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## Emotional Deficiency and Psychopathy

Sabine C. Herpertz, M.D.\* and Henning Sass,  
M.D.

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Aside from an antisocial life-style, the concept of psychopathy is based on character features which can be described in terms of specific patterns of interpersonal, behavioral, and, in particular, affective characteristics. Concluding from studies which have dealt with the affective domain in psychopaths, emotional deficiency may predispose to violence in several ways. (1) Poor conditioning implicates a failure to review the harmful consequences of one's actions leading to a deficit of avoidance behavior. (2) Emotional detachment prevents experiencing feelings, which naturally inhibit the acting out of violent impulses. (3) Emotional deficiency is closely associated with a general underarousal, leading to sensation seeking. Current data suggest that there may be a close association between difficulties in emotional processing and poor prefrontal functioning. From a psychosocial perspective, psychopaths were shown to have been exposed to severe familial and societal difficulties. Whether biological or environmental factors dominate in the etiology of this personality disorder, psychopathy does not *per se* justify the assumption of decreased legal responsibility. Copyright © 2000 John Wiley & Sons, Ltd.

### HISTORY OF THE CONCEPT OF PSYCHOPATHY

The concept of psychopathy results from a confluence of views entertained in the French, German, and Anglo-American psychiatric traditions (see Table 1).

Pinel's description of a "Mania sans délire", which was mainly characterized by emotional instability and social drift, can be looked upon as the beginning of the scientific study of personality disorders (Sass & Herpertz, 1995). While up to the early 19th century psychiatric phenomenology widely neglected the disorders of affect (Berrios, 1995), Pinel was one of the first to stress that in some disorders, it was the emotions that were primarily involved. Esquirol's (1838) idea of "monomania" was based on the partial, primary (and independent) involvement of intellectual, emotional, or volitional mental functions. Esquirol extended this the-

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\* Correspondence to: Sabine C. Herpertz, M.D., Department of Psychiatry and Psychotherapy, University Hospital of Aachen, RWTH, Pauwelsstrasse 30, 52074 Aachen, Germany. Tel.: +49 241 8089637. Fax: +49 242 8888403. E-mail address: sherpertz@post.klinikum.rwth-aachen.de

Table 1. Historical views of abnormal personality

French	Manie sans délire	(Pinel, 1809)
	Les Monomanies	(Esquirol, 1838)
	Dégénérés	(Morel, 1857)
	Delinquente nato	(Lombroso, 1876)
	Déséquilibre mentale	(Dupré, 1925)
Anglo-American	Moral alienation of the mind	(Rush, 1812)
	Moral insanity	(Prichard, 1835)
	Sociopathy	(Partridge, 1930)
	Psychopathic states	(Henderson, 1939)
	Anethopathy	(Karpman, 1941)
	Semantic dementia	(Cleckley, 1941)
German	Psychopathic inferiority	(Koch, 1891/1893)
	The born criminal	(Bleuler, 1896)
	Constitutional degeneration	(Ziehen, 1905)
	Psychopathic personalities	(Kraepelin, 1904/1915)
	Body type and character	(Kretschmer, 1921)
	Psychopathic personalities	(Schneider, 1923)
	Psychopathic criminal	(Birbaum, 1926)

ory of monomania to the point of circularity to include states in which a single behavioral disturbance became the only criterion to diagnose the condition (e.g., pyromania, kleptomania, erotomania, and phonomania (homicidal monomania)). Although the concept was criticized on clinical and particularly medico-legal grounds, it had great influence on the further development of the concept of psychopathy and today's impulse control disorders. Morel's (1857) theory of degeneration claimed that all types of mental disorder can be traced back to one common hereditary origin and that *les folies héréditaires* can be divided according to degree of degeneration. The less disordered group, called *folie morale*, presented eccentricity, unstable emotions, untrustworthiness, and sparse cognitive functions. The Italian writer Cesare Lombroso (1876, see Zambianchi, (1963)) developed the notion of the *delinquente nato* (born criminal), which he regarded as a form of human atavism lacking the higher nervous centers related to moral behavior. Lombroso's social Darwinism has not altogether disappeared and underlies current negative and moralistic views of mental illness and psychopathy.

The French concepts of "instinctive monomania" and *folie morale* have basic features in common with Prichard's (1835) moral insanity concept, which is defined as "madness consisting in a morbid perversion of the natural feelings, affections, inclinations, temper habits, moral dispositions, and natural impulses". During the early 19th century, the word "moral" had multiple meanings, and mainly meant "psychological" (referring to the affective in contrast to the intellectual) and, far less often, it meant ethical. There is good textual evidence to believe that for Prichard moral simply meant "psychological" or "other than intellectual mental functions". The British concept of psychopathy was shaped by DK Henderson (1939), who considered psychopathic states as a condition of constitutional abnormality. In contrast to German psychiatrists, he understood constitution as something which is made up equally of heredity and environment. He defined three psychopathic states, the predominantly aggressive, the inad-

equate, and the creative. While the third form was not commonly applied, the inadequate and aggressive types of psychopathy entered into the Anglo-Saxon concepts of personality disorder, which were mainly characterized by antisocial traits. The British "Mental Health Act" still uses "psychopathic disorder" exclusively in the sense of abnormal aggressive and irresponsible behavior. Thus, it can be concluded that the meaning of the term psychopathy evolved from his earlier reference to any psychopathological change to a narrower term for aggressive, antisocial recidivists.

Rush (1812/1827) was the first Anglo-American psychiatrist to study individuals whose disturbances were primarily characterized by irresponsibility, unscrupulousness, and aggressiveness. He spoke of the "moral alienation of mind" and believed that such reprehensible acts were manifestations of mental disease. Cleckley's (1941/1976) concept of the psychopath was, in addition to antisocial behavior, characterized by specific characterological features, i.e., superficial charm, unreliability and insincerity, inability to accept blame or shame, failure to learn from experience, egocentricity and incapacity for love, lack of emotions in general, poorly integrated sexual relationships, and an inability to follow goals in life. In his famous book *The Mask of Sanity* (1941), Cleckley claimed that psychopathy was a "severe disease" characterized by "semantic dementia", a discordance between linguistic and experimental components of emotion appearing as an incapacity to experience grief, shame, love, pride, or other emotions, although being able to verbalize emotions. From this standpoint, the psychopath knows the "words" of emotion, but not the "music" (Johns & Quay, 1963).

Koch's monograph *Psychopathische Minderwertigkeiten* (psychopathic inferiorities) (1891–1893) played in Germany the same role in relation to concept of abnormal personality as the work of Pinel had in France, that of Rush in the USA, and that of Prichard in Great Britain. His typology subsumed clinical states characterized by a range of minor "mental deficits" (such as "psychic brittleness") and also definite forms of psychopathic inferiority in the current sense of psychopathy. The German tradition can be considered as conceptually wider in that it also included non-antisocial forms of abnormal personality. Ziehen (1905–1912), who further developed Koch's views, listed 12 forms of psychopathic constitution, including hysterical, neurasthenic, hyperthymic, paranoid, and obsessive types. Kraepelin's concept of psychopathy described *Psychopathische Zustände* (psychopathic states), which comprised compulsive states, impulsive insanity, homosexuality, and mood disturbances (Kraepelin, 1904). In the later edition of his textbook, Kraepelin made a distinction between *Originäre Krankheitszustände* (original illnesses) and *Psychopathische Persönlichkeiten* (psychopathic personalities) (Kraepelin, 1915). The latter category described psychopathic personalities in a predominantly socially evaluating sense (e.g., inborn delinquents, unstable liars, swindlers, pseudo-querulous). Kurt Schneider (1923) favored a value-free psychological and characterological point of view. Therefore, he included the hyperthymic and depressive psychopath with stable deviation of mood and activity, the insecure divided into sensitive and anancastic psychopaths, the asthenic, and the emotionally unstable in addition to types with predominantly antisocial behavior. He defined "abnormal personalities" as statistical deviations from an estimated average norm distinguishing two forms of psychopath: those who suffer from their psychic abnormality, and those from whom society suffers. This defi-

dition subsuming distress beside social harmfulness appears to have provided the basics of today's concept of personality disorder as found in the modern classification systems (DSM-IV and ICD-10). In only one out of ten diagnostic categories do descriptions of socially harmful features outnumber characterizations of the individuals' malfunction and distress.

## CONCEPTS OF ANTISOCIAL PERSONALITY

Current psychiatric classification in the socially harmful antisocial personality realm is far from homogeneous. Three different diagnostic categories are now being used, the DSM-IV antisocial personality disorder, the ICD-10 dyssocial personality disorder, and Hare's (1970) psychopathic personality disorder, which is based largely on Cleckley's conceptualization of psychopathy. Particularly in Germany, Patridge's concept of the sociopathic personality disorder still is being used by forensic psychiatrists in order to describe abnormal personalities showing deviant or delinquent behavior related to psychopathological phenomena. Particularly in clinical practice as well as in court the different concepts are mixed and often used without considering the specific diagnostic criteria.

Regarding the successive editions of the DSM classification, the description of antisocial personality disorder presented in DSM-II (APA, 1968), which still included indicators of profound personality dysfunctioning, was still closer to the original formulations of psychopathy developed by Clerkley (1941), McCord and McCord (1964), and others than the following editions. DSM-III (-R) (APA, 1980, 1987) and DSM-IV (APA, 1995) criteria have been criticized for being discrepant with historical and clinical tradition (Hare, 1991; Kernberg, 1989; Millon, 1981) since they are widely restricted to the description of criminal behavior including behaviorally very specific items, e.g. unemployment for six months, travelling from place to place without a prearranged job, irresponsibility as a parent, failure to sustain a monogamous relationship.

Although it is a welcome development that psychiatric classification systems have gained importance in the courtroom, it must be kept in mind that these diagnostic systems were not specifically designed for forensic psychiatry. One of the main critiques of the DSM-IV definition of antisocial personality disorder is its overdiagnosis within prison and forensic settings. Because the criterion set is limited to listing criminal and socially damaging patterns of behavior the majority of prison inmates satisfy diagnostic criteria. At the same time these behaviorally specific criteria lead to an underdiagnosis of antisocial personality disorder within clinical, non-forensic settings (Widiger & Corbitt, 1993). Furthermore, critical reviews and empirical data on the DSM-IV concept of antisocial personality disorder have suggested temporal instability, inattentiveness to issues of symptom pervasiveness, and overlap with some of the symptoms of substance abuse disorders (Cunningham & Reidy, 1998). A further shortcoming could be gender bias, at least regarding the diagnostic criteria related to antisocial behavior in adolescence. From their study on antisocial personality disorder and psychopathy in cocaine-dependent women, Rutherford, Cacciola, and Alterman (1999) concluded that diagnostic criteria of early-onset antisocial behavior assessed by DSM-IV show little relation to adult antisocial behavior in females. Norm- and rule-

breaking behaviors in female children and adolescents were not a reliable predictor for adult antisocial personality disorder, but they predicted antisocial traits as reflected by Hare's Revised Psychopathy Checklist (PCL:R, Hare, 1991). Thus, psychopathy appears to reflect a stabler, trait-based concept, which, moreover, tends to be gender neutral.

In addition to the classification systems, the concept of psychopathy is increasingly being recognized in the courtroom. Aside from an antisocial life-style, it is based on character features that can be described in terms of specific patterns of interpersonal, behavioral, and, in particular, affective characteristics (Cooke, 1996). Within the interpersonal domain, psychopaths are selfish, dominant, manipulative, and superficial, they show a lack of responsibility within relationships and do not form long-lasting bonds. Their behavioral style is characterized by low frustration tolerance, impulsiveness, and sensation-seeking. Within the affective domain, psychopaths show fearlessness, shallowness, callousness, emotional detachment, and lack of empathy and remorse. Therefore, psychopaths form a specific subgroup of antisocial personalities characterized by a particularly high risk of violence and criminal recidivism (Hemphill, Hare, & Wong, 1998; Salekin, Rogers & Sewell, 1996) (Figure 1). While among prison inmates, the prevalence rates of DSM-IV antisocial personality disorder range from 70 to 100% (Widiger *et al.*, 1996), prevalence rates are much lower for psychopathy. In a Canadian prison population, diagnostic criteria according to the PCL:R were met by only 28% (Widiger *et al.*, 1996) and in a Swedish forensic psychiatric population by 25% (Stålenheim & Knorrning, 1996). Besides, the concept of psychopathy is not restricted to persons showing delinquent or deviant behavior; psychopaths may live well adjusted socially and even successfully (Sutker, Moan & Allain, 1985; Widiger & Corbitt, 1993).

Using the PCL:R (Hare, 1991), emotional and interpersonal aspects of psychopathy can be distinguished from the behavioral problems of delinquency and an unstable, impulsive life-style. While Factor 1 includes affective shallowness,

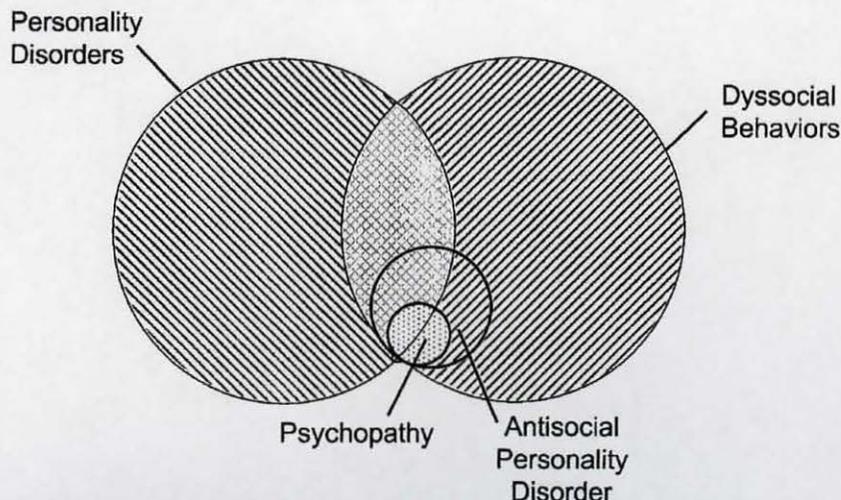


Figure 1. Differential typology of personality disorders: Personality disorder-antisocial personality disorder-psychopathy-dyssocial behaviors

superficial charm, and absence of remorse or empathy among others, Factor 2 describes juvenile and adult delinquency and aggression.

## EMOTIONAL DETACHMENT AND PSYCHOPATHY

Abnormal or deficient emotional responsiveness is considered to be the hallmark of psychopathy. Psychopaths show emotional detachment from and indifference to the feelings of others; they do not display any remorse or shame, nor do they experience affection or love.

Fearlessness and callousness are thought to result from deficient emotional learning, poor conditioning processes in particular. One of the earliest and most consistent findings is that psychopaths show reduced electrodermal response to non-conditioned and conditioned anxiety- or punishment-related stimuli (Hare, 1978; Lykken, 1957, 1978). They display a weak response to aversive unconditioned stimuli and have difficulty establishing an association between conditioned and unconditioned stimuli. In addition, weak orienting responses suggest even more fundamental deficits in processing external information which seriously interfere with the establishment of classically conditioned associations. Deficient conditioning leads to an inability to learn from punishment and to develop passive avoidance learning. In a broader sense, poor conditioning is thought to be associated with poor development of the conscience (Raine, 1993).

The low level of autonomic arousal is not only linked to pathological fearlessness (Raine, 1993; Sass, 1987) and a lack of harm avoidance, but is also connected with the theory of sensation seeking. Low arousal is an aversive state that is compensated for by seeking stimulation, thrill, and risk (Zuckerman, 1974). Skin conductance resistance was also found to be a measure of prognosis; beside fearlessness and stimulation-seeking, physiological underarousal and low autonomic orienting predicted criminal behavior while heightened autonomic responsiveness appeared to be a protective factor against criminal outcome in antisocial adolescents as well as in high-risk male subjects (Brennan *et al.*, 1997; Raine, Venables, & Williams, 1990, 1995; Raine, Reynolds, Venables, Mednick, & Farrington, 1998). Although most of these studies that have dealt with the identification of risk factors for criminal development have used broad definitions of adult antisocial behavior, data on underarousal have strong implications for basic features of psychopathy, such as fearlessness and poverty in emotional reactions.

In addition to attenuated autonomic reactivity, an absence of the typical augmentation of startle response during exposure to aversive stimuli was reported in criminal psychopaths (Patrick, Bradley, & Lang, 1993; Patrick, Cuthbert, & Lang, 1994). The startle probe is an aversive stimulus that elicits a defensive withdrawal response, one component of which is the eye blink reflex. Lang, Bradley, and Cuthbert (1990) explained the affect-startle effect in terms of synergistic response matching: unpleasant slides prompt a state of defensive readiness that is synchronous with the response to the startle probe, producing a larger startle reflex. A sample of convicted male sexual offenders scoring high on the Factor 1 of the PCL:R (Hare, 1991) showed no potentiation of the startle response while viewing aversive slides. These findings suggest that psychopaths show an incapacity of an aversive affective state to prime aversion actions, namely to increase the strength

of a defensive reflex (Patrick *et al.*, 1993). Herpertz *et al.* (paper submitted for publication) found an abnormal startle response pattern not only in the context of fear-related stimuli, but in relation to any kind of emotional stimulus, whether it was related to feelings of fear or threat or to sympathy with others. In their study, psychopaths not only showed an absence of startle potentiation when viewing aversive slides but were also characterized by a deficient startle inhibition in relation to stimuli inductive of an appetitive response. On the whole, startle data suggest a prominent fearlessness to aversive, frightening events, but, beyond that, a general deficit of psychopaths in processing affective information.

Further information on the processing of emotional stimuli result from studies which employed methods adapted from cognitive science. Day and Wong (1996) showed that psychopaths compared to non-psychopaths rely less on connotative-emotional processes based in the right hemisphere than on denotative-linguistic processes based in the left hemisphere. In a tachistoscopic task, psychopaths showed neither higher accuracy nor lower reaction times when processing negative emotional words in the left instead of the right visual field, a finding replicated several times in normals (Silberman & Weingartner, 1986). These findings suggest impairment in right-hemisphere function which is thought to be specialized in decoding emotional stimuli by actually felt emotional reactions to the stimuli. Using a lexical decision task, Williamson *et al.*, (1991) found that psychopaths processed and responded to emotional words as if they were neutral words. They did not show a shorter decision time nor were the associated event-related brain potentials (ERPs) larger when processing emotional words in comparison to neutral words. The psychopaths' difficulty in processing emotional information was also confirmed by a further experimental study where psychopaths, in contrast to non-psychopaths, did no better in remembering the central details of a negative than of a neutral slide (Christianson *et al.*, 1996).

Concluding from studies which have dealt with the affective domain in psychopaths, emotional deficiency may predispose to violence in several ways. (1) Poor conditioning implicates a failure to review the harmful consequences of one's actions leading to a deficit of avoidance behavior. (2) Emotional detachment prevents experiencing the fear, empathy, guilt, and remorse which naturally inhibit the acting out of violent impulses (Hart & Hare, 1996). (3) Emotional deficiency is closely associated with a general underarousal, leading to sensation seeking.

## ETIOLOGICAL ASPECTS OF EMOTIONAL DEFICIENCY IN PSYCHOPATHS

There is now a consensus that personality disorders in general and psychopathy in particular result from the interaction of various factors, ranging from genes and biological defects to childhood traumata and situational conditions. The biopsychosocial approach of Paris (1993) attempts to consider the present state of evidence for biological, psychological, and social factors in the development of personality disorders. According to this concept, biological factors determine underlying temperamental conditions in an individual, who will develop a personality disorder under certain additional psychological and social risk factors.

## Emotional Deficiency and Brain Dysfunction

Great progress in brain imaging technology in recent years has provided some indications that suggest that brain dysfunction may play an important role in the etiology of psychopathy. The ventromedial prefrontal cortex, the medial temporal cortex and the amygdala appear to be part of a neuronal circuit that plays a central role in brain mechanisms involved in affective processing. The central part of the frontal lobes, which has its origin in or near the olfactory cortex, mediates the emotional tone and has top-down control over limbic pathways. The rich interconnectivity of the amygdaloid complex provides the neuroanatomical basis for emotional reactions that emanate from an associative process. In this process, the exteroceptive sensory inputs are combined with interoceptive changes, thereby giving emotional significance to external events.

Since the story of Phineas Gage, a railway worker who sustained a prefrontal injury which damaged mainly the orbitofrontal cortex, causing devastating implications for his social adjustment, the ventral sector of the prefrontal cortex has been regarded as providing important contributions to behavioral regulation. Dolan (1999) has recently reported that early-acquired damage of the orbitofrontal cortex is also followed by pervasive difficulties in social behavior resembling those found in psychopathic individuals. Patients who suffered damage to this region in early life show behavioral deficits that are accompanied by an inability to experience feelings evoked by reward and punishment (Anderson, Bechara, Damasio, Tranel, & Damasio, 1999). Dolan (1999) suggests that the acquisition of social and moral knowledge may depend on being able to experience feelings evoked by reward and punishment since emotions act as a biasing signal related to feelings evoked by similar situations in the past and help select the action likely to be optimally advantageous, i.e., to meet with internal emotional and external culturally defined social cues. Therefore, selective damage to the prefrontal cortex changes the stable responses to the environment (Stuss, Gow, & Ross Hetherington, 1992).

While lesion studies have provided striking descriptions of altered personality and emotions following damage to the orbitofrontal cortex, there is much less evidence for prefrontal dysfunction in psychopaths. However, data from neuropsychology and neuroimaging give evidence that the reverse may be admissible, at least in a subgroup of antisocial, psychopathic personalities. Lappi re, Braun, and Hodgins (1995) provided convincing evidence of deficits in orbitofrontal-ventromedial functioning on a series of cognitive tasks. Psychopaths had significantly impaired ventral but not dorsolateral frontal functioning. This conclusion was also supported by findings of deficits on neuropsychological measures of motor planning and execution, again associated with orbitofrontal brain regions (Deckel, Hesselbrock, & Bauer, 1996).

There is an increasing number of data from neuroimaging studies which suggest that poor prefrontal functioning is a characteristic of violent, antisocial persons, as indicated by positron emission tomography (PET) (Raine *et al.*, 1994; Volkow *et al.*, 1995) and single-photon emission computed tomography (SPECT) (Amen, Stubblefield, Carmicheal, & Thistead, 1996; Kuruoglu *et al.*, 1996). The central role of the orbitofrontal cortex was particularly emphasized by findings of Raine *et al.* (Raine, Buschbaum, & Stanley, 1992; Raine *et al.*, 1994; Raine, Buschbaum,

& La Casse, 1997), who reported a statistically significant decrease in average glucose metabolic rate in both the lateral and medial prefrontal but not in the posterior frontal cortex of murderers. Recently, reduced prefrontal gray matter volume in subjects living in the community with antisocial personality disorder was reported: This study, which used structural magnetic resonance imaging (MRI) for the first time, revealed a structural brain deficit in antisocial personalities (Raine, Lancz, Bihrlé, LaCasse, & Colletti, 2000).

The close association between difficulties in the processing of emotions and prefrontal dysfunction in psychopaths has been supported by functional neuroimaging studies. Using SPECT methodology, Intrator *et al.*, (1997) demonstrated that psychopaths differ from non-psychopaths in the pattern of relative cerebral blood flow during processing of emotional words. Psychopaths showed an increase of frontotemporal activation in a lexical decision task while processing emotional in comparison to non-emotional words which is thought to be a functional correlate of an extra effort which is required to solve the task adequately. Using functional MRI (fMRI), it was also possible to study neurofunctional correlates of abnormal conditioning in psychopaths. Schneider *et al.*, (in press) found signal increases in the amygdala of psychopaths in an aversive classical conditioning paradigm which applied odors as unconditioned stimuli and faces as conditioned stimuli. The greater brain activity during the acquisition phase (forming an association between the unconditioned and the conditioned stimulus) may again be the result of an extra effort needed to perform an aversive conditioning task.

### Emotional Deficiency and Psychosocial Aspects

The contribution of environmental factors to psychopathy has received scant attention, at least in comparison to the high number of studies that have focused on biological factors within the last two decades. The limitations of research on the childhood experiences of psychopaths necessitates drawing on the broad literature on childhood factors that may influence delinquency in general. Two main domains of childhood experiences can be differentiated that have been consistently correlated with subsequent criminality: first, variables of family experiences including absence of a parent, marital discord, abuse, and parental discipline (Dutton & Hart, 1992; Rutter, 1971); second, extra-familial variables such as peer group behavior and the effect of schooling (Raine, 1993; Rutter, 1979). According to the results of a meta-analysis of longitudinal data, the most powerful environmental predictors of delinquency are parental rejection, lack of parental supervision, and a low level of parent-child involvement (Loeber & Stouthamer-Loeber, 1986).

Empirical research that has specifically studied childhood risk factors on the emergence of psychopathy is limited both in volume and in methodological validity. Early studies by Silverman (1943), McCord & McCord (1964), and Cloninger, Reich and Guze (1975) found parental deprivation, erratic punishment, marital separation, etc. to be common characteristics of the childhoods of psychopaths, but their assessment of psychopathy was not based on distinct operationalization criteria. One of the first studies on specific childhood experiences of psychopaths by Marshall and Cooke (1999) suggest that high scorers on the PCL:R are likely to have experienced both familial (e.g., parental antipathy,

indifference, and neglect) and societal difficulties (e.g., negative social and school experiences).

Furthermore, transcultural research suggests the significance of social aspects in the etiology of psychopathy. Although psychopathic personality appears to be present in many cultures, Cooke (1996) claims that individualistic societies—where competitiveness is emphasized and self-confidence and independence from others are encouraged—are more likely to produce egocentricity, grandiosity, superficial interpersonal relationships, and a lack of responsibility towards others than so-called collectivistic societies. Preliminary epidemiological data support this assumption.

## PSYCHOPATHY AND LAW

The identification of an increasing number of biological risk factors for antisocial behavior raises questions regarding legal responsibility in psychopaths (Herpertz & Sass, 1999). In criminal law which is based on the principle of guilt, classical conditions for exculpation are character flaws of organic origin, such as are due to cerebral traumas or infections, i.e., conditions that clearly fall under the concept of mental disease (Kroeber, 1995). The issue of legal responsibility in psychopathic personality disorders has been strongly debated for the past 150 years and is still under discussion in Germany. Here can only be described some principles involved in the present situation (see also the article by Kröber in this issue pp. 679–690).

Regarding individual cases, personality disorders may differ from organically caused disorders neither in quality nor in quantity of psychopathology. However, unlike abruptly beginning psychotic diseases or organic processes, an abnormal personality can familiarize itself with its own deficiencies and peculiarities and thus develop coping mechanisms to prevent delinquent behavior (Janzarik, 1996). Therefore, the diagnosis of antisocial personality disorder as in DSM-IV or psychopathy in the narrower sense of Hare (1991) *per se* does not justify the assumption of diminished responsibility. With regard to the legal issues of responsibility and prognosis, the labeling with a medical diagnosis should be restricted to those forms of habitual antisocial behavior that show a psychopathologically relevant disturbance of personality. The relationship of the different diagnostic terms and their significance in terms of legal responsibility are presented in Figure 1. Within the German forensic conceptualization the question of diminished or non-responsibility arises only in the left circle, i.e., when truly psychopathological phenomena are present, not just illegal behaviors. As the circle graphic shows, only in a certain proportion of individuals who qualify for the diagnosis of a personality disorder in general or of an antisocial personality disorder or of psychopathy in the sense of Hare does the question of responsibility come into consideration: These are those individuals who in addition to their dyssocial behaviors show pronounced mental abnormalities comparable to psychopathological signs and symptoms in mental illnesses. It may be that in the future the lack of emotional reactivity will be considered to be of greater importance in the discussion of legal responsibility in psychopaths.

In Germany, the issue of responsibility in the context of mental disorders is

codified in §§ 20 of the Penal Code (StGB): "A person acts without guilt who, at the time the criminal act is committed, is incapable of understanding the wrongfulness of his or her action or is incapable of acting in accordance with this understanding due to mental illness, due to a profound disturbance of consciousness, due to mental retardation or due to another serious mental abnormality." The term "another serious mental abnormality" in the legal code pertains to severe personality disorders, neuroses, and sexual deviations, which, however, seldom justify exculpation, but usually result in diminished responsibility and a correspondingly diminished sentence according to § 21. If the psychopathology which was present during the criminal act and which led to applying §§ 20 or 21 is still causing the danger of future criminal acts, pursuant to Criminal Code § 63, measures can be taken for hospitalization in a psychiatric inpatient facility.

Regarding these principles of German criminal law, a forensic evaluation of whether a legally relevant personality disorder exists or not should follow a two-step procedure (Sass, 1987). The first step is determining whether an abnormal personality exists and how the disorder is to be classified according to the terminology of one of the currently valid systems, DSM-IV or ICD-10. The second step is assessing whether the clinical diagnosis affects criminal responsibility, i.e., whether it leads to a substantial impairment of the offender's capacity to understand (cognitive functioning) and/or to control his or her behavior (volitional functioning). Figure 2 presents a systematic overview of the different forensic consequences which must be considered by the forensic psychiatrists. Neither the diagnosis of personality disorder in general nor of psychopathy in particular automatically leads to the assumption that there must be impaired responsibility or non-responsibility in the offender.

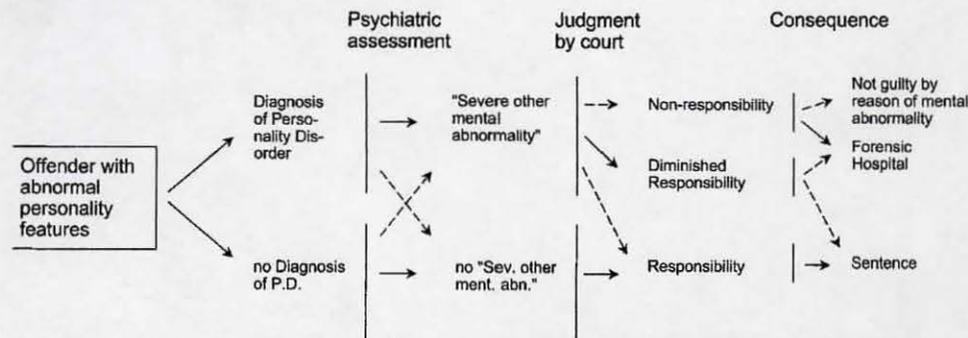


Figure 2. Personality disorder and legal consequences

If the forensic psychiatrist fails to distinguish clearly between simple dyssocial behavior and a profound disturbance in personality, psychiatry runs the risk of being charged with all kinds of recurrent social deviance and delinquency. This would greatly hamper our capacity to treat those offenders who manifest real and treatable mental disorders.

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