Characteristics of psychiatric prison inmates who claim amnesia

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Abstract

The current study explored characteristics of psychiatric prison inmates who claim amnesia for their crimes. More specifically, we examined differences in intelligence, psychopathology, executive functions, and malingering tendencies between psychiatric prison inmates who claimed amnesia (n = 17) and those who did not (n = 45). Findings indicate that lowered levels of intelligence and relatively poor performance on executive (i.e. frontal lobe) tasks accompany claims of amnesia. As well, those who claimed amnesia displayed heightened scores on an instrument intending to measure malingering. This pattern supports the view that such claims must be treated with scepticism.

Keywords: Dissociative amnesia; Malingering; Antisocial personality; Intelligence

1. Introduction

It is not uncommon that offenders claim memory loss (i.e. amnesia) for their crime. As a matter of fact, 25–45% of criminals found guilty of homicide claim amnesia for the event (Kopelman, 1995). In only a handful of these cases, brain dysfunctions may account for reports of amnesia. Some authors have argued that in the legal domain, the most common form of amnesia is simulated amnesia (Cima, Merckelbach, Nijman, Knaue, & Hollnack, 2002; Sadoff, 1974; Schacter, 1986). For example, Parwatikar, Holcomb, and Menninger (1985) argued that one obvious motive for offenders to feign amnesia is to avoid or reduce punishment. On the other hand, Kopelman (1995) has pointed out that even though criminals may claim amnesia, they often

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themselves report their crimes to the police. According to Kopelman (1995), this would argue against the view that all claims of amnesia for crime can be accounted for in terms of malingering. This author assumes that when extreme emotions accompany a criminal act, genuinely dissociative (i.e. psychogenic) amnesia for crimes may occur (see, for a similar position, Porter, Birt, Yuille, & Hervé, 2001; Swihart, Yuille, & Porter, 1999).

Surprisingly few studies have looked at personality characteristics of individuals claiming amnesia for their crimes. In an early study, O'Connell (1960) suggested that low intelligence is related to claims of amnesia. This author argued that because of its simplicity, claims of amnesia might constitute an attractive defense manoeuvre for low intelligent people. Parwatikar et al. (1985) argued that depressive symptoms often accompany amnesia for crime. Taylor and Kopelman (1984) reported a similar finding, but these authors remind us of the possibility that in some cases, depression might be a reaction to the crime. In one of the most systematic studies to date, Gudjonsson, Hannesdottir, and Petursson (1999) administered individual difference measures to criminals who claimed amnesia for their violent offences and control criminals. These authors noted that amnestic offenders score relatively high on introversion and relatively low on impulsiveness. However, O'Connell (1960) and Parwatikar et al. (1985) found that hysterical personality characteristics are rather prevalent among offenders claiming amnesia. To the extent that hysteria implies extravert and impulsive behavior, this finding is difficult to reconcile with the results reported by Gudjonsson and associates. Another prominent feature of hysterical personality is manipulative behavior and this, of course, is also an important aspect of psychopathy. In the words of Porter and co-workers (2001: p. 36): “Psychopaths use a high degree of manipulation, deception, and malingering relative to other offenders and would be likely to use a false claim of amnesia if any personal gains were anticipated.”

Some traits (e.g. low intelligence, hysteria) that have been found to be typical for offenders claiming amnesia fit nicely with a malingering interpretation, while other traits (e.g. depression, introversion, low impulsiveness) ascribed to this group seem to be more consistent with the idea that highly arousing events such as crimes may cause memory dysfunction. Meanwhile, the view that traumatic events might produce complete amnesia has not gone unchallenged. For example, Porter and associates (2001) noted that most witnesses to extreme violence have good rather than impaired memories for the events. Likewise, Merckelbach, Dekkers, Wessel, and Roefs (in press) reported that concentration camp survivors only rarely develop dissociative amnesia for their traumatic experiences.

Although research has come up with conflicting findings about the personality characteristics of criminals who claim amnesia, there is consensus about two issues. Firstly, it is a well-established fact that claims of amnesia more often pertain to violent crimes than to non-violent crimes (e.g. Taylor & Kopelman, 1984). Secondly, crime-related amnesia is often associated with alcohol and/or drug intoxication during the crime (e.g. Gudjonsson et al., 1999).

To the extent that claims of crime-related amnesia are a form of feigning, one would expect that they are raised by individuals who have relatively low IQs, psychopathic features, impulsiveness manifesting itself in poor executive (i.e. frontal lobe) functions, and heightened scores on malingering scales. The present study explored whether such a constellation of features is typical for psychiatric prison inmates who claim amnesia. Since all these patients had been involved in legal proceedings, extensive and detailed patient records were available. Information about claims of amnesia was obtained by having an independent and blind rater inspecting these records.
2. Method

2.1. Patients

Participants were 62 inmates of a German psychiatric correctional institute. All were men. Their mean age was 38.5 years (S.D. = 10.9). Twenty patients had committed murder, while the remaining patients were convicted for sexual offences (22 patients), aggressive criminal acts (10 patients), or theft and arson (10 patients). As to their psychiatric diagnosis, a majority of the patients (60 patients; 96%) met DSM-IV (American Psychiatric Association, 1994) criteria for one or more personality disorders, in particular disorders of the cluster B type (e.g. antisocial personality, hysterical personality). Forty-one patients (66%) had more than one Axis I diagnosis. The most common Axis I diagnoses were psychotic disorders (31 patients; 50%). Also common were substance abuse (27 patients; 44%), mood disorders (17 patients; 27%), and anxiety disorders (18 patients; 29%). Seventeen patients had a diagnosis of paraphilias (27%). Patients volunteered to participate in several test sessions.

For all patients, extensive hospital records were available. Patients' records, including psychotherapists' notes and summaries of police interviews, were subjected to close inspection to establish whether patients claimed amnesia for the crime that lead to their conviction. Seventeen patients (24%) claimed amnesia for their crimes. Of these 17, six patients (35%) had committed murder, five patients (30%) were sexual delinquents, while the remaining six (35%) had been convicted for bodily harm or other forms of severe aggression (e.g. armed robbery). The frequency of violent offences was significantly higher in those claiming amnesia as compared to those who did not (100% versus 36%, respectively, \( \chi^2 (1) = 20.58, P < 0.01 \)). In two of the 17 amnestic patients, but none of the control patients, the court reasoned that extreme alcohol consumption before the crime had produced a temporary state of insanity.

2.2. Measures

IQ. As part of routine diagnostic screening, patients completed the German version of the Wechsler Adult Intelligence Scale (Wechsler, 1991: HAWIE-R; Hamburg-Wechsler Intelligenztest für Erwachsene Revision). The HAWIE-R consists of 11 subtests, of which six are designed to measure verbal IQ and five measure performance IQ. A Total IQ score can be obtained by summing across subtests and standardizing scores, using age and sex appropriate norm-tables.

Antisocial personality features. We counted the frequency of DSM-IV (American Psychiatric Association, 1994) defined antisocial personality disorder (ASPD) diagnoses among amnestic and control patients. Diagnoses were made by independent clinicians as part of routine screening. Patients were also administered the Psychopathic Check List Revised—Screening Version (PCL-SV; Hart, Cox, & Hare, 1996). The PCL-SV is a 12-item instrument, with each item rated on a 3-point scale (anchors: 0 = feature absent; 2 = feature strongly present). Scores were obtained from two independent raters who evaluated a semi-structured interview with patients and their archival records. Scores of the two raters were averaged to calculate a Total PCL-SV score (Cronbach alpha = 0.78), which ranges from 0 to 24 and reflects the degree of overall psychopathic symptomatology. Total PCL-SV scores exceeding the cutoff of 12 are considered to be an indication that follow-up screening for psychopathic symptoms is warranted (Hart et al., 1996).
Impulsiveness. Patients completed the German version of the Barrett Impulsiveness Scale Version 10 (BIS-10; Patton, Stanford, & Barrett, 1995). The BIS-10 is a 34-item self-report questionnaire designed to measure several forms of impulsiveness. More specifically, the BIS-10 addresses (a) motor impulsiveness (e.g. "I do things without thinking"); (b) cognitive impulsiveness (e.g. "I make up my mind quickly"); (c) lack of planning (e.g. "I plan tasks carefully"). Items are answered on 4-point scales (anchors: 1 = rarely/never; 4 = almost always/always). After recoding items with reversed scoring formats, a Total BIS-10 score (Cronbach’s alpha = 0.83) was obtained by summing across items.

Executive functions. Patients completed four tasks of The Behavioral Assessment of Dysexecutive Syndrome (BADS) test battery (Wilson, Alderman, Burgess, Emshie, & Evans, 1996). As in one of our previous studies (Cima, Merckelbach, Klein, Schellbach-Matties, & Kremer, 2001), we used the following BADS subtests: The Rule Shift Cards test, which measures cognitive flexibility; The Key Search test, which indexes the ability to plan and monitor effective search strategies; The Temporal Judgement test, which taps reasoning about time duration; and The Zoo Map test, which measures the ability to plan a route. For each task, a profile score ranging from 0 to 4 was given and these were summed to obtain a total BADS score (Cronbach alpha = 0.76), with lower scores indicating poorer executive (i.e. frontal) functioning.

Malingering tendencies. Patients completed the German version of the Structured Inventory of Malingered Symptomatology (SIMS; Smith & Burger, 1997; Cima et al., submitted for publication). The SIMS is a self-report scale designed to detect malingering of psychiatric symptoms and/or cognitive impairments. It consists of 75 items that can be grouped into five subscales, each subscale containing 15 items designed to tap commonly malingered conditions, like low intelligence and amnestic disorder. Certain items have a bizarre content (e.g. "When I hear voices I feel as though my teeth are leaving my body") or refer to low-frequency symptoms (e.g. "I have a pain in my body which seems to feel like bugs crawling under the surface of my skin"). Other items explicitly allude to a certain syndrome (e.g. depression) in such a way that experts recognize that highly atypical symptoms are listed (e.g. "The more depressed I get, the more I want to eat"). Still other items contain an option for "near good" responses (e.g. "There are six days in a week"). Answers indicating malingering are summed to obtain a Total SIMS score (Cronbach’s alpha = 0.81). Previous studies recommended a cutoff score of 16 for follow-up screening of malingering (e.g. Rogers, Hinds, & Sewell, 1996).

Procedure and data analyses. Patients were given the PCL-SV interview items and the BIS-10, BADS, and SIMS during separate sessions, which all took place in a quiet room. Differences between those who claimed amnesia and those who did not were evaluated with two-tailed t-tests and Chi-square tests. In case of significant differences, Cohen’s (1992) d’s were calculated. As our study was explorative in nature, we did not apply Bonferroni-corrections.

3. Results

Table 1 shows scores on the various parameters of patients who claimed amnesia (n = 17) and those who did not (n = 45). As can be seen, Total IQ was significantly lower in those who claimed crime-related amnesia than in those who did not: t (60) = 2.47, P < 0.05 (two-tailed). In terms of effect size, this difference was moderate to large: d = 0.70. A more detailed analysis indicated that
Table 1
Mean IQ levels, PCL-SV (Psychopathy Checklist-Screening version) scores, BIS-10 (Barrett Impulsiveness Scale-10) scores, and BADS (Behavioral Assessment of Dysexecutive Syndrome) scores of amnestic (n = 17) and control (n = 45) patients (standard deviations are given between parentheses)*

<table>
<thead>
<tr>
<th></th>
<th>Amnestic patients (n = 17)</th>
<th>Control patients (n = 45)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total IQ*</td>
<td>78.5 (10.4)</td>
<td>90.8 (19.5)</td>
</tr>
<tr>
<td>ASPD*</td>
<td>12 (71%)</td>
<td>21 (47%)</td>
</tr>
<tr>
<td>Total PCL-SV</td>
<td>13.3 (4.0)</td>
<td>13.1 (3.8)</td>
</tr>
<tr>
<td>Total BIS-10</td>
<td>73.5 (10.9)</td>
<td>72.0 (12.9)</td>
</tr>
<tr>
<td>Total BADS*</td>
<td>6.1 (2.6)</td>
<td>8.3 (3.2)</td>
</tr>
<tr>
<td>SIMS&gt;16*</td>
<td>53%</td>
<td>18%</td>
</tr>
</tbody>
</table>

* Frequency of ASPD (Antisocial Personality Disorder) diagnoses and SIMS (Structured Inventory of Malingered Symptomatology) scores exceeding the cutoff of 16 are also shown.
* = P < 0.05, two-tailed.

amnestic patients had significantly lower performance IQ's than controls, means being 78.4 (S.D. = 10.5) and 91.1 (S.D. = 17.7), respectively, t(60) = 2.79, P < 0.01 (d = 0.79). Verbal IQ was also lower in those who claimed amnesia than in controls, means being 81.4 (S.D. = 13.7) and 91.0 (S.D. = 18.8), but this difference only reached borderline significance: t(60) = 1.94, P = 0.06 (d = 0.55).

Twelve of the 17 amnestic patients (87%) were diagnosed with an antisocial personality disorder versus 21 of the 45 controls (47%). Thus, the frequency of this diagnosis was significantly higher in the former group [χ² (1) = 11.07, P < 0.01], a difference that was in the moderate range (d = 0.49). As for the PCL-SV, 10 of the 17 amnestic patients (59%) had a score of 13 or higher. However, about the same proportion of controls (56%) obtained such a score. Indeed, there was no difference between amnestic and control patients with regard to their mean scores on the PCL-SV: t(60) < 1.0.

Mean Total BIS-10 score for the total sample (N=62) was 72.4 (S.D. = 12.3), which is significantly above 64.9 (S.D. = 10.19), the mean score of the general population (Patton et al., 1995): t(472) = 4.97, P < 0.01. Patients who claimed amnesia and controls did not differ with regard to Total BIS-10 levels: t(60) < 1.0.

Total BADS scores of amnestic patients were below that of control patients, a difference that was significant [t(60) = 2.61, P < 0.01] and moderate to large (d=0.72). To examine whether poor BADS performance of amnestic patients might be an artifact of their low IQ's, we conducted an Analysis of Variance (ANOVA) with patient groups as factor, BADS scores as dependent variable, and intelligence as covariate. This showed that amnestic patients had poorer executive functions than controls, even when the contribution of intelligence was controlled for: F(2, 59) = 23.73, P < 0.01. A similar result was obtained when performance IQ served as the covariate: F(2, 59) = 18.36, P < 0.01.

As to the SIMS, 53% of the amnestic patients and 18% of the controls scored above the clinical cutoff of 16, a difference that is statistically significant [χ²(1) = 7.67, P < 0.01] and represents a moderate effect (d = 0.42). However, while Total SIMS scores of amnestic patients were higher than those of controls, this difference failed to attain significance [t(60) = 1.49, P = 0.14].
Table 2
Pearson correlations between IQ, psychopathy (PCL-SV), impulsiveness (BIS-10), executive functions (BADS), and malingering (SIMS) in patients claiming amnesia (n = 17)

<table>
<thead>
<tr>
<th></th>
<th>PCL-SV</th>
<th>BIS-10</th>
<th>BADS</th>
<th>SIMS</th>
</tr>
</thead>
<tbody>
<tr>
<td>IQ</td>
<td>-0.01</td>
<td>-0.36*</td>
<td>0.66*</td>
<td>-0.33*</td>
</tr>
<tr>
<td>PCL-SV</td>
<td></td>
<td>0.33*</td>
<td></td>
<td>-0.02</td>
</tr>
<tr>
<td>BIS-10</td>
<td></td>
<td></td>
<td>-0.35*</td>
<td>0.25*</td>
</tr>
<tr>
<td>BADS</td>
<td></td>
<td></td>
<td></td>
<td>-0.37*</td>
</tr>
</tbody>
</table>

* = P < 0.05, two-tailed.

To explore how the various measures were interrelated in the group of patients claiming amnesia, we performed a set of Pearson product-moment correlations. As Table 2 shows, lower intelligence was significantly related to higher impulsiveness, poorer executive functions, and stronger malingering tendencies. Psychopathy was only significantly correlated with impulsiveness.

4. Discussion

The main findings of the current study can be summarized as follows. To begin with, in keeping with prevalence rates reported in earlier work (e.g. Kopelman, 1995), our study found that a nontrivial minority of psychiatric criminals (i.e. 27%) claimed amnesia for their offences. As was the case in earlier studies (Kopelman, 1995; Taylor & Kopelman, 1984), claims of amnesia were found to be fairly typical for those who had committed violent crimes. Secondly, in line with O'Connell's (1960) suggestion, patients claiming amnesia had lower IQs than controls. Thirdly, a diagnosis of antisocial personality was more prevalent in patients claiming amnesia than in controls. Fourthly, patients claiming amnesia exhibited more evidence of executive dysfunctions and more frequently scored above the cutoff of a malingering scale (SIMS) than controls. This is reminiscent of a previous study (Cima et al., 2001), which showed that poor executive functions go hand in hand with self-reports of dissociative symptomatology. Fifthly, in contrast to what has been assumed by some authors (Porter et al., 2001), we found that psychopathy as measured by the PCL-SV was equally distributed among those who claimed amnesia and those who did not. Two explanations for this finding suggest themselves. One is that in our sample, most instances of claimed amnesia involved genuine memory loss. If true, one would not expect to detect a link between claims of amnesia and psychopathy (see Porter et al., 2001). However, we don’t find this possibility very plausible given the raised SIMS scores of those who claimed amnesia. Another possibility is that malingered amnesia is different from the more subtle types of manipulative behavior found among psychopaths. Thus, it may well be the case that malingered amnesia is more typical for those with relatively low IQs, while other and more subtle forms of deception are typical for psychopathic individuals with relatively normal or above normal IQs. Interestingly, a recent study by Poythress, Edens, and Watkins (2001) also failed to find a link between psychopathic personality features and straightforward malingering. Clearly, the precise links between types of malingering, IQ, and psychopathy warrant systematic investigation. Although the prevalence of psychopathy (as indexed by PSC-SV scores > 18) and borderline
psychopathy (PCL-SV scores > 12) was equally distributed among amnestic and control patients, a clinical diagnosis of ASPD was more common among the former group. One explanation for this discrepancy might be that relative to controls, amnestic patients more often had committed violent crimes. Thus, it may well be the case that clinicians’ diagnoses of ASPD was influenced by the type of crime that patients had committed.

By and large, our pattern of findings supports the idea that those who claim amnesia for their crimes have relatively low IQs, exhibit poor executive functioning and tend to feign and over-endorse bizarre symptoms in certain domains (e.g. memory). Our correlational analysis further suggests that rather than being incidental correlates of claimed amnesia, these characteristics co-vary in a meaningful way. At the very least, this is consistent with a malingering interpretation of crime-related amnesia. More specifically, when offenders claim amnesia, the following scenario warrants serious attention. Because of their low intelligence, and lack of executive control, these individuals engage in violent behavior and later try to avoid responsibility by claiming amnesia. Note that such an interpretation comes close to the positions taken by Sadoff (1974) and O’Connell (1960).

Three limitations of the current study deserve some comment. First, the present study relied on offenders with psychiatric complaints and, therefore, its results cannot be easily extrapolated to criminals who claim amnesia, but have no (other) psychiatric symptoms. Secondly, there are many characteristics and traits that are potentially relevant when one tries to understand the origins of amnesia claims raised by offenders and the current study addressed only a handful of them. For example, it would be informative to employ experimental tasks rather than self-reports to examine the precise contribution of impulsivity to claims of amnesia for violent behavior. Likewise, many authors have taken it for granted that alcohol blackouts play a critical role in such claims (e.g. Swihart et al., 1999). But, again, evaluations of alcohol consumption by amnestic criminals are often based on their self-reports, which may have no other function than providing an excuse for the crime as well as the memory loss that is claimed (Cima et al., 2002). Clearly, the link between objective parameters of alcohol intoxication and amnesia warrants future study. Thirdly, and most importantly, the current study derived information about amnesia claims from patients’ records and this information only pertained to criminal acts for which patients were currently sentenced. We have no guarantee that some patients in the control group had claimed amnesia for crimes that they committed earlier in their criminal career. Perhaps, then, differences between those who claimed amnesia and those who did not would have been more pronounced had we taken this point into account.

To sum up, our results show that low intelligence, executive dysfunction, and heightened scores on a malingering device accompany claims of amnesia. This pattern underlines the idea that such claims must be treated with scepticism.

References


