

Inside the psychopathic mind : social cognition, emotional experience, and affect regulation in psychopathy

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Valorization addendum

This thesis describes a series of studies that aimed to investigate psychopathic individuals' emotional functioning in a number of areas. Various chapters throughout this thesis already described the theoretical and practical implications of this research. In the present addendum, these studies and their outcomes are further positioned in a broader societal framework in order to illustrate their valorization value.

Psychopathy and its societal impact

Psychopathy is characterized by a constellation of interpersonal and affective characteristics such as glibness, manipulation, and a decreased experience of prosocial emotions like guilt and empathy. In addition, psychopathic individuals display certain behavioral features, including impulsivity, having a short fuse and engagement in a wide range of criminal activities (Hare, 2003). When considering these traits, it is not surprising that psychopathic offenders are responsible for a relatively large amount of crime. Whereas the prevalence of psychopathy is estimated to be less than 1 percent in the general population, around 15 to 25 percent of criminal offenders are believed to fulfill a diagnosis of psychopathy (Blair, Mitchell, & Blair, 2005, pp. 18-19). It goes without saying that this disorder is associated with tremendous financial and societal costs. Over 2005, for example, the annual financial cost of criminality in the Netherlands was estimated at 20,2 billion euros (Groot, de Hoop, Houkes, & Sikkel, 2007). Notably, these costs do not include the more indirect burden that criminal behavior creates in terms of, for example, emotional damage to those who are victimized by antisocial individuals. In order to reduce these harmful consequences, we are in need of a thorough understanding of the mechanisms underlying psychopathy. Such knowledge is crucial for informing prevention and intervention programs targeting this disorder. In addition, a better understanding of psychopathy and the ways in which it could be treated could facilitate a societal mindset of rehabilitating offenders rather than punishing them (as will be described later on). The research in the current thesis describes a series of studies that generated insights into the processes underlying psychopathy, thereby providing an important contribution to the foundation for these translational processes.

The current thesis: contributions to clinical practice and science

The studies presented in the previous chapters aimed to disentangle the complex nature of the emotional functioning of psychopathic individuals. In many theories of psychopathy, emotional aberrances are considered to be at the core of this disorder (Cleckley, 1941; Blair, Mitchell, & Blair, 2005, pp. 110-140; Hare, 1996a; Patrick, Cuthbert, & Lang, 1994). Although all of these various theoretical accounts have a somewhat different take on the nature of this dysfunction, there is general agreement that psychopaths' emotional deficiencies are related to the extreme antisocial tendencies that characterize psychopathy. Not surprisingly, forensic therapeutic interventions have been developed alongside these growing theoretical insights that increasingly adopt a focus on targeting emotional problems in (psychopathic) offenders in order to reduce recidivism (e.g., Schema Therapy; Bernstein et al., 2012). The

research in the current thesis created some important insights into these emotional capacities, thereby contributing to the development of better treatments for psychopathy.

This addendum will now turn to some examples of ways in which the results of the current research are of value to clinical interventions. Before doing so, it has to be stressed that replication of a number of these results is of great importance before any translation to a more applied context is justified. Several of the studies in this thesis were among the first to investigate certain affective constructs in relation to psychopathy. Hastily implementation of findings from basic research into practical forensic contexts could do more damage than good. Therefore, some of the studies in this thesis should be followed up on with new fundamental and applied research in order to warrant the sound evidence base needed for, for example, clinical interventions. The following paragraph therefore describes both some direct practical contributions of the current thesis research, as well as some illustrations of the way in which findings contribute to the broader scientific process leading up to such clinical use.

In the first chapters of this thesis (*chapters 2 and 3*), an investigation was described of psychopathic offenders' Theory of Mind capacities, showing this social cognitive ability not to differ between psychopaths and nonpsychopaths. These findings give us some important information on psychopaths' perception and understanding of their social world, being that psychopathic individuals seem to have a good cognitive grasp of what others think and feel. Such theoretical knowledge can directly help clinicians in translating the theoretical assumptions of the Risk Need, and Responsivity model into practice (RNR model; Andrews & Bonta, 2006). This model, which has greatly increased the effectiveness of forensic treatments (e.g., Lowenkamp, Latessa, & Holsinger, 2006), states that offender treatment should be matched to an individual's motivation, abilities, and strengths. The results in *chapters 2 and 3* inform therapeutic approaches based on the RNR, empirically supporting the justification to provide psychopaths with interventions for which good social cognitive abilities are a prerequisite. Next to that, these findings inform clinicians on the potential cause of psychopaths' aggression. Whereas for some individuals, a decreased Theory of Mind interacts with their aggressive behavior towards others (Renouf et al., 2010), these results show that psychopaths' antisocial behavior is most likely better explained by other mechanisms. Findings thus suggest that clinicians do not need to spend time on interventions aimed at improving psychopathic offenders' understanding of, for example, their victims. In fact, the research described in *chapter 2* even suggests that psychopathic offenders are better at understanding others' intentions than nonpsychopaths under some circumstances, being when these intentions are relatively hostile. When this finding endures empirical replication, it suggests that clinicians might want to be careful to ascribe paranoia to a psychopathic patient who believes that others have bad intentions (which is quite typical of these patients and which could lead to aggression). An intervention strategy for such an offender would be more beneficial if it focused on developing prosocial means of dealing with hostile encounters rather than on challenging beliefs about others' hostile intentions.

In *chapter 4*, a study is described that showed psychopathy, especially the antisocial behavioral features, to be related to a reduced awareness of one's own cardiovascular signals. Such "interoceptive awareness" is considered important to emotional experience, and has been linked to the display of dysfunctional behavior in other lines of research. The findings in *chapter 4* therefore constitute an inspiration for future research to more extensively investigate the role of a reduced experience of (affective) bodily symptoms in antisocial behavior. If a lowered interoceptive awareness can indeed be experimentally linked to the destructive behaviors of highly antisocial offenders, such findings could be the basis of clinical interventions, such as therapeutic approaches that focus on the experience of emotional sensations (e.g., experiential techniques). The findings presented in *chapter 4* also inform future translational research on the effectiveness and underlying mechanisms of such therapeutic interventions. One could, for example, investigate whether interventions that aim to improve offenders' interoceptive awareness result in a) an increased sensitivity for bodily signals, b) an better capacity to control one's behavior and make more functional decisions, and c) a decreased display of antisocial behavior.

In *chapter 5*, psychopathy was found to be related to a self-concept characterized by relatively high levels of dominance. This finding also gives rise to the need for future research in this domain to enable translation to the clinical field. Such research should, for example, investigate whether this dominance is related to the use of interpersonal strategies to control and dominate others in an aggressive manner. Studies might also want to examine whether a dominant self-concept and the antisocial, interpersonal behavior that might very well stem from it, could be predictive of criminal recidivism. If these hypotheses hold true, these fundamental insights inform the development of interventions that target the dominant and controlling behavior of psychopathic offenders. *Chapter 5* also gives some important information on assessment in forensic contexts. For both dominance and guilt, psychopathy showed divergent associations with implicit measures on the one hand, and explicit assessment on the other hand. These results clearly indicate that professionals working in the forensic field should ideally not rely on one single assessment domain, but should combine information from multiple sources when doing patient assessments.

Finally, *chapter 6* showed psychopathic individuals not to differ from nonpsychopaths on a number of different outcome measures associated with the deliberate manipulation of emotion. This research avenue is clearly in need of further investigation, yet matches some recent studies which seem to suggest that psychopathic offenders' emotional aberrances might be more state-dependent than has long been believed (e.g., Meffert, Gazzola, den Boer, Bartels, & Keyzers, 2013). Obviously, such malleability of affective responsivity would be highly relevant to treatments for psychopathic people, whose emotional flatness is believed to play a major role in their typically long and versatile criminal careers. In forensic Schema Therapy, for example, therapists aim at "breaking through" the emotional detachment of forensic patients, in order to reach more emotionally responsive, vulnerable sides. The results described in *chapter 6* support and further inform this therapeutic

approach (which seems to be very promising in reducing forensic patients' pathology and recidivism risk; Bernstein et al., 2012). That is, findings in *chapter 6* suggest that even highly psychopathic patients are able to show, and potentially even experience, emotions under certain circumstances, thereby supporting the theoretical assumptions of Schema Therapy. These results also inform future translational research on the malleability of emotional states in a therapeutic context, and the potential relationship of such affective states with therapy success in forensic patients.

Innovation

The research described in this thesis was innovative in a number of ways. First, it comprised an investigation of a wide range of constructs that are considered highly relevant to emotional functioning (Frijda, 2008; Power & Dalgleish, 2008), including appraisal, physiological arousal, subjective experience, expression of emotion, and affect regulation. Much of the previously conducted research on psychopathic individuals' affect has been limited to the study of only few of these components, while neglecting many other important aspects of emotion. Several of the studies in this thesis were among the first to investigate emotional capacities in psychopathy that have previously received scant empirical attention. No previous research, for example, investigated how psychopathy is related to the subjective experience of cardiovascular signals that often times accompany emotion. Furthermore, the current thesis describes the first experimental examination of psychopathic individuals' capacity to inhibit and express their facial affect when being asked to do so. Moreover, the studies in this thesis were embedded in a sound theoretical framework that provided a critical review of the current literature in light of our contemporary understanding of emotional functioning in general. This latter overview and theoretical integration facilitates a new perspective on psychopathy research, leading the way for some exciting and innovative empirical avenues.

Another innovative quality of this thesis research concerns its multi-method approach to investigating the constructs of interest. Such an assessment enabled us to add to the development of a more differentiated picture of psychopaths' affective reactivity, by taking into account a variety of different response domains. These included written and verbal self-report, skin conductance responsivity, heart beat frequency, cardiovascular variability, bodily movement, facial expressive behaviors, and indirectly assessed self-associations based on reaction time. In doing so, the research in this thesis made use of some measurement methods that, as of yet, have rarely been used in forensic psychology research. Previous studies on psychopathy and facial expressiveness, for example, have all relied on the assessment of frowning, using corrugator electromyography (e.g., Herpertz et al., 2001). In contrast, the research in this thesis is the first in which continuous multi-rater observation of a wide variety of different facial emotional signals was used, adding to a significantly more fine-grained understanding of psychopaths' affective expressiveness.

Communication of thesis results

The outcomes of the studies described in this thesis, as well the knowledge that was acquired while conducting the studies, has been communicated to a variety of individuals other than academic scholars. First, the current thesis research has been presented at a number of national and international conferences. Without exception, these conferences were attended by professionals working in research as well as in the clinical forensic field. Furthermore, various presentations were given to the staff of Forensic Psychiatric Centers and prisons. During these meetings, active communication was always sought with forensic health care professionals, as well as with the management of these institutions in order to facilitate interaction between science, clinical practice, and institutional decision-making. This interaction is reflected in, for example, the fact that several of the publications that resulted from this thesis research are co-authored by professionals working in either forensic clinics or prison. Notably, while collecting data in these institutions, the current author has also answered numerous questions of both nonpsychopathic and psychopathic forensic patients, many of which were (in)directly related to her scientific knowledge on forensic psychology. Furthermore, she has continuously been involved in the education of university students, teaching both the practical skills, as well as the theoretical insights that were acquired in the process of conducting this research.

Research and its influence on the public opinion

The current judicial system is less than optimal in decreasing offenders' criminal behavior and the related suffering for both these individuals and their victims (Andrews et al., 1990). One element that currently does contribute to the reduction of recidivism is the fact that offenders with a mental disorder are considered less responsible for their criminal actions in the majority of Western countries and therefore receive treatment instead of being punished with prison sentences (Bernstein et al., 2012; Spaans, Barendregt, Haan, Nijman, & de Beurs, 2011). This is based on the notion that many people feel that when an individual has mental problems, such as psychosis or mental retardation, he or she is less capable of overseeing the consequences of behavior, which in turn is related to a reduced intentionality of inflicting harm on others. Psychopathy, unfortunately, is generally not perceived as a mental disorder. In fact, research shows that when people attribute more psychopathic traits to criminals, they are more supportive of harsh punishment of these offenders, including execution, than treatment (e.g., Edens, Davis, Fernandez Smith, & Guy, 2013).

Scientific research, such as the studies described in this thesis, can be of great influence on such public opinions and, relatedly, on governmental decision-making in a number of ways. First, people are likely to be more nuanced in their judgements of psychopathic offenders when certain psychopathic traits (e.g., a lack of guilt and empathy) are conceptualized as deficits that compromise one's decision-making ability, rather than as a reflection of being "plain evil." Scientific research enables the objectification of such deficits and can thereby have a subsequent effect on philosophical debates on criminal

responsibility. If, for example, psychopaths' antisocial behavior is related to a decreased interoceptive awareness (*chapter 4*), one might argue that this reduced capacity to register bodily signals (which might normally guide functional decision-making) could be seen as a legally relevant mental deficit that is related to antisocial behavior. Such a perspective is likely to create more support for treatment of these offenders. Second, a combination of fundamental and applied research is needed to show the public that mental disorders associated with antisocial behavior are indeed treatable, and that forensic rehabilitation will vastly outweigh the costs of a punishment-based approach to crime. Research alone is obviously not a panacea to complex matters of how to perceive and deal with psychopathy. It does, however, constitute an absolute prerequisite in moving towards a societal mindset that enables the reduction of the financial costs and emotional suffering associated with mental disorders in the legal context.