Impulsivity, irresponsibility, alcohol and substance use differ between “unsuccessful” and “successful” individuals with high levels of psychopathic personality traits

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**Abstract**

The purpose of this study was to investigate what distinguishes psychopaths who commit crimes (“unsuccessful”), and psychopaths who do not commit crimes (“successful”). Most previous research has focused on neurobiological risk factors, while social and psychosocial factors have been studied to a lesser extent. Participants were drawn from the Swedish population-based RESUMÉ-study (Retrospective Study of Young People's Experiences). In total, 2500 individuals between the ages 20-24 (mean age=22.15, SD=1.38, 52.6% female and 47.4% male) participated in the study. Results showed that the “unsuccessful” psychopathy group was consuming larger amounts of alcohol and substances as well as scoring higher on the psychopathy dimension behavior (irresponsible/impulsive) than the "successful" group. In conclusion, these differences might partly explain why “unsuccessful” psychopaths commit crimes while “successful” psychopaths do not.

**Keywords.** Psychopathy, successful, unsuccessful, crime
Impulsivitet, ansvarslöshet, alkohol- och droganvändning skiljer mellan "misslyckade" och "lyckade" individer med höga nivåer av psykopatiska personlighetsdrag

Sammanfattning

Syftet med denna studie var att undersöka vad som skiljer mellan psykopater som begår brott ("misslyckade"), och psykopater som inte begår brott ("lyckade"). Större delen av den tidigare forskningen har fokuserat på neurobiologiska riskfaktorer, medan sociala och psykosociala faktorer har studerats i mindre utsträckning. Deltagarna kom från den svenska populationsbaserade RESUME-studien (REtrospektiv Studie av Unga Människors Erfarenheter). Totalt deltog 2500 individer i åldrarna 20-24 år (medelålder=22.15, SD=1.38, 52.6% kvinnor och 47.4% män) i studien. Resultaten visade att den "misslyckade" psykopatigruppen konsumerar större mängder alkohol och substanser samt uppvisar högre nivåer av psykopatidimensionen beteende (oansvarig/impulsiv) än den "lyckade" psykopatigruppen. Sammanfattningsvis kan dessa skillnader delvis förklara varför "misslyckade" psykopater begår brott medan "lyckade" psykopater inte gör det.

Nyckelord: Psykopati, lyckade, misslyckade, brott

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**Impulsivity, irresponsibility, alcohol and substance use differ among “unsuccessful” and “successful” individuals with high levels of psychopathic personality traits**

It is generally believed that all individuals with psychopathic personality traits commit crimes but this is not the case (Mahmut, Homewood & Stevensson, 2008). What explains that some individuals with psychopathic personality traits commit crimes while others do not?

Psychopathy is a condition in which the individuals express extreme levels of behavioral, interpersonal and emotional personality traits (Cleckley, 1976, ref. in Hare & Neumann, 2008; Hare & Neumann, 2005; Cooke & Michie, 2001). The prevalence of psychopathy is very low; it is estimated to be less than 1% in community settings. But even though this is such a low-prevalent disorder, psychopaths are believed to make up as many as between 15-20% of all prison populations, and they are also believed to be associated with as much as half of all serious crimes (Hare, 2003).

The aim with the present study was to examine differences between two groups of individuals with psychopathic personality traits: one who commit crimes (which will be referred to as “unsuccessful” psychopaths), and one who does not commit crimes (which will be referred to as “successful” psychopaths, see below for a discussion on the use of these terms). Even though this is a promising differentiation, which was first recognized several decades ago, there is a gap in the literature examining the differences between these two groups of psychopaths (Mahmut, et. al, 2008; Cleckley, 1941, ref. in Gao & Raine, 2010). The most likely explanation to this is that much research on psychopathy has been conducted on institutionalized individuals, that is, mainly on “unsuccessful” psychopaths. Therefore more research examining individuals with psychopathic personality traits in community settings is needed, as this is where the “successful” psychopaths are most likely to be found (Gao & Raine, 2010).

**About Psychopathy**
In their relationships with others, psychopaths are typically described as being grandiose, articulate and vain, they lie and manipulate for their own personal gain. They have difficulty maintaining close relationships with others. On the emotional level, they are described as unemotional, characterized by being callous, having difficulties feeling guilt, empathy and remorse. In their behavior, they are described as impulsive and hot-tempered with lack of ability to create realistic goals and with clear antisocial tendencies. Psychopaths, therefore, have problems in their relationships; they do not experience the same type of feelings as others and they typically behave in an irresponsible way (Cooke & Michie, 2001; Hare & Neumann, 2005; Cleckley, 1976, ref. in Hare & Neumann, 2008). Important to notice is that it is the constellation of these personality traits that makes psychopathy.

There are different ways to measure psychopathy. The Hare Psychopathy Checklist-Revised (“gold standard”) is the most common tool used in clinical settings (PCL-R; Hare, 2003, ref. in Hare & Neumann, 2005). The PCL-R consists of 20 items which are rated using a semi-structured interview together with case history file information. The PCL-R is based on four facets: interpersonal, affective, lifestyle and antisocial. Each of these facets measures different dimensions of psychopathy (Hare, 2003, ref. in Hare & Neumann, 2005). In community settings self-report measures are a more convenient way of measuring psychopathic personality traits as there is little time or information to use clinical tools such as the PCL-R (Mahmut et. al, 2008). There are quite a few assessment tools that have been developed to assess psychopathic personality traits in community settings, one being the Youth Psychopathic Traits Inventory (YPI; Andershed, Kerr, Stattin, & Levander, 2002). The YPI is described by a three factor solution, containing an interpersonal (grandiose/manipulative), an affective (callous/unemotional) and a behavioral (impulsive/irresponsible) dimension.

**Behavioral Differences between Psychopaths**
Most research on psychopathy has been conducted examining incarcerated individuals even though it has been suggested that some psychopaths do not commit crimes at all (Cleckley, 1964, ref. in Mahmut et al., 2008; Schneider, 1958; ref. in Mahmut et al., 2008; Gao & Raine, 2010). Two different sub-groups have been identified: one where the individuals are referred to as “successful” (also referred to as non-criminal) psychopaths and one where the individuals are referred to as “unsuccessful” (also referred to as criminal) psychopaths (Gao & Raine, 2010; Hall & Benning, 2006; López, Poy, Patrick, & Moltó, 2013). The “successful” psychopaths are those with psychopathic personality traits who do not commit crimes (or who may commit crimes but do not get caught), whereas “unsuccessful” psychopaths are the ones that get caught (Gao & Raine, 2010). It is hypothesized that the types of crimes committed by “successful” psychopaths, often are economic (or white-collar) and relational aggression types of crimes (Gao & Raine, 2010). In contrast, "unsuccessful" psychopaths are believed to commit violent and hot-tempered types of crimes (Gao & Raine, 2010).

Some researchers criticize the use of the concept “successful” psychopaths, and some prefer the use of non-criminal psychopaths (de Oliveira-Souza, Moll, Ignácio & Hare, 2008; Mahmut et al., 2008). By using the concept “successful” psychopath it is feared that the fact that these individuals, who might potentially commit very harmful acts, and cause greater harm to society than the “unsuccessful” psychopaths, is overlooked (de Oliveira-Souza et al., 2008). We want to emphasize that in using the term “successful” psychopath we refer to individuals with high psychopathic personality traits, who have reported that they have not committed any criminal acts. What is it that makes these two groups – “successful” and “unsuccessful” psychopaths – with the same underlying condition behave in such a different manner? Three theoretical explanations have been put forward (Hall & Benning, 2006). The first suggests that the “successful” psychopaths possess less severe psychopathic traits than the...
“unsuccessful” psychopaths and therefore do not commit crimes. The second explanation suggests that both groups possess the same level of psychopathic traits, and that the “successful” psychopaths have been exposed to protective factors, keeping them from committing criminal acts. The third perspective proposes that the interpersonal and affective traits have a different origin and causation than the antisocial and behavioral traits. The “successful” psychopaths are thought to possess the same levels of interpersonal-affective traits as the “unsuccessful” psychopaths but relatively low levels of the antisocial-behavioral traits, and therefore are able to stay away from criminal behavior.

Further, certain regions in the prefrontal cortex, if impaired, have been implicated in antisocial behavior and psychopathy (Yang & Raine, 2009). It has also been suggested that the difference between “unsuccessful” and “successful” psychopaths is related to brain impairments (Gao & Raine, 2010). In a neurobiological model on “successful” and “unsuccessful” psychopaths, it is hypothesized that “successful” psychopaths have enhanced information processing abilities, normal levels of fear conditioning and somatic markers, intact executive functioning and cognitive empathy (all having a connection with the orbitofrontal cortex and also the amygdala), whereas these areas are impaired in “unsuccessful” psychopaths (Gao & Raine, 2010). The majority of previous research has focused on neurobiology and brain structure as potential factors explaining the differences seen between the two groups. However, there is a gap in the literature and more research is needed examining other possible sources explaining these differences, such as social, psychological and psychiatric factors (Mahmut et al., 2008; Gao & Raine, 2010). In the neurobiological model by Gao and Raine (2010) “unsuccessful” psychopaths are hypothesized to have an impaired brain structure. A possible factor that could explain the difference between “successful” and “unsuccessful” psychopaths is therefore attention deficit hyperactivity disorder (ADHD) as ADHD is a neuropsychiatric condition (Cortese, 2012).
Posttraumatic stress (PTS) disorder is an anxiety disorder that can develop after a person is exposed to serious incidents (Willemsen, De Ganck, & Verhaeghe, 2012). Either the person himself has been a victim of or has witnessed a serious incident. Not much research has been conducted on PTS and psychopathy, and it has not, to our knowledge, been possible to link PTS to psychopathy (Willemsen, et al., 2012). We still thought it be interesting to investigate PTS symptoms as a potential factor explaining the differences between the two groups. There has not been much research conducted on depression and psychopathy, but research shows that individuals with high levels of psychopathic personality traits who also have depression have many other psychosocial problems (Price, Salekin, Klinger & Barker, 2012). These findings suggest that studying depression and psychopathy together is a promising avenue to pursue. How or if psychopathy and alcohol/substance use are related is not fully understood, even though psychopathic personality traits have been showed to be related to substance dependence (Hopley & Brunelle, 2012). We therefore wanted to include these factors, to see if there were any differences regarding the two groups on this. Previous studies have found distinguishing childhood factors (Gao, Raine & Schug, 2011; Ishikawa, Raine, Lencz, Bihrlle, & Lacasse, 2001). “Unsuccessful” psychopaths have been exposed to more childhood maltreatment than “successful” psychopaths (Gao, et al., 2011), and the parents of “successful” psychopaths have been more absent than parents of “unsuccessful” psychopaths (Ishikawa, et al., 2001). As such we also wanted to study the possible effects of childhood neglect on these two groups.

Further, the division between "successful" and "unsuccessful" psychopaths is not the only one that has been suggested. Another division that has been put forward is “primary” and “secondary” psychopaths. These groups of psychopaths differ primarily on levels of trait anxiety that they exhibit. Primary psychopaths are those having low levels of anxiety and who are believed to have become psychopaths primarily based on inherited factors. Secondary
psychopaths are those having high levels of anxiety and who are believed to have become psychopaths primarily based on environmental risk factors (Skeem, Johansson, Andershed, Kerr & Louden, 2007). Because anxiety has mostly been studied in relation to primary and secondary psychopathy, we also wanted to examine anxiety as a possible difference between “successful” and “unsuccessful” psychopaths.

**Current Study**

The purpose of the present study is to examine what distinguishes “unsuccessful” individuals with high levels of psychopathic personality traits from “successful” individuals with high levels of psychopathic personality traits. Data from the Swedish population-based RESUMÉ study (Retrospective Study of Young People's Experiences) will be used. With these data we wanted to address the following research questions: (1) Are there individuals with high levels of psychopathic personality traits who have not reported committing criminal acts (i.e., “successful” / non-criminal) and individuals with high levels of psychopathic personality traits who have reported committing criminal acts (i.e., “unsuccessful” / criminal)? (2) Do “unsuccessful” psychopaths differ from “successful” psychopaths regarding different psychopathic personality dimensions as measured by the YPI-SV (van Baardewijk, et al., 2010), i.e., interpersonal (grandiose/manipulative), affective (callous/unemotional) and behavioral (impulsive/irresponsible)? (3) Do “unsuccessful” psychopaths differ from “successful” psychopaths on levels of ADHD symptoms? (4) Do “unsuccessful” psychopaths differ from “successful” psychopaths on levels of anxiety and post-traumatic stress symptoms? (5) Do “unsuccessful” psychopaths differ from “successful” psychopaths on levels of depression symptoms? (6) Do “unsuccessful” psychopaths differ from “successful” psychopaths on levels of alcohol and substance use? (7) Do “unsuccessful” psychopaths differ from “successful” psychopaths when it comes to having experienced childhood neglect?

**Method**
"SUCCESSFUL" VS. "UNSUCCESSFUL"

Participants

The data come from the randomized population-based study: RESUMÉ (Retrospective Study of Young People’s Experiences). RESUMÉ is a Swedish study examining the prevalence of early exposure to physical, sexual, and psychological abuse and its consequences, such as psychological and physical health, social adjustment, antisocial and aggressive behaviors in adulthood. In the RESUMÉ-study, it was decided at study start to include a total of 2,500 individuals. To reach this target, a large number of individuals were invited to participate, and 4,455 agreed to participate. However, interviews were terminated as soon as the target number was reached. Statistics Sweden provided a random selection of individuals born between 1987 and 1991, stratified by county. Adoptees born outside Sweden were included in the sample, but not citizens or permanent residents born outside Sweden. A total sample of 2,500 individuals (1,314 [52.6%] female participants and 1,186 [47.4%] male participants) participated in the study. At the time of study intake, the participants were between 20 and 24 years (mean age=22.15, SD=1.38).

Measures

Psychopathic personality traits. To measure psychopathic personality traits a short version of the well-validated self-report questionnaire the Youth Psychopathic Traits Inventory – Short Version was used (van Baardewijk, et al., 2010). The Youth Psychopathic Traits Inventory – Short Version (YPI-SV; van Baardewijk, et al., 2010) consists of 18 items measuring psychopathic personality traits among young people in non-clinical populations. The YPI-SV consists of three factors: interpersonal (grandiose/manipulative), affective (callous/unemotional), and behavioral (impulsive/irresponsible). In the present study, the Cronbach’s Alphas (α) was as follows for the three factors and the total scale: interpersonal factor: α=.79, affective factor: α=.72, behavioral factor: α=.69, YPI-SV-total: α=.83. It should
be noted that a Cronbach’s Alpha of about .70 suggests good internal validity (Kline, 1999, ref. in Field, 2009).

**Criminal acts.** The participants were asked if they had committed any of the following acts in the past 12 months (Andershed et al., 2002): taken anything from a store without paying; committed any type of vandalism; bought, sold or smuggled drugs; break into other people’s properties with the intention to steal; stolen from someone's pocket or bag; bought or sold anything you knew or thought was stolen; used or passed on someone else's credit card or card number without permission; threatened or forced someone to give you something or do something he or she did not want to; participated in fight(s); carried a weapon; stolen a car/bike/motorcycle; intentionally hurt someone with a knife; switchblade, knuckle-duster; threatened to kill somebody; slipped from a payment; purchased or conveyed sexual services; abducted someone or kept someone isolated against his or her will.

**Attention deficit hyperactivity disorder (ADHD).** ADHD was measured with Adult ADHD Self-Report Scale (ASRS-v1.1; Kessler et. al 2005). This symptom checklist consists of the eighteen criteria for ADHD according to the American Psychiatric Association, DSM-IV-TR, 2004. In accordance with Kessler et al. (2005), the items were scored based on different criteria. Items 1-3, 9, 12, 16, 18 were scored if they had reached the level sometimes, often or very often, and the remaining items if they had reached the level often or very often. Scores between 0-3 are indicative of low ADHD symptoms, scores between 4-8 are indicative of moderate ADHD symptoms, and scores from 9 and up are indicative that the individual is in need of clinical assessment of ADHD. In the present study the Cronbach’s Alpha (α) for the scale was α=.90.

**Post-traumatic stress (PTS) symptoms.** The Revised Impact of Event Scale (IES-R) (Weiss & Marmar, 1996; Weiss, 2007) was used to measure PTS symptoms. The IES-R consists of 22 questions to determine the occurrence of PTS symptoms. The questions were
developed to correspond to DSM-IV, 2004, criteria for PTS. IES-R captures the clusters re-experiencing, avoidance and arousal. A mean value for the total scale of about 1.8–2.0 indicates PTS. In the present study the Cronbach’s Alpha (α) for the total scale was α=.96.

**Depressive symptoms and anxiety.** The Hospital Anxiety and Depression Scale (HADS; Zigmond & Snaith, 1983) was used to assess depressive and anxiety symptoms. HADS is a self-assessment questionnaire designed to measure anxiety and depressive symptoms in individuals outside mental health services. HADS consists of 14 claims, of which seven measures anxiety and seven measures depressive symptoms. A value of 0-7 on the depression sub-scale is not indicative of depression; a value of 8-10 is indicative of dejection; a value of 11 and higher is indicative of risk of depression that may require medical treatment. A value of 0-7 on the anxiety sub-scale is not indicative of anxiety problems; a value of 8-10 is indicative of mild to moderate anxiety problems; a value of 11 indicative of possible anxiety disorder. For the seven claims of HADS that measures depression the Cronbach’s Alpha (α) was α=.69. For the seven claims of HADS that measures anxiety the Cronbach’s Alpha (α) was α=.79.

**Alcohol use.** To get information about informants potentially problematic alcohol use, Audits’ 10 questions that are designed to identify individuals with hazardous or harmful drinking patterns was used (Saunders, Aasland, Amundsen, & Grant, 1993; Saunders, Aasland, Babor, de la Fuente, & Grant, 1993). Eight is usually used as a cut off–score: a value below eight is not indicative of a hazardous or harmful alcohol use, whereas scores above are indicative of a hazardous consumption. In the present study the Cronbach’s Alpha (α) was: α=.80.

**Substance use.** The informants’ substance use was collected using questions from the youth version of the Arrival Form Child and Adolescent Psychiatry Västmanland. Items included were: (a) Have you ever sniffed? (b) Have you ever used testosterone, anabolic
steroids, or any other growth hormone (which was not prescribed by a doctor)? (c) Have you ever used pot/marijuana? (d) Have you ever used drugs other than pot/marijuana? (e) Have you ever become addicted to any drugs, or come to take much higher doses than prescribed for you? (f) Have you been to any form of treatment or counseling for problems with alcohol or drugs of any kind? (g) Have you ever been alcohol-poisoned or overdosed on drugs, by mistake? (h) Have you ever purposely drunk to the point where you’ve become intoxicated due to alcohol, or intentionally overdosed on drugs? The response alternatives for the questions a-d were: never, 1 time, 2-4 times, 5-10 times, 11-20 times, 21-50 times, more than 50 times. The response alternatives for the questions e-h were: No, Yes- at one point, Yes - on several occasions. The Cronbach’s Alpha (α) for the scale on substance use was α=.74.

**Childhood neglect.** Childhood neglect was measured with a series of items, especially developed for the present study, regarding neglect and abuse that the participants may have experienced during their childhood years. When someone is neglected, it means that the adults in their lives do not take care of them the way they should. The items were chosen to reflect a wide range of this, primarily in relation to family conditions. The Cronbach’s Alpha (α) for the scale on childhood neglect was α=.73.

**Statistical analyses.** To examine our research questions analysis of variance (ANOVA) were carried out using the statistical software SPSS Statistics Desktop v. 21 (SPSS). ANOVA is used to examine whether there are significant differences between groups (Field, 2009). Two post hoc tests were used: the Hochberg’s GT2 and the Games-Howell. The Hochberg’s GT2 was used when the group variances were similar. When there was group variance differences the Games-Howell post hoc test was used (Field, 2009).

**Procedure**

Recruitment of interviewees was made over phone, in which information regarding the study was provided. Those who accepted to participate in the study received information via
e-mail, and were given the option to choose location for where the interview was to take place. Face-to-face interviews were carried out between March and December 2011. The interviews were conducted by well-trained interviewers. Informed consent was first collected from each participant. In addition to the interview, any questions deemed sensitive were answered by the participants either through paper or iPad versions of the questionnaire (whichever was preferred by the participants). The interviews took on average one hour (mean time: 67 minutes). Participants received 400 SEK for their participation (~$60). The present study was evaluated and approved by an ethics committee (DNR 2010/463).

**Results**

The participants were first divided into a high and low psychopathy group based on their scores on the YPI-SV. Previously a cut off of 121.5 has been used in studies using the full version of the YPI (Kimonis, Frick, Cauffman, Goldweber, Skeem, 2012). Since the short version of the YPI (18 items) was used in the current study, 43.74 was used as cut off. Every item is scored on a scale from 1-4, i.e., the highest score on YPI is 200 (50x4=200); 121.5 is 60.75% of 200, and 60.75% out of 72 (18x4) is 43.74. That is, those who scored above 43.74 were placed in the psychopathy group. In the next step, the psychopathy group was divided into two groups based on whether they had reported having committed any criminal acts in the past 12 months, see Method section. The following groups were included in the present study (a) comparison group (N=2333, 54.2% women, 45.8% men), including those who scored below 43.74 on the YPI-SV (b) "successful” psychopathy group (N=68, 39.7% women, 60.3% men), including those who scored above 43.74 on the YPI-SV, but had not reported committing any crimes in the past 12 months (c) "unsuccessful” psychopathy group (N=99, 22.2% women, 77.8% men), including those who scored above 43.74 on the YPI-SV, and had reported committing crimes in the past 12 months. Regarding the “successful” and “unsuccessful” psychopathy groups, no mean sex differences were found for total YPI-SV.
scores, $t(66) = -0.82, p > 0.05$ and $t(97) = 0.05, p > 0.05$ respectively, therefore in the statistical analyses men and women were combined into one group.

There was a significant difference between the comparison group and the "unsuccessful" psychopathy group (i.e., those scoring high on YPI-SV who have reported committing crimes) on the three psychopathy dimensions: interpersonal, affective and behavioral, as well as on the total YPI-SV score, see Table 1, where the comparison group had significantly lower scores than the "unsuccessful" psychopathy group. There was also a significant difference between the comparison group and the "successful" psychopathy group (i.e. those scoring high on YPI-SV who have not reported committing crimes) on the three dimensions: interpersonal, affective and behavioral as well as on the total scale, where the comparison group had significantly lower scores than the “successful” group. The only difference between the "successful" psychopathy group and the “unsuccessful” group was found on the behavioral dimension, where the “unsuccessful” psychopathy group scored significantly higher.

The comparison group differed from both the "successful" psychopathy group and the "unsuccessful" psychopathy group on ADHD, see Table 1. The "unsuccessful" psychopathy group and the "successful" psychopathy group scored significantly higher than the comparison group, meaning that the comparison group showed these traits to a lesser extent than the other two groups. The "successful" psychopathy group and the "unsuccessful” psychopathy group did not differ significantly from each other.

The comparison group differed from the "unsuccessful" psychopathy group on PTS symptoms, see Table 1. The "unsuccessful" psychopathy group showed significantly higher levels of PTS symptoms than the comparison group. The "successful” psychopathy group did not differ from the other two groups.
The comparison group differed significantly from both the "successful" psychopathy group and the "unsuccessful" psychopathy group on depressive symptoms, see Table 1. The "successful" group and the "unsuccessful" psychopathy group scored higher than the comparison group. The "successful" psychopathy group and the "unsuccessful" psychopathy group did not differ significantly from each other.

The comparison group differed significantly from both the "successful" psychopathy group and the "unsuccessful" psychopathy group, see Table 1. The "unsuccessful" psychopathy group and the "successful" psychopathy group scored higher than the comparison group. The "successful" psychopathy group and "unsuccessful" psychopathy group did not differ significantly from each other.

There was a significant difference between the "unsuccessful" psychopathy group and the two other groups on alcohol use, see Table 1. The "unsuccessful" psychopathy group used more alcohol then the "successful" psychopathy group and the comparison group. The latter two groups did not differ from each other.

The "unsuccessful" psychopathy group differed significantly from both the "successful" psychopathy group and the comparison group on substance use, see Table 1. The "unsuccessful" psychopathy group showed higher levels on this scale than both the "successful" psychopathy group and the comparison group. The latter two groups however, did not differ from each other.

The "unsuccessful" psychopathy group differed significantly from the comparison group on childhood neglect, see Table 1. The "unsuccessful" psychopathy group showed higher levels of neglected than the comparison group. The "successful" psychopathy group did not differ significantly from the other two groups.
Table 1

*Mean and standard deviations (SD) for the three groups, with tests for differences between the groups using ANOVAs and post hoc tests*

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<td>.73 (.88)&lt;sup&gt;a&lt;/sup&gt;</td>
<td>.41 (.63)&lt;sup&gt;a&lt;/sup&gt;</td>
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<td>4.33 (3.26)&lt;sup&gt;b&lt;/sup&gt;</td>
<td>2.82 (2.60)&lt;sup&gt;ab&lt;/sup&gt;</td>
<td></td>
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<td>6.87(4.01)&lt;sup&gt;y&lt;/sup&gt;</td>
<td>5.21(3.77)&lt;sup&gt;x,y&lt;/sup&gt;</td>
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<td>12.40 (6.92)&lt;sup&gt;ab&lt;/sup&gt;</td>
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<td>.44(1.37)&lt;sup&gt;a&lt;/sup&gt;</td>
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Note. Superscript letters (a, b, c) indicate significant group differences, p < .05, demonstrated by the Games-Howell post hoc test, superscript letters (x, y, z) indicate significant group differences, p < .05, demonstrated by the Hochberg GT2 post hoc test. This means that two groups with the same subscript letter, on a certain measured scale, showed a significant difference. ** p < .01; *** p < .001
Discussion

It is a general belief that all individuals with psychopathic personality traits commit crimes, but that is not always the case. There are people with psychopathic personality traits who commit crimes, but there are also those who do not commit crimes. In the present study we investigated differences between individuals with psychopathic personality traits who reported that they have committed crimes and those that reported that they have not committed any crimes. We found that these two groups differed on alcohol and substance use, as well as on the psychopathy dimension behavior (irresponsibility and impulsivity). The groups did not differ on the total psychopathy score, or on the two psychopathy dimensions interpersonal (grandiose/manipulative) and affective (callous/unemotional), and they did not differ on ADHD, PTS symptoms, depression, anxiety or childhood neglect. Findings from this study contribute to our understanding of the underlying etiology of "unsuccessful" and "successful" psychopaths.

The "unsuccessful" psychopathy group and “successful” psychopathy group showed a difference in one of the three psychopathy dimensions (YPI-SV: van Baardewijk et. al, 2010): behavior (impulsive and irresponsible), with the "unsuccessful" psychopathy group displaying higher levels of impulsivity and irresponsibility. This important finding adds to our understanding of why “unsuccessful” psychopaths commit crimes while “successful” psychopaths do not. By being more impulsive and irresponsible these individuals might not think through the consequences of their acts but instead act in the spur of the moment – which is a risk factor for criminal behavior. This link between impulsivity and offending has been shown in previous studies (see e.g., Krueger, et al., 1994; Lynam, et al., 2000). Farrington and Welsh (2007) stated that “impulsiveness is the most crucial personality dimension that predicts offending” (p. 48), and went on to show that this finding is robust across studies and populations. Since the "successful" psychopathy group showed significantly lower levels of
irresponsibility and impulsivity, this is likely to act as a protective factor from engaging in criminal behavior. Impulsiveness has been linked to deficits in the frontal lobe, an area in the brain responsible for executive functions (Moffitt, 1990). Previous research has also suggested that “unsuccessful” psychopaths have brain function impairments, specifically in the frontal lobe (Gao & Raine, 2010).

As previously mentioned “successful” (non-criminal) psychopaths are referred to as those individuals with psychopathic personality traits who do not commit any crimes or who do not get caught for the crimes they commit. We did not have access to official records and therefore used the division “have or have not committed criminal acts”. Regardless, our “successful” psychopathy group and the kind of “successful” psychopaths who do not get caught for the crimes they commit are probably similar on many aspects. It is likely that “successful” psychopaths who commit crimes and do not get caught are very similar to our “successful” psychopathy group when it comes to impulsivity, and this is a likely reason as to why they do not get caught. If you are able to plan ahead (i.e., not being too impulsive) you are probably more likely to evade incarceration.

The ”unsuccessful” psychopathy group scored significantly higher on alcohol and substance use than did the ”successful” psychopathy group. Their alcohol use was even high enough to qualify as hazardous or harmful. Speculatively there are at least two explanations to this finding. First, “unsuccessful” psychopaths could have started to commit crimes as a result of their alcohol and substance use (Newburn, 2007). Because the ”successful” psychopathy group does not have these problems they may also manage to stay away from committing crimes. Secondly, the ”unsuccessful” psychopathy group could have started to commit crimes for other reasons, and the alcohol and substance use could be a consequence of their criminal lifestyle (Newburn, 2007). Both alcohol and substance use have been linked to criminal behavior in previous studies (e.g., Fergusson & Horwood, 2000; Hussong, Curran, Moffitt,
Specifically, alcohol use has been found to be related to violent crimes such as robbery, murder and assault, whereas drug-related offences more often are committed by the individual to support their addiction (Newburn, 2007).

Our findings that the "unsuccessful" psychopathy group is high on both impulsivity and alcohol use may also be compared to recent findings by Birkley, Giancola and Lance (2012). They showed that individuals scoring high on the psychopathic traits antisociality and impulsivity were more aggressive when they consumed alcohol. That is, these traits seemed to reinforce the impact of alcohol on aggression. In line with this our findings, may suggests that "unsuccessful" psychopaths become even more crime prone due to this link.

There were no significant difference on ADHD between the “successful” and "unsuccessful" psychopathy groups. However, both the “successful” and "unsuccessful" psychopathy groups scored significantly higher than the comparison group on ADHD, thus indicating that individuals scoring high on psychopathy have higher levels of ADHD symptoms. Interestingly, the "unsuccessful” psychopathy group even scored above the moderate level. It has also been suggested that “unsuccessful” psychopaths show neurobiological deficits to a larger extent than "successful” psychopaths (Gao and Raine, 2010). This suggests that ADHD needs to be further examined in future studies on “successful” and "unsuccessful” psychopaths.

There were no significant differences between the “successful” and "unsuccessful" psychopathy groups regarding posttraumatic stress (PTS) symptoms. It is possible that the reason for this is lack of power in our study but then again, PTS symptoms may be one of those symptoms that do not differ between the “successful” and "unsuccessful” psychopaths.

Both the “successful” and "unsuccessful" psychopathy groups showed significantly higher levels of depressive symptoms than the comparison group. Typically psychopaths are callous, unemotional and grandiose (Hare & Neumann, 2008), traits that are not associated
with, or even quite the opposite of, depression. It seems unlikely, based on our findings, that depression plays an important role regarding which individuals with psychopathic personality traits commit crimes and which do not commit crimes. Again, lack of significant findings could be explained by lack of power.

There were no significant difference between “successful” and “unsuccessful” psychopathy groups on anxiety. Both groups scored significantly higher than the comparison group did but that only means that both "unsuccessful” and ”successful” psychopaths have higher scores on the anxiety scale than the comparison group. In research on primary and secondary psychopaths, levels of trait anxiety are believed to differentiate the two (Skeem, et al., 2007). Primary psychopathy is thought to be more based on inherited factors and to exhibit lower levels of trait anxiety, whereas secondary psychopaths are believed to exhibit higher levels of trait anxiety and to be more environmentally based. Based on our findings this division seems to be totally separated from the division between “successful” and “unsuccessful” psychopaths, since both groups showed similar levels of anxiety. It is possible that the “successful” and “unsuccessful” psychopaths also have different genetic and environmental origins (i.e., one group being more genetically based and the other group more environmentally based) but it does not seem as if this is related to their anxiety levels. Regardless, future twin and/or family studies with a large enough sample will be able to clarify this.

Previous studies have found distinguishing childhood factors between “successful” and ”unsuccessful” psychopaths (see e.g., Gao, et al., 2011; Ishikawa et al., 2001), but in the present study we did not find any differences between the psychopathy groups on childhood neglect. From our findings we cannot say that childhood neglect plays an important role in explaining “successful” vs. “unsuccessful” psychopathy. It should however, be kept in mind that these are retrospective data and that they could be limited by recall bias (Ask, Granhag, &
Three different perspectives as to why some individuals with psychopathic personality traits commit crimes while others do not have been proposed (Hall & Benning, 2006). The first perspective proposes that the “successful” psychopaths have less severe levels of psychopathic traits than the “unsuccessful” psychopaths, and therefore do not commit crimes. Our findings do not support this perspective since the groups showed no differences regarding the total psychopathy (YPI-SV; van Baardewijk et al., 2010) score and therefore showed no difference in severity. The second perspective suggests that the two types share psychopathic traits to the same extent, but differ on other factors. These factors then work as protective factors – keeping the “successful” psychopaths away from crime and violence. From our findings this is a more plausible explanation than the first perspective. The groups did not score significantly different on the total psychopathy (YPI-SV; van Baardewijk et al., 2010), suggesting the underlying trait disposition is the same for both groups. “Successful” psychopaths might possess some psychological/neurological disposition protecting them from committing criminal acts. The groups did however; differ on irresponsibility and impulsiveness. This lends support to the third perspective; where interpersonal-affective features of psychopathy and antisocial-behavioral features of psychopathy are believed to have different causation and underlying origin. The “successful” psychopaths are thought to possess the interpersonal-affective features to the same degree as the “unsuccessful” psychopaths, but the behavioral-antisocial features to a much smaller degree. This is in line with our findings since the ”unsuccessful” psychopathy group scored significantly higher on the behavioral dimension of the YPI-SV than the ”successful” psychopathy group and also being the only ones committing criminal acts (thereby being more antisocial).

**Strengths and Limitations**

Participants in our study came from a population based sample, thus our findings cannot
be generalized to clinical/referred populations. However, “successful” psychopaths are not believed to be found in clinical/referred populations making this less of a problem. Because a large number of individuals were contacted (see Method section), but not all participated, we do not know if non-participants differ from participants on any of the key variables, which is an additional limitation. The “successful” and "unsuccessful” psychopathy groups in the present study were small, but that is to be expected when psychopathy is examined in a community setting. Larger groups would have been preferred to make the findings more generalizable. On the other hand, most studies conducted on “successful” and “unsuccessful” psychopaths have had equal or smaller samples. The self-reported criminality measures only referred to the past 12 months; it is possible that any of our participants have committed a felony prior to this 12 month time period, i.e., some individuals in the “successful” (non-criminal) psychopathy group might actually belong in the “unsuccessful” (criminal) psychopathy group. Also, the limited research that has been conducted examining “successful” psychopaths has been done using one out of five sources of information: community settings, temporary employment agencies, college students, industrial (business) psychopaths, and the “semi-successful” psychopaths: serial killers (Gao and Raine, 2010). To our knowledge, this is the first study using a population-based sample, which is a clear strength.

Conclusion

Based on the findings in the present study, “unsuccessful” psychopaths are more impulsive and irresponsible; they consume more alcohol and they use more substances than “successful” psychopaths. These findings add to our understanding of the underlying etiology of “successful” vs. “unsuccessful” psychopaths.
Acknowledgements

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References


"SUCCESSFUL" VS. "UNSUCCESSFUL"


Ungdomsversionen av Ankomstformulär Barn- och ungdomspsykiatrin Västmanland.


