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Katherine A. Fowler¹ and
Drew Westen¹

Abstract

Domestic violence is a serious problem with far-reaching consequences. This study applies a new methodology to derive subtypes of male perpetrators of intimate partner violence. As part of a larger National Institute of Mental Health (NIMH)-funded study, a national sample of randomly selected psychologists and psychiatrists describe 188 adult male patients (59 with a history of partner violence, 97 with a history of arrests but not partner violence, and 57 with neither partner violence nor arrests), using the Shedler-Westen Assessment Procedure-II (SWAP-II), a Q-sort procedure for assessing personality pathology. Using Q-factor analysis, the authors identify three personality constellations among the partner-violent men, two of which strongly resembled subtypes identified using different methods in prior research: psychopathic, hostile/controlling, and borderline/dependent. The authors compare these subtypes with each other and with nonarrested/nonviolent men and men with arrests but no partner violence on Axis I and II diagnoses, adaptive functioning, etiological variables, and response to treatment, providing initial validity data.

Keywords

intimate violence, personality, SWAP-II, subtyping, Q-factor analysis, domestic violence, cluster analysis

¹Emory University, Atlanta, GA

Katherine A. Fowler, National Institute of Mental Health, 15K North Drive, Bldg 15K, Rm. 300-C MSC 2670, Bethesda, MD 20892-2670
Email: fowlerka@mail.nih.gov

Male-perpetrated intimate partner violence (IPV) is a serious problem (Holtzworth-Munroe, Meehan, Herron, Rehman, & Stuart, 2000). Nationally representative surveys indicate that each year 1 in 8 husbands will use physical aggression against their wives, and more than 2 million women will be severely physically abused by their male partners in the United States alone (Straus & Gelles, 1990). Current findings consistently indicate that IPV is a pattern, not an isolated event (Rand & Saltzman, 2003): Recently, in a nationally representative sample of 8,000 women and 8,000 men, aged 18 and older, the National Violence Against Women Survey reported that two thirds of women physically assaulted by a partner had been victimized multiple times (Tjaden & Thoennes, 2000). According to a 2003 report by the Centers for Disease Control and Prevention (2003), IPV is responsible for approximately 2 million injuries and 1,000 deaths per year. In 2002, 76% of IPV homicide victims were women (Fox & Zawitz, 2004), and half of all female murder victims are killed by their male partners (Rand & Saltzman, 2003).

A substantial body of research underscores the importance of personality in understanding various forms of psychopathology (e.g., Brown, Chorpita, & Barlow, 1998; Krueger, Markon, Patrick, & Iacono, 2005). Research on such diverse classes of psychopathology as eating disorders (Westen & Harnden-Fischer, 2001; Westen, Thompson-Brenner, & Peart, 2006), juvenile delinquency (e.g., Moffitt, Caspi, Harrington, & Milne, 2002), alcoholism (e.g., Elkins, King, McGue, & Iacono, 2006), and combat-related posttraumatic stress disorder (e.g., Miller, Greif, & Smith, 2003) has identified distinct personality subgroups that differ on dimensions such as Axis I and II comorbidity, adaptive functioning, developmental history, family history, biology (e.g., serotonin activity), and prognosis (e.g., Thompson-Brenner & Westen, 2005). These data suggest that individuals with the same syndrome often show *patterned heterogeneity*, such that distinct subgroups may exist within groups usually treated in research or treatment as homogeneous (Bradley & Westen, 2005). A growing body of evidence suggests that personality features may help identify subgroups of male perpetrators of IPV, improving our understanding of the characteristics of these men, the etiology of their behavior, and possibilities for treatment.

Clinically and Empirically Derived Typologies of Partner-Violent Men

Several early domestic violence researchers identified subgroups of partner-violent men derived from clinical observations and MMPI (Minnesota

Multiphasic Personality Inventory) scores (e.g., Caesar, 1986a, 1986b; Faulk, 1974; Hershorn & Rosenbaum, 1991), empirical/inductive strategies such as factor analysis and cluster analysis based on personality and psychopathology (e.g., Gondolf, 1988; Gondolf & Fisher, 1988; Hamberger & Hastings, 1986; Hart, Dutton, & Newlove, 1993; Murphy, Meyer, & O'Leary, 1993), and the functionality, generality, severity, and/or physiological correlates of violence (e.g., Chase, O'Leary, & Heyman, 2001; Gottman et al., 1995; Jacobson et al., 1994; Saunders, 1992; Tweed & Dutton, 1998).

Research findings appear to converge on at least two subtypes of partner-violent men, which differ substantially in behavioral and personality correlates. One group appears to be more psychopathic, using violence instrumentally with both spouse and others, and exhibits early life-course delinquent and violent behavior, akin to Moffitt et al.'s (2002) early onset delinquents. The other group appears to be more fragile and high in negative affectivity, with borderline, dysphoric, and other features that render them less likely to resort to nonfamilial violence (Hamberger, Lohr, Bonge, & Tolin, 1996).

It is important to note that several criticisms have been raised regarding typologies of partner-violent men, including limitations on interrater agreement (Langhinrichsen-Rohling, Huss, & Ramsey, 2000) and instability over time (Holtzworth-Munroe & Meehan, 2004). Nevertheless, other researchers (e.g., Lohr, Bonge, Witte, Hamberger, & Langhinrichsen-Rohling, 2005) have noted that with expert clinicians as raters, some typologies exhibit considerably better interrater agreement and that the noted instability of the subtypes appeared to be primarily due to men moving into a less severely violent category over time (Holtzworth-Munroe & Meehan, 2004).

Using Structured Clinical Judgment in Subtyping and Assessing Partner-Violent Men

As forensic psychologists have become aware of the limitations of informal clinical judgment (e.g., Dawes, Faust, & Meehl, 1989; Grove & Meehl, 1996), many have attempted to employ more actuarial methods that allow ready quantification and cross-replication across samples (e.g., Quinsey, Harris, Rice, & Cormier, 2006). Although some actuarial risk assessment instruments minimize the role of clinical observation, risk assessment researchers have recently turned their attention to structured professional judgment (SPJ; Hart, 1998), an evidence-based model of risk assessment that differs from pure actuarial approaches by employing inferences made by clinicians using all available evidence and allowing flexibility in decision making

rather than strict application of algorithms or fully structured interviews (Douglas, Ogloff, & Hart, 2003).

In the field of violence prediction in particular, models of SPJ have yielded promising results. For example, Douglas, Yeomans, and Boer (2005) compared several semistructured violence risk indices of SPJ, such as the Historical-Clinical-Risk Management-20 (HCR-20; Webster, Douglas, Eaves, & Hart, 1997) and the Hare Psychopathy Checklist-Revised: Screening Version (Hart, Cox, & Hare, 1995), with traditional actuarial approaches (e.g., the Violence Risk Appraisal Guide—Harris, Rice, & Quinsey, 1993; the Violent Offender Risk Assessment Scale—Howells, Watt, Hall, & Baldwin, 1997). They found evidence supporting equal predictive power for actuarial methods and instruments employing SPJ, and studies of incremental validity are currently in progress (see Douglas et al., 2003).

A somewhat similar approach developed by Westen and colleagues (see Westen & Weinberger, 2004, 2005) has proven relevant to personality subtyping and is increasingly proving useful for forensic assessment. Westen and colleagues have created a set of psychometric instruments to be used by clinically experienced observers. The broadest and most widely used of these is the SWAP-II (Westen & Shedler, 2007; and its previous version, the SWAP-200; Westen & Shedler, 1999a, 1999b), a Q-sort instrument that requires a clinically experienced observer to sort a set of 200 personality-descriptive statements into 8 categories, from least descriptive of the patient to most descriptive, according to a fixed distribution (Block, 1978). The SWAP-II item set subsumes Axis II criteria included in *DSM-III* (*Diagnostic and statistical manual of mental disorders*, 3rd ed., American Psychiatric Association, 1980) through *DSM-IV* (*Diagnostic and statistical manual of mental disorders*, 4th ed., American Psychiatric Association, 1994), as well as selected Axis I criteria relevant to personality (e.g., anxiety and depression), important personality constructs described in the clinical and research literatures over the past 50 years, and clinical observations from pilot studies. The SWAP-II was designed for use by clinicians of all theoretical orientations, and factor analysis of the items yields similar structure regardless of the theoretical orientation of the observer (Shedler & Westen, 2004a).

For forensic assessment, the SWAP-II has four potential advantages. First, unlike single-disorder instruments such as the PCL-R (Hare, 1991, 2003), it assesses the range of personality disorders (PDs) in *DSM-IV*. It also has psychopathy scales derived empirically from random clinical samples of both adolescents and adults that strongly resemble the construct of psychopathy as elaborated by Cleckley (1941, 1982) and operationalized by Hare (see Shedler & Westen, 2004b; Westen, Dutra, & Shedler, 2005; Westen &

Shedler, 1999b). Second, because its item content is broad, the SWAP-II can be used to develop subtypes or other scales predicting clinically meaningful variables, such as likely response to various forms of treatment (see, for example, Thompson-Brenner & Westen, 2005; Westen & Harnden-Fischer, 2001). Third, because its scale scores are written with minimal jargon, the scales can be used directly in clinical practice by gauging the match between the patient and empirically derived subtypes. This is accomplished with a simple correlation coefficient (called a Q correlation; see Block, 1978), correlating the individual's 200-item profile with the 200-item profile of a criterion-keyed normative sample, such as a partner-violent subtype. The resulting scale scores index the match of the patient to prototypes of empirically derived subgroups. Fourth, the SWAP was designed to be used either for research or clinical purposes (e.g., evaluation, risk prediction), following a systematic clinical interview very similar to interviews used by skilled forensic and other clinicians (Westen & Muderrisoglu, 2003) or on the basis of extensive experience with a patient or offender over time, review of case records, and so forth. Thus, it can be readily used clinically without any additional time, except for the time it takes to rank the items electronically using an Excel-based or Web-based program or (e.g., on the basis of prior knowledge of the patient). The result is not only a quantitative profile of the patient but also a systematic case formulation, which can be used in everyday practice. Indeed, the goal in developing the instrument was to integrate research and practice, by quantifying expert clinical judgment (Westen & Shedler, 2007).

In the first published forensic study using the SWAP-200, Marin-Avellan, McGauley, Campbell, and Fonagy (2005) found that SWAP-200 PD scales not only predicted ward behavior in a maximum security forensic facility but also showed incremental validity over a widely used structured interview for PD diagnosis in predicting index offense, particularly whether or not the offense was violent. In the first study using the SWAP-200 to study partner-violent men, Porcerelli, Cogan, and Hibbard (2004) compared the scores of 25 partner-violent male psychotherapy patients with 27 maritally distressed but nonviolent male psychotherapy patients on SWAP-200 PD scales. Partner-violent men in general psychotherapy showed significantly higher levels of Cluster B ("dramatic/erratic") personality pathology, in contrast with maritally distressed men, who showed higher levels of Cluster C ("anxious/fearful"). The items most descriptive of the two types of men (i.e., items with the highest average ranking in the Q sort, aggregated across individuals in each group) differed substantially. The partner-violent group showed more controlling behavior; feelings of rage, humiliation, and mistreatment; and

impulsivity. The maritally distressed, nonviolent men showed a mixture of items reflecting health and pathology, particularly pathology related to anxiety, depression, and difficulties expressing anger. Although this study was an important first step, the number of partner-violent men ($n = 25$) was too small to identify possible subtypes. Research just completed in our lab using logistic regression (unpublished data) finds that SWAP-II factor scores (e.g., psychopathy, emotional dysregulation, narcissism, hostility, and sexual conflict) predict a range of forensic outcomes, notably history of arrests, violent crime, and IPV in a general clinical sample after holding constant variables such as age, gender, socioeconomic status (SES), childhood trauma history, substance abuse, and childhood delinquency.

The Present Study

In this study, we examined a larger sample of partner-violent men, drawn from a large NIMH-funded study of patients ($N = 1,201$) in treatment in North America with a range of personality pathology, from relatively mild to relatively severe. This study had three aims: The first was to use multivariate techniques to identify personality-based subgroups of partner-violent men in a general clinical sample. The second was to validate these subgroups using external criteria, including patterns of comorbid Axis I and Axis II pathology, adaptive functioning, etiologically relevant developmental and family history variables, and treatment response. The third was to determine whether these groups could be distinguished from male patients with a history of nonviolent criminal offenses and from male patients with no history of violence or arrests, which would provide strong initial evidence for discriminant validity.

Method

Sample

As part of an NIMH-funded project on the classification and diagnosis of personality pathology, we contacted a random national sample ($N = 1,201$) of psychiatrists and psychologists with at least 5 years experience postresidency (MDs) or postlicensure (PhDs) from the membership registers of the American Psychiatric and American Psychological Associations. We sent letters to randomly selected practicing clinicians, briefly describing the study, and inviting them to participate. The response rate was approximately 35%. Participating clinicians received a consulting fee of US\$200 for a procedure that required approximately 2 hr of their time.

Participating clinicians were asked to describe “an adult patient you are currently treating or evaluating who has enduring pattern of thoughts, feeling, motivation or behavior—that is, personality patterns—that cause distress or dysfunction.” To obtain a broad range of personality pathology, from relatively minimal to substantial, we emphasized that patients must have problematic personality features but need not have a PD diagnosis. Patients had to meet the following additional inclusion criteria: ≥ 18 years of age, not currently psychotic, and known well by the clinician (using the guideline of ≥ 6 clinical contact hours but ≤ 2 years, to minimize confounds imposed by personality change with treatment). To minimize selection biases, we directed clinicians to consult their calendars to select the last patient they saw during the previous week who met study criteria. Each clinician contributed data on only one patient, to minimize rater-dependent variance.

For the purposes of this article, we used data from a subset of clinicians ($n = 188$) who described a male patient who had committed partner abuse ($n = 59$), one or more nonviolent criminal offenses ($n = 97$), or no partner abuse/no criminal offenses ($n = 57$). To obtain relatively similar numbers of patients across groups, we included all male patients who had partner abuse or arrests and took a random subsample of those with no partner abuse or arrests for comparison purposes.

Measures

We briefly describe here the measures relevant to the present study.

Clinical Data Form (CDF). The CDF is a clinician-report form developed over several years that assesses a range of variables relevant to demographics, Axis I diagnosis, and etiology. A full description of the questions found on the CDF is found elsewhere (e.g., Westen & Shedler, 1999a). Research has demonstrated that clinician ratings of even more inferential adaptive-functioning variables such as the GAF show high interrater reliability and validity (e.g., correlations with the same data obtained by independent interview $r > .60$; Hilsenroth et al., 2000; Westen & Muderrisoglu, 2003; Westen, Muderrisoglu, Fowler, Shedler, & Koren, 1997) and that clinicians’ judgments have predicted theoretically relevant criterion variables and have reflected reasonable and highly conservative decision rules (e.g., Dutra, Eddy, & Westen, 2003; Nakash-Eisikovits, Dierberger, & Westen, 2002).

To identify male perpetrators of IPV, we examined the response to Question #22 on the CDF, “Has the patient been in a physically abusive relationship as an adult? If ‘yes,’ was the patient the victim, perpetrator, or both?” All male patients identified as perpetrators in an adult abusive relationship in

this manner were selected as partner-violent males, whether they were only perpetrators or had been both victim and perpetrator.

Shedler–Westen Assessment Procedure-II (SWAP-II). The SWAP-II is the latest version of the SWAP-200 Q sort, which has been used in a number of taxonomic studies (Shedler & Westen, 2004a, 2004b; Westen & Harnden-Fischer, 2001; Westen & Shedler, 1999a, 1999b). The SWAP-II is a set of 200 personality-descriptive statements—printed index cards, sorted by a clinically experienced observer into eight categories from those that are least descriptive of the patient (“0”) to those that are most descriptive (“7”), according to a fixed distribution (Block, 1978). Items are written in jargon-free English (e.g., “Tends to be passive and unassertive”), and items that require inferences about internal processes are written in simple and straightforward language (e.g., “Tends to blame others for own failures or shortcomings; tends to believe his or her problems are caused by external factors”). Just as the SWAP-200 reflected an iterative process of item refinement over many years, the SWAP-II was revised to accommodate new findings, minimize redundancy among items, and so on.

Axis II checklist. To generate both categorical and dimensional *DSM-IV* PD diagnoses, we presented clinicians with a randomly ordered checklist of the criteria for all Axis II disorders. In prior studies, this method has produced results that mirror findings based on structured interviews such as the Structured Clinical Interview for *DSM-IV* Axis-II Personality Disorders. (e.g., Blais & Norman, 1997; Morey, 1988; Westen, Shedler, Durrett, Glass, & Martens, 2003). The checklist obtains both present/absent and severity ratings on each symptom using a procedure similar to that used in the ADIS (Anxiety Disorder Interview Schedule) interview for anxiety disorders (Brown, DiNardo, & Barlow, 1994). To create categorical diagnoses, *DSM-IV* decision rules were applied to the present/absent data. PDs were assessed dimensionally by counting the number of criteria met (rated “present”) for each disorder.

Statistical Analysis

To identify potential subgroups of partner-violent men on the basis of personality profiles, we used Q factor analysis (also called inverse factor analysis), a technique that has been used effectively in studies of normal personality (Block, 1978; Caspi, 1998; Robins, John, Caspi, Moffitt, & Stouthamer-Loeber, 1996) and personality pathology in clinical samples (Westen & Harnden-Fischer, 2001; Westen & Shedler, 1999b; Westen et al., 2003). Whereas conventional factor analysis identifies items that share a common

underlying dimension (a common factor) across patients, Q analysis as applied to personality data identifies patients who share a core personality style or organization (i.e., patients who have similar profiles) across items. Q-factor analysis does not have the same constraints on number of cases required for analysis as traditional factor analysis and can be accomplished with even a small number of cases (see Block, 1978; Thompson, 2000). Although all procedures have their strengths and limitations, for the present purposes, Q-factor analysis has three advantages relative to other clustering procedures. First, it does not require the assumption of mutually exclusive types. Thus, patients can load on multiple factors (called Q factors) to differing degrees. Second, it does not assume that subgroups exist. Thus, like conventional factor analysis, it can identify unidimensional as well as multidimensional constructs. Third, Q-factor analysis as applied to data from the SWAP for both adolescents and adults has produced clinically and theoretically coherent groupings of patients that not only have replicated across samples but also have shown theoretically predictable correlates indicative of validity (see, for example, Thompson-Brenner & Westen, 2005; Zittel & Westen, 2005).

In conducting the Q-factor analysis, we followed standard factor-analytic procedures, first entering the data into a principal components analysis, specifying eigenvalues ≥ 1 (Kaiser's criteria) and using the scree plot, percent of variance accounted for, and parallel analysis (Horn, 1965; O'Conner, 2000) to determine the number of Q factors to rotate. These procedures suggested a 3- or 4-factor solution. We applied multiple estimation procedures with 3 and 4 factors to increase the likelihood of identifying robust and coherent factors. Once we identified an optimal solution, we created dimensional and categorical scores for each patient as follows. For dimensional scores, we used Q correlations, which, as noted earlier, reflect the correlation or "match" between each patient's 200-item profile and the empirically generated 200-item Q-factor profiles (see Block, 1978). We created categorical subgroup assignments by placing patients in the group in which they had the highest Q correlation (similar to a factor loading) $\geq .30$. This allowed us to test hypotheses conservatively, given that several patients had secondary loadings $>.20$.

Next, we tested the validity of the subgroups by examining their external correlates using correlational analysis or, where appropriate, contrast analysis. Contrast analysis (applied here to categorical data) maximizes power, minimizes the likelihood of spurious findings resulting from running multiple analyses, and allows researchers to ask focal, one-tailed questions about the relative ordering of group means rather than global questions that are usually of less theoretical interest (e.g., whether group means differed in some unspecified way; Rosenthal, Rosnow, & Rubin, 2000). We generated contrast

weights (i.e., hypotheses about the relative ordering of means) on the basis of prior research and examination of the item content of the SWAP-II-A Q factors (subgroups or personality constellations), prior to examining their association with external criterion variables. For nondiagnostic criterion variables, to maximize power, we treated the subgroups as dimensions (personality constellations a patient can resemble to varying degrees) and correlated patients' scores on each dimension with variables of interest using Pearson's r .

To maximize reliability of external correlates, we standardized and aggregated ratings of relevant constructs to create composite variables related to adaptive functioning and developmental history. Adaptive functioning composites included global assessment of functioning (mean GAF, degree of personality health-sickness, quality of romantic relationships, quality of friendships, and social support). We also created composite variables for psychiatric status (history of suicide attempts and hospitalizations), employment (history of employment and job loss in the last 5 years), health (frequency of illness and current overall health), and childhood psychopathy or severe externalizing behavior (history of fire setting, animal torture, violence, arrests, and stealing). We similarly created developmental and family history composites, including toxic childhood events (number of adverse events experienced), family environment (on the basis of standardized ratings of family stability, family warmth, relationship with each parent, and degree of psychiatric impairment of each parent), attachment disruption (parental divorce, adoption after infancy, foster care, lengthy separations from primary attachment figure, alcoholic parent or stepparent, residential placements), and childhood trauma (physical abuse and sexual abuse). For family history variables, we composited data across first- and second-degree relatives to code for any family history of a given class of disorder, including internalizing (mood and anxiety disorders) and externalizing (criminality and substance abuse) spectra (see Krueger et al., 2002; Krueger et al., 2005) in biological relatives.

Results

Sample Characteristics

The sample included 59 male patients with a reported history of perpetrating partner violence, 97 with a reported history of criminality but no partner violence and 57 with no reported history of criminality or partner violence. Psychiatrists composed 30.5% of the participating informants, psychologists 69.5%.

Of the partner-violent men, patients averaged 40.5 years of age ($SD = 11.8$). The mean GAF score was 56.0 ($SD = 11.0$). Most were working class (46.2%)

or middle class (24.2%), with 12.1% described as poor and 17.6% as upper class. The sample population's race/ethnicity categories were as follows: 72.5% White, 15.4% African American, and 6.6% Latino. As for educational qualifications of the participants, 41% completed a high school education or less, whereas 28% attended college, 13.2% completed a college degree, and 17.6% completed some graduate-level education. Another 28% had a reported history of being a victim in an adult abusive relationship. The two non-partner-violent groups were comparable to the partner-violent men on mean age (42.4 years, $SD = 12.35$) and GAF score (58.05, $SD = 10.73$) but differed in their rate of being a reported victim of an adult abusive relationship (3%). Across groups, patients were most frequently seen in private practice (42.4%), outpatient clinics (16.9%), inpatient or partial hospital settings (13.6%), or forensic settings (22.0%).

Descriptive statistics on Axis I disorders for the partner-violent subsample are consistent with research finding an association between violence and both depression and substance abuse: 28.8% were diagnosed with major depression, and 39.0% with substance use problems. With respect to Axis II diagnoses, 66.0% met criteria for antisocial PD (APD), 44.1% for paranoid PD, 27.1% for borderline PD (BPD), 16.9% for avoidant PD, and 8.5% for dependent PD.

To provide a general personality description of the partner-violent men in this study, we aggregated the SWAP-200 profiles of all patients who had reportedly committed partner violence and arrayed the items in the order of highest ranked to lowest ranked. This yielded a composite portrait or prototype of the "average" partner-violent men in the sample (Table 1). Consistent with the findings of Porcerelli et al. (2004), this portrait is marked by anger, impulsivity, and alienation. Interpersonally, the average partner-violent man was characterized as having few close relationships, being sensitive to criticism and having a tendency to hold grudges, involved in power struggles, and critical and controlling. They tended to be emotionally dysregulated, impulsive, lacking in insight, and prone to feeling misunderstood, mistreated, or victimized.

Identifying Personality Subgroups of Partner-Violent Men Using Q Analysis

Although this portrait of personality in partner-violent men is conceptually coherent and consistent with data from many prior studies (Westen & Harnden-Fischer, 2001), an important question is whether it may overgeneralize or miss important within-group patterned variation by focusing

Table 1. Composite SWAP II Profile of Partner-Violent Men ($n = 59$)

SWAP Item	Mean Rank	SD
Tends to be angry or hostile (whether consciously or unconsciously).	4.63	2.30
Tends to feel misunderstood, mistreated, or victimized.	4.32	2.11
Is prone to intense anger; out of proportion to the situation at hand (e.g., has episodes of rage).	3.88	2.57
Tends to be impulsive.	3.82	2.47
Tends to get into power struggles.	3.76	2.26
Tends to react to perceived slights or criticism with rage and humiliation.	3.74	2.17
Tends to blame own failures or shortcomings on other people or circumstances, attributes his or her difficulties to external factors rather than accepting responsibility for own conduct or choices	3.62	2.63
Tends to hold grudges, may dwell on insults or slights for long periods	3.54	2.41
Is articulate, can express self well in words	3.54	2.48
Tends to feel unhappy, depressed, or despondent	3.52	2.48
Emotions tend to spiral out of control, leading to extremes of anxiety, sadness, rage, and so on.	3.52	2.49
Tends to be critical of others.	3.52	2.18
Has little psychological insight into own motives, behavior, and so on.	3.46	2.26
Is prone to violence (e.g., may break things or become physically assaultive).	3.38	2.49
Tends to be controlling.	3.36	2.51
Tends to be conflicted about authority (e.g., may feel she or he must submit, rebel against, win over, etc.).	3.35	2.19
Lacks close friendships and relationships	3.34	2.32
Attempts to avoid feeling helpless or depressed by becoming angry instead.	3.33	2.24

primarily on the “average” partner-violent man. It may be, in fact, that the average is a composite of several kinds of men with different personality configurations and etiologies. Thus, we employed Q factor analysis to investigate personality subgroups within the partner-violent men sample.

As described previously, multiple indices suggested a 3- or 4-factor solution. We chose an oblique (Promax) rotation because of our expectation of correlated Q factors or subgroups, although other rotation procedures generated similar solutions, as did both 3- and 4-factor rotations. We retained the

first 3 factors of the 4-factor Promax solution using principal-axis-factor estimation. These three factors accounted for 42.6% of the variance.

Table 2 shows the items that best characterized the latest constructs underlying each Q factor. We report here the 18 items (the number of items in the two highest categories in the Q sort) that yielded the 18 largest factor scores for each subgroup. Items are arranged in descending order, on the basis of factor scores, expressed in standard deviation units that reflect the item's magnitude in describing the latent construct (i.e., constellation of covarying traits of personality features) relative to the other items in the item set. We labeled these subgroups *psychopathic*, *hostile/controlling*, and *borderline/dependent*.

As seen in Table 2, partner-violent men who match the psychopathic prototype are characterized by little investment in moral values, impulsivity, and a lack of remorse; tend to abuse drugs/alcohol; and tend to manipulate others and dominate them through violence. Partner-violent men who match the hostile/controlling prototype are characterized by angry hostility, strong reactivity to perceived slights, and a tendency to be controlling, to get into power struggles, to be suspicious, to hold grudges and feel mistreated, to externalize blame, and to elicit dislike in others. Partner-violent males matching the borderline/dependent prototype are characterized by items reflecting negative affectivity, such as depression, ruminative tendencies, and rejection sensitivity, as well as multiple features associated with BPD, such as emotional dysregulation, feelings of emptiness, an inability to self-soothe, a tendency to become irrational when strong emotions are stirred up, and a deep sense of inner badness. Furthermore, they tend to be needy and dependent, to feel helpless, and to feel misunderstood and victimized.

Validating the Personality Subtypes

To provide initial validity data, we examined the relationship between the subtypes and several sets of variables that should distinguish patients if a taxonomic distinction is valid (see Livesley & Jackson, 1986; Robins & Guze, 1970). We focused on Axis I and Axis II diagnoses, adaptive functioning, childhood externalizing behavior, etiologically relevant (developmental and family history) variables, and treatment outcome. We contrasted the partner-violent men not only with one another but also with nonbattering men and men without an arrest history (i.e., an antisocial/nonbattering group and a non-antisocial/nonbattering group) on these variables.

For ease of interpretation, we assigned partner-violent men to the subgroup for which they received the highest score (i.e., with which their profile best "matched"), provided the Q correlation was $\geq .30$. Using this method we

Table 2. Empirically Derived Subtypes (Q Factors)

	Factor Score
Subtype 1: Psychopathic	
Takes advantage of others, has little investment in moral values (e.g., puts own needs first, uses or exploits people with little regard for their feelings or welfare, etc.).	2.55
Tends to act impulsively (e.g., acts without forethought or concern for consequences).	2.41
Has little empathy, seems unable or unwilling to understand or respond to others' needs or feelings.	2.36
Experiences little or no remorse for harm or injury caused to others.	2.32
Tends to be angry or hostile (whether consciously or unconsciously).	2.29
Is prone to violence (e.g., may break things or become physically assaultive).	2.20
Tends to show reckless disregard for the rights, property, or safety of others.	2.17
Tends to engage in unlawful or criminal behavior.	2.12
Tends to abuse drugs or alcohol.	2.12
Has little psychological insight into own motives, behavior, and so on.	2.06
Attempts to dominate a significant other (e.g., spouse, lover, family member) through violence or intimidation.	1.99
Tends to be manipulative.	1.99
Tends to blame own failures or shortcomings on other people or circumstances, attributes his or her difficulties to external factors rather than accepting responsibility for own conduct or choices.	1.95
Appears impervious to consequences, seems unable or unwilling to modify behavior in response to threats or negative consequences.	1.92
Tends to be deceitful, tends to lie or mislead.	1.89
Tends to be unreliable and irresponsible (e.g., may fail to meet work obligations or honor financial commitments).	1.76
Tends to be controlling.	1.70
Tends to get into power struggles.	1.60
Subtype 2: Hostile/controlling	
Tends to be angry or hostile (whether consciously or unconsciously).	2.75
Is prone to intense anger, out of proportion to the situation at hand (e.g., has rage episodes).	2.66
Tends to get into power struggles.	2.52
Tends to hold grudges, may dwell on insults or slights for long periods.	2.46
Tends to blame own failures or shortcomings on other people or circumstances, attributes his or her difficulties to external factors rather than accepting responsibility for own conduct or choices.	2.35
Tends to feel misunderstood, mistreated, or victimized.	2.25
Tends to be controlling.	2.23
Tends to be critical of others.	2.12

(continued)

Table 2. (continued)

	Factor Score
Tends to elicit dislike or animosity in others.	2.09
Lacks close friendships and relationships.	2.06
Tends to have extreme reactions to perceived slights or criticism (e.g., may react with rage, humiliation, etc.).	2.04
Has little empathy, seems unable or unwilling to understand or respond to others' needs or feelings.	1.85
Is suspicious; tends to assume others will harm, deceive, conspire against, or betray him or her.	1.81
Experiences little or no remorse for harm or injury caused to others.	1.68
Tends to be competitive with others (whether consciously or unconsciously).	1.64
Emotions tend to spiral out of control, leading to extremes of anxiety, sadness, rage, and so on.	1.62
Has little psychological insight into own motives, behavior, and so on.	1.59
Is prone to violence (e.g., may break things or become physically assaultive).	1.58
Subtype 3: Borderline/dependent	
Tends to feel unhappy, depressed, or despondent.	3.18
Emotions tend to spiral out of control, leading to extremes of anxiety, sadness, rage, and so on.	2.35
Tends to fear she or he will be rejected or abandoned.	2.35
Tends to feel helpless, powerless, or at the mercy of forces outside his or her control.	2.23
Tends to feel misunderstood, mistreated, or victimized.	2.06
Tends to feel she or he is inadequate, inferior, or a failure.	2.05
Tends to be needy or dependent.	1.85
Tends to ruminate, may dwell on problems, replay conversations in his or her mind.	1.71
Is prone to painful feelings of emptiness (e.g., may feel lost, bereft, abjectly alone even in the presence of others).	1.68
Tends to "catastrophize," is prone to see problems as disastrous, unsolvable, and so on.	1.67
Tends to feel listless, fatigued, or lacking in energy.	1.62
Tends to feel like an outcast or outsider.	1.62
Is unable to soothe or comfort him or herself without help of another person (i.e., difficulty regulating own emotions).	1.61
Has a deep sense of inner badness, sees self as damaged, evil, or rotten to the core (consciously or unconsciously).	1.49
Tends to feel anxious.	1.47
Tends to feel guilty (e.g., may blame self or feel responsible for bad things that happen).	1.43
Tends to feel ashamed or embarrassed.	1.34
Tends to become irrational when strong emotions are stirred up, may show a significant decline from customary level of functioning.	1.33

were able to classify 56 of the 59 partner-violent men in our sample. (For the logic of this procedure, see Block, 1978; Westen & Harnden-Fischer, 2001). We specified a priori contrasts, which allowed us to test focal hypotheses about the relative ordering of group means (Rosenthal et al., 2000), yielding effect-size estimates (r). Our hypotheses were based on the item content of the subgroups and on prior research that has identified similar subtypes with other samples (Bradley et al., 2005; Westen & Harnden-Fischer, 2001).

Table 3 presents the data on Axis I and II pathology, adaptive functioning, treatment response, and childhood externalizing behavior. As can be seen from the effect-size estimates (r), the general patterns strongly support construct validity of the personality subtypes. With respect to Axis I and Axis II diagnoses, the borderline/dependent group showed the highest levels of internalizing spectrum pathology (Krueger, Caspi, Moffitt, & Silva, 1998) reflected in diagnoses of major depression and GAD (general anxiety disorder). Higher rates of substance abuse were found in the nonviolent/arrested men, followed by the psychopathic partner-violent men and the hostile/controlling partner-violent men. Psychopathic partner-violent men were strikingly higher than all other groups on APD diagnoses. Hostile/controlling partner-violent men were highest on paranoid PD, and borderline/dependent partner-violent men were highest on borderline and dependent PDs. Predictably, nonviolent/nonarrested patients were highest on avoidant PD, demonstrating that partner-violent men are not simply higher in personality pathology in general.

As predicted, psychopathic partner-violent men showed the poorest level of global functioning and the most difficulty with occupational functioning, whereas the borderline/dependent partner-violent men showed the poorest physical health (a finding consistently obtained across samples of borderline patients). The data on childhood externalizing pathology are particularly striking. Psychopathic partner-violent men showed the greatest incidence and earliest onset on composite measures of childhood externalizing behavior and were consistently higher on a range of child psychopathic behaviors (e.g., enuresis, violence, fire setting). The magnitude of these effects is strikingly large, which is particularly interesting given the inclusion of two other groups (hostile-controlling partner-violent men, and non-partner-violent men with arrest records) characterized by externalizing pathology. Contrary to predictions, the borderline/dependent subgroup was not highest on a composite measure of psychiatric status (suicide attempts and psychiatric hospitalizations).

Table 4 presents data on relevant etiologic variables (developmental and familial history of psychopathology). The main variable that distinguished all three partner-violent groups from the other two groups was childhood trauma, particularly a history of physical abuse. The psychopathic subtype

Table 3. Validity of Subtypes

Variable	Partner-Violent (PV) Men Subtypes			Non-PV Men			Hypotheses (Contrasts) and Tests		
	Psychopathic (n = 30), M (SD)	Controlling (n = 14), M (SD)	Borderline/ Dependent (n = 12), M (SD)	No Arrests (n = 57), M (SD)	Arrests (n = 97), M (SD)	Prediction	t (df)	Significance	r
Axis I %									
Major depressive disorder (MDD)	13 (35)	36 (50)	67 (49)	35 (48)	35 (48)	3 > 4 > 5 > 2 > 1	3.84 (31.79)	<.001	.56
General anxiety disorder (GAD)	10 (31)	0 (<.001)	42 (52)	19 (40)	12 (33)	3 & 4 > 5 > 2 > 1	1.99 (34.52)	.025	.32
Substance Abuse	43 (50)	43 (51)	33 (49)	16 (37)	52 (50)	1 & 5 > 2 & 3 > 4	4.87 (109.59)	<.001	.41
Axis II %									
Paranoid	53 (51)	57 (52)	17 (39)	16 (37)	34 (48)	2 > 3 & 5 & 1 > 4	4.26 (205)	<.001	.23
Antisocial	90 (31)	57 (51)	33 (49)	11 (31)	63 (49)	1 > 5 > 2 > 3 > 4	12.63 (90.5)	<.001	.71
Borderline	30 (47)	14 (36)	42 (51)	18 (38)	27 (45)	3 > 5 > 2 & 4 > 5	1.11 (205)	.135	.20
Avoidant	13 (35)	21 (43)	25 (45)	49 (50)	34 (48)	3 & 5 > 4 > 2 > 1	5.71 (51.93)	<.001	.23
Dependent	03 (18)	0 (<.001)	33 (49)	09 (29)	17 (38)	3 > 4 > 5 > 2 > 1	4.95 (35.74)	<.001	.59

(continued)

Table 3. (continued)

Variable	Partner-Violent (PV) Man Subtypes			Non-PV Men			Hypotheses (Contrasts) and Tests		
	Psychopathic (n = 30), M (SD)	Controlling (n = 14), M (SD)	Borderline/ Dependent (n = 12), M (SD)	No Arrests (n = 57), M (SD)	Arrests (n = 97), M (SD)	Prediction	t (df)	Significance	r
Adaptive Global functioning	0.53 (0.47)	0.46 (0.74)	0.31 (0.49)	0.19 (0.56)	0.39 (0.63)	4 > 2 > 1 & 3 & 5	5.71 (206)	<.001	.37
Employment	-0.76 (0.94)	-0.68 (0.84)	-0.27 (1.12)	0.06 (0.81)	-0.56 (0.85)	4 > 3 > 2 > 1 & 5	4.99 (206)	<.001	.33
Health	0.26 (0.78)	0.22 (0.76)	-0.75 (0.70)	0.06 (0.81)	-0.01 (0.88)	4 > 1 & 2 > 5 > 3	2.89 (206)	.002	.20
Treatment response	2.86 (0.91)	3.00 (0.46)	3.13 (0.67)	3.15 (0.69)	2.96 (.80)	4 > 3 > 2 > 1 & 5	1.82 (187)	.035	.13
Child externalizing									
Psychopathy composite	1.84 (2.30)	0.51 (0.94)	-0.01 (0.50)	-0.15 (0.17)	0.46 (1.18)	4 > 3 > 2 > 1 & 5	1.82 (187)	.035	.70
Delinquency onset	-1.46 (1.72)	-0.54 (0.95)	-0.08 (0.88)	0.13 (0.34)	-0.42 (0.94)	4 > 3 > 2 > 1 & 5	6.72 (51.91)	<.001	.68
Enuresis %	20 (41)	17 (39)	08 (29)	02 (14)	15 (36)	1 & 5 > 2 & 3 > 4	3.42 (62.20)	<.001	.40
Fire setting %	20 (41)	00 (00)	0	0	08 (28)	1 & 5 > 2 & 3 > 4	3.56 (37.65)	<.001	.50
Animal torture %	28 (46)	08 (28)	0	0	06 (24)	1 & 5 > 2 & 3 > 4	3.84 (32.88)	<.001	.56
Violence %	30 (47)	14 (36)	0	0	04(20)	1 & 5 > 2 & 3 > 4	3.90 (32.29)	<.001	.57

Table 4. Developmental and Family History Variables

Variable	Partner-Violent (PV) Man Subtypes			Non-PV Men		Hypotheses (Contrasts) and Tests			
	Psychopathic (n = 30)	Controlling (n = 14)	Borderline/ Dependent (n = 12)	No Arrests (n = 57)	Arrests (n = 97)	Prediction	t (df)	Significance	r
Developmental history									
Adverse child events composite	3.33 (2.14)	2.50 (1.51)	1.67(1.72)	1.26 (1.34)	2.11 (2.13)	3 > 1 & 5 > 2 > 4	2.86 (30.42)	.004	.46
Family environment composite (dimensional)	-0.24 (0.66)	-0.25 (0.56)	-0.13 (0.65)	0.18 (0.81)	-0.01 (0.77)	3 > 1 & 5 > 2 > 4	-2.04 (206)	.021	.14
Separation/ attachment composite (dimensional)	0.53 (0.79)	0.29 (0.87)	-0.09 (0.47)	-0.11 (0.39)	0.23 (0.70)	3 > 1 & 5 > 2 > 4	2.68 (37.87)	.005	.40
Childhood trauma aggregate (dimensional)	0.58 (0.77)	0.35 (0.61)	0.36 (0.43)	-0.18 (0.58)	0.08 (0.74)	3 > 1 & 5 > 2 > 4	3.76 (206)	< .001	.25
Child physical abuse %	50 (51)	36 (50)	50 (52)	19 (40)	22 (42)	3 > 5 > 1 & 2 > 4	1.88 (18.18)	.02	.40
Child sexual abuse %	23 (43)	07 (27)	17 (39)	09 (29)	18 (39)	3 > 5 > 1 & 2 > 4	1.00 (17.94)	.16	.23
Witnessed violence in home %	47 (51)	36 (50)	08 (29)	14 (35)	23 (42)	3 > 1 & 5 > 2 > 4	1.71 (88.75)	.045	.18

(continued)

Table 4. (continued)

Variable	Partner-Violent (PV) Man Subtypes			Non-PV Men		Hypotheses (Contrasts) and Tests			
	Psychopathic (n = 30)	Controlling (n = 14)	Borderline/ Dependent (n = 12)	No Arrests (n = 57)	Arrests (n = 97)	Prediction	t (df)	Significance	r
Alcoholic in home %	50 (51)	64 (50)	33 (49)	26 (44)	40 (49)	3 > 1 & 5 > 2 > 4	1.32 (33.33)	.085	.22
In foster care %	13 (35)	14 (36)	0 (<.001)	0 (<.001)	06 (24)	3 > 1 & 5 > 2 > 4	2.88 (38.02)	.004	.42
Department of Social Service (DSS) involvement %	28 (46)	29 (47)	0 (<.001)	0 (<.001)	10 (30)	3 > 1 & 5 > 2 > 4	4.20 (35.73)	<.001	.57
Family history %									
Internalizing	13 (35)	29 (47)	67 (49)	49 (50)	38 (49)	3 & 4 > 5 > 2 > 1	4.52 (40.50)	<.001	.58
Externalizing	57 (50)	50 (52)	42 (51)	44 (50)	51 (50)	1 > 5 > 3 > 2 > 4	0.98 (206)	.16	.07
Anxiety disorders	07 (25)	14 (36)	33 (49)	37 (49)	30 (46)	4 > 3 > 5 > 2 > 1	3.75 (47.36)	<.001	.48
Criminality	20 (41)	0 (<.001)	0 (<.001)	02 (13)	10 (30)	1 > 5 > 3 > 2 > 4	2.75 (47.64)	.004	.37

clearly had the most developmental risk factors, showing the highest scores on number of adverse events, history of significant separations, and sexual abuse. Hostile/controlling partner-violent men also showed considerable adversity as children, sharing with the psychopathic group a history of foster care, Department of Social Services (DSS), or comparable state agency involvement; witnessing violence in the home; and being taken care of by an alcoholic caregiver. With respect to family history, roughly half of patients in all five groups had externalizing pathology in at least one close relative, although the psychopathic group was unique in its relationship to criminal history in biological relatives. Of particular note, as well, is the low base rate of anxiety disorders in the families of psychopathic partner-violent men.

Discussion

Using a different method, informant, and set of statistical procedures, we found evidence for two types of partner-violent men identified repeatedly in the literature, and we identified a third that in some respects resembles the low-level antisocial group derived by Holtzworth-Munroe et al. (2000). The subtypes that emerged are clinically recognizable and readily applicable to clinical practice either by using the SWAP-II and correlating a patient's profile with the empirically derived prototypes, or by gauging patient match to the 18-item prototype using a simple prototype matching approach (see Westen & Bradley, 2005; Westen & Shedler, 2007; Westen, Shedler, & Bradley, 2006). The findings suggest the potential utility of the SWAP-II for both subtyping in forensic evaluation and for providing psychologically rich portraits of subgroups that suggest potential causal relations that may have implications for treatment.

Subtype 1: Psychopathic Partner-Violent Men

Psychopathic partner-violent men tend to use violence instrumentally, possibly to dominate their spouse. They tend to be generally violent, with a history of assaultive behavior across relationships that begins in childhood. This group is similar to the instrumental group described by Hamberger et al. (1996); the generally violent group described by Saunders (1992); the antisocial group described by Dutton (1988); and the generally violent/antisocial group described by Holtzworth-Munroe and Stuart (1994). We chose to call this group psychopathic because of the features this group has in common with psychopathic personality as described by Cleckley (1941), such as impulsivity, remorselessness, and a lack of empathy. Of the subtypes we

identified, psychopathic partner-violent men showed the poorest adaptive functioning and had the worst employment record, creating a multitude of stressors in the marital relationship. Their childhood functioning tended to foreshadow their later behavioral discontrol, as they were 1.5 standard deviations below the sample mean in age of onset of delinquent or aggressive behavior and, unlike any of the other groups, showed the triad of enuresis, fire setting, and animal torture long described in the clinical literature (e.g., Wax & Haddox, 1974). These men resemble Moffitt et al.'s (2002) life-course-persistent delinquents Frick's "callous-unemotional" children (1995) and Lynam's (1996) "fledgling psychopaths" grown up.

Men in this subgroup appeared to experience the most childhood adversity of any of the groups we studied. Half witnessed violence, half experienced physical abuse themselves, nearly one third experienced state involvement in response to of abuse or neglect, and roughly one quarter reported to their clinicians credible histories of sexual abuse. Psychopathic partner-violent men were also the only group of the five we studied to have extensive rates of familial criminality, although we cannot, of course, determine, using the present methodology, the extent to which this reflects social learning, a more broadly troubled childhood family environment, genetic factors, or their interaction. Also of note was the low incidence of anxiety disorders in the families of psychopathic partner-violent men, suggesting that at least a subset of these men may have corticolimbic deficits linking emotional circuits in the amygdala and other parts of the limbic system with prefrontal (particularly orbital frontal) regions, rendering them less responsive to fear conditioning (see Birbaumer et al., 2005). What kind of treatment might be most helpful to psychopathic partner-violent men is as unclear as the literature on treatment of psychopathy in general (see Fowler & Lilienfeld, 2006), although we suspect (as others have noted) that a one-size-fits-all model may not be the best strategy. For example, for psychopathic partner-violent men who have experienced childhood trauma, it could be argued that exploration of that trauma might give them some understanding of the patterns they are repeating with their own wives and children, and exposure to traumatic events in a supportive yet confrontive setting might "turn down the heat" on some of the triggers of their abusive behavior. On the other hand, because many psychopathic individuals are constitutionally unresponsive to punishment, it may be more useful to try to teach them how to "turn on" reasoning circuits in the brain (dorsolateral prefrontal cortex) when confronted with situations known to trigger abuse, given that normal emotionally driven constraints on behavior (orbital prefrontal cortex) are deficient and unlikely to be readily remediable. Preliminary findings by Saunders (1996) suggest that more structured

cognitive-behavioral therapy (CBT) interventions targeting more action-oriented strategies and reasoning may be more effective for a similar subgroup of partner-violent men. In their sample, men with antisocial traits were less likely to have been partner violent at 18-month posttreatment follow-up if they had received a variation of CBT.

Subtype 2: Hostile/Controlling Partner-Violent Men

Men who match the hostile/controlling subtype are angry and controlling and seem to have a “hair-trigger” propensity for rage. This group is similar to the dependent-passive aggressive group described by Hamberger et al. (1996); the family-only group described by Saunders (1992); and the overcontrolled type described by Dutton (1988) and Holtzworth-Munroe and Stuart (1994). They are suspicious, hypersensitive to perceived criticism, and tend to hold grudges. They tend to externalizing blame, and view themselves as misunderstood. These characteristics appear to alienate others, leaving them with few friends. As a result, their spouse is likely to be one of the few individuals with whom they have a relationship and may be a frequent scapegoat for the problems they experience in other areas of life. Like the psychopathic partner-violent men, many of these men have substance abuse problems. Though this subtype awaits replication, it paints a clinically coherent picture of a suspicious, paranoid, and controlling person who cannot take responsibility for his actions or for negative events (e.g., job losses) that are his own doing and instead attacks his partner. For this subtype, learning to regulate anger and altering the internal and external conditions that evoke it is very important. They tend to have poorer adaptive functioning relative to the other groups we studied, with the exception of the psychopathic partner-violent men. Although these men showed early warning signs of externalizing behavior and poor impulse control in childhood (e.g., enuresis, low but significant rates of violence), they did not evidence the broad spectrum of severe externalizing behavior characteristic of the psychopathic subgroup, such as fire setting and animal torture. Nor did they show early onset of delinquency.

These men were the most likely to have grown up with alcoholism in the home (64%). They had many other forms of childhood adversity in common with the psychopathic partner-violent men, although generally to a lesser degree (e.g., one third vs. one half witnessed and personally experienced violence in the home as a child, and few reported histories of sexual abuse). What most differentiated them from psychopathic men in terms of familial aggregation were a higher prevalence of internalizing disorders in relatives and an absence of criminality. For this subtype, exploring traumatic events,

developing a more stable attachment relationship over time with a therapist, and learning to regulate anger may be important in treatment planning. It is also important to note that others have found treatment dropout to be a significant problem for subtypes similar to our hostile-controlling type. For example, Hamberger, Lohr, and Gottlieb (2000) found that partner-violent men with MCMI (Millon Clinical Multiaxial Inventory) paranoid-scale elevations were more prone to drop out during the pretreatment assessment phase. Thus, it may be especially useful to identify these men early and tailor pretreatment engagement strategies to build client trust in the treatment provider. Hamberger et al. suggest that the rigorous inquiry about the client's personal life that is often a key component of assessment may trigger suspiciousness in this subgroup.

Subtype 3: Borderline/Dependent Partner-Violent Men

Borderline/dependent partner-violent men are unhappy, depressed, and prone to emotions that spiral out of control. This group is similar to dysphoric/borderline groups described by Dutton (1988) and Holtzworth-Munroe and Stuart (1994), and the emotionally volatile group described by Saunders (1992). Whereas feelings of depression, particularly anxiety, might serve as a protective factor for men who more closely resemble the psychopathic subgroup prototype (by putting the "brakes" on impulsive violence), negative affect appears to be a clear risk factor for borderline/dependent partner-violent men. These men are likely very dependent on their partners to soothe their feelings of failure, anxiety, and emptiness. However, they also suffer from deep fears of abandonment and tend to lash out at the person they love and need the most. These men may tend to catastrophize, and when strong emotions are stirred up they may lose control and become violent. They may engage in partner violence when feeling their lowest, creating a spiral in which they feel "bad," unworthy of love, and abusive, fueling their fears of abandonment. The abuse also likely fuels feelings of self-loathing and guilt; this is the type of partner-violent man who could be especially likely to beg for forgiveness after the assault and frantically promise not to do it again. Prior research suggests that these men show similar frequency and severity of abuse compared with anti-social/generally violent batterers (Hamberger et al., 1996). These may be particularly prone to violence if their wife attempts to leave because of extreme fears of abandonment. Of the battering subtypes, these men are intermediate in global functioning but better able to maintain steady employment, likely because their pathology manifests itself primarily in attachment relationships (see Tweed & Dutton, 1998). Notably absent are any signs of

aggressiveness or delinquency in childhood; these men appear fragile rather than generally violent.

Like the psychopathic partner-violent men, approximately half of the borderline/dependent partner-violent men appear to have a history of physical abuse, and slightly less than one fifth report a history of sexual abuse. Nevertheless, these patients do not appear to have come from the kinds of chaotic homes that lead to childhood separations from primary caregivers or state involvement. The majority of these men have a family history of internalizing pathology, and nearly half have a family history of externalizing pathology, but the latter reflects drug and alcohol abuse rather than criminality. These patients appear to be somewhat more responsive to psychotherapy than the other two groups. Working on the sources of their negative affectivity, learning to regulate emotion, and working on attachment relationships are likely to be of primary importance in treatment, although once again, these are speculations that require careful empirical examination.

Conclusions and Limitations

The Q-factor-analytically derived subtypes described here bear substantial resemblance to subtypes identified in research using very different methodologies, samples, instruments, and statistical procedures. They differ on external criteria suggestive of a valid taxonomic distinction, with each characterized by a predictable pattern of Axis I and II pathology, adaptive functioning, and small but significant differences in treatment responsiveness. Etiological differences among the subtypes converge with the assumption of heterogeneous pathways to domestic violence. We found an earlier age of onset and greater severity of externalizing behaviors in the psychopathic subgroup, pointing to a group of individuals that demonstrates indiscriminate physical cruelty from a young age. They also appear to have experienced the most trauma as children, including physical and sexual abuse. This converges with the theoretical view that psychopathy more generally is an outcome with heterogeneous pathways (e.g., Lykken, 1995). The other groups show unique developmental characteristics as well, such as a combination of alcoholism and violence in the home for the hostile/controlling subtype and childhood physical abuse coupled with a high incidence of familial internalizing pathology for the dependent/borderline group. Interestingly, all groups showed roughly equivalent rates of a family history of externalizing pathology (roughly 50%), although family history of criminality per se is uniquely associated with the psychopathic subgroup.

This study had several limitations. First and foremost, each target was rated by a single informant. Although clearly a limitation, it is difficult to propose a bias hypothesis that would explain the findings, given that clinicians were unlikely to have known the partner-violence subtype literature and were not asked to describe a partner-violent patient. The dataset was a general one, with the question about presence or absence of spousal abuse being one question among thousands. Research just completed in our lab (unpublished data) has also found extremely high correlations (most ranging from $r = .50-.70$) between clinician-report and self-report data on the same variables we used for validation in this study, particularly for aggregated variables, suggesting that the clinician-report data can serve as a proxy for patients' self-reports of variables regarding both their current adaptive functioning and family and developmental history.

A second limitation is that we used a general, clinical, nonforensic sample, precluding our access to information about severity and frequency of partner violence (as well as the possibility of identifying patients who may present in the community but not in mental health or forensic settings). This may limit generalizability. Similarly, our sample consisted of partner-violent men in therapy, which may further limit generalizability. However, 20% of the sample were forensic patients, with the remainder largely outpatients, suggesting a relatively representative sample of partner-violent men in treatment, whether voluntarily or involuntarily.

A fourth limitation is that the method of inquiry about domestic violence by the clinician is unknown, as is whether all patients in the dataset were even queried. Several researchers have found that people tend to underreport IPV and tend not to report it at all unless explicitly asked. Therefore, there may have been individuals in the larger sample who had committed IPV but did not report it or were not asked about it (false negatives). This is consistent with recent research from our lab showing that on questions about specific behaviors or past experiences (e.g., suicide attempts, sexual abuse), overall correct classification when comparing patient report with independent clinician report tends to be high (in the range of 80%), but the errors largely fall in the false-negative quadrant. Although a limitation, this suggests that we likely missed additional patients who could have been included in this study rather than that those included were done so inappropriately. Indeed, clinicians appear to have followed our instruction to rate any item on the CDF as "not present" unless they felt confident it was clearly present.

A final concern pertains to the practicality of using the SWAP-II in community domestic violence centers, which often have limited resources. Although this study included a battery of measures that took 2 hr to complete,

one of the advantages of the SWAP is that it can either be used for evaluation purposes along with a systematic clinical interview either for research or clinical applications and that clinicians who have seen a patient the equivalent of 5 hr or more can apply the instrument without any additional interviewing in about 45 min and obtain a diagnostic profile as well as an item analysis that constitutes a case formulation. Indeed, many clinicians are increasingly using the instrument in practice settings and supervision to hone their understanding of their patients. We are currently developing automated interpretive reports that integrate a quantitative diagnostic profile with a qualitative case formulation.

Future research should focus on data collection from multiple informants, assessing a range of variables, including those associated with general risk for violence, as well as variables addressing etiologic factors that can now be examined in the postgenomic era in ways that were inconceivable even 6 years ago when data collection on this project began.

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Bios

Katherine A. Fowler, PhD, is a postdoctoral research fellow at the National Institute of Mental Health. Her research addresses assessment and diagnostic conceptualization of psychopathy and other personality disorders, and developmental neurobiological correlates of aggressive and antisocial behavior.

Drew Westen, PhD, is a psychology professor at Emory University. His major areas of research are personality disorders, eating disorders, psychotherapy effectiveness, adolescent psychopathology, political psychology, and the interface of psychodynamics and neuroscience.