CHAPTER

29 Assessing Antisocial and Psychopathic Personalities

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Abstract

The assessment of antisocial and psychopathic personalities presents special challenges for the forensic evaluator. This chapter emphasizes use of the Hare Psychopathy Checklist-Revised (PCL-R), Rorschach, and Minnesota Multiphasic Personality Inventory (MMPI) for a comprehensive evaluation of these patients. These measures lend incremental validity to understanding these difficult patients, especially when combined with testing of intelligence and cognitive functioning. Integrating data from multiple domains is essential to answering the psycholegal and forensic treatment questions surrounding the antisocial and psychopathic patient. The forensically trained clinical psychologist is best suited to assess psychopathy, a task that historically has been overlooked or avoided in traditional mental health settings.

Keywords: antisocial, forensic evaluation, psychopathy, PCL-R, Rorschach, MMPI

Understanding that antisocial personality disorder and psychopathy are distinct but related constructs is crucial to clinical and forensic assessment of these patients. While antisocial personality disorder (ASPD; DSM-IV; American Psychiatric Association [APA], 1994, 2000) evolved from a social deviancy model (Robins, 1966) and the term sociopathy (DSM; American Psychiatric Association (APA), 1952),[1] the construct of psychopathy can be traced to the more traditional psychiatric conceptualizations originating in late nineteenth-century Germany (Cleckley, 1976). ASPD criteria are primarily *behavioral,* while psychopathy criteria include both *behaviors and traits* that significantly overlap with most of the DSM-IV Cluster B syndromes (narcissistic, histrionic, borderline, and antisocial personality disorders; Gacono, Nieberding, Owen, Rubel, & Bodholdt, 2001). A clinician arrives at a diagnosis of ASPD by verifying that the patient meets specific criteria outlined in the DSM-IV-TR (APA, 2000), which include (a) a pervasive pattern of disregard for and violation of the rights of others since age 15; (b) a history of conduct disorder prior to the age of 15; and, (c) age 18 or older. In contrast, the diagnosis of psychopathy requires a formal assessment with the Psychopathy Checklist-Revised (PCL-R; Hare, 1991, 2003) that typically involves a review of collateral information and a semistructured interview (Gacono, 2005).

Two additional findings support the need to differentiate between these terms. First, base rates for ASPD and psychopathy are not the same. Although most psychopathic subjects will meet criteria for ASPD, at most one-third of ASPD samples in maximum-security prisons will meet the PCL-R criteria for "psychopathy" (Hare, 1991, 2003). The clinical importance of this fact can be stated differently. Most ASPD adults, male or female, are not psychopathic and will not meet the factor analytic definition of this construct, in particular the personal qualities and behavior characterized by a callous and remorseless disregard for the rights and feelings of others and a chronic antisocial lifestyle (Hare, 1991, 2003).

Second, an ASPD diagnosis provides far less predictive utility in clinical/forensic decision making than PCL-R scoring (Hare, 2003; Lyon & Ogloff, 2000). An impressive body of literature

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(see Hare, 2003) has demonstrated that, when compared with low scorers, prisoners with high PCL-R scores

- commit a greater quantity and variety of offenses (Hare & Jutai, 1983);
- commit a greater frequency of violent offenses in which predatory violence (Meloy, 1988, 2006) is used against male strangers (Hare & McPherson, 1984; Williamson, Hare, & Wong, 1987);
- have lengthier criminal careers (Hare, McPherson, & Forth, 1988);
- have a poorer response to therapeutic intervention (Ogloff, Wong, & Greenwood, 1990), which, in some cases, may be followed by an increase in their subsequent arrest rates for violent crimes (Rice, Harris, & Cormier, 1992); and
- are at high risk for problematic and disruptive behavior while in treatment (Gacono, Meloy, Sheppard, Speth, & Roske, 1995; Gacono, Meloy, Speth, & Roske, 1997; Young, Justice, Erdberg, & Gacono, 2000).

Additionally, PCL-R item analysis provides valuable information for treatment planning with offenders (Gacono, 1998; Gacono, Jumes, & Grey, 2008). These robust findings make psychopathy assessment a useful, and in some cases essential, tool for clinical/forensic examiners evaluating antisocial and/or psychopathic patients (Gacono & Bodholdt, 2001; Gacono, Loving, Evans, & Jumes, 2002).

Forensic Assessment and Issues

In all cases the forensic psychologist, as *evaluator* rather than *therapist*, is performing an *investigation* to gather data. He is not an agent of change. Confusion between these two fundamentally different roles may lead to misuse of information and unethical behavior (Meloy, 1989; Goldstein, 2007). The psychologist must have a clear conception of his or her role before the assessment begins.

The psychologist must also consider that psychopathic individuals are chronically deceptive and will lie to and mislead the assessor at every turn. Deceptive behaviors often include projection of blame, malingering or exaggeration of psychiatric symptoms, and/or conscious denial: all important behaviors to be noted as part of the assessment process (Kosson, Gacono, & Bodholdt, 2000). The goal of the psychopathic patient, and to a lesser degree the nonpsychopathic antisocial patient, is usually to gain a more dominant or pleasurable position in relation to his objects, whether a person, an institution, or legal proceeding (Meloy, 1988, 2001).

The forensic psychologist must always *evaluate the validity all data, particularly unsubstantiated self-reports, obtained from antisocial and psychopathic patients.* Gathering data from three different sources—face-to-face interviews, independent historical information, and testing—aids the evaluator in addressing potential deception and combines to form the foundation of the evaluation (Meloy, 1989). *Interviewing* involves a face-to-face contact with the individual long enough to complete a mental status exam, assess specifically targeted areas (malingering, psychopathy level, and so forth), and gather self-reported problems and historical data. Additionally, face-to-face interviewing may provide the interviewer with adumbrations of possible transference and countertransference reactions, which in turn may inform or "flesh out" the interpersonal section of the evaluation (Kosson et al., 2000). Independent *historical or contemporaneous information* refers to any data that are not self-reported by the examinee, and includes such things as other psychiatric and psychological records, medical records, school and military records, employment records, criminal records, and interviews with historical and contemporary observers of the examinee (parents, siblings, legal, and health care professionals). *Testing* refers to psychological, neuropsychological, and medical tests, historical or contemporary, that provide objective reference points to further understand the psychology or psychobiology of the examinee. All three sources of information are necessary when assessing antisocial and psychopathic patients.

When evaluating antisocial and psychopathic patients, the psychologist must have a clear understanding of his or her purpose for assessing psychopathy level or the presence or absence of a psychopathic syndrome. The need to "assess" psychopathy varies with the nature of the setting and the function of the evaluation (Bodholdt, Richards, & Gacono, 2000; Gacono, 2000a; Gacono, Loving, & Bodholdt, 2001; Gacono, Loving et al., 2002). For example, prior to sentencing the psychologist is usually called upon to aid the trier of fact, the judge or jury, in answering a psycholegal question, such as intent, motivation, dangerousness, or sanity. Subsequent to institutional commitment, referral questions stem from institutional concerns and may involve severity of antisocial personality disorder, malingering, treatment amenability or planning, sanity, violence risk, threat management, sadism, sexual

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sadism, recommendation for outpatient treatment, and other issues related to diagnosis, treatment, or risk management (Bodholdt et al, 2000; Gacono, 1998, 2000a; Gacono, Jumes et al., 2008).

Having clarified the psycholegal issue and context of the evaluation, the forensic psychologist will next have to determine what historical and personality information is needed to address the referral issues and which methods are most efficacious in obtaining the desired information. With this in mind, Monahan and Steadman's (1994) risk assessment model provides a useful guide for matching appropriate assessment domains and methods (Gacono, 2002). Monahan et al. (2001) emphasized gathering data from four primary domains that included dispositional factors, clinical or psychopathological factors, historical or case history variables, and contextual factors. The psychologist determines which domains are relevant to the referral question and then chooses reliable and valid methods and/or instruments for obtaining data from each (Acklin, 2002; Beutler, Harwood, & Holaway, 2002; Weiner, 2002). Results are subsequently integrated into opinions that address the referral question.

Key forensic issues essential for the forensic psychologist assessing antisocial and psychopathic patients include:

- Be clear as to one's professional role and the referral question
- Be skeptical and evaluate the validity of all data (particularly self-report)
- Gather data from multiple sources and always include collateral information
- Have a clear rationale for assessing psychopathy level
- Have a clear rationale for choosing assessment methods

In this chapter we focus on several methods and instruments, such as the PCL-R (Hare, 1991, 2003), Rorschach, and Minnesota Multiphasic Personality Inventory-2 (MMPI-2), that are of considerable value when assessing antisocial and psychopathic patients.

The Psychopathy Checklist-Revised

With specialized experience and training, the forensic evaluation of psychopathy is relatively straightforward (Gacono, 2000a, b; Gacono & Hutton, 1994; Hare, 1991). The only published reliable and valid method to date for arriving at a psychopathic "designation (taxon)" with adult patients is the PCL-R (Hare, 1991, 2003).[2] The PCL-R is a 20-item, 40-point scale completed following a review of independent historical and contemporaneous data and completion of a semistructured interview (see Gacono, 2005). Additional psychological testing is not necessary to determine a patient's psychopathy level or to arrive at a designation of psychopathy.

A growing body of research has demonstrated the PCL-R's reliability and validity for prison and forensic psychiatric populations (Hare, 2003). Psychologists may be called upon to demonstrate their knowledge of PCL-R reliability and validity studies, the demographics of these studies, validation groups, normative scores with male, female, and delinquent incarcerated samples, criticism of the test and its psychometric properties, and clear and simple explanations of the test to the trier of fact, judge or jury (Gacono et al., 2002a). Several caveats are essential to these ends (see Gacono, 2000; Gacono & Gacono, 2006). First, it is very important to remember that the lay person may misconstrue the terms antisocial, psychopathic, and sociopathic as synonymous, essentially describing a bad person for whom they have little empathy and less compassion. Psychologists must be able to educate the court concerning the relevance of these distinctions. Second, methodological *issues,* such as the use of lowered PCL-R cutoffs or use of an instrument other than the PCL-R for designating psychopathy groups, severely impact the generalizability of studies and make cross-study comparisons problematic (Gacono & Gacono, 2006; Gacono, Nieberding et al., 2001). The most glaring, and unfortunately too frequently occurring, problem occurs when inferences are formed about psychopathy from samples that contain no primary or severe psychopaths. Given multiple problems in the published literature, what at first appear to be discrepant research findings are easily explained as artifacts of the divergent methodologies (Gacono & Gacono, 2006; Gacono, Nieberding et al., 2001).

Finally, it is essential to understand that "psychopathy" is used as both a categorical (PCL-R $\geq$ 30) and a dimensional construct (Gacono & Gacono, 2006). Categorical designations are appropriate and preferred for comparative research when the concern is how psychopaths (PCL-R $\geq$ 30) nomothetically differ from nonpsychopaths (PCL-R $<$ 30). Dimensional uses are idiographically favored in the vast majority of clinical/forensic settings (Bodholdt et al., 2000). In these contexts, psychopathy is conceptualized on a continuum, such that individuals who obtain moderate or high PCL-R scores exhibit

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more serious and pervasive behavioral problems than those with lower PCL-R scores. One is more clinically interested in finding out the psychopathy ranges and scores that are best at predicting behavior in a given setting, than whether or not a given individual's score meets the traditional threshold for a designation of psychopathy (PCL-R $\geq$ 30; also see Quinsey, Harris, Rice, & Cormier, 1998). Psychopathy level or degree (dimensional) rather than a "diagnosis" of psychopathy (categorical) becomes one of several weighted factors in clinical and forensic decision making (Gacono, Nieberding et al., 2001; Gacono, Loving et al., 2002).

Several key issues related to PCL-R administration and scoring are also worth highlighting (Gacono, 2000a). Prior to administering the psychopathy checklists, the following should be ensured:

- The evaluator is a licensed mental health professional with forensic experience (the exception to this is the P-SCAN, a nonclinical measure of psychopathy developed for law enforcement)
- The evaluator has participated in adequate training which has included his or her demonstrated ability to reliably score the instrument (see Bodholdt et al., 2000; Kosson et al., 2000)
- The evaluator is familiar with the current psychopathy research (Patrick, 2006)
- The patient is similar to a sample upon which the instrument has been validated
- There is available independent historical information
- Collateral information is always reviewed before the interview (Gacono, 2000a)

The examiner establishes a mind set for conducting the interview, geared toward reducing scoring bias and halo effects (Gacono, 2000a). Throughout the PCL-R administration process the following should be foremost in the evaluator's mind:

- Conduct the PCL-R interview as a separate part of the overall psychological evaluation
- Use a semistructured interview schedule, such as the Clinical and Forensic Interview Schedule for the Hare Psychopathy Checklist-Revised and Screening version (CFIS; Gacono, 2000c, 2005),[3] to aid in systematically recording essential information and facilitating the development of rapport with, and a sense of empathy for, the patient
- Rate items based on lifelong patterns and typical functioning
- Focus on scoring each item separately; avoid letting speculation about the total score influence individual item scoring (confirmatory bias)
- Avoid introspection about etiology or preconceived notions of psychopathy
- Frequently refer directly to the PCL-R Rating Booklet (Hare, 2003) to maintain the scoring prototype (Gacono, 2000a)

Additionally, when testifying, the evaluator should be prepared to provide evidence concerning his qualifications and training, the appropriateness of the instruments used with this particular patient or defendant (normative samples), the adequacy of collateral information available for scoring, and the rationale for arriving at conclusions (Gacono, Loving et al., 2002).

Since the term *psychopathy* is not an official diagnostic label, it is recommended that it be defined as a constellation of behaviors and traits (Bodholdt et al., 2000; Meloy & Gacono, 2000). Most criminal psychopaths meet the criteria for ASPD and should be diagnosed as such, but some will not be. The severity of the ASPD diagnosis can be determined by the patient's PCL-R score, with ranges designating the ASPD diagnosis as mild ($\leq$19), moderate (20–29), or severe ($\geq$30) (Meloy, 1988, 1992). This parallels what is used in the DSM-IV diagnosis of conduct disorder. Since the ASPD criteria are primarily behavioral, the use of secondary, more trait-based, Axis II diagnoses allows the clinician to more accurately reflect the patient's personality. Additionally, research has demonstrated that PCL-R Factor I items correlate with narcissistic and histrionic personality disorders (NPD and HPD, respectively) and Factor II correlates more strongly with ASPD. Consequently, a patient who is diagnosed with ASPD and NPD, while *not necessarily* psychopathic, will elevate on the PCL-R and likely have a severe or moderate ASPD diagnosis. An ASPD patient, on the other hand, with a concurrent avoidant personality disorder diagnosis will likely carry an ASPD (mild) diagnosis. The patient's clinical picture is further clarified in the report's finding section by using factor scores and item analysis as a basis for describing existing traits and behaviors (Gacono, 1998, 2000c; Gacono & Hutton, 1994). The ASPD criteria, when conceptualized as an ordinal scale, correlates with severity of psychopathy as measured by the PCL-R (Hare, 2003).

Although the PCL-R alone suffices to determine the presence or absence of psychopathy, assessment generally involves more than arriving at a simple label (Gacono, Nieberding et al., 2001). Other

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personality instruments such as the MMPI-2 (Butcher, 2006; Butcher, Dahlstrom, Graham, Tellegen, & Kaemmer, 1989; Hathaway & McKinley, 1943) and Rorschach Inkblot method (Exner, 2003; Exner & Erdberg, 2005; Rorschach, 1942) add to our clinical understanding of the ASPD diagnosed or psychopathic individual. While these instruments were not specifically designed to "diagnose" psychopathy, and not surprisingly fail to do so (Gacono, Nieberding et al., 2001), neither do the Psychopathy Checklist-Screening Version (PCL:SV; Hart, Cox, & Hare, 1995) nor the newer experimental self-report measures of psychopathy (Hare, 1991; Lilienfeld & Andrews, 1996).[4] We recommend that several other tests be employed to further delineate the *individualized* behavioral and intrapsychic characteristics (dimensional aspects) of antisocial and psychopathic subjects.

The Rorschach

The assessment of antisocial and psychopathic patients begins as a gross categorization of chronic antisocial behavior (DSM-IV), moves to a determination of the degree of psychopathic disturbance (PCL-R), and is further refined through the Rorschach to measure the internal structure and dynamics of the particular patient. The Rorschach is ideally suited for contributing to this assessment (Cunliffe & Gacono, 2008; Gacono & Meloy, 1994; Gacono, Gacono, & Evans, 2008; Meloy, 1988), as it avoids the face validity of self-report measures, yet provides reliable and valid information about the individual's personality structure and function (Exner, 2003; Exner & Erdberg, 2005).

While the Rorschach is generally scored in a reliable manner (Viglione & Meyer, 2007), if scoring questions arise, consultations should be sought, informing the colleague that his or her name may be referenced in pending litigation as a consultant before the talk begins. Despite the importance of reliable scoring, improper administration rather than scoring issues are more likely to impact the validity of an individual Rorschach protocol (Gacono, Evans, & Viglione, 2002). Although the Rorschach can be malingered, we have found that the test is usually only "beaten" by the antisocial or psychopathic patient who sufficiently constricts his response frequency (Ganellan, 1994, 2008; Perry & Kinder, 1990). Such a psychometrically invalid protocol (Exner, 1988), however, may still yield worthwhile psychodiagnostic information (Weiner, 1998). We have found that ASPD males in general produce normative response frequencies (Gacono & Meloy, 1992, 1994), at least in research settings. Rorschachs taken for forensic purposes in pre-trial criminal cases may be constricted; however, the examiner should aggressively pursue a valid protocol ($R \geq 14$; according to Exner's (2003) guidelines).

Although the clinician should administer and interpret the Rorschach according to the Comprehensive System (Exner, 1993, 2003), other psychoanalytically informed empirical measures of the Rorschach are also quite valuable. Two methods having acceptable interrater reliability that complement the Comprehensive System are an object relations measure (Kwawer, 1980) and two measures of defenses (Cooper & Arnow, 1986; Lerner & Lerner, 1980). Kwawer (1979) found that his 10 categories of "primitive interpersonal modes" (1980) were able to significantly differentiate between a borderline and an age- and gender-matched control sample of patients' Rorschachs. Cooper, Perry, and Arnow (1988) reported interrater reliabilities for each of their 15 defense categories ranging from .45 to .80, with a median of .62 (intraclass correlation coefficients). Inter-rater reliability for borderline defenses as a group, most commonly seen in psychopathic protocols, was .81. The authors did not, however, find any particular defense mechanism related to the presence of antisocial personality disorder (DSM-III-R), and speculated, consistent with high frequencies in forensic settings (50–75%), that the diagnosis of ASPD may be too psychodynamically heterogeneous.

Evaluators should also be familiar with a growing database of forensic Rorschach samples (Bannatyne, Gacono, & Greene, 1999; Cunliffe & Gacono, 2008; Gacono & Gacono, 2008; Gacono & Meloy, 1994; Gacono, Meloy, & Bridges, 2000, 2008; Gacono, Gacono, & Evans, 2008; Singer, Hoppe, Lee, Olesen, & Walters, 2008), keeping in mind how these samples differ from Exner's nonpatient and clinical norms (Exner & Erdberg, 2005). A series of studies with antisocial and psychopathic patients (Gacono, 1988, 1990; Gacono & Meloy, 1991, 1992, 1994; Gacono, Meloy, & Heaven, 1990; Meloy & Gacono, 1992; Meloy, Gacono, & Kenney, 1994; Young et al., 2000) have validated the use of the Rorschach as a nomothetically sensitive instrument in discriminating between psychopathic ASPD and nonpsychopathic ASPD subjects (also see Smith, Gacono, & Kaufman, 1995, and Loving & Russell, 2000, for an extension of these findings to conduct-disordered adolescents), and supported the assertion that these individuals

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function at a borderline level of personality organization (Kernberg, 1984; Meloy, 1988, 2001). Compared to nonpsychopathic ASPDs, psychopathic ASPDs exhibit more pathological narcissism (Gacono et al., 1990; Young et al., 2000), less anxiety, less capacity for attachment (Gacono & Meloy, 1991), and some indications of increased sadism (Meloy & Gacono, 1992). Their Rorschach protocols indicate a virtual absence of idealization and higher-level neurotic defenses, coupled with a reliance on primitive defenses such as devaluation, denial, projective identification, omnipotence, and splitting (Gacono, 1990; Gacono, Meloy, & Berg, 1992). Object relations are also preoedipal, with psychopathic ASPDs evidencing significantly more Rorschach measures of narcissistic mirroring, boundary disturbance, and violent symbiosis when compared to nonpsychopathic ASPD Rorschachs (Gacono & Meloy, 1992). A typical psychopathic Rorschach protocol can be expected to reflect these findings and contain a certain number of abnormal structural characteristics (see Table 29.1).

Deviations from these typical findings should deepen the understanding of the individual differences within any one patient, but do not necessarily rule out a psychopathic disturbance. For example, a more histrionic psychopath might produce a protocol with some idealizing defenses, a color projection (CP) response, a low lambda (L), and an elevated affective ratio (Afr). On the other hand, a paranoid psychopath might produce a constricted protocol, elevated Dd responses, a low H+A:Hd+Ad ratio, and a positive hypervigilance index (HVI). A psychopathic patient with schizophrenia or bipolar disorder might significantly depart from the above-identified structural characteristics, and may instead produce severe reality distortion (X-% > 30) and an elevated PTI (for SCZI data, see Gacono & Gacono, 2008).

Forensic evaluators should be thoroughly familiar with recent Rorschach studies (Weiner, 1996) and their relationship to legal standards for admissibility of scientific evidence (McCann, 1998). *The Handbook of Forensic Rorschach Assessment* (Gacono, Evans, Kaser-Boyd, & Gacono, 2008) provides essential guidelines for the use of the Rorschach in various forensic contexts. Other articles have guided the manner in which Rorschach data can be presented in court (Meloy, 1991; Weiner, 2008), the admissibility of Rorschach data in court (Weiner, Exner, & Sciara, 1996), and the weight of Rorschach data in court (Meloy, 2008; Meloy, Hansen, & Weiner, 1997). Psychologists should be thoroughly familiar with these resources when using the Rorschach in the assessment of antisocial and psychopathic personalities.

Table 29.1. Select Rorschach variable means from a sample of 33 male prisoners identified as psychopathic.

Responses	21
Core characteristics	
Lambda	>.99
D	0
Adj D	0
Affects	
FC:CF+C	1:4
Afr	<.50
Pure C	>0
T	0
Y	0
Space	>2
Interpersonal relations	
Pure H	2
(H)+Hd+(Hd)	2.5
Good COP	0
Ag	0
Sx	1
Self-perception	
Rf	1
PER	>2
W:M	>3:1
Cognitions	
X+%	54
F+%	56
X–%	22

Note: From Gacono, C. B., & Meloy, J. R. (1994). *Rorschach assessment of aggressive and psychopathic personalities*. Hillsdale, NJ: Erlbaum.

The MMPI-2

Our overview of psychopathy assessment next turns to the psychometric workhorse of the profession, the MMPI-2. Although self-report measures in criminal populations must be interpreted with a keen awareness of the possibility of attempts at deception or willful distortion, the MMPI-2 should be used with other instruments in the assessment of antisocial and psychopathic patients for the following reasons:

- To provide convergent validity for the other sources of data
- To measure self-report of psychopathology with an instrument that is sensitive to distortion
- To measure domains of behavior that are not empirically abnormal

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• To support evidentiary standards for admissibility as a scientific method or procedure (Daubert *v.* Merrell Dow Pharmaceuticals, 113 Sup. Ct. 2786)

The latter standard, applicable in all federal and some state jurisdictions in the United States, is met through the court's determination that the measure is relevant to the case and scientifically valid (the court uses the term reliable when it actually means valid). The evaluator must always remember that if the instrument is unreliable, it cannot be valid.

The clinical scale most sensitive to "a variation in the direction of psychopathy" (McKinley & Hathaway, 1944, p. 172) is, of course, Scale 4 (Pd). Most criminal populations will show homogeneity by elevating on this scale. Scale 4, however, does not significantly correlate with PCL-R scores, and is more related to Factor II (chronic antisocial behavior or social deviancy) and ASPD than to Factor I (aggressive narcissism or affective-interpersonal deficiencies). MMPI-2 Scale 4 alone should never be used in isolation for determining the presence or absence of psychopathy, no matter how extreme. Scale 4 *is not measuring psychopathy*, but does correlate with the more heterogeneous ASPD diagnosis.

McKinley and Hathaway (1944) developed the original MMPI Scale 4 by contrasting two normative groups, married adults and college applicants, with a sample of female and male delinquents (ages 17–22) referred by the Minnesota courts to a psychiatric setting. These young adults had a long history of minor criminal behavior: stealing, lying, truancy, sexual promiscuity, alcohol abuse, and forgery. There were no homicide offenses in the histories of these subjects, *of whom the majority were girls.* Cross-validation indicated that a T-score of $\geq$70 on Scale 4 was achieved by 59% of a sample of 100 male federal prisoners (McKinley & Hathaway, 1944). This original criterion group was already incarcerated and had been selected for psychiatric study. Temporal reliability of this scale ranges from .49 to .61 for intervals up to a year in this population (Dahlstrom, Welsh, & Dahlstrom, 1975), compared to .71 in normals (McKinley & Hathaway, 1944).

Scale 4 is composed of 50 items, of which the deviant response is answered "true" on 24 items, and "false" on 26 items. Factor analysis has generally yielded five factors: shyness, hypersensitivity, delinquency, impulse control, and neuroticism (Greene, 1980). Several texts are relevant for validation and interpretation of Scale 4 (Butcher, 2006; Dahlstrom et al., 1975; Friedman, Lewak, Nichols, & Webb, 2001; Graham, 1978; Greene, 1980; Nichols, 2001). The Harris and Lingoes (1955) Pd subscales help to further understand Scale 4 nuances (Caldwell, 1988).

The Scale 4 items underwent virtually no changes between the MMPI and the MMPI-2. The 50 items remained, and 4 were reworded. Norms for the revised scale show a drop of 10 T-score points for males and 5 T-score points for females. The Pd scale, moreover, is not affected by educational level in either the MMPI-2 male or female normative samples (Butcher, 1990).

The Harris and Lingoes subscales were substantially changed on the MMPI-2. The Pd3 subscale, social imperturbability, lost half its items. This measure of what Nichols (personal communication, April, 1993) calls *insouciance* has received consistently high negative loadings on anxiety and may best capture the social aggression of antisocial and psychopathic personalities. The MMPI-2 deletions may have affected the subscales' meanings. Further, scale reliability has declined as a function of these item eliminations. Although these subscales were compromised and may be less adequate than they were, we still think they deserve clinical attention since the MMPI-2 changes eliminated off scale items and better organized the content of Scale 4 into homogeneous subscales to aid in interpretation. Further research is necessary.

Several MMPI-2 content and component scales that relate to external aggressive tendencies (Butcher, 2002)—antisocial practices (ASP), anger (ANG), cynicism (CYN), aggression (AGG), and disconstraint (DISC)—may also be useful in understanding the attitudes and predictable behaviors of antisocial and psychopathic patients. Sellbom, Ben-Porath, Lilienfeld, Patrick, & Graham (2005) examined various MMPI-2 scales and subscales and their relationship to psychopathy as measured by the psychopathic personality inventory (PPI) in a large sample of male and female college students. They found that AGG and DISC both significantly correlated with the affective-interpersonal and social deviance factors of the PPI (essentially equivalent to Factor 1 and Factor 2 of the PCL-R, respectively). Certain scales measuring introversion (INTR), negative emotionality (NEGE), and fears (FRS) also had significant *negative* correlations with Factor 1 of the PPI.

The ASP content scale has two facets: antisocial attitudes and antisocial behaviors. In the Sellbom et al. (2005) study, it significantly correlated with the social

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deviance factor of the PPI (0.52), but had no significant relationship to the affective-interpersonal factor (–0.07). In an earlier study, Lilienfeld (1996) found the ASP did demonstrate incremental validity for global indices of psychopathy in undergraduate students utilizing the PPI over and above Scale 4.

The AGG scale was specifically designed to measure grandiosity, dominance, and instrumental (predatory) aggression (Nichols, 2001), and may show promise as an important measure that validates other research indicating that psychopaths are more predatorily violent than other criminals (Meloy, 2006). Williams (2002) found that both instrumental and reactive violent offenders were significantly different from nonviolent offenders on Scale 4, ASP, and CYN. All of these scales need further research with psychopathic subjects in prison utilizing the PCL-R as the independent measure of psychopathy.

The most useful MMPI typology for classifying criminals was developed by Megargee and Bohn (1979), and has been reformulated utilizing the MMPI-2 in a large sample of incarcerated men ($N = 2{,}619$ inmates) and women ($N = 797$ inmates) (Megargee, 2006a). In their original sample of 1,214 federal inmates, 96% of the MMPI profiles could be assigned to one of their 10 subtypes. Early research supported the typology's concurrent validity (Booth & Howell, 1983; DiFrancesca & Meloy, 1989; Hutton, Miner, & Langfeldt, 1993; Nieberding et al., 2003), but questioned its predictive validity (Louscher, Hosford, & Moss, 1983). The revised typology represents a substantial improvement, and classifies 95% of inmates across 10 neutrally worded types (Able, Baker, Charlie, etc.). The classification system is available in a computer-based software program (Megargee, 2000), and provides both concurrent and predictive validity data for each subtype. Many of the dependent findings that emerged when the classification system was originally developed with the MMPI are quite similar to the findings with the MMPI-2, and provide a superior interpretation system to the typical 1-point and 2-point profile interpretations for criminal offenders (Megargee, 2006a, b).

How do Scale 4 and its subscales contribute to a clinical understanding of psychopathy in forensic psychiatric samples? The PCL-R, MMPI Scale 4, and MMPI-2 Scale 4 scores were compared in two samples of male subjects who had been found not guilty by reason of insanity and were committed to an involuntary outpatient treatment program (Meloy, Haroun, & Schiller, 1990). Most of these subjects were Caucasian males diagnosed with paranoid schizophrenia, and had committed a violent crime. The data are presented in Table 29.2.

Table 29.2. Pearson product-moment correlations between PCL-R scores and MMPI, MMPI-2 Pd scores in samples of NGI acquittees.

		N = 40	N = 34
		MMPI	MMPI-2
Pd		.21	.20
Pd1	Family discord	.00	.10
Pd2	Authority problems	.34*	.31*
Pd3	Social imperturbability	.20	.23
Pd4	Social alienation	−.17	−.10
Pd5	Self-alienation	−.05	−.22

Note: * $p < .05$ (one-directional test).

Whereas the data suggest that there is a positive relationship between elevations on MMPI and MMPI-2 Pd and the PCL-R, the product moment correlations are modest and nonsignificant (as noted in Table 29.2). Our findings are consistent with Hare (1991, 2003), who found that correlations between the MMPI Pd scale and the PCL-R ranged from .19 to .25. We think this is primarily due to the Pd scale's measurement of Factor II of the PCL-R (chronic antisocial behavior) rather than Factor I (interpersonal and affective deficiency). If the PCL-R factors are separately correlated with Pd, Factor I ranges between .05 and .11 and Factor II ranges between .28 and .31 (Hare, 1991).

The Harris and Lingoes subscale correlations with the PCL-R indicate that Pd2, authority problems, are highest, and Pd1, family discord, are virtually nonexistent. Pd3, social imperturbability, is not significantly correlated, but increases slightly on the MMPI-2 version. Most compelling is the negative correlation between the PCL-R and the MMPI-2 Pd5, self-alienation, which we mentioned earlier as a measure of guilt. This is consistent with the psychopath's lack of guilt, self-blame, or remorse concerning his antisocial acts (Caldwell, 1988; Hare, 2003). These findings also suggest that correlations between the PCL-R and Pd, although modest, do not appear to change between criminal and forensic psychiatric samples.

The Restructured Clinical (RC) Scales were developed by Tellegen et al. (2003) to improve the convergent and discriminant validity of the original Clinical Scales. Items were removed which measured a common affect-laden construct they called *demoralization*. The RC Scales are more

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homogeneous and less intercorrelated than the original Clinical Scales. Sellbom et al. (2005) found that RC4 and RC9 were optimal predictors of the social deviance factor of psychopathy among college students, and when coupled with low scores on RC2 and RC7 (purportedly measuring the affective-interpersonal factor of psychopathy), they accounted for nearly all of the PPI variance predicted by the MMPI-2.

Megargee (2006a) found considerable redundancy, however, between the RC Scales and the MMPI-2 content and PSY-5 scales in his large sample of male and female inmates. Over half of the RC Scales *also fell below the mean* of the MMPI-2 normative sample, and none of the RC Scale scores reached clinical significance ($T > 65$): findings that are grossly inconsistent with what is known about psychopathology among inmates. The mean RC4 score for male inmates was 55.74 and for female inmates was 53.99. The highest correlation for RC4 was not Pd, but instead Addiction Admission Scale (AAS), a validated measure of substance abuse (.78). The RC4 correlation with Scale 4 was 0.52. In a large analysis of multiple criminal forensic samples, RC4 correlations with AAS ranged from .68 to .82, but RC4 correlations with Pd only ranged from .51 to .61 (Rouse, Greene, Butcher, Nichols, & Williams, 2008).

Although these data do not address the relationship between RC4 and psychopathy—again, we emphasize that Pd has a nonsignificant relationship with PCL-R scores—the RC scales in criminal populations appear to be problematic as measures of both psychopathology in general and antisocial behavior in particular.

Since response style should be considered (Bannatyne et al., 1999; Gacono & Gacono, 2008), and distortion should be assumed in all forensic evaluations (Meloy, 1989), the MMPI-2 validity scales take on special importance when assessing psychopathy. It appears that Scales L and F remain the most useful in classifying fake-bad and fake-good profiles (Timbrook, Graham, Keillor, & Watts, 1993), but attention must be paid to the relative configurations of VRIN, TRIN, Fb, Ds, and F(p). Megargee (2006b) has also developed a criminal infrequency scale (Fc) which may prove to be helpful in identifying problematic profiles among criminal offenders. The clinician is referred to the extensive work of both Butcher et al. (1989) and Caldwell (1988, 1997) for their interpretive refinements concerning deviant responding to the MMPI-2, and the texts of Friedman et al. (2001), Nichols (2001), and Megargee (2006a).

Measures of Cognition and Intelligence

Although not central to the assessment of personality, a standardized measure of intelligence, such as the Wechsler Adult Intelligence Scale-IV or the Kaufman Adolescent and Adult Intelligence Test, should be incorporated into the battery when assessing psychopathy. In the absence of time to do a complete intelligence battery, the Quick Test (Ammons & Ammons, 1977) gives a reliable estimate of intelligence, and it has been validated in forensic settings (Husband & DeCato, 1982; Randolph, Randolph, Ciula, Padget, & Cuneo, 1980; Sweeney & Richards, 1988). An estimate of general intelligence provides a baseline for interpretive performance on other instruments, although IQ has repeatedly been shown to not to correlate with psychopathy (Hare, 1991, 2003). Neuropsychological measures may provide useful information to the clinician, but gross differences between psychopathic and nonpsychopathic subjects have yet to be consistently demonstrated (Hare, 1991, 2003).

Some neuropsychological tests are also useful for suggesting malingering because of their limited face validity. Psychopathic malingerers will often perform worse than the expected norms for neurologic or psychiatric patients. They will also evidence more impairment than observed behavioral functioning would suggest. Dependent on the context of the examination and nature of the referral question, clinicians are frequently called upon to assess malingering when evaluating antisocial and psychopathic personalities. The reader is referred to Rogers (1988) and Rogers & Cruise (2000) for a more detailed discussion of assessing malingering.

Two points are most salient to the use of neuropsychological instruments in the assessment of psychopathy. First, any measures of performance are subject to motivational factors, and psychopathic patients may quickly realize that decrements in their performance on neuropsychological tests will contribute to their "disability" and perhaps avoidance of personal responsibility. Second, the genuine presence of neuropsychological impairment does not rule out psychopathy, and may in fact be consistent with cognitive and emotional deficits already established in research with psychopaths (Hare, 1991, 2003).

Neuropsychological impairments that appear genuine, moreover, may warrant further neurobiological workup with methods that eliminate motivational factors and measure brain structure or function (these procedures could include magnetic

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resonance imaging [MRI], functional MRI [fMRI], computed tomography [CT], positron emission tomography [PET], or electroencephalography [EEG] studies). For example, one sexual murderer (PCL-R = 37) produced generally invalid psychological test results due to malingering, and was diagnosed with both ASPD and NPD on Axis II. He was found, moreover, to have an abnormal visual evoked potential test using EEG technology and an abnormal PET scan indicating decreased metabolic uptake in certain areas of his prefrontal cortex and midbrain. Based on these findings, and corollary behaviors, he received an additional Axis I diagnosis of organic personality syndrome, explosive type (DSM-III-R).

Raine and his colleagues originally conducted a series of studies (Raine & Buchsbaum, 1996; Raine, Buchsbaum, & LaCasse, 1997; Raine et al., 1994; Raine et al., 1998) which investigated differences in prefrontal cortical *function* when comparing murderers referred for neuromaging to various comparison groups, and when comparing affective and predatory murderers. A recent meta-analysis of 43 neuroimaging studies of psychopathic, antisocial, and criminal subjects indicated that both structural (reduced gray matter) and functional (hypofrontality) problems are present, but functional abnormalities predominate. Research interest is focusing upon the orbital-frontal area and middle gyrus of the prefrontal cortex. There is a large effect size for the differences between such samples and normals (Yang, Glenn, & Raine, 2008), and a large heritability for severe psychopathy (Viding et al., 2005). Studies such as these which empirically support a relationship between neurobiology and criminal behavior are not probative of criminal responsibility in any one case, but provide directions for future research and the possible use of neuroimaging in forensic cases. Raine (1993) has also reviewed and contributed to a substantial body of work that strongly suggests biological loadings for what he refers to as "habitually violent criminality," including physiological measures that indicate a biological trait of *chronic cortical underarousal* in the habitually violent criminal.

Research findings such as these extend the original work of Hare (1970) which found peripheral autonomic hypo-reactivity to aversive stimuli among psychopaths, and suggest that biological measures, broadly or discretely defined, will eventually play a role in the psychodiagnosis of psychopathy. Until that time, the evaluator should treat the neurobiological findings concerning psychopaths as a large patchwork quilt that is just beginning to be woven, but will eventually help us further understand brain–behavior relationships within psychopathy.

Integration of Findings

Perhaps the most difficult task of the psychologist is to integrate the findings from various assessment procedures into an empirically accurate and theoretically consistent clinical picture of the patient (Gacono, 2002). In the case of the psychopath in a forensic setting, findings will also need to withstand the rigors of cross-examination (Gacono, Evans, & Viglione, 2008; Meloy, Hansen, & Weiner, 1997; Pope, Butcher, & Seelen, 1993). Again, we cannot overstate the importance of the history and clinical interview and their usefulness to validate, or invalidate, test findings. Test results, moreover, provide contemporaneous and objective reference points for the support or refutation of developing clinical hypotheses, as well as data relevant to the management of psychopathic patients in an institution (Gacono & Evans, 2008; Gacono, Loving et al., 2001; Meloy, 2007).

In forensic evaluations the specific psycholegal question(s) to be addressed should be clear to the examiner before work begins on the case. In evaluating insanity, a diagnosis may be only the first step in determining whether or not there is a mental disease or defect, and then questions of responsibility or culpability are the next step in the causal chain, refocusing the examiner on the facts of the crime and any test findings that might support or refute certain states of mind in the perpetrator at the time of the criminal act. Then again, test results that address unstable emotional conditions, such as depression, may be irrelevant to prospective or retrospective hypothesis formulation. In most cases, however, psychopathy as a character or personality disorder has the temporal stability to cast an illuminating light on the historical propensities of the individual.

The tests we have emphasized—the PCL-R, the Rorschach, and the MMPI-2—are central to understanding antisocial and psychopathic patients. The PCL-R is based on observed attitudes and documented behavior (history) of the individual. PCL-R total scores nomothetically inform conclusions due to their correlations with risk for recidivism, including violent recidivism, institutional misconduct, and poor treatment outcome. Idiographically, PCL-R item analysis is useful to understand specific vulnerabilities to risk and areas to target for intervention (Gacono, 1998). Combined with findings

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from the Rorschach (which accesses personality structure and functioning) and the MMPI-2 (which measures conscious self-report of psychopathology and its distortion), these instruments provide both discriminant and convergent data and allow for a more incisive and individualized understanding of antisocial and psychopathic patients.

For example, a patient is scored 2 on the PCL-R Item 13, lack of realistic or long-term goals, partially arrived at on the basis of a series of frequent job changes in the subject's employment record. The MMPI-2 indicates a Pd2 (authority problems) T-score of 75, providing insight into one of the reasons for frequent job changes, which is further confirmed through the subpoena of employer records. The Rorschach is scrutinized and yields $S > 2$ (H: chronic anger), Lambda $> .99$ (H: a simple, item-by-item approach to problem solving), and FC:CF + C of 1:4, with two Pure C responses (H: unmodulated affect with a marked propensity to emotional explosiveness). Further study of the employment records indicates several incidents of angry outbursts toward employers. A look at the long sought after military record also indicates a less than honorable discharge. The evaluator then compares these findings with his clinical interview with the patient and recalls his countertransferential feelings of anxiety as the patient aggressively questioned his credentials before the interview began. Taken together, these approaches to understanding this hypothetical patient provide clinical understanding that is at once broader and more meaningful than the yield from any one test. It is the culmination of inference building (both convergent and divergent findings) across the three primary sources of data: the clinical interview, independent historical and contemporaneous data, and test results.

The clinical assessment of antisocial and psychopathic personalities is a complex task that involves both nomothetic comparison and idiographic delineation. While it is most frequently needed in criminal forensic settings, where an assessment is almost always linked to a psycholegal issue or forensic treatment planning, it is equally important to remember that these disorders may also appear in any healthcare practice and require nonforensically oriented clinicians to have some familiarity with the detection and management of these patients. The forensically trained clinical psychologist, however, is best suited to assess psychopathy, a task that historically has been overlooked or avoided in traditional mental health settings.

Notes

1. Appearing in the first DSM (APA, 1952), sociopathy included a variety of conditions such as sexual deviation, alcoholism, and "dyssocial" and "antisocial" reactions. While only the antisocial reaction was similar to traditional conceptualizations of psychopathy (Jenkins, 1960), the replacement of "Sociopathy" with ASPD in DSM-II (APA, 1968) and the subsequent increased focus on behavioral criteria widened the gap between ASPD and psychopathy.
2. Forth, Kosson, and Hare (2003) have developed a Psychopathy Checklist Youth version (PCL:YV) and Paul Frick and others have developed instruments for assessing psychopathic traits in children (Frick, Barry, & Bodin, 2000). These instruments show promise of applied usage with younger patients.
3. The CFIS (Gacono, 2005) facilitates a rapid accumulation of PCL:SV and PCL-R data similar to the format of other semistructured interview schedules. It links data to individual items, allows for an easy check of inter-rater reliability, is tailored to individual evaluations, and eliminates the need to purchase multiple forms (use with PCL-R and PCL:SV). The CFIS reduces administration time by a third to a half of what is accomplished with the existing PCL-R schedule and is appropriate for clinical, forensic, and research settings. The first author developed this semistructured interview.
4. While the Psychopathy Checklist-Screening version (Hart et al., 1995) is diagnostically useful as a screening instrument, it is most appropriately used in acute care settings and should not be utilized by itself in forensic evaluations due to its high false-positive rate. Although the majority of MMPI Clinical Scales were developed by extracting items endorsed differentially by psychiatric patients belonging to distinct diagnostic groups, the correspondence between Clinical Scale elevations and formal diagnosis was found to be less than originally promised; thus, with considerably greater assessment information, the MMPI-2 can be seen as informing diagnosis, not establishing it (see Friedman et al., 2001; Hathaway & McKinley, 1943).

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