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The Origins of Violence: Is Psychopathy an Adaptation?

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Abstract

Violence has been attributed to many causes including mental illness, brain damage, child abuse, and social deprivation. This article provides a brief overview of some recent work on sociopathy and psychopathy and argues that models of violence, and explanations of violent acts such as rape and homicide, need to accommodate the possibility that a large proportion of such acts are committed by individuals whose psychology is very different to that of the general population.

Key words: psychopathy, sociopathy, violence, evolutionary psychology, frequency-dependent selection.

Philippe Pinel (1745-1826) used the term *insanity without delirium* to describe behaviour that was marked by complete remorselessness, but the modern concept of 'psychopathy' was put forward by Hervey Cleckley (1903-1984) in his classic work *The Mask of Sanity* (1941). According to Cleckley's criteria a psychopath is an intelligent person characterised by poverty of emotions, who has no sense of shame, is superficially charming, is manipulative, who shows irresponsible behaviour, and is inadequately motivated. Interspersed in Cleckley's vivid clinical descriptions are phrases such as 'shrewdness and agility of mind,' 'talks entertainingly,' and 'exceptional charm' (Hare, 1993, p. 27). Cleckley also provides a striking interpretation of the meaning of the psychopath's behaviour:

> The [psychopath] is unfamiliar with the primary facts or data of what might be called personal values and is altogether incapable of understanding such matters. It is impossible for him to take even a slight interest in the tragedy or joy or the striving of humanity as presented in serious literature or art. He is also indifferent to all these matters in life itself. Beauty and ugliness, except in a very superficial sense, goodness, evil, love, horror, and humour have no actual meaning, no power to move him. He is, furthermore, lacking in the ability to see that others are moved. It is as though he were colour-blind, despite his sharp intelligence, to this aspect of human existence. It cannot be explained to him because there is nothing in his orbit of awareness that can bridge the gap with comparison. He can repeat the words and say glibly that he understands, and there is no way for him to realize that he does not understand (Cleckley, 1941, p. 90 quoted in Hare, 1993, pp. 27-28).

The terms ‘psychopathy’ and ‘sociopathy’ are used interchangeably with the latter often being used to avoid confusion with psychoticism and insanity, though the choice of term also often reflects the user’s views on whether the determinants of the condition are psychological, biological, and genetic on the one hand or social forces and early experience on the other (Hare, 1993, p. 23). The American Psychiatric Association’s category of *antisocial personality disorder* (introduced in the *Diagnostic and Statistical Manual of Mental Disorders*, Third Edition, 1980) was supposed to have covered psychopathy, but because clinicians were not thought sufficiently competent to assess personality traits the *DSM* definitions have concentrated on the antisocial and criminal *behaviours* associated with the condition. This has blurred the distinction between psychopaths and criminals, and of course most of the latter are not psychopaths. Antisocial Personality Disorder (category 301.7) is described in *DSM-IV* simply as ‘a pervasive pattern of disregard for, and violation of, the rights of others that begins in childhood or early adolescence and continues into adulthood… This pattern has also been referred to as psychopathy, sociopathy, or dyssocial personality disorder’ (American Psychiatric Association, 1994, p. 645). This confusion of terminology is especially damaging for research because whereas DSM-IV describes APD as ‘associated with low socio-economic status’ (1994, p. 647) psychopathy ‘seems *less* likely to be associated with social disadvantage or adversity’ (Rutter, Giller & Hagell, 1998, p. 110).

Robert Hare has described his attempts to identify true psychopaths as a prison psychologist in the early 1960s. Most of the personality ‘measures’ or ‘instruments’ popular at that time, such as the Minnesota Multiphasic Personality Inventory (MMPI), were questionnaires based on self-reporting. When administered to psychopaths, who are expert at ‘impression management’ (Hare, 1993, p. 30) these instruments are less than reliable. One of the inmates in Hare’s research program even had a complete set of MMPI tests and interpretation manuals and, for a fee, would advise fellow inmates on the correct answers to show the steady improvement more likely to lead to parole. Another inmate ‘had an institutional file that contained three completely different MMPI profiles. Obtained about a year apart, the first suggested that the man was psychotic, the second that he was perfectly normal, and the third that he was mildly disturbed’ (Hare, 1993, p. 31). Each of these profiles had been treated as genuine, but each had in fact been produced to meet specific objectives: the inmate’s desire first to transfer to a psychiatric hospital, then to transfer back to the main prison after he found that conditions were not to his liking, and finally to secure a supply of Valium. Hare decided to construct his own *Psychopathy Checklist* in order to have a method of separating psychopaths from the rest of the prison population, and this method is now used throughout the world. The *Checklist* highlights the key emotional and interpersonal symptoms of psychopathy: psychopaths are said to be glib and superficial; egocentric and grandiose; to lack remorse or guilt; to lack empathy; to be deceitful and manipulative; and to have shallow emotions. In terms of social deviance the psychopath is also said to be impulsive; to have poor behavioural controls; to need excitement; to show lack of responsibility; to show early behaviour problems, and to demonstrate adult antisocial behaviour problems (Hare, 1993, pp. 34-82).

It is difficult to appreciate just how different the functioning of psychopaths is compared to that of the non-psychopath. After killing a waiter who had asked him to leave a restaurant Jack Abbott denied any remorse because he hadn't done anything wrong, and after all 'there was no pain, it was a clean wound' and the victim was 'not worth a dime' (Hare, 1993, pp. 42-3). The psychopathic serial killer John Wayne Gacy murdered thirty-three young men and boys, but described himself as the victim because he had been robbed of his childhood. Kenneth Taylor battered his wife to death and then couldn't understand why no one sympathised with his tragic loss. One woman allowed her boyfriend to sexually abuse her five-year-old daughter because she was too tired for sex, but then was outraged that social services should have the right to take the child into care. Diane Downs murdered her three children, wounding herself in the process in order to provide evidence for story of an attack by a stranger. Asked about her feelings regarding the incident Downs replied 'I couldn't tie my damned shoes for about two months… The scar is going to be there forever… I think my kids were lucky' (Hare, 1993, p. 53 quoted from The Oprah Winfrey Show, September 26, 1988). Clinicians refer to the emotions of psychopaths as proto-emotions, that is, primitive responses to immediate needs. Hare remarks:

> Another psychopath in our research said that he did not really understand what others meant by "fear". However, "When I rob a bank," he said, "I notice that the teller shakes or becomes tongue tied. One barfed all over the money. She must have been pretty messed up inside, but I don't know why. If someone pointed a gun at me I guess I'd be afraid, but I wouldn't throw up." When asked to describe how he *would* feel in such a situation, his reply contained no reference to bodily sensations. He said things such as, "I'd give you the money"; "I'd think of ways to get the drop on you"; "I'd try and get my ass out of there." When asked how he would *feel*, not what he would think or do, he seemed perplexed. Asked if he ever felt his heart pound or his stomach churn, he replied, "Of course! I'm not a robot. I really get pumped up when I have sex or when I get into a fight" (Hare, 1993, pp. 53-4).

The prevalence of APD is estimated at three percent in males and one percent in females (American Psychiatric Association, 1994, p. 648), but the rate of psychopathy according to the Cleckley/Hare criteria is probably about one percent (Hare, 1993, p. 74). Half of all serial rapists may be psychopaths (Prentky & Knight, 1991). The recidivism rate of psychopaths is roughly double that of non-psychopathic offenders, and the violent recidivism rate is about triple that of other offenders (Hare, 1993, p. 96). Insight-oriented therapies actually appear to make psychopaths (but not non-psychopaths) more likely to recidivate (Quinsey & Lalumière, 1995; Rice, et al., 1999), possibly because psychopaths use psychotherapy sessions to develop their skills in psychological manipulation, and because they see no need to change their admirable personalities (Hare, 1993, pp. 192-206). Because of a lack of research and the confusion over terminology it is not clear whether there are differences between males and females in the prevalence of psychopathy. However, Hare

estimates that abut 20 percent of male and female prison inmates are psychopaths and that psychopaths are responsible for more than 50 percent of the serious crimes committed (Hare, 1993, p. 87). Cloninger's 'two-threshold' model suggests a polygenic and sex-limited contribution to psychopathy according to which more men than women would pass the threshold for activation of predisposing genes. This model predicts that males should be more susceptible to environmental influences and females who do become psychopathic should have a greater genetic predisposition; this is confirmed by the finding that the offspring of female psychopaths are more vulnerable than those of male psychopaths (Cloninger, Reich & Guze, 1975; Mealey, 1995, pp. 526-7). As Mealey explains,

> The two-threshold model thus explains in a proximate sense what sociobiologists would predict from a more ultimate perspective. The fact that males are more susceptible than females to the environmental conditions of their early years fits well with sociobiological theory in that the greater variance in male reproductive capacity makes their "choice" of life strategy somewhat more risky and therefore more subject to selective pressures (Buss, 1988; Mealey & Segal, 1993; Symons, 1979). Sociobiological reasoning thus leads to the postulate that males should be more sensitive to environmental cues that (1) trigger environmentally contingent or developmentally canalised life history strategies or (2) are stimuli for which genetically based individual differences in response thresholds have evolved (Mealey, 1995, p. 527).

Draper and Harpending's (1982) work on the relationship between adolescent reproductive strategies and father absence is based on the idea that the development of alternative reproductive strategies is contingent on the nature of environmental risk and uncertainty. The optimality of any reproductive strategy is dependent on local environmental contingencies. In addition to the cue for reproductive strategies provided by father absence Chisholm (1999) suggests that a *socioassessment* can be communicated via the attachment process, and that the nature of this socioassessment can have an impact on variance in reproductive strategies including age at menarche, age at first sexual activity, and number of mating partners. A poor socioassessment can contribute to the risky patterns of behaviour identified as the Young Male/Young Female Syndromes. A similar model has been proposed by Belsky, Steinberg, and Draper (1991) in which the developmental trajectory is part of a reproductive strategy 'hypothesized to be associated with earlier timing of puberty, earlier onset of sexual activity, unstable pair bonds, and limited parental investment' (Belsky, 1995, p. 545). Linda Mealey argues that males who are 'competitively disadvantaged with respect to the ability to obtain resources and mating opportunities… who are least likely to outcompete other males in a status hierarchy, or to acquire mates through female choice are the ones most likely to adopt a cheating strategy' (1995, p. 527). Harpending and Sobus (1987) predicted that human cheaters should have the following traits

> Human cheaters would not be detectable by instruments routinely available to his or her conspecifics… [and] should be very mobile during their lifetimes. The longer a cheater interacts with the same group of conspecifics the more likely they are to recognise the cheater's strategy and to refuse to engage in interactions with him or her. There will be costs of mobility, since the mobile cheater will have to learn a new social environment after a move, and he or she will need to be skilled at it. A third prediction is that human cheaters would be especially facile with words, language, and interpersonal empathy… Human male and female cheaters should exhibit very different patterns of cheating, reflecting the obligate mammalian dimorphism in reproductive strategy and potential. A male cheater should be especially skilful at persuading females to copulate and at deceiving females about his control of resources and about the likelihood of his provisioning future offspring. Females, on the other hand, should feign lack of interest in copulation in order to deceive males about their paternity confidence. They should also exaggerate need and helplessness in order to induce males to provide them with more resources and support then they might otherwise provide. Finally, female cheaters might abandon offspring as soon as they perceived that the chance of offspring survival exceeded some critical value (Harpending & Sobus, 1987, 65S-66S).

In Mealey's terminology *primary sociopaths* are biologically *contraprepared* to learn empathy and consequently demonstrate psychopathic behaviour at an early stage, whereas *secondary sociopaths* encounter a combination of risk factors such as a large number of siblings, low socio-economic status, urban residency, low intelligence and poor social skills. These variables contribute to the development of secondary sociopathy in a two stage process involving initially parental neglect, abuse, inconsistent discipline, and punishment as opposed to rewards. In the second stage children may be at a social disadvantage because of poor social skills and may therefore interact primarily with a peer group comprised other unskilled individuals, including primary sociopaths. Mealey hypothesises that 'antisocial behaviour may then escalate in response to, or as a prerequisite for, social rewards provided by the group' (1995, p. 534). According to Mealey primary sociopaths are 'designed for the successful operation of social deception and… are the product of evolutionary pressures which… lead some individuals to pursue a life strategy of manipulative and predatory social interactions' (Mealey, 1995, p. 524). Primary sociopathy is thus a frequency-dependent adaptation, but secondary sociopathy is a facultative cheating strategy.

The ethologists Eibl-Eibesfeldt (1970) and Lorenz (1966) proposed mechanisms that limit aggression in social animals, and an alternative model of psychopathy based on this research has been put forward by James Blair (1995). In animals such as dogs, who bare their throats when attacked by a stronger opponent, a display of such submission cues results in a termination of the attack. Blair has proposed a functionally analogous mechanism in humans: a

violence inhibition mechanism (VIM) that would be activated by non-verbal communications of distress. This mechanism is said to be a prerequisite for the development of three aspects of morality: the moral emotions (such as sympathy, guilt, remorse and empathy), the inhibition of violent action and the moral/conventional distinction. Blair has suggested that psychopaths lack a functional VIM and could not be negatively reinforced by distress cues and further predicted '(1) that psychopaths will not make a distinction between moral and conventional rules; (2) that psychopaths will treat moral rules as if they were conventional; that is, under permission conditions, the psychopaths will say that moral as well as conventional transgressions are OK to do; (3) that psychopaths will be less likely to make references to the pain or discomfort of victims than the non-psychopath controls' (Blair & Morton, 1995, p. 13). Using subjects identified by Hare's *Psychopathy Checklist* Blair found that

> …while the non-psychopaths made the moral/conventional distinction, the psychopaths did not; secondly, and in contrast with predictions, that psychopaths treated conventional transgressions like moral transgressions rather than treating moral transgressions like conventional transgressions; and thirdly, and in line with predictions, that psychopaths were much less likely to justify their items with reference to victim's welfare (Blair & Morton, 1995, p. 20).

As Blair notes 'this study has not proven that psychopaths lack VIM, [but] it has provided evidence that is in line with the position' (Blair & Morton, 1995, p. 25).

Mealey has proposed two different aetiologies for sociopathy, but in her framework those displaying chronic antisocial *behaviour* are placed in the same functional category. This implies that they have similar or identical psychological mechanisms. On the other hand, Blair concentrates on the *mechanisms* subserving psychopathic behaviour, but concludes that psychopaths have a dysfunctional psychological/neurological mechanism and are disordered in comparison to other members of society. With Blair I believe that psychopaths may well have very different psychological mechanisms, but with Mealey I believe that these mechanisms may well be the result of frequency-dependent selection. Most of those who meet the criteria for Antisocial Personality Disorder do not fall into this second category, and research that fails to distinguish to distinguish between these categories is likely to be extremely misleading. In one significant study it was found that the *Psychotherapy Checklist* could not distinguish between psychopathic and schizophrenic offenders in 50 consecutive male admissions to an English Special Hospital (Howard, 1990). This may indicate that some schizophrenics with a history of antisocial behaviour are suffering from what could be called *state-dependent psychopathy*. These individuals would probably not meet the criteria for either primary or secondary sociopathy as discussed by Mealey and others. In terms of appropriate scientific, psychological, social and therapeutic approaches to psychopathy it is clearly essential to distinguish between the different aetiologies involved.

What is most outstanding about psychopaths is that they appear extremely at ease with themselves. They can be articulate, are often highly intelligent, and are regularly described as 'charming', and 'convincing'. Psychopathy is not associated with low birth weight, obstetric complications, poor parenting, poverty, early psychological trauma or adverse experiences, and indeed Robert Hare remarks 'I can find no convincing evidence that psychopathy is the direct result of early social or environmental factors' (Hare, 1993, p. 170). No sound evidence of neuroanatomical correlates for psychopathic behavior has been found, though an interesting (and highly significant) negative correlation has been found in 18 psychopaths between the degree of psychopathy as assessed by the *Checklist* and the size of the posterior half of the hippocampi bilaterally (Laakso, et al., 2001). Lesions of the dorsal hippocampus have been found to impair acquisition of conditioned fear, a notable feature of psychopathy, but it is not clear whether this neuroanatomical feature is the cause of, or is caused by, psychopathy. A study of 69 male psychopaths identified by the revised edition of Hare's *Psychopathy Checklist* found no support for the hypothesis that psychopaths are characterized by verbal or left hemisphere dysfunction (Smith, Arnett & Newman, 1992).

One particularly striking feature of psychopathy is that extremely violent and antisocial behaviour appears at a very early age, often including casual and thoughtless lying, petty theft, a pattern of killing animals, early experimentation with sex, and stealing (Hare, 1993, p. 158). In a study of 653 serious offenders by Harris, Rice, and Quinsey childhood problem behaviors provided convergent evidence for the existence of psychopathy as a discrete class, but 'adult criminal history variables were continuously distributed and were insufficient in themselves to detect the taxon' (1994, p. 387). In a recent study psychopathic male offenders were found to score lower than nonpsychopathic offenders on obstetrical problems and fluctuating asymmetry, and in fact the offenders meeting the most stringent criteria for psychopathy had the lowest asymmetry scores amongst offenders (Lalumière, Harris & Rice, 2001). As the authors note this study provides no support for the idea that psychopathy results from developmental instability of some kind, but does give partial support for life-history strategy models.

An evolutionary game-theoretic explanation for the low but stable prevalence of psychopathy has been modelled successfully (Colman & Wilson, 1997), and though this provides some tentative support for Mealey's suggestion that psychopathy is a frequency-dependent strategy, cross-cultural work using reliable measures will be needed to establish whether there is a stable proportion of sociopaths in traditional societies (Archer, 1995). Given the paucity of evidence in favour of developmental instability and brain damage in psychopaths the suggestion that psychopathy is an adaptation is worthy of further exploration. Particular attention should also be paid to the probability that child psychopaths are mislabelled as suffering from Attention Deficit Hyperactivity Disorder, Conduct Disorder (see American Psychiatric Association, 1994, p. 85), or Oppositional Defiant Disorder (see American Psychiatric Association, 1994, p. 91). According to Hare 'none of these diagnostic categories quite hits the mark with young psychopaths. Conduct disorder comes closest, but it fails

to capture the emotional, cognitive, and interpersonal personality traits… that are so important in the diagnosis of psychopathy' (Hare, 1993, p. 159).

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