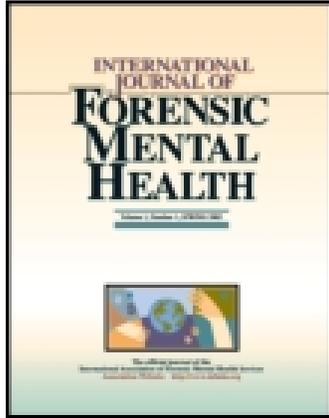


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Psychopathy, Empathy, and Perspective -Taking Ability in a Community Sample: Implications for the Successful Psychopathy Concept

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Psychopathy, Empathy, and Perspective -Taking Ability in a Community Sample: Implications for the Successful Psychopathy Concept

Jana L. Mullins-Nelson, Randall T. Salekin, and Anne-Marie R. Leistico

This study examined the relationship between psychopathy and two components of empathy including a cognitive component (e.g., perspective-taking ability) and an affective component (e.g., compassion) in a community sample. The Psychopathic Personality Inventory Short Form was used to assess psychopathy and several psychological measures were used to test empathy including the Interpersonal Reactivity Index, the Diagnostic Analysis of Nonverbal Accuracy-2, and the Test of Self Conscious Affect -3. Across instruments, psychopathy (as a unitary construct) appeared to be negligibly correlated with perspective-taking scales and negatively correlated with the affective components of empathy. Findings indicated that the emotional deficits were noted most prominently for the behavioral component of psychopathy. Results also showed that higher psychopathy scores in community participants were linked to higher levels of antisocial conduct.

Psychopathy was originally described in considerable detail by Cleckley (1941), in his monograph entitled *The Mask of Sanity*, as a disorder that encompassed interpersonal, affective, behavioral, and potentially antisocial components. With regard to interpersonal features, psychopaths have been described as superficially charming, intelligent, egocentric, and manipulative (Lykken, 1995). Affectively, psychopathic individuals are reported to have little empathy and remorse for others and few emotions of any real depth. With regard to behavioral features, psychopaths are considered to be impulsive, irresponsible, and sensation seeking. Other behavioral components of the syndrome include antisociality and/or moral transgressions (Hare, 2003).

Using Cleckley's model as a guide, Hare (1991) formed a two-factor model of psychopathy. Factor one encapsulated the affective and interpersonal traits. These traits have been defined as "selfish, callous, and remorseless use of others." Factor two, on the other hand, assesses the behavioral traits of a psychopath. These traits are referred to as "chronically unstable, antisocial lifestyle, and social deviance" (Hare, 1991, p. 76). The two factor model

has been dominant within research on psychopathy, although more recently three and four factor models have been proposed (Cooke & Michie, 2001; Hare, 2003; Salekin, Brannen, Zalot, Leistico, & Neumann, 2006). Research with adult incarcerated psychopaths has demonstrated considerable support for the construct validity of the psychopathy concept (Hare, 1996, 2003; Salekin, Rogers, & Sewell, 1996). Despite substantial research on this topic, one area of investigation that remains underdeveloped, and thus not well understood, is the emotional functioning of the psychopath.

Advancements regarding the emotional functioning of the psychopath have thus far focused on the how psychopath's process specific types of information. For instance, Lykken (1957) showed that psychopathic individuals differed from non-psychopathic individuals with regard to stimuli thought to elicit fear. Others have found theoretically meaningful differences between psychopathic and non-psychopathic individuals on their psychophysiological responses to distress cues, startle reflex, and fear imagery (e.g., Blair, 1999; Blair, Jones, Clark, & Smith, 1997; Blair & Coles, 2001; Blair, Colledge, Murray, & Mitchell, 2001; Levenston, Patrick,

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Bradley, & Lang, 2000; Patrick, 1994; Patrick, Bradley, & Lang, 1993; Patrick, Cuthbert, & Lang, 1994). It is important to note that these findings are consistent with the theoretical work of Fowles (e.g., Fowles, 1980), Gray (1987), and Quay (1993) which suggest an underactivity of the neurobiological system or components of the system, and potential abnormalities in the structure of the brain, including the amygdala (Blair, 1999; Frick, Kimonis, Dandreaux, & Farrell, 2003). More specifically, Fowles' (1980, 1994) motivational theory posited that psychopathic individuals may have a weak response to punishment cues (weak behavioral inhibition system) while exhibiting strong responses to reward cues and active coping in the face of threat (strong behavioral activation system) (Fowles & Dindo, 2006). Clearly, deficits in emotional functioning have been critical to many etiological theories of psychopathy (Frick, 1998; Lykken, 1995; Quay, 1986).

Although Cleckley and others believed that psychopaths exhibited deficits in emotional functioning, their descriptions of the syndrome suggested that the deficits were specific and circumscribed, rather than global (see Cleckley, 1941). Clinical observations led Hare (1998) to describe psychopathic individuals as not lacking empathy *per se*, but rather lacking true feeling for others. The psychopath's lack of emotional experience has been described as being "hidden by an amazing smile, captivating body language, and smooth talk, all of which enable him or her to gain the trust of others." According to Smith (1978), the psychopath is also impressively skillful in discerning precisely what other people desire. These skills, according to theory, give psychopaths an ability to control others and make them feel as if they are getting what they want even though the opposite may be true (Smith, 1978). For example, Cleckley's early portraits of psychopathy gave reason to believe that certain aspects of empathy were linked to some psychopathic symptoms. Specifically, characteristics such as superficial charm, feelings of grandiosity, and manipulation and deception may be somewhat enabled by, or at the very least related to, emotional abilities like empathy.

The pool of research on this topic has been limited and characterized by mixed findings (e.g., Blair et al., 2002; Chandler & Moran, 1990; Habel, Kuhn, Salloum, Devos, & Schneider, 2002). There

are three potential explanations for the mixed findings in this area. First, some researchers have argued that these capabilities might be reserved for the community psychopath; that is, those who are high in psychopathy but have not been detected by the law. In recent years, researchers and clinicians alike have expressed the need for the exploration of psychopathy in community samples (DeMatteo, Heilbrun, & Marczyk, 2005; Hall & Benning, 2006; Salekin, Trobst, & Krioukova, 2001; Skeem, Poythress, Edens, Lilienfeld, & Cale, 2003; Widom, 1977) because they are presumably the "successful psychopath." Thus, these individuals may display the highest level of empathy, yet remain undetected by the law.

Measuring psychopathy in a college population may aid in the understanding of the "successful psychopath" and its relation to emotional functioning. This would provide useful information on the types of skills that may keep them in the community and outside of correctional institutions, even though they may create havoc in social, interpersonal, and organizational contexts. Alternately, these social skills may allow successful psychopaths to survive in the community for much longer durations before they ultimately end up in correctional and forensic mental health settings.¹ Yet, little empirical research exists to test the emotional capacity of psychopathic individuals who dwell in our communities (see Harpur, Hare, & Hakstian, 1989; Hicks, Markon, Patrick, Krueger, & Newman, 2004; Levenson, 1990; McHoskey, Worzel, & Szyarto, 1998; Zagon & Jackson, 1994).

The second, possible explanation for the mixed results is that psychopathy is considered to be a multidimensional construct (Benning, Patrick, Salekin, & Leistico, 2005). According to Hare (2003) and others who have more recently tested the factor structure of psychopathy in community samples (Benning et al., 2005), there exists two broad factors for the concept of psychopathy. Factor one captures

¹ It is beyond the scope of the current study to conclusively define "successful psychopathy" or to examine the possible variants of "successful psychopathy." For our purposes, we are using the term to describe individuals who are in the community and working toward a college degree and are not currently institutionalized. For a more detailed discussion of "successful psychopathy" see Hall and Benning (2006), Millon (1981) or Skeem, Poythress, Edens, Lilienfeld, and Cale (2003).

predominantly interpersonal and affective elements of the syndrome and Factor two captures behavioral and antisocial characteristics. Because of the multidimensional nature of psychopathy, it is necessary to test these two broad factors in relation to empathy in order to shed light on the complex relation between psychopathy and empathy.

Third, there has been some concern about the heterogeneity of the empathy construct. According to Feshbach (1989), there have been disagreements about how to define empathy. Some researchers believe that empathy includes cognitive and affective responses that operate as one entity (Feshbach, 1989; Ickes, 1993). Others hold that empathy is a multidimensional phenomenon that can be broken down into two constructs: cognitive and affective empathy. To address definitional concerns, Feshbach (1989) developed a cognitive-affective model to show how these two factors work in an individual. The first component is the cognitive ability to assess and differentiate the affective cues of another person. This requires that the individual have the ability to discriminate between positive affective cues, such as laughing or smiling, and negative affective cues, such as crying. This also involves the cognitive ability to take the other person's perspective (e.g., assessing why the other person is expressing an emotion such as smiling or crying). The second component of the model is the emotional responsiveness component, which is the ability to feel what the other person is feeling. This requires that the individual not only understand the perspective of the opposite individual, but also share in his/her emotional state.

It is easily seen that this process, if used properly, can lead to prosocial behavior. Not only can cognitive empathy or perspective-taking skills aid in prosocial behavior, it can also reduce violent and aggressive behaviors (Chalmers & Townsend, 1990). Conversely, if one does not possess effective perspective-taking skills, and is inattentive to the affective cues and feelings of others, it can lead to a turbulent and potentially aggressive lifestyle (Dymond, 1950). To further explain this model, Feshbach (1989) found that as the level of cognitive empathy skills mature or improve in an individual, the likelihood of aggression and negative social experiences decrease, in turn increasing the occurrence of prosocial responses. It has also been shown that a person who

has poor perspective-taking ability will be more likely to be rigid in his/her thinking, opposed to compromise, extremely judgmental, and unconcerned with the feeling and needs of other people (Leith & Baumeister, 1998). Although empathy appears to be a crucial part of prosocial interactions, to our knowledge no studies have examined both types of empathy as they may relate to psychopathy.

THE CURRENT STUDY

A hallmark sign of psychopathy has been a lack of empathy (Cleckley, 1941; Karpman, 1944; Hare, 2003). However, as seen above, theories that attempt to explain the way in which this "lack of empathy" operates in a psychopathic individual are not well understood. Because the literature yields numerous differences in not only the mere definition of empathy, but also the relationship of cognitive and affective empathy to psychopathy and its underlying factors (e.g., Blair et al., 2001; Habel et al. 2002; Kosson, Suchy, Mayer, & Libby, 2002), there is a definite need for a better understanding of how the constructs coexist. Understanding empathy, both cognitive and affective, ought to provide us with a better understanding of psychopathy. Also, there have been virtually no studies that focus on the interaction of cognitive and affective empathy in a psychopathic population (see Harpur et al., 1989). Because there is a myriad of social and individual benefits that stem from possessing adequate cognitive and affective empathic traits, there are many implications for such a study. Specifically, the current study could better inform us of the relation between the two types of empathy and psychopathy which may provide direction for etiological research. It might also have implications for the "successful psychopathy" concept. That is, the current study could shed light on the extent to which individuals who score high on the PPI-SF are likely to engage in illegal conduct or moral transgressions but still remain undetected by the law. In addition, the current study might also have implications for whether treatment may be enhanced by addressing cognitive and affective empathy skills individually or in combination with each other.

Because of these important implications, the current study sought to explore the relationship

between psychopathic traits and both types of empathy: perspective-taking ability and affective empathy. It was expected that individuals who exhibit high levels of psychopathy would possess adequate levels of cognitive empathy (perspective-taking ability), but would exhibit deficits in their ability to use affective empathy. In other words, it was expected that these individuals would have the ability to see another's point of view, but would not have sufficient affective empathy to alter their actions appropriately.

The Psychopathic Personality Inventory-Short Form (PPI-SF; Lilienfeld, 1994, 2004) and the Interpersonal Reactivity Index (IRI; Davis, 1983) were used to test the proposed relation. The PPI-SF was used because it is considered to be a measure that is well-suited for use with community samples (Lilienfeld & Andrews, 1996; Lilienfeld, 2004). In addition, the measure allows for the assessment of the two broad factors of psychopathy (Benning et al., 2005). The rationale for using the Interpersonal Reactivity Index (IRI; Davis, 1983) is that the measure taps two key concepts of empathy (cognitive and emotional). This distinction in types of empathy has been important because it allows for a finer-grained analysis of empathy. Two additional measures, the Diagnostic Analysis of Nonverbal Accuracy-2 (DANVA-2; Nowicki, 2002; Nowicki & Duke, 1989), and the Test of Self-Conscious Affect-3 (TOSCA-3; Tangney, Dearing, Wagner, & Gramzow, 2000) were administered to participants to examine facial and voice emotion recognition/accuracy as elements of empathy. And, the TOSCA-3 provides another avenue for testing affective empathy. The DANVA-2 and TOSCA-3 are described in greater detail in the Method section of this paper. Finally, it was expected that psychopathy would be positively related to self-reported antisocial acts and moral transgressions.

METHOD

Participants

Participants were undergraduate students recruited through a university subject pool. Participants received extra credit toward an entry level psychology course for their participation. The sample was composed of 44 males (25%) and 130

females (75%). One hundred and fifty participants were Caucasian (86%), 20 were African-American (12%), 2 were Hispanic (1%), 1 was Asian (.5%), and 1 did not specify his/her race (.5%). The mean age of the sample was 19.34 years ($SD = 1.81$).

Instruments

Psychopathic Personality Inventory-Short Form (PPI-SF; Lilienfeld, 2004). The Psychopathic Personality Inventory-Short Form is an abridged version of the Psychopathic Personality Inventory (PPI; Lilienfeld & Andrews, 1996). Both the PPI and PPI-SF are self-report measures of psychopathy originally designed for use with non-forensic populations. The PPI is a self-report measure that consists of 187 items. The PPI-SF is considerably shorter self-report measure comprised of fifty-six items from the PPI. Each item is rated on a 4-point scale of 1 (false of me) to 4 (true of me). An example of a PPI-SF item is, "I sometimes try to get others to 'bend the rules' for me if I can't change them any other way". The original version of the PPI was based on eight factors: (a) Machiavellian Egocentricity; (b) Social Potency; (c) Fearlessness; (d) Coldheartedness; (e) Impulse Nonconformity; (f) Blame Externalization; (g) Carefree Nonplanfulness; and (h) Stress Immunity. The PPI-SF conceptually retains this eight factor structure. However, factor analytic research has emerged to show that the PPI has two broad factors, one that represents personality and another that captures behavioral characteristics. Specifically, factor analytic studies of the PPI long (Benning et al., 2005) and short form (Wilson, Frick, & Clements, 1999) suggest evidence of a two factor structure that roughly parallels Hare's traditional two-factor model. This two factor model condenses Impulsive Nonconformity, Blame Externalization, Machiavellian Egocentricity, and Carefree Nonplanfulness into one factor (PSI-SF-II). In addition, it combines Stress Immunity, Social Potency, Fearlessness, and Coldheartedness into another factor (PPI-SF-I). From here on in, we refer to these broad factors of psychopathy as PPI-SF-I and PPI-SF-II. At present, there is not a great deal of validity data on the PPI-SF. However, the PPI-SF has been shown to correlate highly with the full form ($r = .90$) (Lilienfeld & Hess, 2001). The PPI has yielded a coefficient alpha of .93 and a test-retest reliability

of .95 (Lilienfeld & Andrews, 1996). In the current study, the homogeneity of the total scale for the PPI-SF was slightly lower ($\alpha = .808$). The PPI measure has also demonstrated evidence of validity when the PCL-R was the criterion (e.g., Poythress, Edens, & Lilienfeld, 1998). While there is less validity data on the short form, its high correlation with the long form is promising.

Diagnostic Analysis of Nonverbal Accuracy-2 (Nowicki & Duke, 1989). The Diagnostic Analysis of Nonverbal Accuracy (DANVA-2) measures individuals' abilities to recognize the nonverbal affective cues in others. The adult version of the DANVA-2 was used in the current study. The DANVA-2 has three subtests: faces, body postures, and voices in which participants view facial and body language expressions as well as listen to voice expressions. Only the faces and voices subtests were used in the current investigation. In these subtests, participants distinguish from a number of choices (happy, sad, angry, or fearful) to describe what the person is feeling. The faces and voices subtests each include 24 stimuli and the emotions also depict levels of intensity ranging from low to high. In order to test multiple participants at once, the DANVA-2 pictures were transferred to a computer disk and projected onto a 6x8' screen. Each picture remained on the screen for a five second interval. For the voices subtest, participants were presented with an audio clip, using a standard tape player, of the sentence, "I am going out of the room now, but I'll be back later." The participant again had five seconds to respond as to which emotion was represented. Reliability and validity for the DANVA-2 have been established on each subtest rather than the test as a whole to give a more accurate account of the measure. The facial expressions subtest has shown a high test-retest reliability of .84 when used in a college population. This subtest also has a high coefficient alpha of .77 (Nowicki & Carton, 1992). The adult facial expressions subtest is also highly correlated (.80) with the Japanese and Caucasian Facial Expression of Emotion Test when tested with college students (Nowicki & Duke, 1994). As well as showing strong convergent validity, the facial expression subtest also has discriminant validity in that it has not been found to be correlated with intelligence, or any other cognitive task (Nowicki & Duke, 1994). The current study found acceptable internal reliability for the

DANVA-2 faces ($\alpha = .614$); however, the DANVA-2 voices internal reliability was low ($\alpha = .185$). While the DANVA-2 is not a direct test of empathy, it may tap basic elements of emotional encoding which may be a first step in the process of being able to empathize with others.

Interpersonal Reactivity Index (IRI; Davis, 1983). The IRI is a multidimensional scale that measures both cognitive and affective empathy. To measure these two constructs, the IRI is comprised of four dimensions: (a) fantasy; (b) perspective-taking; (c) personal distress; and (d) empathic concern. Only the perspective-taking and empathic concern subscales were examined in the current study. The perspective-taking subscale of the measure is composed of such items as: "Before criticizing somebody, I try to imagine how I would feel if I were in their place". The empathic concern is represented with such items as: "Sometimes I don't feel very sorry for other people when they are having problems". The empathic concern subscale measures affective empathy, or how a person would react to an emotion provoking situation (Leith & Baumeister, 1998), whereas the perspective-taking subscale measures cognitive empathy. Items are rated on a 5-point Likert scale, with 1 representing an inaccurate description of the participant and 5 representing a very accurate description. The IRI has yielded a high test-retest reliability of .71 in a college population (Davis & Franzoi, 1991). In the current study, the IRI demonstrated good internal reliability with $\alpha = .771$. The IRI has also yielded good validity as it is correlated with other tests of empathy (Davis & Franzoi, 1991).

Test of Self-Conscious Affect – Version 3 (Tangney et al., 2000; Tagney, Wagner, & Gramzow, 1989). The TOSCA-3 is a measure of perspective-taking ability and empathic concern. It consists of sixteen scenarios, both positive and negative, that were obtained from written accounts of shame, guilt, and pride experiences of adults (Tangney et al., 2000). These scenarios are situations that the average person would face in their everyday life. Participants are instructed to imagine themselves in the proposed situation and indicate on a Likert scale what they perceive their response would be. Items are based on a 5-point Likert scale, with 1 denoting that the participant would not likely react in the given manner and 5 denoting that the participant would be very

likely to react in the given manner. An example item of the TOSCA-3 is as follows: "While playing around you throw a ball and it hits your friend in the face." The participant is to rate how likely he/she would be to react in each of the following manners: (a) "You would feel inadequate that you can't even throw a ball"; (b) "You would think that maybe your friend needs more practice at catching"; (c) "You would think: it was just an accident"; (d) "You would apologize and make sure your friend feels better." The TOSCA-3 has yielded high reliability with a coefficient alpha of .76. The measure has also demonstrated convergent validity, correlating with the Beck Depression Inventory (Beck & Steer, 1993). Because this measure asks questions that tap guilt and shame it more directly tests the capacity of individuals to empathize with others on both cognitive and affective levels. In the current study, the TOSCA-3 demonstrated a highly similar level of reliability to that of previous studies ($\alpha = .777$). Only the guilt (TOSCA-G) and shame (TOSCA-S) subscales of the TOSCA-3 are examined given that they were most highly linked to our research questions.

Antisocial Conduct. Participant's antisocial conduct was assessed through six (6) open-ended questions about whether participants had ever been accused of academic misconduct (e.g., cheating on exams, plagiarism), been in trouble with the law, arrested, arrested on campus, been in a jail or detention center, and been in prison. Participants reported the number of times they had been in trouble as well as noting the type of offense(s) they committed. Only one participant indicated that s/he had been arrested on campus. This question was therefore collapsed with "ever been arrested" to create one general category indicating any type of arrest. No participants indicated being in prison and this category was not analyzed further.

Two raters rationally coded the nature of individual's offense(s) into three categories, identifying the severity of the offense(s) (i.e., mild, moderate, and severe). Mild offenses included cheating on exams, speeding, possession of alcohol, and disrupting class. Moderate offenses included theft of property, possession of drugs, and reckless driving. Severe offenses included running from the police and fighting/assaulting someone. In the current study, both the frequency and severity of offenses were analyzed.

Procedure

Institutional Review Board (IRB) approval was obtained before the current study was initiated. Participants were undergraduate psychology students who provided consent to participate in the current study for extra credit in an entry level psychology course. Participants were provided instructions and were tested in a group setting. Tests were administered in a specific order so as to facilitate group administration time. Specifically, the DANVA-2 was given first so that multiple participants could be tested at once. The DANVA-2 faces were scanned onto a computer and then projected onto a 6x8' projection screen. Following the DANVA-2, other measures were administered in a packet, allowing participants to work at their own pace. The measures in the packet were in the following order: (a) IRI; (b) TOSCA-3; (c) PPI-SF; and (d) demographic and antisocial conduct sheet. This order also served to reduce and control for demand effects. Total administration time was approximately two hours.

RESULTS

As a first step, several checks were run to determine if there were any gender or ethnicity effects. The results indicated that there were some gender differences consistent with adult offender research (Nicholls, Ogloff, & Douglas, 2001; Salekin, Rogers, & Sewell, 1997), but no differences regarding race. Gender differences were noted for the mean total scores across measures. For example, the mean score on the PPI-SF was 130.88 ($SD = 14.31$) for males and 126.36 ($SD = 14.96$) for females (the overall range for the PPI-SF was 91-171). However, the mean score on the IRI-Total was 88.64 ($SD = 12.64$) for males and 95.45 ($SD = 10.44$) for females. Descriptive statistics and effect sizes for each of the measures are presented in Table 1.

In order to test whether the pattern of relations between psychopathy and empathy differed by gender, we conducted moderated multiple regression analyses in which gender (coded as 0 and 1) by psychopathy (PPI-SF) interaction term was used to evaluate whether gender moderates the full sample correlation (see Baron & Kenny, 1986). We also analyzed psychopathy score by gender correlations

with criterion measures (i.e., DANVA, IRI, and TOSCA). There were no significant differences across gender for any of the aforementioned moderated analyses (ps ranged from .15 to .98). Although these results do not show significant moderator effects, we present our results for gender separately. This is because our sample size for males was relatively small and research has suggested that presenting the magnitude of effect is important for knowledge accumulation (Hemphill, Wong, & Hare, 1998; Salekin et al., 1996).

Psychopathy Total Score and Empathy

To examine the relationship between psychopathy and cognitive and affective empathy, two separate correlation matrices were produced. First, the PPI-SF was correlated with the IRI total score using the combined sample. This yielded a correlation coefficient of $-.495$ ($p < .01$). The two subscales of the IRI were then examined. The empathic concern scale yielded a correlation coefficient of $-.406$ ($p < .01$) with the PPI-SF. The perspective-taking scale, when correlated with the PPI-SF, yielded a correlation coefficient of $-.084$ (ns) (see Table 2).

To test if there was a significant relation between cognitive empathy and levels of psychopathy, the DANVA-2 was examined. The faces and voices subtests were not significantly related to the PPI-SF

total scores, $rs = -.132$ (ns) and $.058$ (ns), respectively (see Table 2). The TOSCA-3 was a second measure utilized to examine if there was a significant relation between cognitive and affective empathy and levels of psychopathy. The TOSCA-3 has several subscales and two (shame and guilt) were deemed, a priori, most relevant to the current study. The shame and guilt subscales were significantly negatively related to the PPI-SF total score, $-.279$ ($p < .01$) and $-.304$ ($p < .01$), respectively (see Table 2). Two separate correlation matrices were produced for males and females and are presented in Table 3. These matrices provide readers with the exact effect for each gender although it is important to note that in the current study the slopes of the relation between psychopathy and empathy did not significantly differ across gender.

Psychopathy Factor Scores and Empathy

The PPI-SF-I had, in general, less of a relation with the measures of empathy and/or the relations were positive. PPI-SF-I had small positive non-significant correlations with perspective-taking for males (.100) and females (.145). For the empathic concern scale, the PPI-SF-I evidenced a significant positive correlation for males (.306) and a negligible correlation for females ($-.022$). Thus, individuals scoring high on the PPI-SF-I scale were able to show perspective-taking ability and show empathic

Table 1

Gender Effects. Means and Standard Deviations for Psychopathy, Cognitive Empathy, and Affective Empathy

	Males $n = 44$	Females $n = 130$	Cohen's d
PSI-SF-Tot	130.88 (14.31)	126.36 (14.96)	-.91
IRI-Tot	88.64 (12.14)	95.45 (10.44)	.63
IRI-EC	31.34 (3.35)	33.50 (3.78)	.59
IRI-PT	24.14 (4.93)	23.24 (4.80)	-.19
DANVA-F	19.32 (3.74)	19.95 (2.24)	.24
DANVA-V	16.74 (2.29)	17.30 (2.20)	.25
TOSCA-S	42.51 (8.87)	50.78 (8.22)	.99
TOSCA-G	60.93 (7.30)	65.98 (7.33)	.69

Note. PSI-SF = Psychopathic Personality Inventory-Short Form; IRI = Interpersonal Reactivity Index; IRI EC = Interpersonal Reactivity Index Empathic Concern; IRI PT = Interpersonal Reactivity Index Perspective Taking; DANVA = Diagnostic Analysis of Nonverbal Accuracy; TOSCA = Test of Self Conscious Affect

Table 2

Correlation Coefficients for Psychopathy, Cognitive Empathy, and Affective Empathy For Males and Females Combined

	PPI-I	PPI-II	IRI-Tot	IRI-EC	IRI-PT	DANVA-V	DANVA-F	TOSCA-S	TOSCA-G
PPI-SF-T	.70**	.733**	-.495**	-.406**	-.084	.058	-.132	-.279**	-.304**
PPI-SF-I	(.818)	.086	-.261**	-.036	.159*	-.014	.049	-.295**	.012
PPI-SF-II		(.776)	-.335**	-.399**	-.284**	.053	-.176*	.026	-.345**
IRI Total			(.771)	.660**	.460**	-.134	.028	.361**	.396**
IRI-EC				(.766)	.290**	-.012	-.012	.253**	.439**
IRI-PT					(.777)	-.153*	-.123	-.024	.336**
DANVA-V						(.185)	.113	.027	.011
DANVA-F							(.614)	.221**	.025
TOSCA-S								(.551)	.452**
TOSCA-G									(.610)

Note. PPI-SF = Psychopathic Personality Inventory-Short Form; IRI = Interpersonal Reactivity Index; IRI-Total = total score including all four subscales of the IRI; IRI EC = Interpersonal Reactivity Index Empathic Concern; IRI PT = Interpersonal Reactivity Index Perspective Taking; DANVA = Diagnostic Analysis of Nonverbal Accuracy; TOSCA-S = Test of Self Conscious Affect-Shame; TOSCA-G = Test of Self Conscious Affect-Guilt; * Correlation is significant at the .05 level (2-tailed) ** Correlation is significant at the .01 level (2-tailed). $N = 174$. Numbers on the diagonal in brackets are coefficient alphas for the representative scales.

concern as well as, or perhaps even better (see results for males) than those who scored low. With respect to PPI-SF-II, we found significant negative correlations with empathic concern and perspective-taking for both males and females. There were also similar meaningful differences in the correlation pattern noted across the DANVA-2 and TOSCA-3. One notable finding was that the PPI-SF-I was negatively correlated with the TOSCA-S for both males and females ($-.332$, $-.132$, respectively). Thus, individuals scoring high on the PPI-SF scale were less likely to express shame. In addition, PPI-SF-II was significantly negatively correlated with guilt for both males and females ($-.455$, $-.286$).

Psychopathy and Antisocial Conduct

Finally, an important aspect of the psychopathy construct is its relation to moral transgressions and antisocial acts. In the current study, we found that psychopathy was linked to antisocial conduct in the expected direction. Specifically, the PPI-SF correlated positively with self-report of past trouble with the law (male $r = .354$, $p = .023$; female $r = .190$, $p = .033$), academic misconduct (male $r = .334$, $p = .031$; female $r = .020$, ns), previous arrests ($r =$

$.342$, $p = .030$; $r = .102$, $p = .110$), jail time ($r = .403$, $p = .001$; $r = .114$, $p = .098$), and overall severity of antisocial behavior ($r = .409$, $p = .001$; $r = .205$, $p = .030$) (see Table 4). Both PPI-SF-I and PPI-SF-II factors evidenced moderate positive correlations with negative outcomes for males (r s ranged from $.175$ to $.302$). However, only PPI-SF-II appeared to be associated with negative outcomes for females (r s ranged from $.084$ to $.257$), while PPI-SF-I had negligible relations with antisocial outcomes for females (r s ranged from $.002$ to $.108$) (see Table 4).

DISCUSSION

Psychopathy has been a widely studied construct, receiving nearly seven decades of research and considerable research has been amassed over this time. As a result, we have made remarkable progress and presently have vast knowledge about the defining features of the syndrome. We have considerable knowledge about the predictive utility of the construct (Hemphill et al., 1998; Salekin et al. 1996). We also have some knowledge as to the specific deficits that may be associated with psychopathy. One of the cardinal features of

Table 3
Correlation Coefficients for Psychopathy, Cognitive Empathy, and Affective Empathy Based on Gender

Males	PPI-I	PPI-II	IRI-Tot	IRI-EC	IRI-PT	DANVA-F	DANVA-V	TOSCA-S	TOSCA-G
PPI-SF-Tot	.581**	.754**	-.385*	-.188	-.143	-.162	.095	-.388*	-.376*
PPI-SF-I	(.840)	.023	-.021	.306*	.100	-.110	.311*	-.332*	.071
PPI-SF-II		(.753)	-.314*	-.352*	-.285	-.178	-.023	.017	-.455**
IRI-Tot			(.811)	.685**	.651**	-.112	-.098	.267	.513**
IRI-EC				(.660)	.339*	-.179	.060	.188	.628**
IRI-PT					(.760)	-.292	-.231	-.166	.285
DANVA-F						(.800)	.205	.224	-.100
DANVA-V							(.243)	.084	.052
TOSCA-S								(.470)	.329*
TOSCA-G									(.784)

Females	PPI-I	PPI-II	IRI-Tot	IRI-EC	IRI-PT	DANVA-F	DANVA-V	TOSCA-S	TOSCA-G
PPI-SF-Tot	.672**	.743**	-.472**	-.399**	-.114	-.090	.099	-.095	-.177*
PPI-SF-I	(.804)	.064	-.25**	-.022	.145	.081	.023	-.132	.136
PPI-SF-II		(.763)	-.331**	-.405**	-.299**	-.171	.096	.095	-.286**
IRI-Tot			(.737)	.629**	.449**	.065	-.195*	.288**	.289**
IRI-EC				(.776)	.311**	.023	-.071	.153	.331**
IRI-PT					(.778)	-.045	-.120	.050	.395**
DANVA-F						(.461)	.061	.216*	.041
DANVA-V							(.164)	-.040	-.039
TOSCA-S								(.639)	.405**
TOSCA-G									(.638)

Note. PPI-SF-Tot = Psychopathic Personality Inventory-Short Form Total Score; PPI-SF-I = Psychopathic Personality Inventory-Short Form Factor 1; PPI-SF-II = Psychopathic Personality Inventory-Short Form Factor 2; IRI = Interpersonal Reactivity Index; IRI-Tot = total score for all four subscales of the IRI; IRI EC = Interpersonal Reactivity Index Empathic Concern; IRI PT = Interpersonal Reactivity Index Perspective Taking; DANVA = Diagnostic Analysis of Nonverbal Accuracy; TOSCA-S = Test of Self Conscious Affect-Shame; TOSCA-G = Test of Self Conscious Affect-Guilt; * Correlation is significant at the .05 level (2-tailed) ** Correlation is significant at the .01 level (2-tailed). $N = 44$ males; $N = 130$ females. Numbers on the diagonal in brackets are coefficient alphas for the representative scales.

Table 4
Psychopathy's Relation to Negative Outcomes

	Combined	Males	Females
Trouble with Law	.260**	.354* (.175, .302*)	.190* (.075, .234**)
Academic Misconduct	.079	.334* (.254, .211)	.020 (.014, .084)
Previously Arrested	.217**	.342* (.264, .226)	.102 (.002, .166)
Jail Time	.255**	.403** (.302*, .275)	.114 (.012, .184*)
Total Severity	.267**	.409** (.272, .279)	.205* (.108, .257**)

Note. Correlations are for PPI-SF scores. Correlation coefficients in brackets are for Factor I and Factor II, respectively for the PPI-SF (Benning et al., 2005). * Correlation is significant at the .05 level (2-tailed) ** Correlation is significant at the .01 level (2-tailed).

psychopathy is the lack of empathy. Lack of empathy can lead to a turbulent lifestyle and has even been linked to criminal behaviors (Cohen & Strayer, 1996). Theories that attempt to explain the way in which this lack of empathy operates in psychopathy vary greatly. The distinction of perspective-taking ability (cognitive empathy) and affective empathy also vary greatly within the literature. Many studies have expressed one as a function of the other. However, more recently, studies have shown that they are, in fact, related concepts, but do not necessarily co-exist (Karem, Fishman, & Josselson, 2001). In addition to the convoluted operational definition of perspective-taking ability and empathy, there is little converging evidence that addresses how the two work together, and even less information on how the two might be related to psychopathy (Steuerwald & Kosson, 2000).

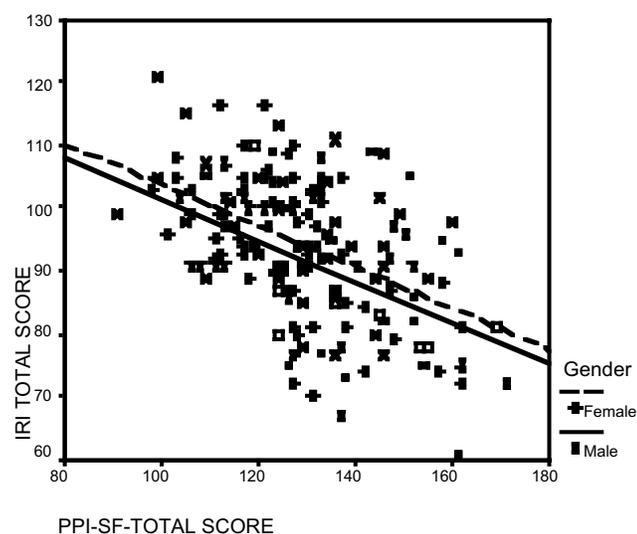
The current study sought to explore the relation between psychopathy and empathy including perspective-taking ability (cognitive empathy) and affective empathy. It was expected that psychopathy would be associated with adequate levels of perspective-taking ability, and negatively associated with affective empathy. In other words, this model posits that individuals with high psychopathy scores would have the ability to see the other person's point of view, but lack sufficient affect or concern to alter

their actions appropriately. These specific hypotheses were based on theoretical accounts of the condition (Cleckley, 1941).

Psychopathy as a Unitary Construct and Empathy

In the current study, the relationship between levels of psychopathy (as a unitary construct) and cognitive and affective empathic tendencies were tested. Psychopathy was not significantly related to perspective-taking ability which indicates that, within this community sample, an individual who has a high level of psychopathy does not differ significantly from an individual who has a low level of psychopathy with respect to cognitive empathy. Our findings regarding affective empathy also generally confirmed our hypotheses. That is, those scoring high on our psychopathy measure were less likely to demonstrate affective empathy. In fact, there was a rather strong negative correlation indicating that psychopathy and affective empathy are inversely related. Results with the TOSCA-3 also confirmed our hypotheses that psychopathy was inversely related with feelings of shame and guilt. Finally, the DANVA-2 showed that those scoring high on psychopathy scales do not show a deficit in recognizing emotion in facial expressions. These

Figure 1
Scatter Plot for the PPI-SF and the IRI Across Gender



findings indicate that those individuals who score high on psychopathy and who reside in the community do not have deficits in perspective-taking ability *per se*, but rather have deficits in the extent to which they are compassionate about or care about the negative consequences that occur to others. Although there were no significant differences across gender, the magnitude of the correlations suggest that with a larger sample of male participants some meaningful differences may emerge (see Table 3). We elaborate on the potential gender effects when we discuss the psychopathy factor scores and empathy below.

Psychopathy Components and Empathy

Because psychopathy is thought to be a multidimensional construct, it was important to investigate the two broad factors of psychopathy in relation to empathy. In addition, given that there was some variation in the magnitude of the correlations across gender at the total score level, we provide information across not only factor scores but also across gender. Specifically, when examining males and factor one of the PPI-SF, we found that high scorers on the PPI-SF-I did not evidence deficits in perspective-taking or affective empathy as measured by the IRI. The only area in which high factor one psychopathic individuals evidenced a deficit was on the TOSCA-3 Shame scale. That is, those individuals who scored high on factor one of the PPI-SF showed less shame in situations that are normally thought to elicit shame than those who scored low on the PPI-SF-I scale. These findings indicate that individuals who exhibit stress immunity, social potency, fearlessness, and coldheartedness might also have the ability for perspective-taking and empathic concern. One supposition is that these empathy skills might translate to good social skills that allow psychopathic type individuals to operate successfully in society. However, as mentioned, the males high in psychopathy in this study did evidence lower scores on the shame scale. This might indicate that shame is the key deficit in males who score higher on PPI-SF-I.

With respect to females and PPI-SF-I, the results were in the expected direction but the correlations were very small and, with the exception of the shame scale, none of the findings were significant. Thus, similar to males, females who scored high on Factor

one of the psychopathy scale showed a decrease in their feelings of shame about circumstances that are thought to normally elicit shame. These findings are of potential interest because they suggest that factor one psychopathic individuals do not show deficits in perspective-taking or even empathic concern as measured by the IRI. Thus, similar to males, this might mean that they are able to function quite well in society with requisite social skills and perspective-taking abilities as Cleckley (1941) had hypothesized.

With regard to the PPI-SF-II, psychopathic individuals (both males and females) evidenced deficits in almost all aspects of emotional functioning measured in the current investigation. Specifically, individuals scoring high on PPI-SF-II evidenced deficits in perspective-taking, empathic concern, and guilt. These findings make conceptual sense given that the factor is made up of characteristics from the impulsive non-conformity, blame externalization, Machiavellian egocentricity, and carefree non-planfulness components of the PPI-SF.

Taken together, these findings suggest that the general model hypothesized in this study for understanding psychopathy, in terms of cognitive and affective empathy, may be partially accurate. That is, the model may be most applicable to a certain subtype of psychopathy and a certain type of emotional deficit. To elaborate further on this point, shame appears to be the chief affective impairment evidenced in those scoring high on the PPI-SF-I scale. However, a wider array of emotional deficits appears to be applicable to individuals who score high on PPI-SF-II. Thus, depending on how individuals score on the relative factors that underpin psychopathy (type of psychopathy), the degree and type of emotional deficit may differ. In addition, gender may play a role as seen in Table 3. For instance, males may have greater deficiencies in Guilt and Shame than females. Clearly, assessing different subtypes of psychopathy (factor scores) as well as gender appear to be important factors to consider when searching for the emotional deficits of individuals thought to be psychopathic.

The current findings have several important implications including understanding (a) the social functioning of the psychopath, (b) the potential etiological mechanisms of the disorder, (c) the successful psychopathy concept, (d) the antisocial conduct of community psychopathy, and (e) the

potential target areas for treatment of psychopathy. First, with regard to social implications, because there is a myriad of social and individual benefits to be gained from possessing adequate cognitive and affective empathic traits, the possession of both constructs together can lead to various prosocial behaviors such as less aggressive or violent behavior of incarcerated individuals as well as more meaningful and significant relationships (Cohen & Strayer, 1996; Karem et al., 2001; Mehrabian & Epstein, 1972). Conversely, it has been shown that both youth and adult offenders have deficits in perspective-taking skills and the interpretation of social cues. These deficits are manifested by such traits as impulsivity and aggression (Bergeron & Valliant, 2001). As discussed, it is imperative for prosocial functions that cognitive and affective empathy be present. Here however, with psychopathy being investigated in the community, it might very well be that these individuals have requisite cognitive skills but do not possess some affective components of empathy to the same extent of that of low scorers on the PPI-SF. This appears to be true when examining psychopathy as a unitary construct (although examining the factor scores indicate that PPI-SF-I individuals only show a deficit in shame). This may suggest that those individuals scoring high on PPI-SF-I may have emotional capabilities that allow them to function more effectively in society. This may have implications for the types of crimes that they commit, including crimes that require social skills and premeditation (Cornell et al., 1996).

Affective empathy is also important for prosocial behaviors and interactions and related to intimate relationships. The findings from this study may shed further light on why psychopaths (perhaps especially factor one psychopaths) are able to get themselves into many relationships, but may also show why the relationships tend to be shallow and impersonal (either a lack of empathic concern or a lack of shame). Specifically, affective empathy facilitates relationships and provides real meaning to them. One reason for this facilitation is that it provides such feelings as closeness, identification, and acceptance, which are all imperative to prosocial and intimate relationships (Karem et al., 2001). It has also been shown that persons who are highly empathic show more arousal to the emotional experiences, both positive and negative, of others (Mehrabian &

Epstein, 1972). The lack of these feelings for others on an affective level may explain the psychopath's ability to engage in relations on a very superficial level and their inability to have any deep seated attachments to others, at least when psychopathy is viewed as a unitary construct. When examining the separate factors of psychopathy, it is important to note that while male psychopaths reported high levels of empathic concern they also showed a deficit in shame. This deficit in emotion may play an important role in the development of significantly impaired interpersonal relationships. In addition, although males that scored high on the PPI-SF-I claimed to be empathically concerned about the well-being of others, their behavior (antisocial conduct) did not match their endorsement of empathic concern. Thus, although they reported empathic concern for others, this concern did not translate to their overt actions.

Relatedly, the findings from the current study have implications for the "successful psychopathy" concept. There has been a renewed interest in the "successful psychopathy" concept but a great deal of confusion about what the concept means. The successful psychopath may refer to individuals who are thought to have core personality features of psychopathy but "successfully" function in society and avoid institutionalization. Some theorists refer to persons with interpersonal and affective characteristics of psychopathy as individuals who (a) do not follow a criminal path, (b) engage in antisocial activity that does not result in institutionalization, or (c) evade conviction at higher rates. Researchers have underscored the importance of operationally defining successful psychopathy as it could further validate the overall psychopathy concept. Here, we find that psychopathic individuals (at the unitary construct level) have perspective-taking abilities but tend to lack either affective abilities or at least do not exhibit higher levels of affective empathy or requisite levels of shame. With respect to PPI-SF-I, these individuals may have perspective-taking abilities and empathic concern, or be able to express empathic concern when viewed as necessary. These findings indicate that PPI-SF-I psychopathic individuals might most closely resemble the successful psychopathy concept because they have the highest levels of empathy. However, these individuals (both PPI-SF-I and PPI-SF-II) tend to break the law at higher rates than non-psychopathic

individuals and are occasionally detected and detained for their actions.

With respect to etiology, these findings may also have implications for the abnormal functional architecture underlying the affective processes of the psychopath, although the findings suggest potentially differing areas of disturbance depending on how psychopathy is conceptualized. Specifically, the results of the current study correspond to some extent with the results of fMRI research showing limbic abnormalities in psychopaths (Kiehl et al., 2001). These findings suggest that there may be abnormalities in the limbic system and frontal cortex while individuals are engaged in processing affective stimuli or stimuli that would typically elicit emotional concern and shame (see also Salekin, Neumann, Leistico, & Zalot, 2004). The results of Kiehl et al. (2001) and others (Intrator et al., 1997; Williamson, Harpur, & Hare, 1991) indicate that psychopathic individuals may employ nonlimbic cognitive strategies to process affective material. Psychopathic individuals, but not control participants, showed greater activation for emotional and neutral stimuli in bilateral frontotemporal cortices (Intrator et al., 1997). This supposition might be particularly true for males who scored high on the PPI-SF-I and it might apply to their processing of affective information as well as perspective-taking. Although this supposition was not directly tested in the current study, the findings from the current investigation are consistent with the types of deficits that would be exhibited by those with limbic system abnormalities. Across gender, one type of emotional deficit was evidenced; for both males and females shame was not experienced when it was elicited. These findings were primarily true for factor one psychopathy (PPI-SF-I). The etiology for factor two psychopathy (PPI-SF-II) might be quite different given that the deficits in emotional functioning were much more global.

These findings also have implications for antisocial conduct and moral transgressions. As can be seen from the current study, psychopathy, as measured by the PPI-SF, was linked to trouble with the law, academic misconduct, and even previous arrests and jail time. Thus, the current findings suggest that there may be a group of individuals in the community who score high on psychopathy scales and also cause problems (antisocial behavior)

in the community, but perhaps to a lesser extent than those who end up in contact with the law and in jails and prisons (Hall & Benning, 2006). It is also possible that these individuals last longer in the community and take longer to end up in incarcerated and/or forensic hospital settings. It is important to note, however, that factor one and factor two were both related to antisocial conduct in males, whereas only factor two was related to antisocial conduct in females. This means that the personality component of psychopathy is unlikely to be a predictor of antisocial conduct in females whom reside in the community.

Finally, the current investigation may illuminate important aspects of the psychopathy concept that require intervention. For instance, individuals who score high on psychopathy could benefit from interventions that address, both cognitive and affective empathy (particularly shame) at deeper and more meaningful levels, with the goal of improving behavior as well as interactions with others. Moreover, interventions that find ways to integrate the two types of empathy in psychopathic individuals might have the greatest impact. These two key aspects of empathy would require further integration if the psychopath was to evidence close relationships with others and be more invested in societal values.

CONCLUSION

The findings from the current study roughly fit the clinical theory of psychopathy provided by Cleckley (1941) suggesting that psychopathic individuals may be able to use their emotions to guide their own behavior and to read the emotions in others. However, the deficits in affective empathy depend on the type of psychopathy evaluated (e.g., factor scores) and the gender of the individual. Shame may be a key emotion to examine in relation to psychopathy given that it appears to be salient in both PPI-SF-I and PPI-SF-II high scorers. It has been said that “psychopaths know the words but not the music” of emotion (Johns & Quay, 1962, p. 217). The inference that can be made here is that these individuals can actively grasp the concept of emotion, but they may be unable to utilize the affective components of empathy to guide their behavior. The findings from the current study roughly

show that this early contention may be accurate but it tends to be true primarily for factor one psychopathy (PPI-SF-I). Factor two psychopathy (PPI-SF-II) evidenced global deficits with respect to emotional functioning. Thus, those individuals who score high on the PPI-SF-II may be hampered by poor perspective-taking abilities, empathic concern, and a lack of guilt and shame.

The current study must be interpreted within the context of its strengths and limitations. With regard to strengths, psychopathy research is often conducted with institutionalized samples. The current study, however, focused on psychopathy and emotion in a community sample. By doing so, the way in which psychopathy affects those individuals with low levels of the disorder may be gained. Additionally, this understanding can aid in the conceptualization of the psychopath that is able to adequately function in society. Furthermore, researchers have underscored the importance of operationally defining successful psychopathy since it could further validate the larger psychopathy construct and provide clues about protective factors that could lead to possible treatment avenues (Hall & Benning, 2006). Studies such as these might help to further elucidate what is meant by "successful psychopath" and whether or not the term ought to apply to individuals who engage in antisocial conduct. In the case of this study, it may be that PPI-SF-I high scorers are most prototypical of the successful psychopath and they do report having engaged in antisocial conduct.

Another area that future research could be employed is the use of a varied testing format. For instance, the current study used the PPI-SF which is a self-report measure of psychopathy. Previous research has expressed some concern for the use of self-report measures of psychopathy. However, the general consensus within the field of psychology is that self-report measures can be used, at minimum, to shed some light on, or give some insight into, the disorder (Lilienfeld, 1996; Lilienfeld & Fowler, 2006). Lilienfeld (2004) stated that self-reported psychopathy, via the PPI, correlated moderately with the PCL-R. Furthermore, it correlated more highly with factor one items than factor two items. That is, the PPI is more highly correlated with interpersonal factors, such as a lack of empathy, than behavioral characteristics. However, what is not known is whether self-report measures of cognitive and

emotional empathy can be used effectively to examine the emotional functioning of the psychopath. Thus, researchers may want to utilize different empathy measures in future studies. In the current study, not all measures correlated with one another which suggests that they may be independent measures of empathy and representing different aspects of the empathy concept. This was most evident for the DANVA-2 faces in that the scores did not relate to empathy as measured by the IRI. In addition, many of the measures were self-report measures and this is a potential limitation because of method effects and the possibility of distorted reporting. Moreover, more information on the differential outcomes for PPI-SF-I and PPI-SF-II are needed (types of crime (premeditated, covert versus overt antisocial conduct), frequent impersonal relationships, etc.). Finally, the findings from the current study may not generalize to institutionalized psychopaths, also an important group which is in need of further study with respect to empathy.

The implications of the current study are broad. The current study suggests that those individuals who may very well be considered "successful psychopaths" also act out in deviant and unlawful ways. Understanding the way in which psychopathic individuals function on an interpersonal level can provide numerous avenues for prevention and intervention programs that can serve to aid both the individual and the field of psychology. Early intervention might help reduce the likelihood that individuals with psychopathic characteristics will break the law and as a result, prevent such individuals from ending up in forensic mental health settings.

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