Chapter 7: DISCUSSION

### Interpretation

Aggression. Overall, the results of the present investigation were somewhat surprising. First, it had been hypothesized that those of Asian descent would endorse less direct aggression than European Americans (Hypothesis 1). However, inconsistent with the prevailing belief that Asian/Asian Americans are non-aggressive, no ethnic difference in direct aggression was found. Moreover, the hypothesis that Asian/Asian Americans would endorse less indirect aggression than would European Americans (Hypothesis 2) was not supported, as, again, no difference was found across the two groups.

On the other hand, as predicted, Asian/Asian Americans were more likely to endorse Asian American values than were European Americans (Hypothesis 3). However, although it was hypothesized that identification with collectivistic values would negatively predict engagement in direct aggression (Hypothesis 4), no significant associations between these two variables were found. Thus, the widely held assumption that adherence to a collectivistic value system minimizes engagement in aggression was not supported by the data. Results with respect to the relationship between these values and indirect aggression were even more surprising. Contrary to the prediction, Asians'/Asian Americans' identification with these values was associated with greater indirect aggression (Hypothesis 5). Finally, these values could not be considered to be potential protective factors in the relationship between ethnicity and aggression, as the perquisite hypotheses were not supported (e.g., no ethnic differences in self-reported indirect aggression were found) (Hypotheses 6 and 7).

These findings are notable, given that past researchers have found that Asian/Asian Americans engage in less aggression than Caucasians (e.g., Nagayama Hall & Barongan, 1997; Nagayama Hall, et al., 2005; Tagaki & Platt, 1978), both in college samples and samples from the general population. Nonetheless, some studies have found that those of Asian descent engage in comparable or greater levels of aggression, when compared to European Americans (e.g., Archer et al. 1998; Campano & Munakata, 2004; Maker et al., 2005; Mokuau & Chang, 1991). Thus, the present results lend support to the growing contingent in the literature that suggests that engagement in aggression may be more similar across these two cultures than previously assumed.

Anger. It had been predicted that when compared to European Americans, Asian/Asian Americans would either report more or comparable levels of anger (Hypothesis 8). This hypothesis was supported. There was no cross-cultural difference in trait-anger, consistent with the results of previous investigations (e.g., Campano & Munakata, 2004). Therefore, the findings of the current investigation suggest that despite the tendency of those of Asian descent to perceive affect as something that must be restrained, moderated and controlled (for reviews, see Heine et al., 1999; Klineberg, 1938), anger is experienced and reported similarly cross-culturally. This is consistent with prior reports that those of Asian descent experience and express a full range of emotions, even often screaming and slapping in anger (Klineberg, 1938; Potter, 1988).

Unacceptability of aggression. It had been predicted that whereas Asian American participants would endorse more cultural and religious (e.g., Buddhism) sources for their beliefs, European Americans would endorse more personal-experience sources (Hypothesis 10). No significant differences were found, suggesting that

individuals perceive these sources as influential in the development of their belief that aggression is unacceptable to a similar degree, cross-culturally. However, it had also been hypothesized that Asian/Asian Americans would more strongly endorse the unacceptability of aggression than would Caucasians (Hypothesis 9), and no ethnic difference was found.

Moreover, it was hypothesized that although Asian Americans would score significantly higher on a measure of Asian American values than European Americans, both groups' scores would be positively associated with unacceptability of aggression (Hypothesis 11). However, contrary to the widely held view that collectivistic belief systems include the belief that aggression is unacceptable (e.g., Nagayama Hall et al., 2005; Uba, 1994), identification with Asian American values was found to be unrelated to the unacceptability of aggression. Finally, given the lack of ethnic differences in these beliefs and the absence of a relationship between these beliefs and Asian American values, Asian American values could not be examined as a mediator of the relationship between ethnicity and the acceptability of aggression (Hypothesis 12).

However, beliefs regarding the unacceptability of aggression were examined as a mediator of the relationship between anger experiences and engagement in direct aggression. It was hypothesized that regardless of an individual's anger, if he or she strongly believed that aggression was unacceptable, that individual would be expected to choose not to aggress (e.g., Huesmann & Guerra, 1997; Novaco, 1994) (Hypothesis 13). This hypothesis was not supported. In both ethnic groups, although more trait-anger was associated with greater acceptability of aggression, and greater acceptability of these beliefs and trait-anger predicted greater engagement in direct aggression, the presence of

core beliefs that aggression is unacceptable did not mediate the relationship between anger and aggression. In contrast, it had been predicted that the interaction effect (anger X unacceptability) would not mediate significantly the relationship between anger and direct aggression (Hypothesis 14). This hypothesis was supported in both ethnic groups.

It had also been predicted that regardless of ethnic identification, core beliefs stressing the unacceptability of aggression would mediate the relationship between anger experience and engagement in indirect aggression (Hypothesis 15). Although this hypothesis was not supported within the Caucasian sample, it was supported for those of Asian descent. In this group, the core belief that aggression was unacceptable overcame the influence of anger and resulted in the decision to refrain from indirect aggression. The same was found with respect to the association of this interaction effect (anger X consequences) with indirect aggression. However, for Asian/Asian Americans, perceptions of the unacceptability of aggression had a much greater impact on indirect aggression in those with low trait anger compared to those with high trait-anger. Finally, across cultural groups, both greater acceptability of aggression and greater anger were associated with greater engagement in indirect aggression, consistent with the GAM, which states that both anger and aggression-related beliefs are partially predictive of aggressive outcomes (Anderson & Bushman, 2002).

Consequences for aggressing. It was predicted that Asian/Asian Americans would endorse more severe negative consequences for aggressing than would European Americans (Hypothesis 17). However, this hypothesis was not supported, as no cross-cultural differences were found. It was also hypothesized that whereas Asian/Asian Americans would endorse significantly more severe consequences related to

interpersonal harmony (e.g., social rejection, being shamed, feeling guilty for harming another) and a general interpersonal orientation (e.g., loss of respect and esteem from others), European Americans would endorse significantly more severe ego-focused consequences (e.g., fear of retribution, suffering legal consequences, being criticized, being embarrassed, loss of self-respect and self-esteem) (Hypothesis 18). These hypotheses were not supported, as the only cross-cultural difference found reflected a greater focus on consequences in the afterlife/next life in those of Asian descent.

Additionally, it had been hypothesized that both Asians'/Asian Americans' and European Americans' identification with collectivistic Asian American values would be positively associated with the severity of anticipated consequences for aggressing (Hypothesis 19). Inconsistent with previous predictions (Nagayama Hall & Barongan, 1997; Nagayama Hall et al., 2005), identification with Asian American values was not related to the severity of these expected consequences. Furthermore, given the lack of cross-cultural differences, the potential mediational role of Asian American values was not examined (Hypothesis 20).

However, the role of these consequences in the relationship between trait-anger and direct aggression was examined. It had been hypothesized that regardless of an individual's anger, if that individual believes that he or she will suffer serious negative consequences for aggressing, he or she would be expected to choose not to aggress (e.g., Beck, 1999) (Hypothesis 21). These hypotheses were not supported, as the severity of anticipated consequences did not mediate this relationship in either ethnic group. The severity of anticipated consequences for aggressing did not predict engagement in direct aggression for Caucasians or for those of Asian descent. Moreover, trait-anger failed to

predict the reported severity of anticipated consequences for aggressing across ethnic groups. This result is also surprising given previous theorists' suggestion that one's level of anger should impact one's tendency to perceive/ignore the likely consequences for aggressing (Anderson & Bushman, 2002).

In contrast, it had been predicted that the interaction effect (anger X anticipated consequences) would not be influential enough to significantly mediate the relationship between anger and direct aggression (Hypothesis 22), and this hypothesis was supported. It had also been predicted that perceptions of the severity of consequences for aggressing would mediate the relationship between anger experiences and engagement in indirect aggression cross-culturally (Hypothesis 23). However, this hypothesis was not supported, as anger predicted indirect aggression, but all other steps of the analyses failed to reach significance, mirroring the results found with respect to the role of this potential mediator in the relationship between anger and direct aggression. Finally, it had been predicted that the interaction effect (anger X consequences) would not be influential enough to significantly mediate the relationship between anger experience and indirect aggression (Hypothesis 24), and this hypothesis was supported.

Two main conclusions can be drawn from these analyses. First, anticipated consequences were not related to trait-anger or aggressive behaviors in either ethnic group. Therefore, neither does one's tendency to experience anger impact one's likelihood of anticipating severe consequences for aggression (or vice versa) nor does the severity of consequences anticipated for aggressing impact one's degree of engagement in aggressive behaviors. In fact, across cultures, the only significant predictor of both forms of aggression was trait-anger. However, although it did not mediate the

relationship between anger and direct aggression, the interaction between anger and the severity of anticipated consequences did predict engagement in direct aggression in both ethnic groups. Specifically, across cultures, both more severe anticipated consequences and lower trait-anger were associated with less engagement in direct aggression, overall. Moreover, for Caucasians, the severity of anticipated consequences had more of an impact on aggression for those high in trait-anger than for those low in trait-anger. In contrast, for Asian/Asian Americans low in trait-anger, more severe anticipated consequences for aggressing were associated with greater engagement in direct aggression, whereas the opposite trend was found for those high in trait-anger.

Combining these findings, an interesting picture begins to develop. For those of Asian descent, the belief that aggression is unacceptable seems to be most effective in reducing aggression when trait-anger is low, at least with respect to indirect aggression. In contrast, the perception that there will be severe consequences for aggressing seems to be most effective in reducing aggression when trait-anger is high, at least with respect to direct aggression.

### Conclusions and Suggestions for Future Research

This writer had been drawn to the present investigation after becoming aware that:

- 1) very few investigations had examined aggression in Asian/Asian American samples,
- 2) the prevailing belief was that Asian/Asian Americans are non-aggressive, despite inconsistent results of prior investigations and the failure of prior studies to take response tendencies into account, and 3) that the literature in this area had begun to focus on specific components of the Asian/Asian American belief system as protective factors against specific forms of aggression (e.g., Nagayama Hall, Sue, Narang, & Lilly, 2000;

Nagayama Hall et al., 2005). However, the hypothesis that perceptions of significant negative consequences for violating a social norm gave such protective factors their power to influence behavior had yet to be tested. Therefore, the present investigation sought to provide some empirical evidence to support the assumptions upon which the research in this area was being based. This supporting evidence was not found, and the results of this investigation challenge the assumptions that have predominated the literature concerning Asian/Asian American aggression, suggesting different avenues for future research than those currently being pursued.

Although the present findings are inconsistent with the prevailing belief that those of Asian descent are relatively non-aggressive, prior research concerning aggression in this population has been characterized by inconsistent findings. There are a number of possible reasons for the inconsistencies in this body of literature, including unmeasured variability in the use of response biases/tendencies. However, little has been done to develop psychometrically sound measures of the forms of response bias thought to be prevalent in samples of Asian descent. The present investigation has provided a step in this direction by examining the psychometric properties of a measure of impression management. Moreover, neutral response tendencies were addressed by including only even numbered response scales, and examining the psychometric properties of these modified measures. Finally, a new measure of modest responding was developed and psychometrically examined.

Overall, the findings supported the cross-cultural use of all of these measures; however, these results are in need of replication. Once the validity and reliability of measures of these various, potentially very relevant, forms of response tendencies are

established, these measures should be included in investigations examining cross-cultural differences in engagement in both direct and indirect aggression. Such investigations would constitute a significant contribution to this body of literature, as they might clarify whether or not Asian/Asian Americans are truly non-aggressive.

If the results of the present investigation serve as any indication of what might be found in such future research, it may be that the two cultures are more similar than they are different. The present data suggests that holding collectivistic values and beliefs has little impact on one's likelihood to engage in directly aggressive behaviors. In contrast, whereas these values are unassociated with indirect aggression in Caucasian groups, such values may actually encourage indirect aggression in Asian/Asian Americans. This finding is also in need of replication; however, it is intuitive that membership in and adherence to the values of a culture that encourages indirect expression would be related to the indirect expression of aggression. Moreover, future research might also examine whether a greater focus on the interpersonal aspects of experience is associated with a greater tendency to express one's related anger in ways that manipulate or make use of interpersonal relationships (e.g., indirect aggression).

However, the question of why the unacceptability of aggression only mediates the relationship between trait-anger and indirect aggression, and only does so in the Asian/Asian American sample, remains unanswered. Unfortunately, the findings of the present investigation cannot answer this question. Moreover, no other researchers have examined indirect aggression within an Asian/Asian American sample, and very little research has been conducted regarding indirect aggression in adult samples, overall (for review, see Forrest et al., 2005). In fact, the scale used in the present investigation is the

first self-report measure of this construct developed for use with adults. Thus, future research should examine ethnic differences in anger cues/triggers as well as when and how direct and indirect aggression is viewed as appropriate or justified, and the specific nature and severity of the consequences for indirect aggression.

One method of addressing these questions would involve taking a more “exploratory” approach. For example, as little is known about Asian’/Asian Americans’ engagement in and willingness to endorse such engagement in aggression, future researchers should conduct in depth interviews with participants of Asian descent. These participants could complete the self-report measures utilized in the present investigation. They could then meet with a therapist on a weekly basis over a period of six months with the explicit goal of working together to bring clarity to the Asian/Asian American experiences of anger and aggression by discussing the ways in which cultural restrictions impact what these participants feel that they can/cannot openly express/endorse. In the end, the results of these discussions could be compared to the initial self-reported information and differences due to culturally-based socially desirable responding could be assessed.

Specific topics that might be discussed include: 1) the frequency and severity of aggression engaged in, 2) the specific types of aggression engaged in (e.g., family-based aggression, sexual aggression, social exclusion), 3) the targets of the aggressive behaviors (e.g., family members, superiors, strangers), 4) differences in the anger eliciting cues/triggers that tend to result in direct versus indirect aggressive outcomes, 5) differences in when and how the two different forms of aggression are considered appropriate or justified, and 6) differences in the forms and severity of the consequences

for engaging in these forms of aggression. Information gathered in such a forum would serve to expand our understanding of both socially desirable responding and aggression in Asian populations.

Moreover, different variations of this study could be conducted, examining the potential role of socially desirable responding in different contexts. Specifically, therapist ethnicity, gender, age and status could be varied, as could the language in which therapy is conducted, and differences in reports across these different contexts could be examined. The findings of such investigations could then be used to develop more valid and reliable means of measuring the use of socially desirable responding and treatment and prevention strategies specifically developed for use in this population. Once our basic understanding of the endorsement and experience of anger and aggression in Asian populations is more refined, further exploration of the trends found in the present investigation could be conducted.

For example, persons of Asian descent both high and low in trait-anger could be identified. Participants in both of these groups could then read a vignette which describes a character being faced with an anger-eliciting situation. These two groups would be randomly assigned to one of four conditions. In the first condition, the vignette would be followed by a paragraph emphasizing the unacceptability of aggressing in this situation, and participants would be asked to indicate how likely they believe the character would be to engage in a number of directly aggressive behaviors. In the second condition, the vignette would be followed by a paragraph emphasizing the severity of the consequences the character will face for aggressing in this situation, and the participants would then be asked to complete the same questionnaire regarding the likelihood of different directly

aggressive outcomes. In the third and fourth conditions, participants would be asked to indicate how likely they believe the character would be to engage in a number of indirectly aggressive behaviors.

Alternatively, state-anger could be manipulated using a similar design. Specifically, participants of Asian descent could be presented with either an anger-eliciting or neutral stimulus (e.g., a frustrating task or a simple task). A manipulation check could be conducted by administering the STAXI-2 State-Anger scale, as the present investigation supported its use in both Asian/Asian American and Caucasian samples. The participants would then read the same vignettes described above and respond to the same questions regarding the likelihood of aggressive outcomes. Both series of experiments would allow researchers to examine groups of individuals experiencing high and low levels of anger, assessing the abilities of the salience of the acceptability of aggression and the severity of consequences for aggressing to minimize direct and indirect aggression across these groups. The results of such investigations could then be used to begin to design more effective prevention or treatment strategies that target change in the emotions/beliefs most relevant for clients of particular ethnicities experiencing specific combinations of emotional (e.g., high trait-anger or low trait-anger) and behavioral problems (e.g., direct or indirect aggression), consistent with the culturally-specific treatment approach espoused by prominent researchers in this area of study (e.g., Guerra & Smith, 2006; Nagayama Hall et al., 2005).

This eventual goal of developing effective strategies for targeting aggression in Asian populations is of particular importance. Specifically, it has been inaccurately assumed that those of Asian descent are problem-free with respect to aggression. In fact,

it has been postulated that one reason for the shortage of research in this area is the perception of Asian/Asian Americans as “the model minority” and the resulting general consensus that investigators’ resources would be better spent examining aggression within populations in which it is more problematic (Paciotti, 2005). Unfortunately, in an effort to be economical we may have been somewhat neglectful.

Specifically, as a discipline, we have not devoted due attention to aggression in the context of the Asian culture. As a result, we have developed little understanding regarding how anger, beliefs and attitudes about anger and aggression and their consequences, and aggressive behaviors present in these populations. Consequently, no treatments/prevention programs have been developed to address these problems with Asian/Asian American clients. The strategies that are presently available were developed based upon findings drawn from Caucasian samples (e.g., Deffenbacher et al., 2000; Evershed et al., 2003), and these strategies cannot be assumed to be effective cross-culturally, as the present investigation has highlighted that there are ethnic differences in the relationships between anger, related beliefs and attitudes and aggressive behaviors.

For example, family-based aggression in Asian American groups might be more effectively addressed through the use of techniques that challenge beliefs regarding the use of corporal punishment/spousal abuse as a means of addressing child/spousal disobedience and failure to conform to family/gender roles (e.g., Maker et al., 2005; Mokuau, & Chang, 1991). As the results of the present investigation suggest that the severity of anticipated consequences for aggressing seems to be most effective in reducing direct aggression when trait-anger is high, challenging these beliefs might involve a particular emphasis on the negative consequences to both the self and other that

result from family-based violence. Such techniques would constitute a valuable contribution to clinical psychological practice, as the current state of a lack of understanding concerning Asian American anger and aggression leaves practitioners ill equipped to address these issues.

Other treatments used in the general population that could be augmented in light of the present findings include preventative psychological interventions designed to reduce rates of violence. Specifically, although in the criminological literature much attention has been paid to “hardening the target” (e.g., Felson, 1987; Massey, Krohn, & Bonati, 1989; Wilcox Rountree & Land, 1996) as a means of addressing rates of violence, a preventative psychological intervention might be geared toward “softening the potential offender.” Therapists involved in prevention programs might “soften” young clients by encouraging them to dis-identify with norms and values condoning aggression. Such an attempt to change aggression-tolerant norms would most likely have the greatest chance of success if incorporated into early-intervention prevention programs, as it has been theorized that aggressive tendencies are most amenable to change when they are addressed both early in life and with a broad focus (e.g., by addressing core beliefs rather than by addressing context specific cognitive distortions) (Anderson & Bushman, 2002). Attempts, such as these, would allow the results of the present investigation to be used to: 1) begin to correct and to increase our understanding of the relationships between anger and aggression and 2) begin to develop more effective treatment and prevention strategies, both with respect to Americans, in general, and Asian/Asian Americans, in particular.

Therefore, much of the importance of the present investigation lies in fact that the unexpected findings of this research have highlighted the need for psychological researchers to reexamine their assumptions about the Asian/Asian American experience as it pertains to anger and aggression. Specifically, this investigation has yielded evidence that many of our assumptions have been inaccurate. Consequently, we should focus on taking the necessary steps to begin anew, to reconsider our perception of Asian Americans as “the model minority,” and to begin to devote more time and resources to developing a greater cross-cultural understanding of the phenomena of anger and aggression, an understanding that is both a prerequisite to successfully addressing these issues when they become problematic for Asian Americans, and a necessary tool in waging more effective battle against the prominent problems of aggression and violence in mainstream American society.

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## Appendix A

Table 1.

Demographics: Ethnicity

	Time 1 N (%)	Time 2 N (%)
Caucasian	110 (55.3%)	41 (56.9%)
Asian/Asian American	89 (44.7%)	31 (43.1%)
Korean	35 (17.6%)	10 (13.9%)
American National	16 (8.0%)	4 (5.6%)
Foreign National	19 (9.5%)	6 (8.3%)
Chinese	28 (14.1%)	15 (20.8%)
American National	19 (9.5%)	12 (16.7%)
Foreign National	9 (4.5%)	3 (4.2%)
Indian	12 (6.0%)	3 (4.2%)
American National	10 (5.0%)	3 (4.2%)
Foreign National	2 (1.0%)	---
Sri Lankan American	1 (0.5%)	---
Bengali American	1 (0.5%)	---
Japanese American	1 (0.5%)	---
Malaysian Foreign National	1 (0.5%)	1 (1.4%)
Cambodian Foreign National	1 (0.5%)	---
Multiple Ethnicities: American	5 (2.5%)	2 (2.8%)
Unspecified Ethnicity: American	4 (2.0%)	---

Table 2.

Demographics: Birthplace

	Time 1 N (%)	Time 2 N (%)
United States of America	150 (75.4%)	54 (75.0%)
Korea	24 (12.1%)	6 (8.3%)
China	7 (3.5%)	4 (5.6%)
Vietnam	2 (1.0%)	1 (1.4%)
Taiwan	4 (2.0%)	2 (2.8%)
India	3 (1.5%)	1 (1.4%)
Hong Kong	2 (1.0%)	1 (1.4%)
Japan	1 (0.5%)	1 (1.4%)
Malaysia	1 (0.5%)	1 (1.4%)
Indonesia	1 (0.5%)	---
Thailand	1 (0.5%)	---
Bangladesh	1 (0.5%)	---
Canada	1 (0.5%)	---
Germany	1 (0.5%)	1 (1.4%)

Table 3.

Demographics: Gender

	Time 1 N (%)	Time 2 N (%)
Total		
Male	61 (30.7%)	28 (38.9%)
Female	138 (69.3%)	44 (61.1%)
Caucasian		
Male	30 (27.3%)	13 (31.7%)
Female	80 (72.7%)	28 (68.3%)
Asian/Asian American		
Male	31 (34.8%)	15 (51.6%)
Female	58 (65.2%)	16 (48.4%)

Table 4.

Internal Consistency of the PDS Total Score: Item-Total Correlations Not Meeting the Criterion for Inclusion

Item (Subscale)	European American (N = 110)	Asian/Asian American (N = 89)
3. I don't care to know what other people really think of me (SDE).	---	$\underline{r} = 0.23^*$
6. When my emotions are aroused, it biases my thinking (SDE).	---	$\underline{r} = 0.24^*$
7. Once I've made up my mind, other people can seldom change my opinion (SDE).	---	$\underline{r} = 0.23^*$
9. I am fully in control of my own fate (SDE).	---	$\underline{r} = 0.10$
10. It's hard for me to shut off a disturbing thought (SDE).	---	$\underline{r} = 0.21^*$
13. The reason I vote is because my vote can make a difference (SDE).	$\underline{r} = 0.06$	---
14. My parents were not always fair when they punished me (SDE).	$\underline{r} = 0.20^*$	---
16. I rarely appreciate criticism (SDE).	---	$\underline{r} = 0.20$
18. I have sometimes doubted my ability as a lover (SDE).	---	$\underline{r} = 0.06$

Item (Subscale)	European American (N = 110)	Asian/Asian American (N = 89)
19. It's all right with me if some people happen to dislike me (SDE).	---	$\underline{r} = 0.23^*$
22. I never cover up my mistakes (IM).	---	$\underline{r} = 0.19$
26. I always obey laws, even if I'm unlikely to get caught (IM).	---	$\underline{r} = 0.20$
30. I always declare everything at customs (IM).	$\underline{r} = 0.18$	$\underline{r} = 0.13$
32. I have never dropped litter on the street (IM).	---	$\underline{r} = 0.19$

---

NOTE: \* =  $p < 0.05$

Table 5.

Internal Consistency of the AAVS-M Total Score: Item-Total Correlations Not Meeting the Criterion for Inclusion

Item	European American (N = 110)	Asian/Asian American (N = 89)
5. One should be able to draw attention to one's accomplishments.	$r = 0.14$	$r = 0.11$
7. One should be able to brag about one's achievements.	$r = 0.17$	---
9. One need not blend in with society.	---	$r = 0.17$
13. Receiving awards for excellence need not reflect well on one's family.	$r = 0.20^*$	$r = 0.23^*$
17. One should not openly talk about one's accomplishments.	$r = 0.22^*$	---
23. Being boastful should not be a sign of one's weakness and insecurity.	$r = 0.18$	$r = 0.13$
25. One's educational success is a sign of personal and familial character.	---	$r = 0.13$
29. One should be expressive with one's feelings.	---	$r = 0.21$
40. Openly expressing one's emotions is a sign of strength.	---	$r = 0.12$
41. One should be able to boast about one's achievement.	$r = 0.20^*$	---

NOTE: \* =  $p < 0.05$

Table 6.

Internal Consistency of the STAXI-2 Scales: Cronbach's Alpha Analyses

	European Americans (N = 110)	Asian/Asian Americans (N = 89)
Trait-Anger	0.86	0.82
State-Anger	0.92	0.94
Anger Expression-Out	0.79	0.69
Anger Expression-In	0.75	0.72
Anger Control-Out	0.84	0.85
Anger Control-In	0.91	0.84

Table 7.

Statistically Significant Correlations (r) between Impression Management (IM) and the Primary Measures of Interest

	Domestically-Born Asian/Asian Americans (N = 40)	Foreign-Born Asian/Asian American (N = 49)	All Asian/ Asian Americans (N = 89)	European Americans (N = 110)
Direct Aggression	---	---	-0.33**	-0.45***
Indirect Aggression	---	---	-0.51***	-0.55***
Trait-Anger	---	---	<u>ns</u>	-0.46***
State-Anger	---	---	<u>ns</u>	-0.24*
Anger Expression-Out	---	---	-0.43***	-0.40***
Anger Expression-In	---	---	<u>ns</u>	-0.35***
Anger Control-Out	---	---	0.37***	0.30**
Anger Control-In	---	---	0.25*	0.27**
Acceptability of Aggression	---	---	-0.29**	-0.36***
Consequences of Aggressing	---	---	<u>ns</u>	<u>ns</u>

	Domestically-Born Asian/Asian Americans (N = 40)	Foreign-Born Asian/Asian American (N = 49)	All Asian/ Asian Americans (N = 89)	European Americans (N = 110)
Asian American Values	---	---	<u>ns</u>	<u>ns</u>
Trait-Anxiety	---	---	<u>ns</u>	-0.46***
State-Anxiety	-0.48**	<u>ns</u>	<u>ns</u>	-0.34***
Modest Responding	---	---	<u>ns</u>	-0.38***

NOTE: \* =  $p < 0.05$ , \*\* =  $p < 0.01$ , \*\*\* =  $p < 0.001$

NOTE: ns = not significant

Table 8.

Statistically Significant Correlations (r) between Modest Responding and the Primary Measures of Interest

	Domestically-Born Asian/Asian Americans (N = 40)	Foreign-Born Asian/Asian American (N = 49)	All Asian/ Asian Americans (N = 89)	European Americans (N = 110)
Direct Aggression	---	---	<u>ns</u>	<u>ns</u>
Indirect Aggression	---	---	<u>ns</u>	0.23*
Trait-Anger	---	---	<u>ns</u>	0.27**
State-Anger	---	---	<u>ns</u>	<u>ns</u>
Anger Expression-Out	---	---	<u>ns</u>	<u>ns</u>
Anger Expression-In	---	---	0.39***	0.56***
Anger Control-Out	---	---	-0.23*	-0.25*
Anger Control-In	---	---	-0.23*	<u>ns</u>
Acceptability of Aggression	---	---	<u>ns</u>	<u>ns</u>
Consequences of Aggressing	---	---	<u>ns</u>	<u>ns</u>

	Domestically-Born Asian/Asian Americans (N = 40)	Foreign-Born Asian/Asian American (N = 49)	All Asian/ Asian Americans (N = 89)	European Americans (N = 110)
Asian American Values	---	---	<u>ns</u>	<u>ns</u>
Trait-Anxiety	---	---	0.61***	0.63***
State-Anxiety	0.51**	<u>ns</u>	0.35**	0.43***
Impression Management	---	---	<u>ns</u>	-0.38***

NOTE: \* =  $p < 0.05$ , \*\* =  $p < 0.01$ , \*\*\* =  $p < 0.001$

NOTE: ns = not significant

Table 9.

Normative Information for the Primary Measures of Interest: Mean (SD), Range of Scores Observed

Measure	Domestically-Born Asian/Asian Americans (N = 40)	Foreign-Born Asian/Asian American (N = 49)	All Asian/ Asian Americans (N = 89)	European Americans (N = 110)
*Impression Management	---	---	43.35 (9.89) range = 25-69	38.58 (9.50) range = 19-63
Modest Responding	---	---	37.69 (7.29) range = 27-64	38.53 (8.09) range = 21-64
**Asian American Values	---	---	82.97 (10.01) range = 58-116	76.37 (10.06) range = 54-110
Direct Aggression	---	---	28.05 (6.99) range = 17-45	27.01 (7.11) range = 15-44
Indirect Aggression	---	---	39.11 (7.73) range = 25-58	39.85 (10.87) range = 26-96
Trait-Anger	---	---	18.56 (4.92) range = 10-34	18.58 (5.25) range = 10-39
State-Anger	---	---	18.94 (6.38) range = 15-54	18.13 (5.49) range = 15-44

Measure	Domestically-Born Asian/Asian Americans (N = 40)	Foreign-Born Asian/Asian American (N = 49)	All Asian/ Asian Americans (N = 89)	European Americans (N = 110)
Anger Expression- Out	---	---	15.15 (3.30) range = 9-23	16.02 (3.96) range = 8-31
Anger Expression- In	---	---	18.46 (4.22) range = 9-31	17.94 (4.49) range = 10-32
Anger Control- Out	---	---	24.01 (4.59) range = 14-32	22.94 (5.01) range = 13-32
Anger Control- In	---	---	23.35 (4.35) range = 15-32	22.22 (5.56) range = 10-32
Acceptability of Aggression	---	---	9.54 (5.22) range = 0-35	8.58 (5.50) range = 0-35
Consequences for Aggressing	---	---	28.85 (6.37) range = 9-40	29.46 (6.30) range = 16-44
Trait-Anxiety	---	---	44.44 (9.63) range = 20-72	43.48 (10.45) range = 23.73
***State-Anxiety	34.71 (9.65) range = 19-60	41.93 (9.29) range = 23-64	---	37.79 (11.68) range = 19-66

NOTE: Tukey's HSD post-hoc tests were used

NOTE: \* =  $F(1, 197) = 11.94, p < 0.01$ ; \*\* =  $F(1, 196) = 21.15, p < 0.001$

NOTE: \*\*\* =  $F(2, 193) = 5.01, p < 0.01$  (where post-hoc tests revealed that only the two Asian/Asian American groups differed significantly)

Table 10.

Descriptive Statistics for the Negative Consequences of Aggressing Scale: European Americans' and Asian/Asian Americans' Scores by Gender

Scale	European American mean (SD)		Asian/Asian American mean (SD)		F		
	Females (N = 80)	Males (N = 30)	Females (N = 58)	Males (N = 31)	Group	Gender	Group X Gender
Severity of Consequences for Aggressing	30.81 (6.05)	25.98 (5.63)	29.06 (6.10)	28.45 (6.94)	0.13	7.67**	4.61*

NOTE: \* =  $p < 0.05$ , \*\* =  $p < 0.01$

Table 11.

Descriptive Statistics for Direct Aggression: European Americans' and Asian/Asian Americans' Scores by Gender

Scale	European American mean (SD)		Asian/Asian American mean (SD)		F		
	Females (N = 80)	Males (N = 30)	Females (N = 58)	Males (N = 31)	Group	Gender	Group X Gender
Direct Aggression	25.39 (6.74)	31.33 (6.28)	27.71 (6.80)	28.68 (7.40)	0.03	10.83**	5.63*

NOTE: \* =  $p < 0.05$ , \*\* =  $p < 0.01$

Table 12.

Descriptive Statistics for Direct Aggression: European Americans' and Asian/Asian Americans' Scores by Age

Scale	European American mean (SD)			Asian/Asian American mean (SD)		F		
	18-19 (N = 50)	20-29 (N = 56)	30+ (N = 4)	18-19 (N = 66)	20-29 (N = 23)	Group	Age	Group X Age
Direct Aggression	27.78 (7.54)	26.41 (6.86)	25.75 (4.86)	27.22 (7.21)	30.43 (5.80)	2.52	0.43	4.42*

NOTE: \* =  $p < 0.05$

Table 13.

Descriptive Statistics for Direct Aggression: European Americans' and Asian/Asian Americans' Scores by Age and Gender

	<u>European American</u>		<u>Asian/Asian American</u>		<u>F</u>	
	Females	Males	Females	Males	Age X Gender	Group X Age X Gender
<u>Age</u>						
18-19						
mean	26.08	33.82	27.46	26.65	0.13	2.20
SD	6.95	6.63	7.08	7.66		
N	39	11	46	20		
20-29						
mean	24.83	30.38	28.67	32.36		
SD	6.62	5.95	5.77	5.43		
N	40	16	12	11		
30+						
mean	21.00	27.33	---	---		
SD	---	4.51	---	---		
N	1	3	0	0		

NOTE: results of F-tests were not significant

Table 14.

Descriptive Statistics for the STAXI-2 Scales: European American and Asian/Asian American by Gender

Scale	European American mean (SD)		Asian/Asian American mean (SD)		F		
	Females (N = 80)	Males (N = 30)	Females (N = 58)	Males (N = 31)	Group	Gender	Group X Gender
State-Anger	18.31 (5.88)	17.63 (4.34)	19.10 (7.08)	18.65 (4.88)	0.97	0.39	0.02
Trait-Anger	18.64 (5.53)	18.43 (4.52)	19.33 (4.73)	17.13 (5.02)	0.15	2.34	1.61
Anger Expression-Out	15.94 (4.34)	16.24 (2.76)	15.74 (3.31)	14.06 (3.04)	4.37*	1.45	2.99
Anger Expression-In	18.15 (4.58)	17.38 (4.26)	19.11 (4.24)	17.32 (4.00)	0.44	3.54	0.55
Anger Control-Out	22.05 (5.12)	25.34 (3.87)	23.33 (4.52)	25.26 (4.52)	0.67	12.79***	0.88
Anger Control-In	21.44 (5.75)	24.31 (4.46)	23.04 (4.37)	23.93 (4.32)	0.61	5.81*	1.60

NOTE: \* =  $p < 0.05$ , \*\*\* =  $p < 0.001$

Table 15.

Descriptive Statistics for the STAXI-2 Scales: European American and Asian/Asian American by Age

Scale	European American mean (SD)			Asian/Asian American mean (SD)		F		
	18-19 (N = 50)	20-29 (N = 56)	30+ (N = 4)	18-19 (N = 66)	20-29 (N = 23)	Group	Age	Group X Age
State-Anger	18.94 (6.07)	17.48 (5.07)	17.00 (1.83)	18.88 (6.72)	19.13 (5.39)	0.74	0.29	0.86
Trait-Anger	19.94 (6.17)	17.59 (4.15)	15.50 (1.73)	18.15 (4.97)	19.74 (4.69)	0.05	0.93	6.35*
Anger Expression-Out	16.86 (4.74)	15.38 (3.10)	14.50 (1.91)	14.78 (3.22)	16.17 (3.37)	1.26	0.38	6.35*
Anger Expression-In	18.20 (4.51)	17.78 (4.60)	17.00 (3.16)	18.69 (4.17)	17.76 (4.38)	0.11	0.56	0.13
Anger Control-Out	22.10 (5.81)	23.41 (4.04)	27.00 (4.55)	24.43 (4.59)	22.83 (4.44)	1.37	1.54	3.79
Anger Control-In	20.78 (5.67)	23.04 (5.11)	28.75 (4.03)	23.97 (4.00)	21.55 (4.92)	1.21	3.79*	9.20**

NOTE: Tukey's HSD post-hoc tests were used

NOTE: \* =  $p < 0.05$ , \*\* =  $p < 0.01$

NOTE: The AC-I marginal mean for the 30+ years age group was significantly greater than the means of the other age groups.

Table 16.  
 Descriptive Statistics for the STAXI-2 Scales: European American and Asian/Asian American by Age and Gender

	European American mean (SD)			Asian/Asian American mean (SD)		F	
	18-19	20-29	30+	18-19	20-29	Gender X Age	Group X Age X Gender
<b>Scale &amp; Gender</b>							
State-Anger						0.01	0.69
Female							
mean	18.82	17.83	18.00	19.17	18.83		
(SD)	6.10	5.77	---	7.40	6.00		
N	39	40	1	46	12		
Male							
mean	19.36	16.63	16.67	18.20	19.45		
(SD)	6.25	2.52	2.08	4.94	4.91		
N	11	16	3	20	11		
Trait-Anger						0.37	2.31
Female							
mean	19.74	17.65	15.00	19.26	19.58		
(SD)	6.52	4.23	---	4.80	4.66		
N	39	40	1	46	12		
Male							
mean	20.64	17.44	15.67	15.60	19.91		
(SD)	4.92	4.07	2.08	4.48	4.95		
N	11	16	3	20	11		

	European American mean (SD)			Asian/Asian American mean (SD)		F	
	18-19	20-29	30+	18-19	20-29	Gender X Age	Group X Age X Gender
<hr/>							
Scale & Gender							
Anger Expression-Out						0.47	0.06
Female							
mean	16.68	15.19	17.00	15.42	16.92		
(SD)	5.19	3.28	---	3.31	3.15		
N	38	39	1	45	12		
Male							
mean	17.45	15.87	13.67	13.35	15.36		
(SD)	2.77	2.61	1.15	2.54	3.56		
N	11	15	3	20	11		
Anger Expression-In						0.82	0.56
Female							
mean	18.39	17.87	20.00	19.45	17.60		
(SD)	4.58	4.68	---	4.02	5.04		
N	38	39	1	44	10		
Male							
mean	17.55	17.53	16.00	17.00	17.91		
(SD)	4.41	4.55	3.00	4.10	3.94		
N	11	15	3	20	11		

	European American mean (SD)			Asian/Asian American mean (SD)		F	
	18-19	20-29	30+	18-19	20-29	Gender X Age	Group X Age X Gender
<hr/>							
Scale & Gender							
<hr/>							
Anger Control-Out						0.45	0.20
Female							
mean	21.37	22.74	21.00	23.80	21.58		
(SD)	5.96	4.18	---	4.59	3.94		
N	38	39	1	45	12		
Male							
mean	24.64	25.13	29.00	25.85	24.18		
(SD)	4.67	3.16	2.65	4.39	4.75		
N	11	15	3	20	11		
Anger Control-In						0.77	1.40
Female							
mean	20.24	22.56	23.00	23.84	19.73		
(SD)	5.95	5.46	---	4.14	3.85		
N	38	39	1	45	11		
Male							
mean	22.64	24.27	30.67	24.26	23.36		
(SD)	4.27	3.95	1.53	3.72	5.35		
N	11	15	3	19	11		

NOTE: none of the  $F$ -tests reported were significant

Table 17.

Mediation of the Relationship between Anger and Direct Aggression

<u>Caucasian</u>	<u>Asian/Asian American</u>
Step #1: Variance in Direct Aggression (Criterion) accounted for by Trait-Anger (Predictor)	
$\underline{F}(5, 104) = 42.86, p < 0.001, \text{Adjusted } R^2 = 0.66, \beta = 0.62$ $R^2\Delta = 0.28, \underline{F}\Delta(1, 104) = 88.00, p < 0.01, \underline{d} = 1.25$	$\underline{F}(5, 82) = 20.07, p < 0.001, \text{Adjusted } R^2 = 0.52, \beta = 0.64$ $R^2\Delta = 0.36, \underline{F}\Delta(1, 82) = 65.86, p < 0.001, \underline{d} = 1.50$
Step #2: Variance in Potential Mediator accounted for by Trait-Anger	
Unacceptability of Aggression	
$\underline{F}(5, 104) = 9.99, p < 0.001, \text{Adjusted } R^2 = 0.29, \beta = 0.37$ $R^2\Delta = 0.10, \underline{F}\Delta(1, 104) = 15.24, p < 0.001, \underline{d} = 0.67$	$\underline{F}(5, 81) = 6.13, p < 0.001, \text{Adjusted } R^2 = 0.23, \beta = 0.41$ $R^2\Delta = 0.15, \underline{F}\Delta(1, 81) = 16.34, p < 0.001, \underline{d} = 0.84$
Unacceptability X Anger	
$\underline{F}(5, 104) = 26.67, p < 0.001, \text{Adjusted } R^2 = 0.54, \beta = 0.66$ $R^2\Delta = 0.31, \underline{F}\Delta(1, 104) = 72.42, p < 0.001, \underline{d} = 1.34$	$\underline{F}(5, 81) = 16.45, p < 0.001, \text{Adjusted } R^2 = 0.47, \beta = 0.67$ $R^2\Delta = 0.39, \underline{F}\Delta(1, 81) = 63.72, p < 0.001, \underline{d} = 1.60$
Consequences for Aggressing	
$\underline{F}(5, 97) = 3.35, p < 0.01, \text{Adjusted } R^2 = 0.10, \beta = -0.03$ $R^2\Delta = 0.00, \underline{F}\Delta(1, 97) = 0.09, p > 0.05, \underline{d} = 0.00$	$\underline{F}(5, 74) = 0.34, p > 0.05, \text{Adjusted } R^2 = -0.04, \beta = -0.12,$ $R^2\Delta = 0.01, \underline{F}\Delta(1, 74) = 0.86, p > 0.05, \underline{d} = 0.20$

CaucasianAsian/Asian American

## Consequences X Anger

$$\underline{F}(5, 97) = 31.58, \underline{p} < 0.001, \text{Adjusted } R^2 = 0.60, \beta = 0.77$$

$$R^2\Delta = 0.42, \underline{F}\Delta(1, 97) = 106.40, \underline{p} < 0.001, \underline{d} = 1.70$$

$$\underline{F}(5, 74) = 15.90, \underline{p} < 0.001, \text{Adjusted } R^2 = 0.49, \beta = 0.71$$

$$R^2\Delta = 0.43, \underline{F}\Delta(1, 74) = 66.68, \underline{p} < 0.001, \underline{d} = 1.74$$

## Step #3: Variance in Direct Aggression accounted for by Potential Mediator

## Unacceptability of Aggression

$$\underline{F}(5, 104) = 19.45, \underline{p} < 0.001, \text{Adjusted } R^2 = 0.46, \beta = 0.33$$

$$R^2\Delta = 0.09, \underline{F}\Delta(1, 104) = 17.38, \underline{p} < 0.001, \underline{d} = 0.63$$

$$\underline{F}(5, 81) = 8.69, \underline{p} < 0.001; \text{Adjusted } R^2 = 0.31, \beta = 0.42$$

$$R^2\Delta = 0.16, \underline{F}\Delta(1, 81) = 19.30, \underline{p} < 0.001, \underline{d} = 0.87$$

## Unacceptability X Anger

$$\underline{F}(5, 104) = 26.29, \underline{p} < 0.001, \text{Adjusted } R^2 = 0.54, \beta = 0.47$$

$$R^2\Delta = 0.16, \underline{F}\Delta(1, 104) = 38.01, \underline{p} < 0.001, \underline{d} = 0.87$$

$$\underline{F}(5, 81) = 12.56, \underline{p} < 0.001, \text{Adjusted } R^2 = 0.40, \beta = 0.53$$

$$R^2\Delta = 0.25, \underline{F}\Delta(1, 81) = 35.32, \underline{p} < 0.001, \underline{d} = 1.15$$

## Consequences X Anger

$$\underline{F}(5, 97) = 19.38, \underline{p} < 0.001, \text{Adjusted } R^2 = 0.47, \beta = 0.37$$

$$R^2\Delta = 0.11, \underline{F}\Delta(1, 97) = 21.58, \underline{p} < 0.001, \underline{d} = 0.70$$

$$\underline{F}(5, 74) = 6.24, \underline{p} < 0.001, \text{Adjusted } R^2 = 0.25, \beta = 0.37$$

$$R^2\Delta = 0.13, \underline{F}\Delta(1, 74) = 13.38, \underline{p} < 0.001, \underline{d} = 0.77$$

CaucasianAsian/Asian American

Step #4: Test of Mediation- effect of Trait-Anger once Potential Mediator is accounted for:

## Unacceptability of Aggression

$$\underline{F}(6, 103) = 37.53, p < 0.001, \text{Adjusted } R^2 = 0.67, \beta = 0.57$$

$$R^2\Delta = 0.20, \underline{F}\Delta(1, 103) = 66.60, p < 0.001, \underline{d} = 1.00$$

$$\underline{F}(6, 80) = 18.50, p < 0.001, \text{Adjusted } R^2 = 0.55, \beta = 0.57$$

$$R^2\Delta = 0.23, \underline{F}\Delta(1, 80) = 44.77, p < 0.001, \underline{d} = 1.09$$

## Unacceptability X Anger

$$\underline{F}(6, 103) = 36.55, p < 0.001, \text{Adjusted } R^2 = 0.66, \beta = 0.54$$

$$R^2\Delta = 0.12, \underline{F}\Delta(1, 103) = 39.37, p < 0.001, \underline{d} = 0.74$$

$$\underline{F}(6, 80) = 17.76, p < 0.001, \text{Adjusted } R^2 = 0.54, \beta = 0.53$$

$$R^2\Delta = 0.14, \underline{F}\Delta(1, 80) = 25.11, p < 0.001, \underline{d} = 0.81]$$

## Consequences X Anger

$$\underline{F}(6, 96) = 32.65, p < 0.001, \text{Adjusted } R^2 = 0.65, \beta = 0.71$$

$$R^2\Delta = 0.17, \underline{F}\Delta(1, 96) = 50.03, p < 0.001, \underline{d} = 0.91$$

$$\underline{F}(6, 73) = 13.77, p < 0.001, \text{Adjusted } R^2 = 0.49, \beta = 0.72$$

$$R^2\Delta = 0.23, \underline{F}\Delta(1, 73) = 36.46, p < 0.001, \underline{d} = 1.09$$

NOTE: The following covariates were entered into each model: age, gender, impression management and modest responding.

NOTE: Results of later steps reported only when the results for the preceding step were significant.

Table 18.

Mediation of the Relationship between Anger and Indirect Aggression

<u>Caucasian</u>	<u>Asian/Asian American</u>
Step #1: Variance in Indirect Aggression (Criterion) accounted for by Trait-Anger (Predictor)	
$\underline{F}(5, 104) = 30.20, p < 0.001, \text{Adjusted } R^2 = 0.57, \beta = 0.51$ $R^2\Delta = 0.19, \underline{F}\Delta(1, 104) = 47.38, p < 0.001, \underline{d} = 0.97$	$\underline{F}(5, 82) = 7.95, p < 0.001, \text{Adjusted } R^2 = 0.29, \beta = 0.25$ $R^2\Delta = 0.05, \underline{F}\Delta(1, 82) = 6.42, p < 0.05, \underline{d} = 0.46$
Step #2: Variance in Potential Mediator accounted for by Trait-Anger	
Unacceptability of Aggression	
$\underline{F}(5, 104) = 9.99, p < 0.001, \text{Adjusted } R^2 = 0.29, \beta = 0.37$ $R^2\Delta = 0.10, \underline{F}\Delta(1, 104) = 15.24, p < 0.001, \underline{d} = 0.67$	$\underline{F}(5, 81) = 6.13, p < 0.001, \text{Adjusted } R^2 = 0.23, \beta = 0.41$ $R^2\Delta = 0.15, \underline{F}\Delta(1, 81) = 16.34, p < 0.001, \underline{d} = 0.84$
Unacceptability X Anger	
$\underline{F}(5, 104) = 26.67, p < 0.001, \text{Adjusted } R^2 = 0.54, \beta = 0.66$ $R^2\Delta = 0.31, \underline{F}\Delta(1, 104) = 72.42, p < 0.001, \underline{d} = 1.34$	$\underline{F}(5, 81) = 16.45, p < 0.001, \text{Adjusted } R^2 = 0.47, \beta = 0.67$ $R^2\Delta = 0.39, \underline{F}\Delta(1, 81) = 63.72, p < 0.001, \underline{d} = 1.60$
Consequences for Aggressing	
$\underline{F}(5, 97) = 3.35, p < 0.01, \text{Adjusted } R^2 = 0.10, \beta = -0.03$ $R^2\Delta = 0.00, \underline{F}\Delta(1, 97) = 0.09, p > 0.05, \underline{d} = 0.00$	$\underline{F}(5, 74) = 0.34, p > 0.05, \text{Adjusted } R^2 = -0.04, \beta = -0.12,$ $R^2\Delta = 0.01, \underline{F}\Delta(1, 74) = 0.86, p > 0.05, \underline{d} = 0.20$

CaucasianAsian/Asian American

## Consequences X Anger

$$\underline{F}(5, 97) = 31.58, \underline{p} < 0.001, \text{Adjusted } R^2 = 0.60, \beta = 0.77$$

$$R^2\Delta = 0.42, \underline{F}\Delta(1, 97) = 106.40, \underline{p} < 0.001, \underline{d} = 1.70$$

$$\underline{F}(5, 74) = 15.90, \underline{p} < 0.001, \text{Adjusted } R^2 = 0.49, \beta = 0.71$$

$$R^2\Delta = 0.43, \underline{F}\Delta(1, 74) = 66.68, \underline{p} < 0.001, \underline{d} = 1.74$$

## Step #3: Variance in Indirect Aggression accounted for by Potential Mediator

## Unacceptability of Aggression

$$\underline{F}(5, 104) = 23.24, \underline{p} < 0.001, \text{Adjusted } R^2 = 0.51, \beta = 0.40$$

$$R^2\Delta = 0.12, \underline{F}\Delta(1, 104) = 26.70, \underline{p} < 0.001, \underline{d} = 0.74$$

$$\underline{F}(5, 81) = 7.55, \underline{p} < 0.001, \text{Adjusted } R^2 = 0.28, \beta = 0.22$$

$$R^2\Delta = 0.04, \underline{F}\Delta(1, 81) = 5.11, \underline{p} < 0.05, \underline{d} = 0.41$$

## Unacceptability X Anger

$$\underline{F}(5, 104) = 34.67, \underline{p} < .001, \text{Adjusted } R^2 = 0.61, \beta = 0.54$$

$$R^2\Delta = 0.22, \underline{F}\Delta(1, 104) = 60.66, \underline{p} < 0.001, \underline{d} = 1.06$$

$$\underline{F}(5, 81) = 7.69, \underline{p} < 0.001, \text{Adjusted } R^2 = 0.28, \beta = 0.23.$$

$$R^2\Delta = 0.05; \underline{F}\Delta(1, 81) = 5.62, \underline{p} < 0.05; \underline{d} = 0.46$$

## Consequences X Anger

$$\underline{F}(5, 97) = 14.03, \underline{p} < 0.001, \text{Adjusted } R^2 = 0.39, \beta = 0.17$$

$$R^2\Delta = 0.02, \underline{F}\Delta(1, 97) = 3.94, \underline{p} < 0.06, \underline{d} = 0.29$$

$$\underline{F}(5, 74) = 5.76, \underline{p} < 0.001, \text{Adjusted } R^2 = 0.23, \beta = 0.17$$

$$R^2\Delta = 0.03, \underline{F}\Delta(1, 74) = 2.70, \underline{p} > 0.05, \underline{d} = 0.35$$

CaucasianAsian/Asian American

Step #4: Test of Mediation- effect of Trait-Anger once Potential Mediator is accounted for:

## Unacceptability of Aggression

$\underline{F}(6, 103) = 29.91, p < 0.001, \text{Adjusted } R^2 = 0.61, \beta = 0.42$   
 $R^2\Delta = 0.11, \underline{F}\Delta(1, 103) = 30.43, p < 0.001, \underline{d} = 0.70$

$\underline{F}(6, 80) = 6.98, p < 0.001, \text{Adjusted } R^2 = 0.29, \beta = 0.19$   
 $R^2\Delta = 0.03, \underline{F}\Delta(1, 80) = 3.15, p > 0.05, \underline{d} = 0.35$

## Unacceptability X Anger

$\underline{F}(6, 103) = 32.50, p < 0.001, \text{Adjusted } R^2 = 0.63, \beta = 0.26$   
 $R^2\Delta = 0.03, \underline{F}\Delta(1, 103) = 8.73, p < 0.01, \underline{d} = 0.35$

$\underline{F}(6, 80) = 6.74, p < 0.001, \text{Adjusted } R^2 = 0.29, \beta = 0.17$   
 $R^2\Delta = 0.01, \underline{F}\Delta(1, 80) = 1.66, p > 0.05, \underline{d} = .20$

## Consequences X Anger

$\underline{F}(6, 96) = 26.72, p < 0.001, \text{Adjusted } R^2 = 0.60, \beta = 0.78$   
 $R^2\Delta = 0.21, \underline{F}\Delta(1, 96) = 52.74, p < 0.001, \underline{d} = 1.03$

NA

NOTE: The following covariates were entered into each model: age, gender, impression management and modest responding.

NOTE: Results of later steps reported only when the results for the preceding step were significant.

## Appendix B

## Demographics Questionnaire

1. *Age*: \_\_\_\_\_

2. *Gender* (Please, place an “X” next to the appropriate response):

\_\_\_\_\_ Male

\_\_\_\_\_ Female

3. *Native Language Familiarity*: How well do you read in your native language (Circle one)?

Very Well

1

2

3

Poorly

4

4. *English Familiarity*: How well do you read in English (Circle one)?

Very Well

1

2

3

Poorly

4

5. *Citizenship* (Please, place an “X” next to the appropriate response):

\_\_\_\_\_ United States Citizen

\_\_\_\_\_ Foreign National

If you are **NOT** a United States Citizen, please indicate the **name** of the country where you have legal citizenship:

\_\_\_\_\_

If you are **NOT** a United States Citizen, please indicate the **year** in which you first came to reside in the United States:

\_\_\_\_\_

6. *Birthplace* (Please, place an “X” next to country in which you were born):

\_\_\_\_\_ United States

\_\_\_\_\_ Canada

\_\_\_\_\_ Mexico

\_\_\_\_\_ Other

If your response is “*Other*”, please indicate the *name* of the country in which you were born:

\_\_\_\_\_

If your response is “*Other*”, please indicate the *year* in which you first came to reside in the United States:

\_\_\_\_\_

7. *Generation* (Please, place an “X” next to the statement that best describes you):

\_\_\_\_\_ First-Generation American (you were born outside of the United States)

\_\_\_\_\_ Second-Generation American (you were born in the United States; either parent was born in another country-of-origin)

\_\_\_\_\_ Third-Generation American (you and both parents were born in the United States; *all* grandparents were born in another *country-of-origin*)

\_\_\_\_\_ Fourth-Generation American (you and both parents were born in the United States; *not* all of your grandparents were born in the *United States*)

\_\_\_\_\_ “Fifth-Generation +” American (you, both parents, and all grandparents were born in the United States)

\_\_\_\_\_ Other (Please, describe): \_\_\_\_\_

8. *Ethnicity*:

\_\_\_\_\_ Caucasian (White)

\_\_\_\_\_ African American

\_\_\_\_\_ Latino(a)

\_\_\_\_\_ Asian American/Pacific Islander

\_\_\_\_\_ Native American

\_\_\_\_\_ Korean

\_\_\_\_\_ Japanese

\_\_\_\_\_ Chinese

\_\_\_\_\_ Other (Please, specify): \_\_\_\_\_

9. *Specific Ethnic Background*- Please indicate any specific, ethnic group(s) to which you belong (e.g., German American, Italian American, Mexican American, Cuban American, Japanese American, Korean American):

\_\_\_\_\_

## Appendix C

## Paulhus Deception Scales (Paulhus, 1991)

**Directions:** Using the scale below, write a number beside each statement to indicate how much you agree with it.

1 = Not True  
 2 = Somewhat Untrue  
 3 = Somewhat True  
 4 = Very True

- \_\_\_\_\_ 1. My first impressions of people usually turn out to be right.
- \_\_\_\_\_ 2. It would be hard for me to break any of my bad habits. \*
- \_\_\_\_\_ 3. I don't care to know what other people really think of me.
- \_\_\_\_\_ 4. I have not always been honest with myself. \*
- \_\_\_\_\_ 5. I always know why I like things.
- \_\_\_\_\_ 6. When my emotions are aroused, it biases my thinking. \*
- \_\_\_\_\_ 7. Once I've made up my mind, other people can seldom change my opinion.
- \_\_\_\_\_ 8. I am not a safe driver when I exceed the speed limit. \*
- \_\_\_\_\_ 9. I am fully in control of my own fate.
- \_\_\_\_\_ 10. It's hard for me to shut off a disturbing thought. \*
- \_\_\_\_\_ 11. I never regret my decisions.
- \_\_\_\_\_ 12. I sometimes lose out on things because I can't make up my mind soon enough. \*
- \_\_\_\_\_ 13. The reason I vote is because my vote can make a difference.
- \_\_\_\_\_ 14. My parents were not always fair when they punished me. \*
- \_\_\_\_\_ 15. I am a completely rational person.
- \_\_\_\_\_ 16. I rarely appreciate criticism. \*

1 = Not True  
2 = Somewhat Untrue  
3 = Somewhat True  
4 = Very True

- \_\_\_\_\_ 17. I am very confident of my judgments.
- \_\_\_\_\_ 18. I have sometimes doubted my ability as a lover. \*
- \_\_\_\_\_ 19. It's all right with me if some people happen to dislike me.
- \_\_\_\_\_ 20. I don't always know the reasons why I do the things I do. \*
- \_\_\_\_\_ 21. I sometimes tell lies if I have to. \*
- \_\_\_\_\_ 22. I never cover up my mistakes.
- \_\_\_\_\_ 23. There have been occasions when I have taken advantage of someone. \*
- \_\_\_\_\_ 24. I never swear.
- \_\_\_\_\_ 25. I sometimes try to get even rather than forgive and forget. \*
- \_\_\_\_\_ 26. I always obey laws, even if I'm unlikely to get caught.
- \_\_\_\_\_ 27. I have said something bad about a friend behind his or her back. \*
- \_\_\_\_\_ 28. When I hear people talking privately, I avoid listening.
- \_\_\_\_\_ 29. I have received too much change from a salesperson without telling him or her. \*
- \_\_\_\_\_ 30. I always declare everything at customs.
- \_\_\_\_\_ 31. When I was young I sometimes stole things. \*
- \_\_\_\_\_ 32. I have never dropped litter on the street.
- \_\_\_\_\_ 33. I sometimes drive faster than the speed limit. \*
- \_\_\_\_\_ 34. I never read sexy books or magazines.
- \_\_\_\_\_ 35. I have done things that I don't tell other people about. \*
- \_\_\_\_\_ 36. I never take things that don't belong to me.

- 1 = Not True
- 2 = Somewhat Untrue
- 3 = Somewhat True
- 4 = Very True

\_\_\_\_\_ 37. I have taken sick-leave from work or school even though I wasn't really sick. \*

\_\_\_\_\_ 38. I have never damaged a library book or store merchandise without reporting it.

\_\_\_\_\_ 39. I have some pretty awful habits. \*

\_\_\_\_\_ 40. I don't gossip about other people's business.

NOTE: Sum of Items (1-20) + 1 point for each response of "4" made to one of these items = Self-Deceptive Enhancement (SDE) Scale Total; Sum of Items (21-40) + 1 point for each response of "4" made to one of these items = Impression Management (IM) Scale Total.

NOTE: \* = Reverse Scored Item.

## Appendix D

Asian American Values Scale- Multidimensional (AAVS-M: Kim, Li, & Ng, 2005)

**Directions:** Please indicate how much you agree with each statement below, using the response choices provided below.

1 = Strongly Disagree

2 = Disagree

3 = Agree

4 = Strongly Agree

- \_\_\_\_\_ 1. One need not always consider the needs of the group first. \*
- \_\_\_\_\_ 2. One should recognize and adhere to the social expectations, norms, and practices.
- \_\_\_\_\_ 3. Succeeding occupationally is an important way of making one's family proud.
- \_\_\_\_\_ 4. It is more important to behave appropriately than to act on what one is feeling.
- \_\_\_\_\_ 5. One should be able to draw attention to one's accomplishments. \*
- \_\_\_\_\_ 6. It is one's duty to bring praise through achievement to one's family.
- \_\_\_\_\_ 7. One should be able to brag about one's achievements. \*
- \_\_\_\_\_ 8. Failing academically brings shame to one's family.
- \_\_\_\_\_ 9. One need not blend in with society. \*
- \_\_\_\_\_ 10. One should achieve academically since it reflects on one's family.
- \_\_\_\_\_ 11. Conforming to norms provides order in the community.
- \_\_\_\_\_ 12. One should not express strong emotions.
- \_\_\_\_\_ 13. Receiving awards for excellence need not reflect well on one's family. \*

- 1 = Strongly Disagree  
2 = Disagree  
3 = Agree  
4 = Strongly Agree

\_\_\_\_\_ 14. One should go as far as one can academically and professionally on behalf of one's family.

\_\_\_\_\_ 15. One should not sing one's own praises.

\_\_\_\_\_ 16. One should work hard so that one won't be a disappointment to one's family.

\_\_\_\_\_ 17. One should not openly talk about one's accomplishments.

\_\_\_\_\_ 18. One's personal needs should be second to the needs of the group.

\_\_\_\_\_ 19. Getting into a good school reflects well on one's family.

\_\_\_\_\_ 20. One's efforts should be directed toward maintaining the well-being of the group first and the individual second.

\_\_\_\_\_ 21. The group should be less important than the individual. \*

\_\_\_\_\_ 22. One should not do something that is outside of the norm.

\_\_\_\_\_ 23. Being boastful should not be a sign of one's weakness and insecurity. \*

\_\_\_\_\_ 24. One should not act based on emotions.

\_\_\_\_\_ 25. One's educational success is a sign of personal and familial character.

\_\_\_\_\_ 26. One's emotional needs are less important than fulfilling one's responsibilities.

\_\_\_\_\_ 27. One need not sacrifice oneself for the benefit of the group. \*

\_\_\_\_\_ 28. It is better to show emotions than to suffer quietly. \*

\_\_\_\_\_ 29. One should be expressive with one's feelings. \*

- 1 = Strongly Disagree  
2 = Disagree  
3 = Agree  
4 = Strongly Agree

- \_\_\_\_\_ 30. Children's achievements need not bring honor to their parents. \*
- \_\_\_\_\_ 31. Making achievements is an important way to show one's appreciation for one's family.
- \_\_\_\_\_ 32. The needs of the community should supercede those of the individual.
- \_\_\_\_\_ 33. One should adhere to the values, beliefs, and behaviors that one's society considers normal and acceptable.
- \_\_\_\_\_ 34. Academic achievement should be highly valued among family members.
- \_\_\_\_\_ 35. Conforming to norms provides one with identity.
- \_\_\_\_\_ 36. It is better to hold one's emotions inside than to burden others by expressing them.
- \_\_\_\_\_ 37. Conforming to norms is the safest path to travel.
- \_\_\_\_\_ 38. One's achievement and status reflect on the whole family.
- \_\_\_\_\_ 39. The welfare of the group should be put before that of the individual.
- \_\_\_\_\_ 40. Openly expressing one's emotions is a sign of strength. \*
- \_\_\_\_\_ 41. One should be able to boast about one's achievement. \*
- \_\_\_\_\_ 42. One's academic and occupational reputation reflects the family's reputation.

NOTE: Sum of Items 1 - 42 = Total Values Score.

NOTE: \* = Reverse Scored Items.

## Appendix E

## The Aggression Questionnaire (AQ: Buss &amp; Perry, 1992)

**Directions:** A number of statements which people have used to describe themselves and their beliefs are given below. Please read each statement and then write the number that best indicates how well you feel each statement characterizes you/your beliefs. There are no right or wrong answers. Just give your immediate impressions.

- 1 = Not At All Characteristic  
 2 = Only a Little Characteristic  
 3 = Relatively Characteristic  
 4 = Extremely Characteristic

- \_\_\_\_\_ 1. I sometimes feel that people are laughing at me behind my back.
- \_\_\_\_\_ 2. When people are especially nice, I wonder what they want.
- \_\_\_\_\_ 3. My friends say that I'm somewhat argumentative.
- \_\_\_\_\_ 4. When people annoy me, I may tell them what I think of them.
- \_\_\_\_\_ 5. I can think of no good reason for ever hitting a person. \*
- \_\_\_\_\_ 6. I often find myself disagreeing with people.
- \_\_\_\_\_ 7. Once in a while I can't control the urge to strike another person.
- \_\_\_\_\_ 8. I am sometimes eaten up with jealousy.
- \_\_\_\_\_ 9. I sometimes feel like a powder keg ready to explode.
- \_\_\_\_\_ 10. I tell my friends openly when I disagree with them.
- \_\_\_\_\_ 11. I have threatened people I know.
- \_\_\_\_\_ 12. I have trouble controlling my temper.
- \_\_\_\_\_ 13. I wonder why sometimes I feel so bitter about things.
- \_\_\_\_\_ 14. When frustrated, I let my irritation show.
- \_\_\_\_\_ 15. Given enough provocation, I may hit another person.
- \_\_\_\_\_ 16. Some of my friends think I'm a hothead.

- 1 = Not At All Characteristic of Me  
2 = Only a Little Characteristic of Me  
3 = Relatively Characteristic of Me  
4 = Extremely Characteristic of Me

- \_\_\_\_\_ 17. I can't help getting into arguments when people disagree with me.
- \_\_\_\_\_ 18. At times I feel I have gotten a raw deal out of life.
- \_\_\_\_\_ 19. If somebody hits me, I hit back.
- \_\_\_\_\_ 20. There are people who pushed me so far that we came to blows.
- \_\_\_\_\_ 21. Other people always seem to get the breaks.
- \_\_\_\_\_ 22. I am suspicious of overly friendly strangers.
- \_\_\_\_\_ 23. I know that "friends" talk about me behind my back.
- \_\_\_\_\_ 24. I flare up quickly but get over it quickly.
- \_\_\_\_\_ 25. I have become so mad that I have broken things.
- \_\_\_\_\_ 26. I get into fights a little more than the average person.
- \_\_\_\_\_ 27. I am an even-tempered person. \*
- \_\_\_\_\_ 28. If I have to resort to violence to protect my rights, I will.
- \_\_\_\_\_ 29. Sometimes I fly off the handle for no good reason.

NOTE: Sum of Items 3, 4, 5, 6, 7, 10, 11, 15, 17, 19, 20, 25, 26 & 28 = Physical Aggression + Verbal Aggression = Total Direct Aggression Score.

NOTE: \* = Reverse Scored Item.

## Appendix F

Indirect Aggression Scale- Aggressor version (IAS: Forrest, Eatough, & Shevlin, 2005)

**Directions:** Please indicate how often you have used each behavior against another person in the *past year* using the response choices provided below.

- 1 = Never  
 2 = Once or Twice  
 3 = Often  
 4 = Regularly

- \_\_\_\_\_ 1. Used my relationship with them to try and get them to change a decision
- \_\_\_\_\_ 2. Used sarcasm to insult them
- \_\_\_\_\_ 3. Tried to influence them by making them feel guilty
- \_\_\_\_\_ 4. Withheld information from them that the rest of the group is let in on
- \_\_\_\_\_ 5. Purposefully left them out of activities
- \_\_\_\_\_ 6. Made other people not talk to them
- \_\_\_\_\_ 7. Excluded them from a group
- \_\_\_\_\_ 8. Used their feelings to coerce them
- \_\_\_\_\_ 9. Made negative comments about their physical appearance
- \_\_\_\_\_ 10. Used private in-jokes to exclude them
- \_\_\_\_\_ 11. Used emotional blackmail on them
- \_\_\_\_\_ 12. Imitated them in front of others
- \_\_\_\_\_ 13. Spread rumours about them
- \_\_\_\_\_ 14. Played a nasty practical joke on them
- \_\_\_\_\_ 15. Done something to try and make them look stupid
- \_\_\_\_\_ 16. Pretended to be hurt and/or angry with them to make them feel bad about  
 him/her-self

- 1 = Never
- 2 = Once or Twice
- 3 = Often
- 4 = Regularly

- \_\_\_\_\_ 17. Made them feel that they don't fit in
- \_\_\_\_\_ 18. Intentionally embarrassed them around others
- \_\_\_\_\_ 19. Stopped talking to them
- \_\_\_\_\_ 20. Put undue pressure on them
- \_\_\_\_\_ 21. Omitted them from conversations on purpose
- \_\_\_\_\_ 22. Made fun of them in public
- \_\_\_\_\_ 23. Called them names
- \_\_\_\_\_ 24. Criticized them in public
- \_\_\_\_\_ 25. Turned other people against them

NOTE: Sum of Items 1 - 25 = Total Indirect Aggression Score.

## Appendix G

## The State-Trait Anger Expression Inventory-2 (Spielberger, 1999)

Part 1: A number of statements that people use to describe themselves are given below. Read each statement and then indicate how you feel *right now*, using the scale below:

- 1 = Not at all
- 2 = Somewhat
- 3 = Moderately so
- 4 = Very much so

- \_\_\_\_\_ 1. I am furious.
- \_\_\_\_\_ 2. I feel irritated.
- \_\_\_\_\_ 3. I feel angry.
- \_\_\_\_\_ 4. I feel like yelling at somebody.
- \_\_\_\_\_ 5. I feel like breaking things.
- \_\_\_\_\_ 6. I am mad.
- \_\_\_\_\_ 7. I feel like banging on the table.
- \_\_\_\_\_ 8. I feel like hitting someone.
- \_\_\_\_\_ 9. I feel like swearing.
- \_\_\_\_\_ 10. I feel annoyed.
- \_\_\_\_\_ 11. I feel like kicking somebody.
- \_\_\_\_\_ 12. I feel like cursing out loud.
- \_\_\_\_\_ 13. I feel like screaming.
- \_\_\_\_\_ 14. I feel like pounding somebody.
- \_\_\_\_\_ 15. I feel like shouting out loud.

NOTE: Sum of Items 1-15 = State-Anger Total.

Part 2: Read each of the following statements that people have used to describe themselves, and then indicate how you *generally* feel or react, using the scale below:

- 1 = Almost never
- 2 = Sometimes
- 3 = Often
- 4 = Almost always

- \_\_\_\_\_ 16. I am quick tempered.
- \_\_\_\_\_ 17. I have a fiery temper.
- \_\_\_\_\_ 18. I am a hotheaded person.
- \_\_\_\_\_ 19. I get angry when I'm slowed down by others' mistakes.
- \_\_\_\_\_ 20. I feel annoyed when I am not given recognition for doing good work.
- \_\_\_\_\_ 21. I fly off the handle.
- \_\_\_\_\_ 22. When I get mad, I say nasty things.
- \_\_\_\_\_ 23. It makes me furious when I am criticized in front of others.
- \_\_\_\_\_ 24. When I get frustrated, I feel like hitting someone.
- \_\_\_\_\_ 25. I feel infuriated when I go a good job and get a poor evaluation.

NOTE: Sum of Items 16-25= Trait-Anger Total.

Part 3: Everyone feels angry or furious from time to time, but people differ in the ways that they react when they are angry. A number of statements are listed below which people use to describe their reactions when they feel *angry* or *furious*. Read each statement and then indicate how *often* you *generally* react or behave in the manner described when you are feeling angry or furious, using the scale below:

- 1 = Almost never
- 2 = Sometimes
- 3 = Often
- 4 = Almost always

- \_\_\_\_\_ 26. I control my temper.
- \_\_\_\_\_ 27. I express my anger.
- \_\_\_\_\_ 28. I take a deep breath and relax.
- \_\_\_\_\_ 29. I keep things in.
- \_\_\_\_\_ 30. I am patient with others.
- \_\_\_\_\_ 31. If someone annoys me, I'm apt to tell him or her how I feel.
- \_\_\_\_\_ 32. I try to calm myself as soon as possible.
- \_\_\_\_\_ 33. I pout or sulk.
- \_\_\_\_\_ 34. I control my urge to express my angry feelings.
- \_\_\_\_\_ 35. I lose my temper.
- \_\_\_\_\_ 36. I try to simmer down.
- \_\_\_\_\_ 37. I withdraw from people.
- \_\_\_\_\_ 38. I keep my cool.
- \_\_\_\_\_ 39. I make sarcastic remarks to others.
- \_\_\_\_\_ 40. I try to soothe my angry feelings.
- \_\_\_\_\_ 41. I boil inside, but I don't show it.
- \_\_\_\_\_ 42. I control my behavior.
- \_\_\_\_\_ 43. I do things like slam doors.

- 1 = Almost never
- 2 = Sometimes
- 3 = Often
- 4 = Almost always

- \_\_\_\_\_ 44. I endeavor to become calm again.
- \_\_\_\_\_ 45. I tend to harbor grudges that I don't tell anyone about.
- \_\_\_\_\_ 46. I can stop myself from losing my temper.
- \_\_\_\_\_ 47. I argue with others.
- \_\_\_\_\_ 48. I reduce my anger as soon as possible.
- \_\_\_\_\_ 49. I am secretly quite critical of others.
- \_\_\_\_\_ 50. I try to be tolerant and understanding.
- \_\_\_\_\_ 51. I strike out at whatever infuriates me.
- \_\_\_\_\_ 52. I do something relaxing to calm down.
- \_\_\_\_\_ 53. I am angrier than I am willing to admit.
- \_\_\_\_\_ 54. I control my angry feelings.
- \_\_\_\_\_ 55. I say nasty things.
- \_\_\_\_\_ 56. I try to relax.
- \_\_\_\_\_ 57. I'm irritated a great deal more than people are aware of.

NOTE: Sum of Items 27, 31, 35, 39, 43, 47, 51 & 55= AX-O; Sum of Items 29, 33, 37, 41, 45, 49, 53 & 57= AX-I; Sum of Items 26, 30, 34, 38, 42, 46, 50 & 54= AC-O; Sum of Items 28, 32, 36, 40, 44, 48, 52 & 56= AC-I.

Appendix H

Norms and Negative Consequences of Aggression

1a. To threaten to stop being friends with someone after a quarrel is...

Totally OK	Somewhat OK	Not Really OK	Not At All OK
3	2	1	0

1b. My opinion about the extent to which this is OK is \_\_\_\_\_ **influenced by** what I have learned from: (Please, respond to **EACH** using the following **1-10 scale**)

1 = Not at all to 10 = Extraordinarily

\_\_\_\_\_ My culture      \_\_\_\_\_ My religion      \_\_\_\_\_ My parents  
 \_\_\_\_\_ My experiences      \_\_\_\_\_ Other (Describe): \_\_\_\_\_

1c. If I were to threaten to stop being friends with someone after a quarrel, the negative consequences I would experience would be...

Extremely Severe	Somewhat Severe	Not Really Severe	Not At All Severe
3	2	1	0

1d. How significant would **EACH** of the following negative consequences for engaging in this behavior be **on a 1-10 scale**?

1 = Not at all Severe to 10 = Extremely Severe

\_\_\_\_\_ Others would avoid/exclude me      \_\_\_\_\_ I would lose others' respect  
 \_\_\_\_\_ I would be criticized      \_\_\_\_\_ I would lose self-respect  
 \_\_\_\_\_ I would feel embarrassed      \_\_\_\_\_ I would lose others' esteem  
 \_\_\_\_\_ I would feel sad      \_\_\_\_\_ I would lose self-esteem  
 \_\_\_\_\_ I would feel afraid      \_\_\_\_\_ I would have legal problems  
 \_\_\_\_\_ I would feel guilty      \_\_\_\_\_ Others would be ashamed of me  
 \_\_\_\_\_ I would have a moral conflict      \_\_\_\_\_ I would be ashamed of myself  
 \_\_\_\_\_ I would have a spiritual conflict/problem  
 \_\_\_\_\_ I would suffer negative consequences in the afterlife/next life  
 \_\_\_\_\_ The person in question would attempt to "get back" at me in some way  
 \_\_\_\_\_ Other (Please, describe): \_\_\_\_\_

2a. To threaten to beat another person up who has made one angry is...

Totally OK	Somewhat OK	Not Really OK	Not At All OK
3	2	1	0

2b. My opinion about the extent to which this is OK is \_\_\_\_\_ **influenced by** what I have learned from: (Please, respond to **EACH** using the following **1-10 scale**)

1 = Not at all to 10 = Extraordinarily

\_\_\_\_\_ My culture      \_\_\_\_\_ My religion      \_\_\_\_\_ My parents  
 \_\_\_\_\_ My experiences      \_\_\_\_\_ Other (Describe): \_\_\_\_\_

2c. If I were to threaten to beat another person up who had made me angry, the negative consequences I would experience would be...

Extremely Severe	Somewhat Severe	Not Really Severe	Not At All Severe
3	2	1	0

2d. How significant would **EACH** of the following negative consequences for engaging in this behavior be **on a 1-10 scale**?

1 = Not at all Severe to 10 = Extremely Severe

_____ Others would avoid/exclude me	_____ I would lose others' respect
_____ I would be criticized	_____ I would lose self-respect
_____ I would feel embarrassed	_____ I would lose others' esteem
_____ I would feel sad	_____ I would lose self-esteem
_____ I would feel afraid	_____ I would have legal problems
_____ I would feel guilty	_____ Others would be ashamed of me
_____ I would have a moral conflict	_____ I would be ashamed of myself
_____ I would have a spiritual conflict/problem	
_____ I would suffer negative consequences in the afterlife/next life	
_____ The person in question would attempt to "get back" at me in some way	
_____ Other (Please, describe): _____	

3a. To spread rumors about others is...

Totally OK	Somewhat OK	Not Really OK	Not At All OK
3	2	1	0

3b. My opinion about the extent to which this is OK is \_\_\_\_\_ **influenced by** what I have learned from: (Please, respond to **EACH** using the following **1-10 scale**)

1 = Not at all to 10 = Extraordinarily

\_\_\_\_\_ My culture      \_\_\_\_\_ My religion      \_\_\_\_\_ My parents  
 \_\_\_\_\_ My experiences      \_\_\_\_\_ Other (Describe): \_\_\_\_\_

3c. If I were to spread rumors about others, the negative consequences I would experience would be...

Extremely Severe	Somewhat Severe	Not Really Severe	Not At All Severe
3	2	1	0

3d. How significant would **EACH** of the following negative consequences for engaging in this behavior be **on a 1-10 scale**?

1 = Not at all Severe to 10 = Extremely Severe

_____ Others would avoid/exclude me	_____ I would lose others' respect
_____ I would be criticized	_____ I would lose self-respect
_____ I would feel embarrassed	_____ I would lose others' esteem
_____ I would feel sad	_____ I would lose self-esteem
_____ I would feel afraid	_____ I would have legal problems
_____ I would feel guilty	_____ Others would be ashamed of me
_____ I would have a moral conflict	_____ I would be ashamed of myself
_____ I would have a spiritual conflict/problem	
_____ I would suffer negative consequences in the afterlife/next life	
_____ The person in question would attempt to "get back" at me in some way	
_____ Other (Please, describe): _____	

4a. To destroy something belonging to another person as an act of revenge is...

Totally OK	Somewhat OK	Not Really OK	Not At All OK
3	2	1	0

4b. My opinion about the extent to which this is OK is \_\_\_\_\_ **influenced by** what I have learned from: (Please, respond to **EACH** using the following **1-10 scale**)

1 = Not at all to 10 = Extraordinarily

\_\_\_\_\_ My culture      \_\_\_\_\_ My religion      \_\_\_\_\_ My parents  
 \_\_\_\_\_ My experiences      \_\_\_\_\_ Other (Describe): \_\_\_\_\_

4c. If I were to destroy something belonging to another person as an act of revenge, the negative consequences I would experience would be...

Extremely Severe	Somewhat Severe	Not Really Severe	Not At All Severe
3	2	1	0

4d. How significant would **EACH** of the following negative consequences for engaging in this behavior be **on a 1-10 scale**?

1 = Not at all Severe to 10 = Extremely Severe

_____ Others would avoid/exclude me	_____ I would lose others' respect
_____ I would be criticized	_____ I would lose self-respect
_____ I would feel embarrassed	_____ I would lose others' esteem
_____ I would feel sad	_____ I would lose self-esteem
_____ I would feel afraid	_____ I would have legal problems
_____ I would feel guilty	_____ Others would be ashamed of me
_____ I would have a moral conflict	_____ I would be ashamed of myself
_____ I would have a spiritual conflict/problem	
_____ I would suffer negative consequences in the afterlife/next life	
_____ The person in question would attempt to "get back" at me in some way	
_____ Other (Please, describe): _____	

5a. To treat another person as though he/she didn't exist when one is in a bad mood is...

Totally OK	Somewhat OK	Not Really OK	Not At All OK
3	2	1	0

5b. My opinion about the extent to which this is OK is \_\_\_\_\_ **influenced by** what I have learned from: (Please, respond to **EACH** using the following **1-10 scale**)

1 = Not at all to 10 = Extraordinarily

\_\_\_\_\_ My culture      \_\_\_\_\_ My religion      \_\_\_\_\_ My parents  
 \_\_\_\_\_ My experiences      \_\_\_\_\_ Other (Describe): \_\_\_\_\_

5c. If I were to treat another person as though he/she didn't exist when I was in a bad mood, the negative consequences I would experience would be...

Extremely Severe	Somewhat Severe	Not Really Severe	Not At All Severe
3	2	1	0

5d. How significant would **EACH** of the following negative consequences for engaging in this behavior be **on a 1-10 scale**?

1 = Not at all Severe to 10 = Extremely Severe

_____ Others would avoid/exclude me	_____ I would lose others' respect
_____ I would be criticized	_____ I would lose self-respect
_____ I would feel embarrassed	_____ I would lose others' esteem
_____ I would feel sad	_____ I would lose self-esteem
_____ I would feel afraid	_____ I would have legal problems
_____ I would feel guilty	_____ Others would be ashamed of me
_____ I would have a moral conflict	_____ I would be ashamed of myself
_____ I would have a spiritual conflict/problem	
_____ I would suffer negative consequences in the afterlife/next life	
_____ The person in question would attempt to "get back" at me in some way	
_____ Other (Please, describe): _____	

6a. To say nasty things about a person behind his/her back is...

Totally OK	Somewhat OK	Not Really OK	Not At All OK
3	2	1	0

6b. My opinion about the extent to which this is OK is \_\_\_\_\_ **influenced by** what I have learned from: (Please, respond to **EACH** using the following **1-10 scale**)

1 = Not at all to 10 = Extraordinarily

\_\_\_\_\_ My culture      \_\_\_\_\_ My religion      \_\_\_\_\_ My parents  
 \_\_\_\_\_ My experiences      \_\_\_\_\_ Other (Describe): \_\_\_\_\_

6c. If I were to say nasty things about a person behind his/her back, the negative consequences I would experience would be...

Extremely Severe	Somewhat Severe	Not Really Severe	Not At All Severe
3	2	1	0

6d. How significant would **EACH** of the following negative consequences for engaging in this behavior be **on a 1-10 scale**?

1 = Not at all Severe to 10 = Extremely Severe

_____ Others would avoid/exclude me	_____ I would lose others' respect
_____ I would be criticized	_____ I would lose self-respect
_____ I would feel embarrassed	_____ I would lose others' esteem
_____ I would feel sad	_____ I would lose self-esteem
_____ I would feel afraid	_____ I would have legal problems
_____ I would feel guilty	_____ Others would be ashamed of me
_____ I would have a moral conflict	_____ I would be ashamed of myself
_____ I would have a spiritual conflict/problem	
_____ I would suffer negative consequences in the afterlife/next life	
_____ The person in question would attempt to "get back" at me in some way	
_____ Other (Please, describe): _____	

7a. To take something away from another person when one is in a bad mood is...

Totally OK	Somewhat OK	Not Really OK	Not At All OK
3	2	1	0

7b. My opinion about the extent to which this is OK is \_\_\_\_\_ **influenced by** what I have learned from: (Please, respond to **EACH** using the following **1-10 scale**)

1 = Not at all to 10 = Extraordinarily

\_\_\_\_\_ My culture      \_\_\_\_\_ My religion      \_\_\_\_\_ My parents  
 \_\_\_\_\_ My experiences      \_\_\_\_\_ Other (Describe): \_\_\_\_\_

7c. If I were to take something away from another person when I was in a bad mood, the negative consequences I would experience would be...

Extremely Severe	Somewhat Severe	Not Really Severe	Not At All Severe
3	2	1	0

7d. How significant would **EACH** of the following negative consequences for engaging in this behavior be **on a 1-10 scale**?

1 = Not at all Severe to 10 = Extremely Severe

_____ Others would avoid/exclude me	_____ I would lose others' respect
_____ I would be criticized	_____ I would lose self-respect
_____ I would feel embarrassed	_____ I would lose others' esteem
_____ I would feel sad	_____ I would lose self-esteem
_____ I would feel afraid	_____ I would have legal problems
_____ I would feel guilty	_____ Others would be ashamed of me
_____ I would have a moral conflict	_____ I would be ashamed of myself
_____ I would have a spiritual conflict/problem	
_____ I would suffer negative consequences in the afterlife/next life	
_____ The person in question would attempt to "get back" at me in some way	
_____ Other (Please, describe): _____	

8a. To kick and push a person who has made one really angry is...

Totally OK	Somewhat OK	Not Really OK	Not At All OK
3	2	1	0

8b. My opinion about the extent to which this is OK is \_\_\_\_\_ **influenced by** what I have learned from: (Please, respond to **EACH** using the following **1-10 scale**)

1 = Not at all to 10 = Extraordinarily

\_\_\_\_\_ My culture      \_\_\_\_\_ My religion      \_\_\_\_\_ My parents  
 \_\_\_\_\_ My experiences      \_\_\_\_\_ Other (Describe): \_\_\_\_\_

8c. If I were to kick and push a person who had made me really angry, the negative consequences I would experience would be...

Extremely Severe	Somewhat Severe	Not Really Severe	Not At All Severe
3	2	1	0

8d. How significant would **EACH** of the following negative consequences for engaging in this behavior be **on a 1-10 scale**?

1 = Not at all Severe to 10 = Extremely Severe

_____ Others would avoid/exclude me	_____ I would lose others' respect
_____ I would be criticized	_____ I would lose self-respect
_____ I would feel embarrassed	_____ I would lose others' esteem
_____ I would feel sad	_____ I would lose self-esteem
_____ I would feel afraid	_____ I would have legal problems
_____ I would feel guilty	_____ Others would be ashamed of me
_____ I would have a moral conflict	_____ I would be ashamed of myself
_____ I would have a spiritual conflict/problem	
_____ I would suffer negative consequences in the afterlife/next life	
_____ The person in question would attempt to "get back" at me in some way	
_____ Other (Please, describe): _____	

9a. To play people out against one another is...

Totally OK	Somewhat OK	Not Really OK	Not At All OK
3	2	1	0

9b. My opinion about the extent to which this is OK is \_\_\_\_\_ **influenced by** what I have learned from: (Please, respond to **EACH** using the following **1-10 scale**)

1 = Not at all to 10 = Extraordinarily

\_\_\_\_\_ My culture      \_\_\_\_\_ My religion      \_\_\_\_\_ My parents  
 \_\_\_\_\_ My experiences      \_\_\_\_\_ Other (Describe): \_\_\_\_\_

9c. If I were to play people out against one another, the negative consequences I would experience would be...

Extremely Severe	Somewhat Severe	Not Really Severe	Not At All Severe
3	2	1	0

9d. How significant would **EACH** of the following negative consequences for engaging in this behavior be **on a 1-10 scale**?

1 = Not at all Severe to 10 = Extremely Severe

_____ Others would avoid/exclude me	_____ I would lose others' respect
_____ I would be criticized	_____ I would lose self-respect
_____ I would feel embarrassed	_____ I would lose others' esteem
_____ I would feel sad	_____ I would lose self-esteem
_____ I would feel afraid	_____ I would have legal problems
_____ I would feel guilty	_____ Others would be ashamed of me
_____ I would have a moral conflict	_____ I would be ashamed of myself
_____ I would have a spiritual conflict/problem	
_____ I would suffer negative consequences in the afterlife/next life	
_____ The person in question would attempt to "get back" at me in some way	
_____ Other (Please, describe): _____	

10a. To push others around when one is really angry is...

Totally OK	Somewhat OK	Not Really OK	Not At All OK
3	2	1	0

10b. My opinion about the extent to which this is OK is \_\_\_\_\_ **influenced by** what I have learned from: (Please, respond to **EACH** using the following **1-10 scale**)

1 = Not at all to 10 = Extraordinarily

\_\_\_\_\_ My culture      \_\_\_\_\_ My religion      \_\_\_\_\_ My parents  
 \_\_\_\_\_ My experiences      \_\_\_\_\_ Other (Describe): \_\_\_\_\_

10c. If I were to push others around when I was really angry, the negative consequences I would experience would be...

Extremely Severe	Somewhat Severe	Not Really Severe	Not At All Severe
3	2	1	0

10d. How significant would **EACH** of the following negative consequences for engaging in this behavior be **on a 1-10 scale**?

1 = Not at all Severe to 10 = Extremely Severe

_____ Others would avoid/exclude me	_____ I would lose others' respect
_____ I would be criticized	_____ I would lose self-respect
_____ I would feel embarrassed	_____ I would lose others' esteem
_____ I would feel sad	_____ I would lose self-esteem
_____ I would feel afraid	_____ I would have legal problems
_____ I would feel guilty	_____ Others would be ashamed of me
_____ I would have a moral conflict	_____ I would be ashamed of myself
_____ I would have a spiritual conflict/problem	
_____ I would suffer negative consequences in the afterlife/next life	
_____ The person in question would attempt to "get back" at me in some way	
_____ Other (Please, describe): _____	

11a. To threaten to gang up with others to beat someone up is...

Totally OK	Somewhat OK	Not Really OK	Not At All OK
3	2	1	0

11b. My opinion about the extent to which this is OK is \_\_\_\_\_ **influenced by** what I have learned from: (Please, respond to **EACH** using the following **1-10 scale**)

1 = Not at all to 10 = Extraordinarily

\_\_\_\_\_ My culture      \_\_\_\_\_ My religion      \_\_\_\_\_ My parents  
 \_\_\_\_\_ My experiences      \_\_\_\_\_ Other (Describe): \_\_\_\_\_

11c. If I were to threaten to gang up with others to beat someone up, the negative consequences I would experience would be...

Extremely Severe	Somewhat Severe	Not Really Severe	Not At All Severe
3	2	1	0

11d. How significant would **EACH** of the following negative consequences for engaging in this behavior be **on a 1-10 scale**?

1 = Not at all Severe to 10 = Extremely Severe

_____ Others would avoid/exclude me	_____ I would lose others' respect
_____ I would be criticized	_____ I would lose self-respect
_____ I would feel embarrassed	_____ I would lose others' esteem
_____ I would feel sad	_____ I would lose self-esteem
_____ I would feel afraid	_____ I would have legal problems
_____ I would feel guilty	_____ Others would be ashamed of me
_____ I would have a moral conflict	_____ I would be ashamed of myself
_____ I would have a spiritual conflict/problem	
_____ I would suffer negative consequences in the afterlife/next life	
_____ The person in question would attempt to "get back" at me in some way	
_____ Other (Please, describe): _____	

12a. To tell lies about other people is...

Totally OK	Somewhat OK	Not Really OK	Not At All OK
3	2	1	0

12b. My opinion about the extent to which this is OK is \_\_\_\_\_ **influenced by** what I have learned from: (Please, respond to **EACH** using the following **1-10 scale**)

1 = Not at all to 10 = Extraordinarily

\_\_\_\_\_ My culture      \_\_\_\_\_ My religion      \_\_\_\_\_ My parents  
 \_\_\_\_\_ My experiences      \_\_\_\_\_ Other (Describe): \_\_\_\_\_

12c. If I were to tell lies about other people, the negative consequences I would experience would be...

Extremely Severe	Somewhat Severe	Not Really Severe	Not At All Severe
3	2	1	0

12d. How significant would **EACH** of the following negative consequences for engaging in this behavior be **on a 1-10 scale**?

1 = Not at all Severe to 10 = Extremely Severe

_____ Others would avoid/exclude me	_____ I would lose others' respect
_____ I would be criticized	_____ I would lose self-respect
_____ I would feel embarrassed	_____ I would lose others' esteem
_____ I would feel sad	_____ I would lose self-esteem
_____ I would feel afraid	_____ I would have legal problems
_____ I would feel guilty	_____ Others would be ashamed of me
_____ I would have a moral conflict	_____ I would be ashamed of myself
_____ I would have a spiritual conflict/problem	
_____ I would suffer negative consequences in the afterlife/next life	
_____ The person in question would attempt to "get back" at me in some way	
_____ Other (Please, describe): _____	

13a. To stir others up against a particular person is...

Totally OK	Somewhat OK	Not Really OK	Not At All OK
3	2	1	0

13b. My opinion about the extent to which this is OK is \_\_\_\_\_ **influenced by** what I have learned from: (Please, respond to **EACH** using the following **1-10 scale**)

1 = Not at all to 10 = Extraordinarily

\_\_\_\_\_ My culture      \_\_\_\_\_ My religion      \_\_\_\_\_ My parents  
 \_\_\_\_\_ My experiences      \_\_\_\_\_ Other (Describe): \_\_\_\_\_

13c. If I were to stir others up against a particular person, the negative consequences I would experience would be...

Extremely Severe	Somewhat Severe	Not Really Severe	Not At All Severe
3	2	1	0

13d. How significant would **EACH** of the following negative consequences for engaging in this behavior be **on a 1-10 scale**?

1 = Not at all Severe to 10 = Extremely Severe

_____ Others would avoid/exclude me	_____ I would lose others' respect
_____ I would be criticized	_____ I would lose self-respect
_____ I would feel embarrassed	_____ I would lose others' esteem
_____ I would feel sad	_____ I would lose self-esteem
_____ I would feel afraid	_____ I would have legal problems
_____ I would feel guilty	_____ Others would be ashamed of me
_____ I would have a moral conflict	_____ I would be ashamed of myself
_____ I would have a spiritual conflict/problem	
_____ I would suffer negative consequences in the afterlife/next life	
_____ The person in question would attempt to "get back" at me in some way	
_____ Other (Please, describe): _____	

14a. To show someone up in front of others is...

Totally OK	Somewhat OK	Not Really OK	Not At All OK
3	2	1	0

14b. My opinion about the extent to which this is OK is \_\_\_\_\_ **influenced by** what I have learned from: (Please, respond to **EACH** using the following **1-10 scale**)

1 = Not at all to 10 = Extraordinarily

\_\_\_\_\_ My culture      \_\_\_\_\_ My religion      \_\_\_\_\_ My parents  
 \_\_\_\_\_ My experiences      \_\_\_\_\_ Other (Describe): \_\_\_\_\_

14c. If I were to show someone up in front of others, the negative consequences I would experience would be...

Extremely Severe	Somewhat Severe	Not Really Severe	Not At All Severe
3	2	1	0

14d. How significant would **EACH** of the following negative consequences for engaging in this behavior be **on a 1-10 scale**?

1 = Not at all Severe to 10 = Extremely Severe

_____ Others would avoid/exclude me	_____ I would lose others' respect
_____ I would be criticized	_____ I would lose self-respect
_____ I would feel embarrassed	_____ I would lose others' esteem
_____ I would feel sad	_____ I would lose self-esteem
_____ I would feel afraid	_____ I would have legal problems
_____ I would feel guilty	_____ Others would be ashamed of me
_____ I would have a moral conflict	_____ I would be ashamed of myself
_____ I would have a spiritual conflict/problem	
_____ I would suffer negative consequences in the afterlife/next life	
_____ The person in question would attempt to "get back" at me in some way	
_____ Other (Please, describe): _____	

15a. To hit another person the same age as oneself is...

Totally OK	Somewhat OK	Not Really OK	Not At All OK
3	2	1	0

15b. My opinion about the extent to which this is OK is \_\_\_\_\_ **influenced by** what I have learned from: (Please, respond to **EACH** using the following **1-10 scale**)

1 = Not at all to 10 = Extraordinarily

\_\_\_\_\_ My culture      \_\_\_\_\_ My religion      \_\_\_\_\_ My parents  
 \_\_\_\_\_ My experiences      \_\_\_\_\_ Other (Describe): \_\_\_\_\_

15c. If I were to hit another person the same age as myself, the negative consequences I would experience would be...

Extremely Severe	Somewhat Severe	Not Really Severe	Not At All Severe
3	2	1	0

15d. How significant would **EACH** of the following negative consequences for engaging in this behavior be **on a 1-10 scale**?

1 = Not at all Severe to 10 = Extremely Severe

_____ Others would avoid/exclude me	_____ I would lose others' respect
_____ I would be criticized	_____ I would lose self-respect
_____ I would feel embarrassed	_____ I would lose others' esteem
_____ I would feel sad	_____ I would lose self-esteem
_____ I would feel afraid	_____ I would have legal problems
_____ I would feel guilty	_____ Others would be ashamed of me
_____ I would have a moral conflict	_____ I would be ashamed of myself
_____ I would have a spiritual conflict/problem	
_____ I would suffer negative consequences in the afterlife/next life	
_____ The person in question would attempt to "get back" at me in some way	
_____ Other (Please, describe): _____	

NOTE: Sum of Items 1a – 15a = Aggression Norms; Sum of Items 1c – 15 c = Aggression Consequences.

## Appendix I

State-Trait Anxiety Inventory (STAI: Spielberger, Gorsuch, & Lushene, 1970)

**Directions:** A number of statements which people have used to describe themselves are given below. Please read each statement and then circle the number that best indicates how you *generally feel*. There are no right or wrong answers. Just give your immediate impressions.

	Almost Never	Some- times	Often	Almost Always
*1. I feel pleasant.....	1	2	3	4
2. I feel nervous and restless.....	1	2	3	4
*3. I feel satisfied with myself.....	1	2	3	4
4. I wish I could be as happy as others seem to be.....	1	2	3	4
5. I feel like a failure.....	1	2	3	4
*6. I feel rested.....	1	2	3	4
*7. I am "calm, cool and collected".....	1	2	3	4
8. I feel that difficulties are piling up so that I cannot overcome them.....	1	2	3	4
9. I worry too much over something that really doesn't matter.....	1	2	3	4
*10. I am happy.....	1	2	3	4
11. I have disturbing thoughts.....	1	2	3	4
12. I lack self-confidence.....	1	2	3	4
*13. I feel secure.....	1	2	3	4
*14. I make decisions easily.....	1	2	3	4
15. I feel inadequate.....	1	2	3	4
*16. I am content.....	1	2	3	4
17. Some unimportant thought runs through my mind and bothers me	1	2	3	4
18. I take disappointments so keenly that I can't put them out of my mind.....	1	2	3	4
*19. I am a steady person.....	1	2	3	4
20. I get in a state of tension or turmoil as I think over my recent concerns and interests.....	1	2	3	4

NOTE: \* = Reverse Scored Item.

**Directions:** Please read each statement and circle the appropriate number to the right of the statement to indicate how you feel how you feel *right now*. There are no right and wrong answers. Just give the answer that seems to best describe how you are presently feeling.

	Not At All	Some- what	Moder- ately so	Very Much so
*1. I feel calm.....	1	2	3	4
*2. I feel secure.....	1	2	3	4
3. I am tense.....	1	2	3	4
4. I am regretful.....	1	2	3	4
*5. I feel at ease.....	1	2	3	4
6. I feel upset.....	1	2	3	4
7. I am presently worrying over possible misfortunes.....	1	2	3	4
*8. I feel rested.....	1	2	3	4
9. I feel anxious.....	1	2	3	4
*10. I feel comfortable.....	1	2	3	4
*11. I feel self-confident.....	1	2	3	4
12. I feel nervous.....	1	2	3	4
13. I feel jittery.....	1	2	3	4
14. I feel "high strung".....	1	2	3	4
*15. I am relaxed.....	1	2	3	4
*16. I feel content.....	1	2	3	4
17. I am worried.....	1	2	3	4
18. I feel over-excited and rattled.....	1	2	3	4
*19. I feel joyful.....	1	2	3	4
*20. I feel pleasant.....	1	2	3	4

NOTE: \* = Reverse Scored Item.

**Vita**  
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**Educational History:**

Clinical Psychology Internship <i>Albany Psychology Internship Consortium</i>	09/2006-08/2007
Ph.D. in Psychology, Clinical, Adult Track <i>Pennsylvania State University</i>	08/2000-08/2007
M.S. in Psychology <i>Pennsylvania State University</i>	08/2003
B.A. in Psychology, English Minor <i>Pennsylvania State University</i>	05/2000

**Select Honors and Awards:**

Penn State Student Travel Award	11/2003
Graduation with High Distinction (Magna cum Laude)	05/2000

**Current Research Interests:**

The experiences of anger and anxiety, with an emphasis on the impact of developmental history and core belief systems on the experience and expression of these emotions

**Conference Symposium:**

Dzus, E. E. & Newman, M. G. (2003, November). The reduction of relaxation-induced anxiety as a predictor of treatment outcome in a sample of persons undergoing treatment for generalized anxiety disorder. In E. Behar & A. Przeworski (Chairs), *Moderating Variables, Mediating Variables and Therapeutic Techniques in the Treatment of Generalized Anxiety Disorder*. Symposium conducted at the meeting of the Association for Advancement of Behavior Therapy, Boston, Massachusetts.

**Publication:**

Newman, M. G., Erickson T., Przeworski, A., & Dzus, E. (2003). Self-help and minimal contact therapies for anxiety disorders: Is human contact necessary for therapeutic efficacy? *Journal of Clinical Psychology*, 59(3), 251-274.