

Comparison of Impulsive and Premeditated Perpetrators of Intimate Partner Violence

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Violence occurs in four to five million intimate relationships each year in the United States. Past research has investigated the concept of batterer subtypes based on the nature of the violent behavior. To extend this research, the present study used the Impulsive/Premeditated Aggression Scale (IPAS) along with a battery of relevant self-report measures in a sample of men ($N=113$) convicted of domestic violence and court ordered into an intervention program. Batterers whose violence was classified as premeditated scored higher on psychopathic traits and a measure of treatment rejection. Batterers whose violence was classified as impulsive in nature reported a wider range of serious psychopathology. It is suggested that the use of a bimodal classification (Impulsive/Premeditated) in batterers may have significant clinical and legal policy implications. Copyright © 2008 John Wiley & Sons, Ltd.

The classification of aggressive behavior into distinct subtypes or categories has a long and rich history (see Weinshenker & Siegel, 2002; McEllistrem, 2004, for reviews). From early work with animals (Hess & Brugger, 1943) to more recent studies using humans (Stanford et al., 2003) aggressive behavior has been consistently classified into two distinct subtypes: (1) an emotionally charged, uncontrolled type of aggressive display (impulsive, affective, reactive) or (2) a planned, controlled, unemotional aggressive act (premeditated, predatory, proactive). While these two subtypes can be distinguished by several features, the primary difference between them is the amount of behavioral control exhibited during the aggressive incident. This bimodal classification has broad empirical support (see Houston, Stanford, Villemarette-Pittman, Conklin, & Helfritz, 2003, for a review),

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demonstrating significant clinical efficacy in studies that have focused on treatment outcome (Barratt, Stanford, Felthous, & Kent, 1997; Malone *et al.*, 1998; Houston & Stanford, 2006). The classification of aggressive acts may also have implications for *mens rea* decisions. Barratt and Felthous (2003) have argued that if an aggressive act can be shown to be impulsive in nature, by definition this argues against premeditation or specific intent. It is in situations in which the specific intent of a defendant is at issue (e.g., diminished responsibility defense) that the bimodal classification of aggressive behavior may be useful in criminal proceedings.

Similarly, but somewhat independent of the general aggression literature, studies using male batterers have developed a number of typologies to classify men who commit intimate partner violence (IPV). In a comprehensive review of previous typologies, Holtzworth-Munroe and Stuart (1994) identified three descriptive dimensions on which batterer subtypes differ: (a) severity of marital violence and related abuse, (b) generality of violence (family only or extrafamilial violence) and (c) psychopathology/personality disorder characteristics. Based on these dimensions they proposed the existence of three batterer subtypes; family only, dysphoric/borderline and generally violent/antisocial.

According to Holtzworth-Munroe and Stuart (1994), the family only batterer displays the least severe marital violence and is the least likely of the three subtypes to engage in psychological and sexual abuse. These individuals restrict their violence to family members and generally do not show violence outside the home. In addition, they show little if any psychopathology or personality disorder symptomatology. The second batterer subtype, dysphoric/borderline, engages in moderate to severe spousal abuse, including psychological and sexual abuse. His violence is predominantly focused within the family but some violence outside the family is possible. These individuals are typically psychologically distressed, impulsive, depressed, emotionally volatile, show borderline or schizotypal personality characteristics and have problems with alcohol or drug abuse. Finally, the generally violent/antisocial subtype engages in moderate to severe marital violence, including psychological and sexual abuse. These individuals engage in the most extrafamilial violence and criminal activity. They are likely to have alcohol and drug problems and are most likely to show antisocial/narcissistic personality characteristics or psychopathy. Generally violent/antisocial batterers are less likely to complete treatment and show higher rates of violent recidivism (Langhinrichsen-Rohling, Huss, & Ramsey, 2000). Several subsequent studies have attempted to empirically test this three subtype typology, with varying success (Delsol, Margolin, & John, 2003; Holtzworth-Munroe, Meehan, Herron, Rehman, & Stuart, 2000; Langhinrichsen-Rohling *et al.*, 2000; Waltz, Babcock, Jacobson, & Gottman, 2000). While all of these studies have identified at least three batterer subtypes, they vary significantly in relation to the original subtypes proposed by Holtzworth-Munroe and Stuart (1994). Although some differences between studies would be expected given varying methodologies, Chase, O'Leary, and Heyman (2001) have suggested that the problem may be with the original subtypes themselves. These authors suggest that the three subtype typology may be more useful if framed within the context of the aforementioned bimodal classification (Impulsive/Premeditated) developed in the more general aggression literature. Specifically, they propose that the family only and dysphoric/borderline groups have personality features and disorders characterized by a lack of behavioral control and engage primarily in

impulsive aggression, while the generally violent/antisocial group's violence is more premeditated or deliberate in nature.

Recent studies in the IPV literature have provided empirical support for a bimodal typology consistent with the general aggression literature. For example, a study of 61 married couples involved in husband-to-wife domestic violence (Gottman et al., 1995) used change in heart rate from baseline to the first 5 minutes of a staged marital interaction to classify batterers into two groups. Batterers whose heart rate decreased during this period were classified as Type 1 ($n = 12$) while those whose heart rate increased were classified as Type 2 ($n = 49$). Significant differences were found between the groups using observational and self-report personality measures. Type 1 batterers were angrier, generally more violent outside the marriage, showed more antisocial and aggressive-sadistic personality characteristics and had more drug problems. Type 2 batterers were dysphoric, emotionally volatile and scored higher on measures of emotional dependency. At a two year follow-up the separation/divorce rate for the Type 1 batterers was zero while 27.5% of the marriages involving the Type 2 batterers had ended in divorce. Gottman and colleagues (1995) attributed this difference to greater fear of their husbands in the wives of the Type 1 batterers.

Building on the work of Gottman et al. (1995), Tweed and Dutton (1998) attempted to better define the personality differences between these two types of batterer. Seventy-nine male batterers were administered a battery of self-report instruments that included the Millon Clinical Multiaxial Inventory-II (MCMI-II). A cluster analysis using several of the measures produced two distinct clusters that the investigators labeled as instrumental ($n = 32$) and impulsive ($n = 38$). Instrumental batterers were characterized as antisocial/narcissistic and reported more severe physical violence while impulsive batterers were more passive-aggressive/borderline/avoidant and showed higher chronic anger and a fearful attachment style.

More recently, Chase et al. (2001) attempted to develop a reactive-proactive categorization system for male batterers based on the work of Cornell and colleagues (1996). Sixty male batterers were administered a set of self-report measures and videotaped during a ten minute communication interaction with their wives. Using the categorization system developed in the study, two independent raters classified 62% ($n = 37$) of the batterers as reactive and 38% ($n = 23$) as proactive. Analysis of the self-report measures and observation data showed the reactive batterers to have more characteristics of dependent personality disorder and higher levels of anger. Proactive batterers were more dominant, antisocial and aggressive-sadistic, and more frequently classified as psychopathic (proactive 17% versus reactive 0%).

Given the large number of empirical studies in the general aggression literature and the batterer studies outlined above, it seems clear that the bimodal approach to the classification of aggression holds significant promise for the study and potential treatment of individuals who commit IPV. However, the development of such a bimodal typology in the IPV literature has been limited by differences in the methodology and criteria used to determine the aggressive subtypes. The present study attempts to extend previous IPV research by using an empirically developed instrument shown to be psychometrically reliable and valid in classifying aggressive subtypes, the Impulsive/Premeditated Aggression Scales (IPAS; Stanford et al., 2003). The IPAS is a self-report measure that addresses behaviors and feelings

associated with impulsive (reactive, Type 2) or premeditated (proactive, Type 1) aggressive acts and provides an index of the predominant type of aggressive behavior displayed. Previous studies have successfully used the IPAS to classify aggressive behavior in psychiatric outpatients (Stanford *et al.*, 2003), forensic patients (Kockler, Stanford, Nelson, Meloy, & Sanford, 2006), and adolescents with conduct disorder (Mathias, Dougherty, Stanford, Marsh, & Frick, 2007). The present study attempts to use the IPAS in a sample of convicted male batterers along with a brief battery of self-report measures related to psychopathy and psychopathology. It was hypothesized (1) that impulsive batterers would show high levels of psychopathology as compared to premeditated batterers and (2) that premeditated batterers would score higher on measures of psychopathic traits than impulsive batterers.

METHOD

Participants/Recruitment

Participants ($N = 113$) were men recently convicted of domestic violence in two southeastern Louisiana parishes. Individuals convicted of domestic violence in these two parishes are court-ordered to attend a state approved intervention program as part of sentencing. Recruitment for the current study occurred during the program's initial intake assessment over the course of 12 months. As part of the intake procedure, participants were asked to participate in the study by anonymously completing a packet of self-report questionnaires approved by the University Institutional Review Board. The packets were completed at home and returned during the next appointment. All participants given packets during this time period returned the packets at least partially completed. However, completion of the packet did not affect status in the intervention program, thus only partial data were gathered for participants who refused or neglected to complete the entire packet. Missing data are indicated in the results section, where applicable.

Impulsive/Premeditated Aggression Scale (IPAS)

Using the IPAS, participants were classified into one of two groups: Impulsive or Premeditated. The IPAS is a 30 item self-report instrument developed to assess the impulsive and/or premeditated characteristics associated with an individual's aggressive acts. Respondents are asked to consider their aggressive acts over the last six months and complete the IPAS in relation to these acts. The items are scored on a five point Likert scale (5, strongly agree; 4, agree; 3, neutral; 2, disagree; 1, strongly disagree). An individual's aggressive behavior is characterized as predominantly impulsive (IA; eight items) in nature if he endorses (i.e. strongly agree or agree) a higher percentage of impulsive aggressive items than premeditated items. An individual's aggressive behavior is characterized as predominantly premeditated (PM; 12 items) if a higher percentage of premeditated aggressive items are endorsed. The original IPAS study on a sample of self-referred aggressive men (Stanford *et al.*, 2003) indicated that both the IA and PM scales were internally reliable (PM, $\alpha = .82$; IA, $\alpha = .77$) and were not correlated with one another

($r = -0.02$). Furthermore, the IA scale correlated significantly higher than the PM scale with measures of anger and anger control, whereas the PM scale correlated significantly higher than the IA scale with measures of physical aggression, hostility, and antisocial behavior.

Self-Report Questionnaires

In addition to the IPAS, participants were asked to complete the following questionnaires:

Lifetime History of Aggression (LHA; Coccaro, Berman, & Kavoussi, 1997)

This 11 item questionnaire assesses three subcomponents of aggression history: aggression, social consequences of antisocial behavior, and self-directed aggression. A total score is obtained by summing the subscale scores. The total number of occurrences of each item since the age of 13 are scored as follows: none = 0, one event = 1, two or three events = 2, four to nine events = 3, ten or more events = 4, more events than can be counted = 5.

Psychopathic Personality Inventory (PPI; Wilson, Frick, & Clements, 1999)

This 56 item short version of the self-report questionnaire by Lilienfeld and Andrews (1996) was designed for use with non-incarcerated populations, and measures the following eight core personality characteristics of psychopathy: Machiavellian Egocentricity, Social Potency, Coldheartedness, Carefree Nonplanfulness, Fearlessness, Blame Externalization, Impulsive Nonconformity, and Stress Immunity. The short form of the PPI was constructed by taking the seven items with the highest factor loadings from each of the eight subscales (Wilson et al., 1999).

Previous work (Benning, Patrick, Hicks, Blonigen, & Krueger, 2003) has demonstrated that the subscales of the PPI can be collapsed into two factors: Fearless Dominance and Impulsive Antisociality. The Fearless Dominance factor (Stress Immunity, Social Potency, Fearlessness) is analogous to the Affective-Interpersonal facet of psychopathy proposed by Hare et al. (1990), while the Impulsive Antisociality (Blame Externalization, Impulsive Nonconformity, Machiavellian Egocentricity, Carefree Nonplanfulness) factor represents the Social Deviance facet. Items on the PPI are scored on a four point scale (1, false; 2, mostly false; 3, mostly true; 4, true).

Personality Assessment Inventory (PAI; Morey, 1991)

This self-report measure of adult personality assesses clinical syndromes and contains 344 items, which are based on the central components that define each disorder. The PAI items make up 22 non-overlapping scales (4 validity scales, 11 clinical scales, 5 treatment consideration scales and 2 interpersonal scales). The items are scored on a four point scale (false, not at all true; slightly true; mainly true;

very true). Careful interpretation of results provides useful information about personality styles and clinical variables.

Statistical Analyses

First, internal consistency of the IPAS was determined using Cronbach's alpha. Next, participants were classified as either impulsive or premeditated according to the IPAS. Univariate ANOVAs were then used to examine group (IA versus PM) differences in age and education. Chi-square analyses were used to examine the distribution of marital status and race across the two groups. Between-groups comparisons of the LHA, PPI, PAI treatment scales and PAI interpersonal scales were conducted using both multivariate (MANOVA; subscale scores) and univariate analysis of variance (ANOVA; total and factor scores).

The 11 PAI clinical scales were analyzed using a configural interpretive strategy outlined by Morey (1991). In this process each participant's PAI profile is assigned to one of ten empirically determined PAI clusters. These clusters have distinct configural profiles, which can be used to draw inferences about psychopathology (see Table 3 below for brief cluster descriptions). Initially the mean T score (X) of the 11 PAI clinical scales was computed for each participant. Next deviation scores were calculated by subtracting X from a participant's T score on each of the clinical scales. These 11 deviation scores were then entered into a formula given by Morey (1991) to compute the squared Euclidean distance of the participant's PAI profile from the centroid of each of the 10 clusters. The participant's PAI profile was then assigned to the cluster from which it was least distant (to which it was most similar).

RESULTS

IPAS Internal Consistency (Reliability)

Cronbach's alpha for the Premeditated Aggression (PM) scale was 0.86. The alpha coefficient for the Impulsive Aggression (IA) scale was 0.75. The IA and PM scales were found to be significantly intercorrelated in this sample ($r = 0.50$, $p < 0.01$).

Classification of Aggression

Respondents in the current study ($N = 113$) were characterized as either predominantly IA or predominantly PM according to the IPAS. The IA group was composed of 76 men (67%); the PM group was composed of 37 men (33%). The average number of impulsive aggressive items endorsed (i.e. strongly agree or agree) by individuals classified as predominantly IA was 3.68 (SD = 1.63; 95% confidence interval, CI = 3.31–4.06), compared with 1.86 (SD = 2.12; 95% CI = 1.16–2.57) for individuals classified as predominantly PM. The average number of premeditated aggressive items endorsed by those classified as predominantly PM was 4.92 (SD = 3.71; 95% CI = 3.68–6.16) relative to the

predominantly IA group, who endorsed an average of 2.41 items (SD = 2.15; 95% CI = 1.91–2.89).

Demographic Information

Demographic characteristics are summarized in Table 1 (data missing for seven participants). Analysis indicated no significant group differences in age ($F(1, 106) = 1.90, p = 0.17, \text{partial } \eta^2 = 0.02$) or years of education ($F(1, 106) = 1.41, p = 0.24, \text{partial } \eta^2 = 0.01$). Chi-square analyses also indicated no significant differences between the IA and PM groups in the distribution of marital status ($\chi^2(1) = 1.48, p > 0.05$) or ethnicity ($\chi^2(1) = 1.15, p > 0.05$).

Aggression and Psychopathy Measures

A MANOVA of the LHA subscales revealed no significant group difference (Wilk's $\Lambda = 0.975, F(3, 108) = 0.922, p = 0.433, \text{partial } \eta^2 = 0.03$), suggesting analogous histories of physical aggressive behavior, antisocial acts, and self-directed aggression for the two groups (Table 2). An ANOVA of the LHA total score was also not significant between groups ($F(1, 111) = 2.41, p = 0.12, \text{partial } \eta^2 = 0.02$).

A MANOVA of the eight PPI subscales showed a significant main effect for group (Wilk's $\Lambda = 0.72, F(8, 104) = 4.99, p < .001, \text{partial } \eta^2 = 0.28$). Follow-up comparisons using ANOVA found that PM batterers scored significantly higher than the IA group on Impulsive Nonconformity ($F(1, 111) = 17.90, p < .001, \text{partial } \eta^2 = 0.14$), Stress Immunity ($F(1, 111) = 6.90, p = 0.01, \text{partial } \eta^2 = 0.06$), and Fearlessness ($F(1, 111) = 6.14, p = 0.02, \text{partial } \eta^2 = 0.05$).

Univariate ANOVA was used to compare the groups on the PPI total score and the two psychopathy facet scores. PM batterers scored significantly higher than the IA group on the PPI total score ($F(1, 111) = 11.19, p = 0.001, \text{partial } \eta^2 = 0.09$) and

Table 1. Demographic information (*M* (SD))

Scale	IPV group	
	Impulsive	Premeditated
Age (years) ^a	36.2 (11.8)	33.0 (9.1)
Education (years) ^a	11.9 (2.8)	12.5 (1.7)
Marital status (%) ^a		
Married	31.5	44.1
Living together	50.7	41.2
Divorced/separated	17.8	14.7
Ethnicity (%) ^a		
African-American	63.0	55.9
Asian	2.7	0.0
Caucasian	32.9	44.1
Native American	1.4	0.0

Impulsive ($n = 76$), Premeditated ($n = 37$); IPV = Intimate Partner Violence.

^aData missing for seven participants; analyses indicated no significant group difference in age or education. Chi square analysis indicated no significant group differences in frequency of marital status or ethnicity.

Table 2. Between groups comparison of aggression and psychopathy measures

Scale	IPV group		<i>p</i>
	Impulsive	Premeditated	
	<i>M</i> (SD)	<i>M</i> (SD)	
LHA			
Aggression	9.7 (6.8)	11.3 (6.4)	0.24
Social Consequences	3.9 (4.1)	5.2 (4.5)	0.13
Self-Directed	0.6 (1.6)	1.1 (2.3)	0.21
Total score	14.2 (10.7)	17.6 (10.8)	0.12
PPI			
Impulsive Nonconformity	12.3 (2.6)	15.2 (4.7)	<0.01
Blame Externalization	17.1 (5.5)	17.4 (4.9)	0.76
Machiavellian Egocentricity	12.8 (3.9)	13.9 (4.9)	0.20
Carefree Nonplanfulness	12.8 (4.1)	13.1 (3.6)	0.63
Stress Immunity	19.5 (4.2)	21.6 (3.9)	0.01
Social Potency	16.5 (3.3)	15.9 (3.5)	0.40
Fearlessness	14.4 (4.8)	16.8 (5.1)	0.02
Coldheartedness	19.4 (5.6)	19.8 (4.3)	0.74
Total score	124.7 (12.1)	133.8 (16.1)	<0.01
Fearless Dominance	50.4 (8.4)	54.4 (7.6)	0.02
Impulsive Antisociality	54.9 (9.6)	59.6 (13.3)	0.03

Impulsive ($n = 76$), Premeditated ($n = 37$); IPV = Intimate Partner Violence; LHA = Lifetime History of Aggression Questionnaire; PPI = Psychopathic Personality Inventory; Fearless Dominance = Stress Immunity, Social Potency, and Fearlessness; Impulsive Antisociality = Impulsive Nonconformity, Blame Externalization, Machiavellian Egocentricity, and Carefree Nonplanfulness.

both the Fearless Dominance ($F(1, 111) = 6.01, p = 0.02$, partial $\eta^2 = 0.05$) and Impulsive Antisociality ($F(1, 111) = 4.60, p = 0.03$, partial $\eta^2 = 0.04$) facet scores.

Personality Assessment Inventory

Ten participants did not complete the PAI (six IA, four PM) and were not included in this analysis. As outlined above, the configural interpretive method described by Morey (1991) was used to analyze the PAI clinical profiles. The largest group of participants in both groups belonged to Cluster 1 (IA 50%, PM 79%). Morey (1991) described this cluster as composed of generally well functioning individuals who give little evidence of psychological difficulties. Only seven (21%) PM batterers were associated with a cluster other than Cluster 1 (Table 3). Chi-square analysis found that a significantly higher frequency of IA batterers were associated with PAI clusters representing significant psychopathology compared with PM batterers ($\chi^2(1) = 7.70, p < 0.01$).

The second highest number of participants was associated with Cluster 6, accounting for 19 and 9% of the IA and PM batterers, respectively. Morey (1991) describes individuals associated with Cluster 6 as eccentric; they tend to be cold, aloof, impulsive and aggressive. The third largest group of participants was associated with Cluster 9, which accounted for 10% of the IA batterers. Individuals with a Cluster 9 profile often show severe drinking problems causing disruption of their personal relationships and work performance. They are also often involved in polysubstance abuse. The remaining 15 IA batterers were relatively evenly dispersed

Table 3. PAI cluster assignment frequency by group

Cluster	IPV group		Cluster descriptions
	Impulsive	Premeditated	
1	35	26	Generally well-functioning, little evidence of psychological difficulties
2	3	1	Individuals who are severely depressed and withdrawn
3	2	0	Severe drinking problem with a number of physiological complaints
4	3	1	Substance or alcohol problems with history of acting-out behavior
5	3	0	Acute reaction to current stressors with prominent anxiety and moodiness
6	13	3	Socially isolated individuals who tend to be eccentric, cold, aloof, impulsive and aggressive
7	0	0	Severely depressed, anxious and agitated
8	1	0	Individuals reporting significant somatic complaints
9	7	0	Severe drinking problem with disruption in relationships and work performance
10	3	2	Individuals in marked distress, unhappy, angry, resentful and confused

Note. Impulsive ($n=70$), Premeditated ($n=33$); Ten participants did not complete the PAI and are not included in the table (6 IA, 4 PM).

across the remaining clusters. The remaining 4 PM batterers were associated with Clusters 2, 4 and 10.

The PAI treatment consideration scales were analyzed using a MANOVA (Table 4). A significant main effect for group was found (Wilks's $\Lambda=0.85$, $F(5, 97)=3.36$, $p=0.01$, partial $\eta^2=0.15$). Follow-up comparisons using ANOVA found that PM batterers scored significantly higher than the IA group on the treatment rejection scale ($F(1, 101)=4.02$, $p=0.04$, partial $\eta^2=0.04$). PM batterers also scored marginally higher than IA batterers on the suicidal ideation scale ($F(1, 101)=3.50$, $p=0.06$, partial $\eta^2=0.03$). IA batterers scored significantly higher than PM batterers on the stress scale ($F(1, 101)=4.99$, $p=0.03$, partial $\eta^2=0.05$) and marginally higher than PM batterers on the aggression scale ($F(1, 101)=3.50$, $p=0.07$, partial $\eta^2=0.03$). No significant group differences were found on the PAI interpersonal scales (dominance, warmth).

Table 4. Between groups comparison of PAI treatment consideration and interpersonal scales

PAI scale	IPV group		<i>p</i>
	Impulsive <i>M</i> (SD)	Premeditated <i>M</i> (SD)	
Treatment consideration scales			
Aggression	59.4 (11.7)	54.6 (13.3)	0.07
Suicidal ideation	52.7 (10.1)	57.3 (14.6)	0.06
Stress	59.2 (14.1)	53.0 (10.7)	0.03
Nonsupport	59.2 (13.0)	59.5 (13.4)	0.91
Treatment rejection	46.5 (9.8)	50.6 (9.7)	0.04
Interpersonal scales			
Dominance	51.9 (10.6)	49.2 (13.2)	0.27
Warmth	44.9 (11.9)	42.3 (14.4)	0.34

Impulsive ($n=76$), Premeditated ($n=37$); IPV = Intimate Partner Violence; PAI = Personality Assessment Inventory; T scores are reported for all scales.

DISCUSSION

The results of the present study underscore the importance of assessing impulse control with respect to intimate partner violence. The usefulness of a bimodal (Impulsive/Premeditated) classification of aggression in this sample was generally supported. The present findings are consistent with previous studies that have assessed differences between aggressive subtypes. Internal consistency (reliability) for the IPAS scales was found to be adequate in this sample and similar to previous studies. Furthermore, the distribution of the batterers into impulsive (67%) and premeditated (33%) aggression groups based on the IPAS is consistent with previous studies using this measure (Kockler *et al.*, 2006; Stanford *et al.*, 2003). Also consistent with past studies (Houston *et al.*, 2003), the IA and PM groups did not differ in their aggression histories as assessed by the LHA. This result suggests that the groups were similar in the severity and frequency of their aggressive behavior, eliminating this variable as a potential confound that might influence group differences. Participants whose violence was classified as premeditated scored higher on psychopathic traits and treatment resistance, while batterers whose violence was classified as more impulsive in nature showed more serious and varied psychopathology.

In previous studies of male batterers reporting two subtypes of IPV, the distribution of the subtypes across the samples have varied with the classification method used. Gottman and colleagues (1995) classified 20% of the sample as Type 1 (premeditated) and 80% as Type 2 (impulsive). Tweed and Dutton (1998) found 54% of their sample to be impulsive and 46% to be instrumental (premeditated). More recently, Chase and colleagues (2001) reported results on a sample that was 62% reactive (impulsive) and 38% proactive (premeditated). The distribution of impulsive (67%) and premeditated (33%) aggressive individuals in the present study is clearly consistent with these previous results, particularly when the studies are taken together (average across all three studies, impulsive 65%, premeditated 35%).

PM batterers scored significantly higher than IA batterers on the PPI total score, and on both the Fearless Dominance and Impulsive Antisociality facets of psychopathy. Analysis of the subscale scores showed that, compared with IA batterers, PM batterers have a reckless lack of concern regarding social norms (Impulsive Nonconformity), an absence of reactive or anticipatory anxiety (Stress Immunity), and an eagerness to take risks (Fearlessness). In the general aggression literature, several studies have also shown an association between premeditated aggression and psychopathy. For example, Woodworth and Porter (2002) found that incarcerated murderers classified as psychopaths were significantly more likely than non-psychopath murderers to have committed instrumental (premeditated) homicides. In a study by Cornell and colleagues (1996), violent offenders classified as instrumental were found to be significantly more psychopathic using the Psychopathy Checklist—Revised (PCL-R; Hare, 1991) when compared with both offenders whose violence was classified as reactive in nature and non-violent offenders. Similarly, previous studies using batterer typologies (Chase *et al.*, 2001; Holtzworth-Munroe & Stuart, 1994; Tweed & Dutton, 1998) have consistently shown at least one subtype of IPV to be high in psychopathic traits.

Examination of the PAI responses in the current sample indicated a higher frequency of underlying psychopathology in IA batterers compared with PM

batterers. The DSM-IV-TR (APA, 2000) lists impulsive aggressive outbursts as a possible symptom for a wide range of Axis I (e.g. bipolar disorder, depression, schizophrenia, obsessive-compulsive disorder, PTSD, substance abuse, ADHD) and Axis II (e.g. borderline, antisocial, narcissistic, obsessive-compulsive) disorders. In an investigation of the psychopathology associated with intermittent explosive disorder (IED), McElroy, Soutullo, Beckman, Taylor, and Keck (1998) found high levels of comorbidity with bipolar disorder, depression, anxiety disorders, substance abuse and other impulse control disorders. This suggests that dysfunction in a common underlying behavioral inhibition system may be a contributing factor in many of these disorders (Moeller, Barratt, Dougherty, Schmitz, & Swann, 2001).

In a more recent study of impulsive aggressive college students, individuals classified as IA scored significantly higher than non-aggressive controls on nearly every clinical scale of the PAI, demonstrating a global elevation of psychopathology (Helfritz & Stanford, 2006). The authors noted that clinical elevations varied considerably across impulsive aggressive participants. This supports the present findings of a higher frequency, but variable, manifestation of psychopathology in the IA batterers compared to the PM group.

The results of the present study are encouraging for the use of the IPAS in samples characterized by IPV. However, it is important to note the following limitations in the present methodology: (1) participants completed the self-report measures on their own time in varying environments, resulting in missing data; (2) the present sample is composed of men only, therefore these results may not extrapolate to women with a history of IPV; (3) the present study lacks a non-aggressive control group to compare the severity of psychopathology and psychopathic traits; and (4), given that IPV populations are notorious for positive impression management (Helfritz et al., 2006), the current findings may be minimized (i.e., the results may be even more robust). Future studies in this area should consider a more controlled method of data collection, female participants, the use of a non-violent control group, and a measure of social desirability.

One additional caveat in the current study is that the two IPAS scales were significantly correlated ($r = 0.50$). However, it is important to note that previous research has indicated that these two dimensions (IA and PM) are not necessarily independent (Raine et al., 2006). In fact, it has been proposed that the impulsive-premeditated characterization of aggressive behavior is best conceptualized dimensionally rather than categorically (Houston et al., 2003), and this idea is supported by numerous studies that have shown these two categories to be significantly correlated (e.g. reactive-proactive, Brown, Atkins, Osborne, & Milnamow, 1996; Connor, Steingard, Cunningham, & Anderson, 2004; Day, Bream, & Pal, 1992; Dodge & Coie, 1987; Raine et al., 2006; impulsive-premeditated, Kockler et al., 2006; Mathias et al., 2007). Therefore, the current findings of a relationship between the IA and PM scales in this particular sample are fairly consistent with a large body of work in this area.

Taken together the present findings suggest that the violence displayed by IA batterers may be associated with underlying psychopathology, while aggression displayed by PM batterers may be related to the presence of psychopathic traits. These differing etiologies likely require differing approaches to treatment and may account for the fact that the efficacy of current batterer treatment programs is at best questionable, with dropout rates varying between 30 and 60% (Daly & Pelowski,

2000). Even more discouraging is that, among batterers who do complete treatment, approximately one-third continue to engage in physically violent behavior (Scott, 2004). This limited treatment efficacy may be the result of not fully recognizing the specific treatment needs and challenges associated with batterer subtypes. In this vein, PM batterers in the present study scored higher on PAI treatment rejection, suggesting an individual who has little motivation to enter treatment and is at high risk for early termination and later recidivism. Previous research has shown that a batterer's readiness to change is predictive of treatment outcome (Scott & Wolfe, 2003), while psychopathic traits are predictive of post-treatment recidivism in IPV (Dutton, Bodnarchuk, Kropp, Hart, & Ogloff, 1997). Impulsive batterers, on the other hand, endorsed more items on the PAI stress scale, indicating an individual who perceives himself surrounded by crises. According to Morey (1991), these individuals are vulnerable to a wide range of clinical disorders that must be dealt with in treatment.

In summary, the results of the present study support prior studies of a bimodal classification for IPV and extend this work by demonstrating that the IPAS may be a useful assessment tool with this population. The IPAS was successful in classifying batterers as impulsive or premeditated, and showed good internal consistency. Given that impulsive aggressive individuals appear to be more responsive to pharmacological intervention (Barratt *et al.*, 1997; Campbell *et al.*, 1995; Houston & Stanford, 2006; Malone *et al.*, 1998), and that batterers high in psychopathic traits are generally more resistant to mental health and criminal justice intervention (Huss & Langhinrichsen-Rohling, 2000), the classification of batterer subtypes has tremendous clinical and legal policy implications.

REFERENCES

- American Psychiatric Association. (2000). *Diagnostic and statistical manual of mental disorders—Text revision* (4th edn.). Washington, DC: American Psychiatric Press.
- Barratt, E. S., & Felthous, A. R. (2003). Impulsive versus premeditated aggression: Implications for *mens rea* decisions. *Behavioral Sciences and the Law*, *21*, 619–630.
- Barratt, E. S., Stanford, M. S., Felthous, A. R., & Kent, T. A. (1997). The effects of phenytoin on impulsive and premeditated aggression: A controlled study. *Journal of Clinical Psychopharmacology*, *17*, 341–349.
- Benning, S. D., Patrick, C. J., Hicks, B. M., Blonigen, D. M., & Krueger, R. F. (2003). Factor structure of the psychopathic personality inventory: validity and implications for clinical assessment. *Psychological Assessment*, *15*, 340–350.
- Brown, K., Atkins, M. S., Osborne, M. L., & Milnamow, M. (1996). A revised teacher rating scale for reactive and proactive aggression. *Journal of Abnormal Child Psychology*, *24*, 473–480.
- Campbell, M., Adams, P. B., Small, A. M., Kafantaris, V., Silva, R. R., Shell, J., Perry, R., & Overall, J. E. (1995). Lithium in hospitalized aggressive children with conduct disorder: A double-blind and placebo-controlled study. *Journal of the American Academy of Child and Adolescent Psychiatry*, *34*, 445–453.
- Chase, K. A., O'Leary, K. D., & Heyman, R. E. (2001). Categorizing partner-violent men within the reactive-proactive typology model. *Journal of Consulting and Clinical Psychology*, *69*, 567–572.
- Coccaro, E. F., Berman, M. E., & Kavoussi, R. J. (1997). Assessment of life history aggression: Development and psychometric characteristics. *Psychiatry Research*, *73*, 147–157.
- Connor, D. F., Steingard, R. J., Cunningham, J. A., Anderson, J. J., & Melloni, R. H. (2006). Proactive and reactive aggression in referred children and adolescents. *American Journal of Orthopsychiatry*, *74*, 129–136.
- Cornell, D. G., Warren, J., Hawk, G., Stafford, E., Oram, G., & Pine, D. (1996). Psychopathy in instrumental and reactive violent offenders. *Journal of Consulting and Clinical Psychology*, *64*, 783–790.

- Daly, J. E., & Pelowski, S. (2000). Predictors of dropout among men who batter: A review of studies with implications for research and practice. *Violence and Victims, 15*, 137–160.
- Day, D. M., Brear, L. A., & Pal, A. (1992). Proactive and reactive aggression: An analysis of subtypes based on teacher perceptions. *Journal of Clinical Child Psychology, 21*, 210–217.
- Delsol, C., Margolin, G., & John, R. S. (2003). A typology of martially violent men and correlates of violence in a community sample. *Journal of Marriage and Family, 65*, 635–651.
- Dodge, K., & Coie, J. D. (1987). Social information processing factors in reactive and proactive aggression in children's peer groups. *Journal of Personality and Social Psychology, 53*, 1146–1158.
- Dutton, D. G., Bodnarchuk, M., Kropp, R., Hart, S. D., & Ogloff, J. P. (1997). Client personality disorders affecting wife assault post-treatment recidivism. *Violence and Victims, 12*, 37–50.
- Gottman, J. M., Jacobson, N. S., Rushe, R. H., Shortt, J. W., Babcock, J., La Taillade, J. J., & Waltz, J. (1995). The relationship between heart rate reactivity, emotional aggressive behavior, and general violence in batterers. *Journal of Family Psychology, 9*, 227–248.
- Hare, R. D. (1991). *Manual for the Hare Psychopathy Checklist—Revised*. Toronto, Ontario: Multi-Health System.
- Hare, R. D., Harpur, T. J., Hakstian, A. R., Forth, A. E., Hart, S. D., & Newman, J. P. (1990). The Revised Psychopathy Checklist: Reliability and factor structure. *Psychological Assessment, 2*, 338–341.
- Helfritz, L. E., & Stanford, M. S. (2006). Personality and psychopathology in an impulsive aggressive college sample. *Aggressive Behavior, 32*, 28–37.
- Helfritz, L. E., Stanford, M. S., Greve, K. W., Villemarette-Pittman, N. R., Houston, R. J., & Conklin, S. M. (2006). Usefulness of self-report instruments in assessing men accused of domestic violence. *Psychological Record, 56*, 171–180.
- Hess, W. R., & Brugger, M. (1943). Das subkortikale Zentrum der affektiven Abwehrreaktion. *Helvetica Physiologica Pharmacologica Acta, 1*, 33–52.
- Holtzworth-Munroe, A., Meehan, J. C., Herron, K., Rehman, U., & Stuart, G. L. (2000). Testing the Holtzworth-Munroe and Stuart (1994) batterer typology. *Journal of Consulting and Clinical Psychology, 68*, 1000–1019.
- Holtzworth-Munroe, A., & Stuart, G. L. (1994). Typologies of male batterers: Three subtypes and the differences among them. *Psychological Bulletin, 116*, 476–497.
- Houston, R. J., & Stanford, M. S. (2006). Characterization of aggressive behavior and phenytoin response. *Aggressive Behavior, 32*, 38–43.
- Houston, R. J., Stanford, M. S., Villemarette-Pittman, N. R., Conklin, S. M., & Helfritz, L. E. (2003). Neurobiological correlates and clinical implications of aggressive subtypes. *Journal of Forensic Neuropsychology, 3*, 67–87.
- Huss, M. T., & Langhinrichsen-Rohling, J. (2000). Identification of the psychopathic batterer: The clinical, legal and policy implications. *Aggression and Violent Behavior, 5*, 403–422.
- Kockler, T. R., Stanford, M. S., Nelson, C. E., Meloy, J. R., & Sanford, K. (2006). Characterizing aggressive behavior in a forensic population. *American Journal of Orthopsychiatry, 76*, 80–85.
- Langhinrichsen-Rohling, J., Huss, M. T., & Ramsey, S. (2000). The clinical utility of batterer typologies. *Journal of Family Violence, 15*, 37–53.
- Lilienfeld, S. O., & Andrews, B. P. (1996). Development and preliminary validation of a self-report measure of psychopathic personality traits in noncriminal populations. *Journal of Personality Assessment, 66*, 488–524.
- Malone, R. P., Bennett, D. S., Luebbert, J. F., Rowan, A. B., Biesecker, B. A., Blaney, B. L., & Delaney, M. A. (1998). Aggression classification and treatment response. *Psychopharmacology Bulletin, 34*, 41–45.
- Mathias, C. W., Dougherty, D. M., Stanford, M. S., Marsh, D. M., & Frick, P. J. (2007). Characterizing aggressive behavior with the impulsive/premeditated aggression scales among adolescents with conduct disorder. *Psychiatry Research, 151*, 231–242.
- McEllistrem, J. E. (2004). Affective and predatory violence: A bimodal classification system of human aggression and violence. *Aggression and Violent Behavior, 10*, 1–30.
- McElroy, S. L., Soutullo, C. A., Beckman, D. A., Taylor, P., & Keck, P. E. (1998). DSM-IV intermittent explosive disorder: A report of 27 cases. *Journal of Clinical Psychiatry, 59*, 203–210.
- Moeller, F. G., Barratt, E. S., Dougherty, D. M., Schmitz, J. M., & Swann, A. C. (2001). Psychiatric aspects of impulsivity. *American Journal of Psychiatry, 158*, 1783–1793.
- Morey, L. C. (1991). *The Personality Assessment Inventory: Professional manual*. Odessa, FL: Psychological Assessment Resources.
- Raine, A., Dodge, K., & Loeker, R. (2006). The reactive-proactive aggression questionnaire: Differential correlates of reactive and proactive aggression in adolescent boys. *Aggressive Behavior, 32*, 159–171.
- Scott, K. L. (2004). Predictors of change among batterers: Application of theories and review of empirical findings. *Trauma, Violence and Abuse: A Review Journal, 5*, 260–284.

- Scott, K. L., & Wolfe, D. A. (2003). Readiness to change as a predictor of outcome in batterer treatment. *Journal of Consulting and Clinical Psychology, 71*, 879–889.
- Stanford, M. S., Houston, R. J., Mathias, C. W., Villemarette-Pittman, N. R., Helfritz, L. E., & Conklin, S. M. (2003). Characterizing aggressive behavior. *Assessment, 10*, 183–190.
- Tweed, R. G., & Dutton, D. G. (1998). A comparison of impulsive and instrumental subgroups of batterers. *Violence and Victims, 13*, 217–230.
- Waltz, J., Babcock, J. C., Jacobson, N. S., & Gottman, J. M. (2000). Testing a typology of batterers. *Journal of Consulting and Clinical Psychology, 68*, 658–669.
- Weinshenker, N. J., & Siegel, A. (2002). Bimodal classification of aggression: Affective defense and predatory attack. *Aggression and Violent Behavior, 7*, 237–250.
- Wilson, D. L., Frick, P. J., & Clements, C. B. (1999). Gender, somatization and psychopathic traits in a college sample. *Journal of Psychopathology and Behavioral Assessment, 21*, 221–235.
- Woodworth, M., & Porter, S. (2002). In cold blood: Characteristics of criminal homicides as a function of psychopathy. *Journal of Abnormal Psychology, 111*, 436–445.