

# Looking After Number One: Associations Between Psychopathic Traits and Measures of Social Motivation and Functioning in a Community Sample of Males

Lucy Foulkes · Ana Seara-Cardoso · Craig S. Neumann · John S. C. Rogers · Essi Viding

© Springer Science+Business Media New York 2013

**Abstract** Individuals with high levels of psychopathic traits do not typically form enduring bonds with others. However, few studies have documented the associations between psychopathic traits and social functioning. This study systematically explored associations between psychopathic traits and a number of measures characterising social/material goals, social beliefs and the need for belonging, providing a comprehensive assessment of aspects of social functioning associated with psychopathic personality traits. Additionally, a novel experimental vignettes task assessed the extent to which participants identified dominance in themselves and admired this trait in others. Community males with high levels of psychopathic traits appeared not to be motivated by meaningful, long-term relationships. Instead, they seemed to be motivated by goals relating to their own image and financial success. Additionally, these individuals admired dominance in others, but did not clearly identify this trait in themselves. Thus, this study is one of the first to empirically explore multiple areas of social functioning in relation to psychopathic traits, with a view to understanding the social motivations of individuals with high levels of these traits. The findings provide empirical evidence that individuals with high levels of psychopathic traits seem motivated to look after themselves, but not others.

**Electronic supplementary material** The online version of this article (doi:10.1007/s10862-013-9381-2) contains supplementary material, which is available to authorized users.

L. Foulkes (✉) · A. Seara-Cardoso · J. S. C. Rogers · E. Viding  
Developmental Risk and Resilience Unit, Division of Psychology  
and Language Sciences, University College London, 26 Bedford  
Way, London WC1H 0AP, UK  
e-mail: l.foulkes.11@ucl.ac.uk

C. S. Neumann  
Department of Psychology, University of North Texas,  
1155 Union Circle # 311280, Denton, TX 76203, USA

**Keywords** Psychopathic traits · Social motivation · Aspirations · Friendship · Need to belong · Dominance

## Introduction

Individuals with psychopathy are selfish, lack empathy and guilt, and aspire to dominate and manipulate other people for their own gains (Hare 1999). Unsurprisingly, their friendships and romantic relationships tend to be short-lived (Baird 2002; Jonason et al. 2009, 2012). The absence of long-term relationships seen in these individuals is in contrast to the well-established need for closeness and belonging seen in typical people (Baumeister and Leary 1995). That is, most people are motivated to form and maintain meaningful, enduring bonds with others (Baumeister and Leary 1995) and find these bonds rewarding (Bartels and Zeki 2004).

Psychopathy is typically conceptualised as a two-factor construct.<sup>1</sup> Factor 1 consists of dysfunctional affective/interpersonal (AI) traits such as a lack of empathy, whereas Factor 2 consists of problematic lifestyle/antisocial (LA) behaviours such as impulsivity and sensation seeking. The AI traits of Factor 1 are considered to distinguish individuals who are psychopathic from those who are antisocial but not psychopathic (Blair et al. 2005). The unique variance of these two dimensions of psychopathy, AI and LA, present distinct associations with various measures of personality, emotionality and behaviour (Hicks and Patrick 2006; Seara-Cardoso et al.

<sup>1</sup> The more recent four-factor model of psychopathy can easily be viewed in terms of the traditional two-factor model (e.g. Hare and Neumann 2008). The latter model was chosen for the current study as it allows the study to be integrated with the wealth of literature using the Psychopathic Checklist-Revised (Hare 2003) and its two-factor conception of psychopathy.

2012). Specifically, suppressor effects between these two dimensions exist. Suppressor effects occur when the shared variance between two correlated variables hides the association between one or both of them and the variable of interest; controlling for this shared variance allows the otherwise hidden associations with the variable of interest to be revealed (Hicks and Patrick 2006). In this study we were particularly interested in assessing the degree to which the AI dimension is associated with measures of social functioning and motivation, as this dimension is considered to reflect the fundamentally important characteristics of psychopathy.

Despite a long clinical tradition reporting shallow affect and atypical social relationships in individuals with psychopathy (Cleckley 1976), only a handful of studies have probed what type of social interactions and positions these individuals engage in and value (Baird 2002; Jonason et al. 2009, 2011, 2012; Munoz et al. 2008). This research has shown that psychopathic traits are negatively associated with the value of having enduring and meaningful relationships (Baird 2002). Adolescents with high levels of psychopathic traits tend to have shorter friendships (Munoz et al. 2008), while adults with high levels of these traits devalue the importance of kindness in potential partners (Jonason et al. 2011) and favour a short-term mating strategy over a long-term partner (Jonason et al. 2009, 2012). Thus, it seems likely that people with high levels of psychopathic traits are not motivated to seek meaningful, affiliative bonds with others. However, no studies to date have systematically investigated what such individuals do find motivating in social relationships.

The personality trait profile of psychopathy should provide some clues in this regard. Firstly, AI traits of psychopathy are associated with increased self-esteem (Cale and Lilienfeld 2006; Falkenbach et al. 2013) and individuals with these traits may be motivated by the opportunity to be admired, gain attention, and nourish their inflated self-esteem. Another interpersonal quality associated with psychopathy is the seeming desire to dominate others and be ‘in charge’ of social situations (Hare 1999). Individuals who strive for dominance are likely to find controlling others socially rewarding (Buss 1983). However, very few studies have directly measured interpersonal dominance in relation to psychopathy, and the existing evidence is inconclusive. For example, social potency, the belief that one is superior to and able to influence others, is significantly associated with psychopathy (Baird 2002; Gaughan et al. 2009). In fact, social influence is a subscale of the Psychopathic Personality Inventory, a popular self-report measure of psychopathy (PPI-R; Lilienfeld and Widows 2005). In contrast, another study measured perceived social rank and found that individuals with high levels of antisocial personality/psychopathy, as measured by the Antisocial Personality Questionnaire (Blackburn and Fawcett 1996), did not rate themselves as any more superior to others than did normal controls (Morrison and Gilbert

2001). Thus, although a desire to dominate social situations characterises psychopathy (Hare 1999), and it makes intuitive sense that exerting dominance may be socially motivating to such individuals, there has been very little research to confirm this.

Exploring what characteristics individuals with high levels of psychopathic traits value in others may yield further clues about their social functioning. On one hand, these individuals devalue kindness in partners (Jonason et al. 2011) and befriend other individuals high in psychopathic traits (Munoz et al. 2008), suggesting they would value their own cold traits in others. On the other hand, people with high levels of psychopathic traits also have an enhanced memory for sad and unsuccessful characters (Wilson et al. 2008), so they may value submissive traits in others as these people are the easiest to manipulate and victimise (Wilson et al. 2008). To understand the kind of social interactions that individuals with high levels of psychopathic traits engage in and enjoy, it is important to explore what traits they value in others.

In the current study, we tested the hypotheses that individuals with high levels of psychopathic traits would not be motivated by affiliative social relationships, and would instead be motivated by selfish social goals. To explore this, we administered a wide battery of tasks and questionnaires to measure social motivation and behaviour. Firstly, we measured the importance of different life aspirations, which included both social and non-social aspirations (Grouzet et al. 2005), and the desire for close friendships and social acceptance. To measure dominance, a hallmark of psychopathy that we consider central to social behaviour, we measured perceived social standing, and created a novel Dominance Judgements Task using character vignettes. This task explores what interpersonal traits individuals identify in themselves, as well as what traits they admire in others. Both the AI and LA dimensions of psychopathy were explored, but we predicted that selfish social attitudes would be most strongly associated with the AI dimension.

## Materials and Methods

### Participants

One hundred and one English-speaking males were recruited via the University College London Psychology and Institute of Cognitive Neuroscience subject pools. These subject pools consist of students as well as employed and unemployed individuals; fifty-nine participants (58.42 %) were students. Participants had a mean age of 26.76 years ( $SD=7.45$ , range=18–54) and the ethnicity of the sample was as follows: 40.6 % White British, 28.7 % White Other, 23.8 % Asian, 5.94 % Black, 0.99 % Other. The highest completed education level for the sample was as follows: 51.49 % Undergraduate degree,

39.60 % Postgraduate, 8.91 % Senior school. Participants received course credit or payment of £5 for taking part.

#### Procedure

The Dominance Judgements Task and questionnaires were presented on a computer using Psytools software (Delosis Ltd).

#### Measures

##### *Psychopathic Traits*

Psychopathic traits were measured with the Self-Report Psychopathy Scale 4 Short Form (SRP-4-SF; Paulhus et al. [in press](#)). This scale contains 29 items that participants rated on a 5-point Likert scale (1=Strongly disagree to 5=Strongly agree). The SRP-4-SF yields a total psychopathy score and also scores for the two dimensions of psychopathy: affective/interpersonal (AI) and lifestyle/antisocial (LA). The SRP has good construct validity: it is strongly correlated with the most commonly used clinical psychopathy assessment, the PCL-R (Lilienfeld and Fowler [2006](#); Paulhus et al. [in press](#)), the Youth Psychopathic Traits Inventory (YPI; e.g. Andershed et al. [2002](#)) and a psychopathy self-report measure based on the five-factor model of personality (Lynam et al. [2011](#)). The reliability of the scale was good, with Cronbach Alpha scores for each dimension as follows: AI .80, LA .80. Given the limitations of Alpha and that it is not an indicator of scale unidimensionality (Schmitt [1996](#)), we also computed mean inter-item correlations (MICs) for these two composites, which were acceptable (AI .24, LA .22) and suggested that they tapped unidimensional features of psychopathy. A confirmatory factor analysis using the current sample data demonstrated acceptable model fit for the SRP-4-SF (for details, see [Appendix](#) in Supplementary materials).

##### *Aspirations*

The Aspiration Index assesses the importance of personal life goals (Kasser and Ryan [1993](#)). Seven relevant life goal subscales were chosen for use in the current study: affiliation, community, conformity, hedonism, image, money and popularity (Grouzet et al. [2005](#)). These were chosen as being the most relevant goals based on the selfish social profile seen in psychopathy and this procedure of using only relevant domains is supported by (Sheldon et al. [2004](#)). Participants viewed 27 life goals and rated how important each was to them on a 9-point scale (1=Not at all; 9=Extremely). In order to control for overall importance ratings, the subject's mean importance rating for all domains was subtracted from the subject's mean importance score for each domain (Kasser and Ryan [1993](#)).

##### *Social Comparison*

Perceived social standing was measured using the Social Comparison Scale (Allan and Gilbert [1995](#)). Participants view the statement, "In relation to others I feel..." followed by 11 bipolar constructs, for example "Superior/Inferior" and "Unattractive/More attractive". Participants rated how they see themselves in comparison to others on each construct, on a 1 to 10 scale.

##### *Friendship*

A 13-item Friendship Questionnaire was developed for the current study and assessed the tendency to engage in long-term, meaningful friendships, such as "Having close friendships is very important to me." The questionnaire was created for this study as no existing friendship questionnaire suitably measures general tendency to engage in intimate friendships. Participants rated how much they agreed with each statement on a 5-point scale (1=Strongly disagree, 5=Strongly agree). Reliability for this scale was good (Cronbach's Alpha=.85, MIC=.32). The validity of this measure is demonstrated by the significant correlation between this scale and the Affiliation subscale of the Aspiration Index (Grouzet et al. [2005](#)), which measures the importance placed on intimate relationships ( $r=.34, p<.001$ ).

##### *Need to Belong*

Participants completed the Need to Belong Scale (Leary et al. [2007](#)), which measures the desire for social acceptance and consists of 10 items, such as "I want other people to accept me". Participants rated how much they agreed with each statement on a 5-point scale (1=Strongly disagree, 5=Strongly agree).

##### *Dominance Judgements Task*

Twenty-four short character vignettes were generated by the authors, to assess which interpersonal traits participants considered to be similar to their own, likeable in others, and desirable in others. Six core situations were represented in the vignettes; for example, someone working on a group presentation. For each core situation, four character descriptions were created, each portraying a different personality type: dominant/warm, dominant/cold, submissive/warm and submissive/cold. These personality types were chosen as they are extremes on the interpersonal values circumplex (e.g. Wiggins [1979](#)). To ensure validity, a panel of eight researchers performed a Q-sort to categorise each vignette into one of the four personality types. Vignettes were categorised into the correct personality type in 97.40 % of cases.

All vignette protagonists were male students, in order to increase the likelihood that participants would identify with them and that their judgements would not be influenced by protagonists' occupations. Names were selected from a list of popular boys' names from the Office of National Statistics ([www.ons.gov.uk/ons/rel/vsobl/baby-names-england-and-wales/1904-1994/index.html](http://www.ons.gov.uk/ons/rel/vsobl/baby-names-england-and-wales/1904-1994/index.html)). Names and ages were assigned randomly to each vignette.

Vignettes were presented in one of two orders with the following constraint: vignettes portraying the same core situation or personality type could not appear consecutively. Each vignette was presented on the screen individually for the participant to read in his own time. On the following screen, the vignette was presented again, along with three questions: how much do you like the character, how similar are the character's personality traits to your own, and how desirable do you think the character's personality traits are. Answers were given on a 5-point scale (1=Dislike a lot to 5=Like a lot; 1=Very dissimilar to 5=Very similar; 1=Very undesirable to 5=Very desirable). The reliability of the vignettes measure was good (Cronbach Alphas: submissive/warm .71, submissive/cold .82, dominant/warm .82, dominant/cold .89).

#### Data Analyses

Pearson correlational analyses were conducted using SPSS version 19.0 for Windows. Firstly, the AI and LA dimensions of psychopathy were correlated with all other variables using zero-order correlations. Secondly, to examine the unique variance of each SRP dimension in relation to criterion variables, the dimensions were partialled out from one another. Benjamini and Hochberg False Discovery Rate (Benjamini and Hochberg 1995) was used to control for the probability of making a Type I error on multiple comparisons, and corrected *p*-values are presented. Where distinct associations between the two SRP dimensions and a given criterion variable were identified, Steiger's *Z*-tests (two-tailed) were conducted to test if the difference between the correlations was significant.

## Results

Descriptive statistics and a complete correlational table for all experimental measures can be found in [Supplementary Materials](#).

Pearson correlation coefficients and False Discovery Rate adjusted *p*-values between psychopathy dimensions and all measures used are reported in Table 1. *Z* and *p*-values of the difference between regression coefficients are also presented. Both zero-order and partial correlations coefficients are reported in Table 1, but from here onwards only partial correlation coefficients will be discussed as these relate to the unique variance associated with each dimension of psychopathy and

remove the suppressor effects that may disguise significant associations. Only adjusted *p*-values are reported in the text.

#### Questionnaires

After partialling out the effect of the other dimension and correcting *p*-values for multiple comparisons, the Friendship Questionnaire showed a negative association with the AI dimension of psychopathy and no association with the LA dimension. The AI dimension was positively associated at-trend with image goals, positively associated with money goals, and negatively associated with community and affiliation goals as measured by the Aspiration Index (Grouzet et al. 2005). In contrast, the LA dimension was positively associated with community, affiliation and hedonism goals and negatively associated with conformity and money goals. Neither dimension was associated with popularity goals, the Social Comparison Scale or the Need to Belong Scale.

#### Dominance Judgements Task

After correcting *p*-values for multiple comparisons and partialling out the effect of the other dimension, the AI dimension of psychopathy was positively associated with similarity to submissive/cold characters. There were also at-trend positive associations between this dimension and the likeability, similarity and desirability of dominant/cold characters. There were no associations between the LA dimension and any element of the Dominance Judgements Task.

## Discussion

This study explored the associations between psychopathic traits and measures of social motivation and functioning. The study confirms previous findings that individuals with high levels of the core affective/interpersonal (AI) traits of psychopathy lack affiliative goals, and extends previous findings by exploring what such individuals do find motivating.

Specifically, we found that the AI dimension of psychopathy was negatively associated with the tendency to form long-lasting, meaningful friendships and with goals relating to affiliation and community; positively associated with goals relating to money; and positively associated at-trend with goals relating to image. In contrast, the lifestyle/antisocial (LA) dimension was positively associated with goals pertaining to community, affiliation and hedonism, and negatively associated with goals pertaining to money and conformity. Thus, it was specifically the AI dimension of psychopathy that was associated with an absence of affiliative aspirations, although the positive association between LA and hedonism does complement the notion that high levels of psychopathic traits are associated with self-focussed rather than

**Table 1** Correlations between SRP scores and experimental measures

	SRP total score		SRP affective/interpersonal (AI)				SRP lifestyle/antisocial (LA)			
			Zero order		Controlling for LA		Zero order		Controlling for AI	
	<i>r</i>	Corrected <i>p</i>	<i>r</i>	Corrected <i>p</i>	<i>r</i>	Corrected <i>p</i>	<i>r</i>	Corrected <i>p</i>	<i>r</i>	Corrected <i>p</i>
<b>Aspirations</b>										
Image	0.05	ns	0.15	ns	0.25 <sup>a</sup>	0.05	-0.06	ns	-0.20 <sup>a</sup>	ns
Community	-0.02	ns	-0.14	ns	-0.28 <sup>a</sup>	0.03	0.11	ns	0.26 <sup>a</sup>	0.05
Affiliation	0.00	ns	-0.12	ns	-0.25 <sup>a</sup>	0.05	0.12	ns	0.25 <sup>a</sup>	0.05
Money	0.10	ns	0.23	ns	0.34 <sup>a</sup>	0.01	-0.06	ns	-0.27 <sup>a</sup>	0.05
Popularity	-0.07	ns	-0.10	ns	-0.11	ns	-0.02	ns	0.05	ns
Conformity	-0.31	0.01	-0.16	ns	0.14 <sup>a</sup>	ns	-0.41	0.00	-0.41 <sup>a</sup>	0.00
Hedonism	0.27	0.03	0.13	ns	-0.14 <sup>a</sup>	ns	0.36	0.00	0.36 <sup>a</sup>	0.00
<b>Questionnaires</b>										
Friendship	-0.33	0.01	-0.41	0.00	-0.40 <sup>a</sup>	0.00	-0.17	ns	0.13 <sup>a</sup>	ns
Need to belong	-0.05	ns	-0.12	ns	-0.18	ns	0.03	ns	0.14	ns
Social comparison	-0.27	0.03	-0.26	0.04	-0.15	ns	-0.23	ns	-0.09	ns
<b>Vignettes: Likeability</b>										
Submissive/warm	-0.23	0.07	-0.22	ns	-0.14	ns	-0.19	ns	-0.06	ns
Submissive/cold	0.00	ns	0.05	ns	0.11	ns	-0.05	ns	-0.11	ns
Dominant/warm	-0.14	ns	-0.14	ns	-0.08	ns	-0.12	ns	-0.05	ns
Dominant/cold	0.15	ns	0.21	ns	0.22	0.07	0.06	ns	-0.10	ns
<b>Vignettes: Similarity</b>										
Submissive/warm	0.00	ns	0.08	ns	0.18	ns	-0.09	ns	-0.18 <sup>a</sup>	ns
Submissive/cold	0.28	0.03	0.34	0.01	0.31 <sup>a</sup>	0.01	0.16	ns	-0.07 <sup>a</sup>	ns
Dominant/warm	0.03	ns	-0.02	ns	-0.09	ns	0.07	ns	0.11	ns
Dominant/cold	0.32	0.01	0.32	0.01	0.21	0.09	0.26	0.06	0.08	ns
<b>Vignettes: Desirability</b>										
Submissive/warm	-0.06	ns	-0.06	ns	-0.05	ns	-0.04	ns	0.00	ns
Submissive/cold	0.08	ns	0.13	ns	0.17	ns	0.01	ns	-0.10	ns
Dominant/warm	-0.01	ns	0.02	ns	0.07	ns	-0.05	ns	-0.08	ns
Dominant/cold	0.14	ns	0.20	ns	0.23	0.07	0.04	ns	-0.11	ns

Pearson correlation coefficients are reported; *p* values >.1 are shown

<sup>a</sup>After controlling for shared variance, SRP AI and LA presented significantly different correlation coefficients with image ( $Z=2.49^*$ ), community ( $Z=-3.00^{**}$ ), affiliation ( $Z=2.82^{**}$ ), money ( $Z=3.43^{**}$ ), conformity ( $Z=3.14^{**}$ ) and hedonism aspirations ( $Z=-2.83^{**}$ ), friendship ( $Z=-2.99^{**}$ ) and similarity to submissive/cold characters ( $Z=2.10^*$ ) [ $*p < .05$ ,  $**p < .01$ ]

affiliative goals. Finally, our study did not support predictions that individuals with high levels of psychopathic traits are clearly dominant: the AI dimension was positively associated (at trend) with perceived likeability, similarity and desirability of dominant/cold characters in our Dominance Judgements Task, but also positively associated with perceived similarity to submissive/cold character profiles. Additionally, there was no association between psychopathy and the Social Comparison Scale, a measure of perceived social standing.

We had hypothesised that, due to the grandiose self-image found in psychopathy (Hare 1999), individuals with high levels of these traits would find the opportunity to be admired important. In support of this, we found an at-trend positive

association between the AI dimension and goals related to portraying an attractive image. However, we found no association (positive or negative) between psychopathy and goals relating to popularity, or between psychopathy and the need to belong. Thus while individuals with high levels of AI psychopathic traits are motivated to look attractive, this may be for reasons other than intrinsically wanting other people’s admiration or approval. For example, they may be motivated to portray an attractive impression if it will increase access to other gains.

Our findings indicate that it is specifically the AI dimension of psychopathy that is negatively associated with long-term friendships and affiliation. This supports previous research

showing that other elements of problematic social functioning, such as empathic concern, are specifically associated with the AI component of psychopathy (Seara-Cardoso et al. 2012). However, the associations between the LA dimension of psychopathy and the Aspiration Index (Grouzet et al. 2005) are worthy of note. Firstly, there was a negative association between this dimension and the importance of conformity goals. This makes intuitive sense considering the rebellious and antisocial characteristics that define the LA factor. We also found a negative association between this dimension and goals relating to financial success. This finding was unexpected, because the LA dimension has previously been associated with neural hyper-responsiveness to monetary reward in an experimental paradigm (Buckholtz et al. 2010). However, this previous study (Buckholtz et al. 2010) investigated immediate financial gratification, rather than long-term goals relating to financial success explored in the current study. Thus while the neural response to monetary reward is exaggerated in individuals with high levels of LA psychopathic traits, these individuals do not appear to be necessarily motivated to achieve financial success in their future. This finding warrants further exploration of the relationship between dimensions of psychopathy and monetary goals. Finally, we found a positive association between the LA dimension and goals relating to hedonism (i.e. having a great sex life, a lot of excitement, and experiencing a great deal of sensual pleasure). Given that individuals with high levels of psychopathic traits tend to have short-lived romantic relationships (Jonason et al. 2009; Jonason et al. 2012) and a higher number of sexual partners (Jonason et al. 2009), it is unsurprising that these individuals highly value sensual pleasure. It is perhaps the combination of this hedonistic motivation from the LA dimension and the atypical affiliation motivation from the AI dimension that leads to the exploitative short-term mating strategy seen in psychopathy.

It is important to note the suppressor effects that exist between the two dimensions of psychopathic traits. That is, the association between the two dimensions of psychopathy and other variables in the current study become significant only once shared variance with the other dimension is controlled, consistent with other studies of psychopathic traits (e.g. Hicks and Patrick 2006). This emphasises that there are two overlapping but distinct elements of psychopathy, and that their unique associations should always be explored to fully understand the construct.

We had hypothesised that individuals with high levels of psychopathic traits would report higher social standing, as such individuals are widely considered to seek dominance (Hare 1999). However, the current study found that the Social Comparison Scale (Allan and Gilbert 1995), which measures perceived social standing in a range of domains, was not associated with psychopathy. Secondly, in our Dominance Judgements Task, the AI dimension of psychopathy was

positively associated (at-trend) with similarity to dominant/cold characters, but also positively associated with similarity to submissive/cold characters. Thus individuals with high levels of psychopathic traits clearly identified themselves as cold, but did not clearly identify themselves as dominant. Previous studies have also been inconclusive with regard to the relationship between psychopathy and dominance: one study that used the Social Comparison Scale (Allan and Gilbert 1995) similarly found that individuals with high levels of psychopathic traits did not rate themselves as having a superior social standing (Morrison and Gilbert 2001). It is important to note that this scale asks respondents to compare themselves to others on a range of domains, including attractiveness and belongingness, so it is not a 'pure' measure of dominance. However, studies that have measured dominance more directly have also found inconclusive results. One study used a self-report measure of interpersonal traits and found similar results to the current study: individuals with high levels of psychopathic traits were consistently cold, but heterogeneous in terms of dominance (Blackburn and Maybury 1985). Additionally, social influence is considered to be a core aspect of psychopathy (Lilienfeld and Widows 2005), but psychopathy is negatively associated with the number of leadership roles currently held (Baird 2002). Thus while individuals with high levels of psychopathic traits may feel a sense of superiority to others (Lilienfeld and Widows 2005; Baird 2002), this may not clearly translate into dominant behaviour or higher social standing. It could be that it is specifically the process of manipulating and deceiving others that is characteristic of psychopathy, and that this does not necessarily require dominance. Interestingly, in our Dominance Judgements Task, we found an at-trend association between the AI dimension of psychopathy and the perceived desirability and likeability of the dominant/cold characters. Although this finding is only at the level of a trend, it presents the possibility that in the community, while individuals with high levels of psychopathic traits do not clearly express dominance themselves, they do admire and aspire to be like dominant/cold characters. Further research is required probing the desire for dominance, actual achieved dominance, and manipulation, using a more comprehensive set of measures.

#### Limitations

A limitation of the current study was the sample size. It would be informative to use the Dominance Judgements Task in a larger sample, as it is possible that the current associations did not survive multiple comparison corrections due to the sample size. Furthermore, it would be important to extend this preliminary research to female and forensic samples to examine the robustness of the present findings. Further samples would also allow validation of the Friendship Questionnaire and Dominance Judgements Task, which at present have not

undergone systematic peer review. In addition, this study relied on self-report, and it would be desirable to replicate these results using experimental paradigms. Finally, we did not include a ‘pure’ measure of interpersonal dominance (e.g. Mehrabian and Hines 1978); this may have clarified the relationship between dominance and psychopathic traits in our community sample.

## Conclusion

Psychopaths are callous, have short-lived friendships and relationships, and manipulate others for their own gains (Hare 1999). This study aimed to provide empirical support for this interpersonal profile by exploring what elements of social relationships are motivating for individuals with high levels of psychopathic traits. We found that individuals with high levels of AI psychopathic traits do not value affiliative or community relationships and instead value goals relating to money and their image. The LA dimension of psychopathy had a contrasting profile of associations with life goals, providing support that it is specifically the AI dimension that is associated with the trademark cold and amoral social functioning of psychopathy (Seara-Cardoso et al. 2012). In the absence of affiliation and community goals, it remains unclear exactly what individuals with high levels of AI traits find socially motivating. These individuals did not especially value popularity and were not clearly dominant; they may admire dominance in others, but in a community sample this trait was not clearly expressed, so it remains unclear if exerting dominance is a motivating aspect of social interaction for individuals with high levels of psychopathic traits. Thus, while the current study suggests that individuals with high levels of core psychopathic traits are not motivated to form meaningful bonds with others and are instead motivated by selfish goals, understanding the exact elements of social motivation associated with psychopathy remains a challenge.

## References

- Allan, S., & Gilbert, P. (1995). A social comparison scale: psychometric properties and relationship to psychopathology. *Personality and Individual Differences*, *19*, 293–299.
- Andershed, H., Kerr, M., Stattin, H., & Levander, S. (2002). Psychopathic traits in non-referred youths: A new assessment tool. In E. Blaauw & L. Sheridan (Eds.), *Psychopaths: Current international perspectives* (pp. 131–158). The Hague: Elsevier.
- Baird, S. A. (2002). The links between primary and secondary psychopathy and social adaptation. *Colgate University Journal of the Sciences*, *34*, 61–82.
- Bartels, A., & Zeki, S. (2004). The neural correlates of maternal and romantic love. *NeuroImage*, *21*, 1155–1166.
- Baumeister, R. F., & Leary, M. R. (1995). The need to belong: desire for interpersonal attachments as a fundamental human motivation. *Psychological Bulletin*, *117*, 497–529.
- Benjamini, Y., & Hochberg, Y. (1995). Controlling the false discovery rate: a practical and powerful approach to multiple testing. *Journal of the Royal Statistical Society. Series B (Methodological)*, *57*, 289–300.
- Blackburn, R., & Fawcett, D. J. (1996). Manual for the Antisocial Personality Questionnaire (APQ). Unpublished manuscript, University of Liverpool.
- Blackburn, R., & Maybury, C. (1985). Identifying the psychopath: the relation of Cleckley’s criteria to the interpersonal domain. *Personality and Individual Differences*, *6*, 375–386.
- Blair, R. J. R., Mitchell, D., & Blair, K. (2005). *The psychopath: Emotion and the brain*. Malden: Blackwell.
- Buckholz, J. W., Treadway, M. T., Cowan, R. L., Woodward, N. D., Benning, S. D., Li, R., et al. (2010). Mesolimbic dopamine reward system hypersensitivity in individuals with psychopathic traits. *Nature Neuroscience*, *13*, 419–421.
- Buss, A. H. (1983). Social rewards and personality. *Journal of Personality and Social Psychology*, *44*, 553–563.
- Cale, E. M., & Lilienfeld, S. O. (2006). Psychopathy factors and the risk for aggressive behavior: a test of the “threatened egotism” hypothesis. *Law and Human Behavior*, *30*, 51–74.
- Cleckley, H. (1976). *The mask of sanity: An attempt to clarify some issues about the so-called psychopathic personality* (5th ed.). St. Louis: Mosby.
- Falkenbach, D. M., Howe, J. R., & Falki, M. (2013). Using self-esteem to disaggregate psychopathy, narcissism, and aggression. *Personality and Individual Differences*, *54*, 815–820.
- Gaughan, E. T., Miller, J. D., Pryor, L. R., & Lynam, D. R. (2009). Comparing two alternative measures of general personality in the assessment of psychopathy: a test of the NEO PI-R and the MPQ. *Journal of Personality*, *77*, 965–996.
- Grouzet, F. M. E., Kasser, T., Ahuvia, A., Fernandez-Dols, J. M., Kim, Y., Lau, S., et al. (2005). The structure of goal contents across 15 cultures. *Journal of Personality and Social Psychology*, *89*, 800–816.
- Hare, R. D. (1999). *Without conscience: The disturbing world of the psychopaths among us*. New York: Guilford Press.
- Hare, R. D. (2003). *Hare psychopathy checklist—revised* (2nd ed.). Toronto: Multi-Health Systems.
- Hare, R. D., & Neumann, C. S. (2008). Psychopathy as a clinical and empirical construct. *Annual Review of Clinical Psychology*, *4*, 217–246.
- Hicks, B. M., & Patrick, C. J. (2006). Psychopathy and negative emotionality: analyses of suppressor effects reveal distinct relations with emotional distress, fearfulness, and anger-hostility. *Journal of Abnormal Psychology*, *115*, 276–287.
- Jonason, P. K., Li, N. P., Webster, G. D., & Schmitt, D. P. (2009). The dark triad: facilitating a short-term mating strategy in men. *European Journal of Personality*, *23*, 5–18.
- Jonason, P. K., Valentine, K. A., Li, N. P., & Harbeson, C. L. (2011). Mate-selection and the dark triad: facilitating a short-term mating strategy and creating a volatile environment. *Personality and Individual Differences*, *51*, 759–763.
- Jonason, P. K., Luevano, V. X., & Adams, H. M. (2012). How the dark triad traits predict relationship choices. *Personality and Individual Differences*, *53*, 180–184.
- Kasser, T., & Ryan, R. M. (1993). A dark side of the American dream: correlates of financial success as a central life aspiration. *Journal of Personality and Social Psychology*, *65*, 410–422.
- Leary, M. R., Kelly, K. M., Cottrell, C. A., & Schreindorfer, L. S. (2007). Individual differences in the need to belong: Mapping the nomological network. Unpublished manuscript, Duke University.

- Lilienfeld, S. O., & Fowler, K. A. (2006). The self-report assessment of psychopathy: Assessment, pitfalls and promises. In C. J. Patrick (Ed.), *Handbook of psychopathy* (pp. 107–132). New York: Guilford Press.
- Lilienfeld, S. O., & Widows, M. R. (2005). *Psychopathic personality inventory—revised: Professional Manual*. Lutz: Psychological Assessment Resources.
- Lynam, D. R., Gaughan, E. T., Miller, J. D., Miller, D. J., Mullins-Sweatt, S., & Widiger, T. A. (2011). Assessing the basic traits associated with psychopathy: development and validation of the elemental psychopathy assessment. *Psychological Assessment, 23*, 108–124.
- Mehrabian, A., & Hines, M. (1978). A questionnaire measure of individual differences in dominance-submissiveness. *Educational and Psychological Measurement, 38*, 479–484.
- Morrison, D., & Gilbert, P. (2001). Social rank, shame and anger in primary and secondary psychopaths. *Journal of Forensic Psychiatry, 12*, 330–356.
- Munoz, L. C., Kerr, M., & Besic, N. (2008). The peer relationships of youths with psychopathic personality traits: a matter of perspective. *Criminal Justice and Behavior, 35*, 212–227.
- Paulhus, D. L., Neumann, C. S., & Hare, R. D. (in press). *Manual for the self-report psychopathy scale* (4th ed.). Toronto: Multi-Health Systems.
- Schmitt, N. (1996). Uses and abuses of coefficient alpha. *Psychological Assessment, 8*, 350–353.
- Seara-Cardoso, A., Neumann, C., Roiser, J., McCrory, E., & Viding, E. (2012). Investigating associations between empathy, morality and psychopathic personality traits in the general population. *Personality and Individual Differences, 52*, 67–71.
- Sheldon, K. M., Ryan, R. M., Deci, E. L., & Kasser, T. (2004). The independent effects of goal contents and motives on well-being: it's both what you pursue and why you pursue it. *Personality and Social Psychology Bulletin, 30*, 475–486.
- Wiggins, J. S. (1979). A psychological taxonomy of trait-descriptive terms: The interpersonal domain. *Journal of Personality and Social Psychology, 37*, 395.
- Wilson, K., Demetriofoff, S., & Porter, S. (2008). A pawn by any other name? Social information processing as a function of psychopathic traits. *Journal of Research in Personality, 42*, 1651–1656.