A COMPARISON OF PRIMARY AND SECONDARY PSYCHOPATHY IN THE
PREDICTION OF EXPLICIT AND IMPLICIT MEASURES OF EMPATHY

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Margaret Kane Glaser

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Dayton, Ohio
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Name: Glaser, Margaret Kane

APPROVED BY:

____________________________
Catherine L. Zois
Faculty Advisor

____________________________
Roger N. Reeb
Committee Member

____________________________
Lee J. Dixon
Committee Member

Concurrence:

____________________________
Carolyn Roecker Phelps
Chair, Department of Psychology
ABSTRACT

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Name: Glaser, Margaret Kane
University of Dayton

Advisor: Dr. Catherine Lutz Zois

A lack of empathy is considered a key component in the construct of psychopathy (Cleckley, 1964). This study examined the moderating effects of gender on the psychopathy-empathy relationship. Previous studies investigating gender as a moderator have largely relied on self-report measures of empathy, which can be affected by social desirability. This study aimed to examine moderation using both explicit and implicit measures of empathy. Participants (N=173) completed two measures of psychopathy, implicit and explicit empathy measures, as well as a social desirability measure and a measure of anxiety. While no significant Gender x Secondary Psychopathy interaction was found in regards to explicit empathy, women did score higher than men in explicit empathy overall. Furthermore, the results indicated that individuals with primary psychopathy did not score significantly lower on measures of explicit empathy or implicit empathy in comparison to their non-psychopathic counterparts. The results also indicated that individuals with secondary psychopathy scored significantly lower than their primary psychopathic and non-psychopathic counterparts in both explicit and implicit empathy.
which suggests that these individuals lack empathy as previous researchers have found (Mullins-Nelson, Salekin, & Leistico, 2006; Vidal, Skeem, & Camp, 2010).
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CHAPTER I
INTRODUCTION

Psychopathy is considered a clinical syndrome with both behavioral and personality components (Rogstad & Rogers, 2008). Cleckley (1964) lists several characteristics of psychopathy including callous/unemotional traits, such as insincerity, lack of remorse or shame, and incapacity for love. Cleckley’s original conceptualization also includes antisocial traits, such as poor judgment, fantastic and uninviting behavior (e.g., acts of aggression), criminal behavior, and failure to learn by experience. The construct of psychopathy, itself, is not in the DSM-IV-TR but is closely related to the Cluster B personalities (i.e., Antisocial, Borderline, Histrionic, and Narcissistic Personality Disorders), particularly Borderline Personality Disorder (BPD) and Antisocial Personality Disorder (ASPD) (American Psychiatric Association, 2000).

Psychopathy is often described as consisting of a series of interpersonal (e.g., insincerity, superficial charm), affective (e.g., lack of empathy, incapacity for love), and behavioral features (e.g., criminal or other antisocial acts). Though there is some debate, psychopathy is often considered a multidimensional construct consisting of two distinct categories: primary and secondary (Karpman, 1948; Skeem, Poythress, Edens, Lilienfeld, & Cale, 2003). Primary psychopathy refers to individuals who exhibit callous/unemotional traits and demonstrate a general lack of empathy for other peoples’ suffering or guilt regarding misdeeds that they commit against others. These individuals
are generally thought to be low in anxiety, while those high in secondary psychopathic attributes are more likely to be highly anxious and impulsive, are more guilt prone, and often display antisocial behaviors (e.g., violations of social norms, acts of violence, or criminal behavior) (Vidal, Skeem, & Camp, 2010). Persons high in characteristics of primary psychopathy also may demonstrate antisocial behavior; however, the antisocial behaviors of those high in primary psychopathy are thought to be more planful and less impulsive. The classic psychopath as described by Cleckley (1964), now often thought of as describing those with primary psychopathic attributes, also exhibits “good intelligence,” and this may help the individual avoid the social deviant label and channel his or her manipulative behavior into socially acceptable ways. For instance, Board and Fritzon (2005) demonstrated that senior business managers showed these interpersonal qualities of psychopathy which suggested that certain psychopathic traits, such as a lack of empathy, may help one succeed in the business world.

Since a lack of empathy is considered an essential feature of psychopathy (Cleckley 1964; Hare, 2003; Mullins-Nelson, Salekin, & Leistico, 2006), much research has been done to explore this relationship between psychopathy and empathy. Like psychopathy, empathy is also considered a multidimensional construct; “cognitive empathy” refers to the ability to accurately detect the emotional cues of another, whereas “affective empathy” refers to the ability to actually feel what another person is feeling (Mullins-Nelson et al., 2006). Past research largely uses self-report, or explicit, measures to detect empathy and, contrary to theory, has failed to find relationships between psychopathy and empathy in the expected direction (Mullins-Nelson et al., 2006). One possibility for this discrepancy is that with self-report measures of empathy, persons with
psychopathic attributes may attempt to answer the questions in a socially-desirable fashion (Mullins-Nelson et al., 2006).

Research has also been done on the relationship between gender and both, psychopathy and empathy. Women are far less likely to be identified as possessing psychopathic attributes than men (Vitale, Smith, Brinkley, & Newman, 2002). Further, cultural gender role stereotypes often hold that women are more empathic than men. However, research suggests that gender differences in empathy are larger on self-report measures that are face valid, but much smaller when it is less obvious what is being studied (Eisenberg & Fabbes, 1990). It could be that women with psychopathy are more empathic than men, but another possibility is that women with psychopathy believe they should be more empathic due to their gender, and therefore, answer more socially desirable than their male counterparts on the common self-report measures of empathy.

This author aimed to shed light on these questions examining the responses of persons high versus low in primary and secondary psychopathy on both explicit and implicit measures of empathy. Gender was investigated as a possible moderator of the relationship between psychopathy and empathy. In the following sections, I will elaborate on previous research on the complex concepts of psychopathy and empathy, as well as the relationship between these two constructs and gender. Finally, I will end by detailing a study in which I hypothesized that the relationship between empathy and psychopathy would vary as a function of primary versus secondary psychopathy and whether the measures of empathy are implicit or explicit. Additionally, I tested the hypothesis that gender would serve as a moderator of the relationship between empathy
and psychopathy, but only for secondary psychopathy and when explicit measures are used.

**Psychopathy**

Psychopathy is a construct that has been heavily researched during the past several decades. As stated previously, psychopathy is considered to be closely related to ASPD. In the DSM-IV-TR, the diagnostic feature of ASPD is “a pervasive pattern of disregard for, and violation of, the rights of others that begins in childhood or early adolescence and continues into adulthood” (American Psychiatric Association, 2000, p. 701). Some researchers have argued that criteria for ASPD focus more on antisocial behavior than on interpersonal characteristics that are important parts of the psychopathy construct (e.g., lack of empathy, lack of remorse, lack of an ability to form close ties with others, etc.) (Mullins-Nelson, Salekin, & Leistico, 2006). Because the criteria for ASPD focus on behavioral features, those that fit the criteria may differ from each other in their underlying motivations and psychological functioning. At the same time, the criteria for ASPD excludes those with the psychopathic personality who have not participated in the specific type of antisocial behavior covered in the criteria for ASPD (Hart, Hare, & Harpur, 1991). Thus, it is possible for a person to demonstrate a high level of psychopathic characteristics, but not to meet the criteria for ASPD.

In addition to ASPD, other Cluster B personality disorders are characterized by elements also thought to be elements of the construct of psychopathy. The lack of empathy and interpersonal manipulation that are essential to Cleckley’s definition of psychopathy are also found in the diagnostic criteria for Narcissistic Personality Disorder (American Psychiatric Association, 2000; Skeem et al., 2003). Likewise, features
considered essential to secondary psychopathy (e.g., impulsivity, aggression, and affective instability) are found in the diagnostic criteria for BPD (American Psychiatric Association, 2000; Blackburn, 1996; Skeem et al., 2003).

**Primary vs. secondary psychopathy.** Karpman (1941) was the first to propose two distinct types of psychopathy. Primary psychopathy encompasses those individuals who are manipulative, planning, callous, and unemotional (Lykken, 1995). Individuals with primary psychopathy are thought to lack anxiety and guilt (Blackburn, 1975). Some theorists have noted that primary psychopathy is closely aligned with Cleckley’s original concept of psychopathy (Lykken, 1995; Murphy & Vess, 2003). Attributes of primary psychopathy are thought to be inherited and present at birth (Karpman, 1941).

Unlike primary psychopathy, secondary psychopathy is thought to have more environmental influences. Karpman (1941) described a case in which the patient had been neglected by her mother throughout childhood as an example of etiological factors involved in the development of secondary psychopathy. Karpman (1948) believed that secondary, or “neurotic psychopaths,” exhibit an underlying emotional disorder which influences their antisocial behavior. Blackburn (1975) referred to individuals with secondary psychopathy as anxious and emotional, though also hostile and aggressive. As mentioned above, the concept of secondary psychopathy is closely related to BPD which the DSM-IV-TR describes as being “a pervasive pattern of instability of interpersonal relationships, self-image, and affects, and marked impulsivity…” (American Psychiatric Association, 2000, p. 706). According to Blackburn (1996), persons with secondary psychopathy qualify for the diagnosis of BPD more often than those with primary psychopathy. Individuals with secondary psychopathy also show difficulty recognizing
the correct emotions of others when compared to those high in primary psychopathy (Grieve & Mahar, 2010).

Vidal, Skeem, and Camp (2010) also emphasize the difference between the subtypes of psychopathy in relation to anxiety. As stated previously, individuals with primary psychopathy tend to be emotionally stable and low in anxiety, whereas those with secondary psychopathy are emotionally unstable and high in anxiety. According to Vidal, Skeem, and Camp (2010), people with primary psychopathy suffer from an emotional deficit, while those with secondary psychopathy suffer from an emotional disturbance. In other words, persons with primary psychopathy lack the capacity to experience emotions (e.g., guilt, empathy, love, etc), but those with secondary psychopathy may occasionally experience these emotions, though they are often covered up by their aggression and hostility (Vidal et al., 2010). The two dimensions of psychopathy are considered continuous, and therefore, should be found in a community sample, even though a large number of the traits are required for an individual to be considered psychopathic in a forensic context (Levenson, Kiehl, & Fitzpatrick, 1995). Using a cut score of 11.3 on the Psychopathy Checklist: Screening Version (Hart, Cox, & Hare, 1995), an adaption from the original Psychopathy Checklist-Revised (PCL-R) developed by Hare (2003), Coid and Yang (2008) found 3.6% of their community sample to be probable psychopaths and another 25.6% to exhibit psychopathic features. In the next section I will discuss an essential feature of psychopathy in greater detail: lack of empathy.

**Empathy**

The definition of empathy is constantly being debated as to whether it primarily involves the experience versus the recognition of the emotions of another (Reniers,
Corcoran, Drake, Shryane, & Vollm, 2011). Eisenberg and Fabes (1990) define empathy as an emotional response experienced by an individual in response to the emotional response of another, a definition that places the emphasis on the affective response of the individual. Other definitions include this affective component, but also emphasize the understanding of another’s emotional state (Cohen & Strayer, 1996). While there is still debate, empathy has recently been looked at as a multidimensional construct with cognitive and affective empathy being two distinct components (Mullins-Nelson, Salekin, & Leistico, 2006).

Cognitive empathy represents the “ability to assess and differentiate the affective cues of another person” (Mullins-Nelson, Salekin, & Leistico, 2006, p. 135). In other words, cognitive empathy allows an individual to discern the emotions of another and accurately discriminate between affective cues considered positive (e.g., laughing or smiling) and negative (e.g., crying or anger). Perspective-taking is also included in the construct of cognitive empathy with cognitive empathy allowing an individual to understand why a person is expressing that particular emotion (Mullins-Nelson et al., 2006).

Affective empathy, on the other hand, involves the ability to feel what the other person is feeling. It involves an emotional response to the situation of another person. In order for this to happen, the individual, as with cognitive empathy, must recognize the emotional state of another (Reniers, Corcoran, Drake, Shryane, & Vollm, 2011). However, unlike cognitive empathy, affective empathy requires much more of an emotional response and can include such aspects as empathic concern and personal
distress. Kerem, Fishman, and Josselson (2001) refer to affective empathy as the ability to temporarily experience another’s emotional state, which requires a shared affect.

Another distinction in the empathy literature, implicit versus explicit, involves the measures used to assess the empathy construct. Until recently, empathy researchers have relied primarily on explicit measures, typically self-report measures, to assess the construct. While explicit measures (i.e., measures that require deliberative, conscious processing) do provide advantages (e.g., ease of administration) over implicit measures (i.e., measures that tap spontaneous, effortless, and presumably unconscious cognitions), they can be manipulated by participants who are motivated to respond in a socially desirable fashion (Kampfe, Penzhorn, Schikora, Dunzl, & Schneidenbach, 2009).

Kampfe et al. (2009) measured empathy and attitudes of empathy (e.g., motivation to empathize with others) in incarcerated delinquent males and non-delinquent males, using both an explicit measure (i.e., a self-report questionnaire) and an implicit measure (specifically, the implicit association test). A social desirability measure was also administered. These researchers found that the delinquent subjects did not significantly differ from the control subjects on three of the four dimensions of the self-report measure, and even scored significantly higher than the control subjects on the fourth measure (Cognitive Concern). The delinquent subjects also had high social desirability scores indicating they were more likely to respond in the way viewed more favorable by the researchers. For the implicit measure of empathy, however, the delinquent group scored significantly lower than the control group. These findings suggest that explicit measures can be intentionally manipulated by those high in social desirability (Kampfe et al., 2009). Similarly, Curwen (2003) found that the Perspective Taking scale of the
Interpersonal Reactivity Index (a self-report measure) correlated positively with social desirability among older male participants suggesting that high perspective taking scores were influenced by the motivation to display empathy. Another limitation of self-report measures of empathy is that they require participants to consciously process his or her own emotions and feelings, something of which people are not all equally skilled (Rossip & Hall, 2004).

Psychopathy-Empathy Relationship

A lack of empathy has been considered a feature of psychopathy for the past several decades (Cleckley, 1964; Hare, 2003; Lykken, 1995). Only recently, however, have researchers taken into consideration the differences between primary and secondary psychopathy (Ali, Amorim, & Chamorro-Premuzic, 2009; Ali, & Chamorro-Premuzic, 2010), and the differences between cognitive and affective empathy (Kirsch & Becker, 2007; Reniers, Corcoran, Drake, Shryane, & Vollm, 2011) when exploring this relationship. As mentioned above, there is an important difference between understanding the emotions of others (cognitive empathy) and actually feeling what the other person is feeling (affective empathy). Vidal et al. (2010) suggest that those suffering from primary psychopathy display a deficit in empathy that prevents them from truly experiencing the emotion of another, but compensate by learning emotional skills. A quote by Johns and Quay (1962) states that those with primary psychopathy may “know the words, but not the music” of emotions. In other words, individuals high in primary psychopathy seem to be deficient in affective empathy, but display cognitive empathy, such as perspective-taking. According to the theory proposed by Karpman, (1941, 1948) those with primary psychopathy are considered to have been born with the
core interpersonal features of psychopathy such as lack of empathy or remorse, whereas individuals with secondary psychopathy have the capacity to experience empathy and guilt, but engage in anti-social behaviors, nonetheless, due to personal histories marked by abuse, neglect, or other adverse environmental circumstances. While those with secondary psychopathy are thought to have the capacity to experience empathy, research suggests that individuals with secondary psychopathy perform poorly on measures of empathy, a finding which Vidal et al. attributes to the emotional disturbance and dysregulation often experienced by such individuals (2010).

Lack of empathy is theorized to be associated with the antisocial behavior that is characteristic of psychopathy (Cohen & Strayer, 1996). Cohen and Strayer (1996) found that delinquent youth diagnosed with conduct disorder scored significantly lower on empathy measures than the control group. On the other end of the spectrum, Eisenberg and Fabes (1990) found that higher scores on measures of empathy were positively related to pro-social behavior. They conducted a series of studies, one of which involved children and adults watching a video of a television show they were told was about real people who had been in a car accident. The children in the accident had sustained injuries and were in the hospital. Afterward, the participants read a letter in which the mother of the children asks for assistance. The researchers recorded the heart rate and facial expressions of the participants during the video and also as they read the letter. The participants were also asked to report their emotional reactions to the tape to detect empathic responding. Eisenberg and Fabes (1990) found that, for adults, facial sadness was positively related to pro-social behavior in response to the letter. In children, concerned attention and pro-social behavior were positively related.
types of findings, some researchers theorize that a lack of empathy is related to the antisocial behavior found in those high in psychopathy, especially secondary psychopathy (Cohen & Strayer, 1996).

However, recent studies suggest that the link between empathy and psychopathy is not as straightforward as one might initially presume. Specifically, while past research shows that individuals high in secondary psychopathy score low on measures related to both cognitive and affective empathy (Vidal et al., 2010; Mullins-Nelson et al., 2006), high-scorers in primary psychopathy fail to show deficits in measures of cognitive empathy or affective empathy. In fact, Mullins-Nelson et al. (2006) found either no relationship or slightly positive relationships between primary psychopathy and affective empathy. Such findings are contradictory to the theory that individuals with primary psychopathy lack the ability to experience the emotions of another. Mullins-Nelson et al. (2006) administered a measure of psychopathy, along with measures of cognitive and affective empathy to an undergraduate population. The researchers found that both males and females scoring high in primary psychopathy displayed no deficit in either cognitive or affective empathy. Mullins-Nelson et al. (2006) did note, however, that even though individuals scoring high in primary psychopathy reported being concerned about the well-being of others, their behavior (i.e., antisocial conduct) did not match their endorsement of empathic concern. The only deficit that was found for those with primary psychopathy was in a subscale of the Test of Self-Conscious Affect that assesses one’s propensity to experience feelings of shame. The researchers did find, however, that both men and women scoring high in secondary psychopathy showed deficits in both types of empathy. Since the ability to understand another’s perspective is an essential component
of social skills, the presence of cognitive empathy is likely to play a part in those with primary psychopathy being able (compared to those with secondary psychopathy) to avoid detection by the criminal justice system (Mullins-Nelson, Salekin, & Leistico, 2006).

One limitation of past research, and a possible reason why researchers have failed to find a negative relationship between primary psychopathy and empathy, is that it has largely relied on self-report measures of empathy. Individuals with primary psychopathy are considered to be intelligent and manipulative (Cleckley, 1964), making it likely that they would respond in a socially desirable manner on self-report measures of empathy (Kirsch, 2009). Ali and Chamorro-Premuzic (2010) used more implicit measures of cognitive empathy and found that persons with primary psychopathy actually fared worse than those with secondary psychopathy, showing significant deficits at recognizing the mental states of others which suggests the type of empathy measure is important in detecting a relationship between psychopathy and empathy.

Ali, Amorim, and Chamorro-Premuzic (2009) conducted similar research aimed at understanding the relationship between empathy and psychopathy. They also used an undergraduate sample and administered tests of psychopathy, Machiavellianism, state-trait anxiety, trait emotional intelligence, and an empathy image task. These researchers found that primary psychopathy was positively correlated with valence to the sad images of the image task which indicates those with primary psychopathy responded positively to the sad stimuli. They also found a negative correlation between secondary psychopathy and trait emotional intelligence and valence to neutral images which suggests that those high in secondary psychopathy respond negatively to stimuli thought
to be neutral. They found a positive correlation between state anxiety and secondary psychopathy and a negative correlation between state anxiety and trait emotional intelligence. This study suggests that individuals high in primary psychopathy do not experience distress when viewing sad images, and sometimes even experience positive affect and that those high in secondary psychopathy experience negative affect in response to ambiguous stimuli (Ali, Amorim & Chamorro-Premuzic, 2009). When matched for trait emotional intelligence, the correlation between secondary psychopathy and negative responses to neutral images disappeared. State anxiety, however, still was associated with these responses, even when trait emotional intelligence was controlled. These results suggest that lack of trait emotional intelligence may contribute to those high in secondary psychopathy attributing negative affect to neutral images (Ali et al., 2009).

Another variable to take into consideration when describing the psychopathy-empathy relationship is the gender of the individual, which will be discussed in the next section.

**Gender Differences in Psychopathy and Empathy**

As mentioned previously, psychopathy has been found to be more prevalent among men than women. Salekin, Rogers, and Sewell (1997) found a prevalence of only 15% in a sample of female inmates compared to the 25-30% prevalence commonly found in male inmate samples. Salekin et al. (1997) found that the female sample showed significant differences in the two factor model of the PCL-R that has largely been generated on men (Salekin, Rogers, & Sewell, 1997). They found the construct of psychopathy appears to apply to women, however, the severity and absolute rates of symptoms were found to be lower in the female sample. For women, Factor 1 (i.e., primary psychopathy) still remains personality-based, and Factor 2 (i.e., secondary
psychopathy) remains behaviorally-based. Women, in general, have been found to display more empathy than men (Davis, 1983; Eisenberg & Strayer, 1987; Mullins-Nelson et al., 2006). These studies have largely relied on self-report measures of empathy. As mentioned above, self-report measures can be influenced by the temptation to answer in a socially desirable fashion. Eisenberg and Fabes (1990) note that gender differences in empathy are more pronounced on self-report measures where it is obvious what is being studied, but these differences are smaller or nonexistent when other, less obvious, measures are used. This result has been echoed throughout the literature. In a review, Eisenberg and Lennon (1983) found that the research on sex differences in empathy was inconsistent and varied based on the type of empathy measure used. They found that physiological measures and facial/gestural measures resulted in few consistent sex differences. This suggests that women have a tendency to portray themselves as more empathic on self-report measures which is likely due to perceived gender roles and stereotypes (Eisenberg & Lennon, 1983). Conversely, men may be likely to minimize verbally the amount of empathy that they actually experience.

Since research shows that women typically score higher than men on empathy measures (Baron-Cohen & Wheelwright, 2004; Davis & Franzoi, 1991), it stands to reason that women with psychopathy may also display more empathy than their male counterparts, particularly on self-report measures as mentioned previously. Mullins-Nelson et al., (2006) examined gender as a possible moderator in the relationship between psychopathy and empathy, but failed to find significant results. The authors concede that a possible reason no moderating effect was found may be due to their small sample of male participants and the empathy measures they used (i.e., self-report
Another study (Strachan, 1995) examined gender differences in psychopathic offenders. Strachan (1995) compared the results of an all-female sample to that of the all-male validation sample for the PCL-R where psychopathy had been found to be negatively related to perspective-taking, empathic concern, and personal distress.

Strachan (1995) found the Factor 2 (secondary psychopathy) in the female sample to be negatively related to perspective-taking, but positively correlated with personal distress. This study, however, did not directly compare gender differences and, like Mullins-Nelson et al. (2006), relied on self-report measures of empathy. The current study addresses these limitations.

**Current Study**

The present study aimed to increase our understanding of possible gender differences in the relationship between psychopathy and empathy. Another goal of this study was to examine the possibility that different patterns with respect to gender would be found when examining primary versus secondary psychopathy and explicit versus implicit measures of empathy. Because the construct of psychopathy suggests a lack of empathy, yet previous research has failed to find that relationship (Mullins-Nelson et al., 2006), the current study sought to determine if the discrepancy between the findings and the theory is due to the way empathy has been measured. Understanding the specific empathy deficits experienced by those with psychopathy has clinical implications concerning the importance of empathy training in the treatment of psychopathy and the prevention of future antisocial behavior. Also, recognizing that different types of empathy measures may yield different results may be necessary for selecting the best empathy measure to use as an indication of treatment necessity and progress. Another
goal of this study was to determine if gender moderated the relationship between secondary psychopathy and explicit measures of empathy. I made this hypothesis because the available research suggests that women tend to score higher than men on self-report empathy measures (Eisenberg and Fabes, 1990), but not on implicit measures of empathy. Additionally, the research reviewed above suggests that those high in primary psychopathy are not more likely than those low in primary psychopathy to demonstrate deficits in empathy when explicit measures are used (Mullins-Nelson et al., 2006). Thus, I expected to find gender differences in the relationship between psychopathy and explicit empathy, only with respect to those high in secondary psychopathy, not primary psychopathy. In summary, I hypothesized the following:

Hypothesis 1: Primary psychopathy will be negatively related to implicit measures of empathy and positively related to explicit measures of empathy.

Hypothesis 2: Secondary psychopathy will be negatively related to both implicit and explicit measures of empathy.

Hypothesis 3: Gender will serve as a moderator of the relationship between secondary psychopathy and explicit measures of empathy. It is not expected that gender will moderate the relationship between primary psychopathy and empathy. Further, it is not expected that gender will serve as a moderator when implicit measures are used.
CHAPTER II
METHOD

Participants
A total of 171 participants (males = 75, females = 96) were recruited for this study. All participants were undergraduates enrolled in an introductory psychology course at a medium-sized private university in the Midwest and received class credit for participating. The ages of the participants ranged from 18 to 23 ($M = 19.27$, $SD = 1.16$). The majority of the participants reported being in their first year at the university (N=105) with 34 sophomores, 18 juniors, and 12 seniors. Two participants did not report their year in school. Of the participants who reported their race, the majority were White/Caucasian (74.3%); 14.6% were Asian, 4.1% were African-American, 4.1% were Latino/a, and 1.8% were of Middle Eastern descent.

Measures

Primary and secondary psychopathy. Primary and secondary psychopathy were assessed in two ways. First, the Levenson Self-Report Psychopathy Scale, which contains both a primary and a secondary subscale was administered (LSRP; Levenson et al., 1995). As a second way to measure the distinction between primary and secondary psychopathy, I used the interaction between combinations of scores on the Psychopathic Personality Inventory – Revised (PPI-R; Lilienfeld & Widows, 2005) and the State-Trait Anxiety Inventory (STAI; Spielberger, Gorsuch, & Lushene, 1970) to define primary
versus secondary psychopathy. Individuals with primary psychopathy are thought to be low in anxiety compared to those with secondary psychopathy who are thought to be high in anxiety. Previous researchers have studied psychopathy using this approach (Vassileva, Kosson, Abramowitz, & Conrad, 2005). For the current study, high PPI-R scorers were defined as those scoring above the median while low PPI-R scores were defined as those scoring below the median. The same procedure was used to distinguish between high and low scorers on the STAI. By using the PPI-R in combination with the STAI, four groups were created: persons scoring low on the STAI but high on the PPI-R (primary psychopathy group); persons scoring high on both the STAI and the PPI-R (secondary psychopathy group); persons scoring high on the STAI but low on the PPI-R (anxiety group), and persons scoring low on both measures (pathology-free group).

**Levenson Self-Report Psychopathy Scale (LSRP).** The LSRP (Levenson, Kiehl, & Fitzpatrick, 1995) was used in this study as one way to assess psychopathic attributes. The LSRP is a 26-item, self-report measure, based on the two factors produced by the Hare Psychopathy Checklist-Revised (PCL-R). The LSRP is answered on a 4-point scale ranging from “disagree strongly” to “agree strongly.” Thus, the total score ranges from 26 to 104. The LSRP assesses the features of primary psychopathy (e.g., lack of remorse, manipulativeness) with 16 items including, “In today’s world, I feel justified in doing anything I can get away with to succeed.” The range of scores for the primary subscale is 16 to 64. The features of secondary psychopathy (e.g., impulsivity, intolerance of frustration) are assessed with 10 items, including “I am often bored” (Levenson, et. al., 1995). Scores on this subscale range from 10 to 40. For the current study, the subscale scores will be used to assess primary and secondary psychopathy.
The LSRP has demonstrated adequate reliability. Lynam, Whiteside, and Jones (1999) found the internal consistency for Scale 1 (primary psychopathy) to be .84 and the internal consistency for Scale 2 (secondary psychopathy) to be .68. Lynam, Whiteside, and Jones (1999) also found the LSRP to have high test-retest reliability across an average of 8 weeks ($r = .83$). In terms of the validity of the LSRP, Levenson et al. (2005) found a positive correlation between the primary and secondary scales ($r = .40$). The LSRP demonstrates good convergent validity by being positively correlated with lifetime drug use ($r = .25$), alcohol use pattern in the past year ($r = .28$), variety of serious antisocial behavior in the past year ($r = .31$), and history of arrest ($r = .19$) (Lynam, Whiteside, & Jones, 1999). The individual scales displayed convergent validity with the Big Five personality traits. For instance, Scale 2 was negatively related to Agreeableness and Conscientiousness and positively related to Neuroticism. Scale 1 was also negatively related to Agreeableness, but was slightly negatively (not significant) related to Neuroticism. This is consistent with the theoretical distinction between primary and secondary psychopathy (Lynam, Whiteside, & Jones, 1999). Lynam et al. (1999) also found the LSRP to show a moderately high correlation with Hare’s Self-Report Psychopathy scale, a self-report version of the PCL ($r = .64$). This measure can be found in Appendix B.

**Psychopathic Personality Inventory – revised (PPI-R).** The PPI-R (Lilienfeld & Widows, 2005) is a 154-item measure of psychopathy that consists of 8 subscales organized into two factors that parallel Hare’s traditional two-factor model of psychopathy: Fearless Dominance (PPI-R-I) and Self-Centered Impulsivity (PPI-R-II). Each item is a statement endorsed on a 4-point Likert scale ranging from false to true
(e.g., “When people are mad at me, I usually win them over with my charm”). The Fearless Dominance scale assesses the affective/interpersonal traits associated with psychopathy, particularly primary psychopathy. The Self-Centered Impulsivity scale assesses the behavioral-lifestyle traits that are commonly associated with secondary psychopathy. The Fearless Dominance scale consists of the following subscales: Social Influence, Fearlessness, and Stress Immunity. The Self-Centered Impulsivity scale consists of the subscales, Machiavellian Egocentricity, Rebellious Nonconformity, Blame Externalization, and Carefree Nonplanfullness. An eighth subscale, Coldheartedness, is considered its own factor as it does not load onto either of the two main factors (Uzieblo, Verscheure, Van den Bussche, & Crombez, 2010). The PPI-R yields a total score (i.e., index of global psychopathy) with a possible range of values from 154 to 616. For the current study, the Stress Immunity scale was not used due to possible overlap with the State-Trait Anxiety Inventory. The possible range of values for the total psychopathy score without the Stress Immunity scale is 141-564.

The PPI-R demonstrates adequate reliability, with Lilienfeld and Widows (2005) finding the internal consistency of the PPI-R scales to range from .78 to .92. Lilienfeld and Widows (2005) also found the PPI-R scales to show good test-retest reliability ($r = .82-.95$). Copestake, Gray, and Snowden (2011) found internal consistency to be high for the total score ($\alpha = .93$) as well as for each subscale: Fearless Dominance ($\alpha = .87$), Self-Centered Impulsivity ($\alpha = .95$), and Coldheartedness ($\alpha = .85$). The PPI-R shows good construct validity as the total score has been shown to be positively related to antisocial behavior (Edens, Poythress, Lilienfeld, & Patrick, 2008). Specifically, Uzieblo et al. (2010) found PPI-R-I to be positively related to measures of alcohol use and delinquent
behavior. In addition, PPI-R-I was found to be positively correlated with cognitive empathy and social skills, while being negatively correlated with emotional reactivity. Uzieblo et al. (2010) also found the PPI-R-II to be positively associated with both anxiety and antisocial behavior which is consistent with the theoretical framework of secondary psychopathy. The PPI-R displays good convergent validity with the total scores significantly correlating with scores on self-report measures related to psychopathy (i.e., the LSRP and the Youth Psychopathic Traits Inventory) (Uzieblo et al., 2010) and on other psychopathy measures, such as the PCL-R (Cepostake, Gray, & Snowden, 2011). The PPI-R can be found in Appendix C.

Anxiety. The State-Trait Anxiety Inventory (STAI; Spielberger et al., 1970) distinguishes between trait anxiety (A-Trait) and state anxiety (A-State). The STAI consists of 40 items with 20 items for trait anxiety and 20 items for state anxiety (Hedberg, 1972). For the purpose of the current study, only the A-Trait scale was used. As opposed to the A-State items which require the participant to indicate how he or she is feeling right now, A-Trait items instruct the participant to note how he or she generally feels (e.g., “I am a steady person.”) (Hedberg, 1972). The A-Trait items of the STAI are answered on a four-point Likert scale ranging from 1 (Almost Never) to 4 (Almost Always). To minimize acquiescence, seven of the A-Trait items are stated in reverse (Hedberg, 1972). Scores on this subscale range from 20 to 80. Participants scoring above the median in this sample were classified as high-anxious while those scoring below the median were classified as low-anxious.

Both the A-State and the A-Trait scales demonstrate good internal consistency. According to Hedberg (1972), the A-Trait scale yields coefficients between .86 and .92 as
measured by formula K-R 20. The A-State scale yields internal consistency coefficients between .83 and .92. Spielberger (1983) found test-retest coefficients to be higher for the trait scale \( (r = .73 \text{ to } .86) \) than the state scale \( (r = .16 \text{ to } .62) \) which is consistent with the design of the two scales (Barnes, Harp, & Jung, 2002). Construct validity has been demonstrated as the A-State items vary under different levels of stress, but the A-Trait items remain stable (Gaudry, Vagg, & Spielberger, 1975). The A-Trait scale demonstrated concurrent validity with other measures including the Manifest Anxiety Scale and the Anxiety Scale Questionnaire, yielding correlations between .73 and .85 for college students (Spielberger & Sydeman, 1994). This measure is included in Appendix D.

**Social Desirability.** The Balanced Inventory of Desirable Responding (BIDR; Paulhus, 1984) measures the two factors of socially desirable responding: self-deceptive enhancement and impression management. Self-deceptive enhancement involves the individual actually believing his or her own positive self-report, whereas impression management occurs when the individual consciously answers incorrectly in order to be perceived in a positive light (Paulhus, 1984). The BIDR consists of 40 items: 20 items that measure self-deception enhancement (SDE) and 20 items that measure impression management (IM). The items for both self-deceptive enhancement (e.g., “I don’t care to know what people really think of me.”) and impression management (e.g., “I never swear.”) are presented as statements and answered on a 7-point Likert scale, ranging from “1” (not true) to “7” (very true) (Paulhus, 1984). To score the BIDR, negatively keyed items (e.g., “It would be hard for me to break any of my bad habits”) first are reversed. Next, responses of a “6” or a “7” are scored 1 point while responses “1” through “5” are
awarded 0 points (Paulhus, 1984). The items of each subscale are added together to form the subscale score with a range from 0 to 20 for each subscale. For the current study, we analyzed the subscales separately since one represents unintentional socially desirable responding (SDE) and the other represents intentional socially desirable responding (IM). For the purposes of the current study, we were most concerned with the Impression Management subscale to detect intentional manipulation of responses.

The BIDR has demonstrated adequate internal consistency for the total measure (Cronbach’s alpha = .83) and for the subscales with self-deceptive enhancement ranging from .68 to .80 and impression management ranging from .75 to .86 (Paulhus, 1988). Paulhus (1988) found test-retest reliability over a 5 week period to be .69 for self-deceptive positivity and .65 for impression management. The BIDR has demonstrated concurrent validity in that it correlates with other measures of socially desirable responding (e.g., $r = .71$ with the Marlow-Crowne Social Desirability Scale and $r = .80$ with the Multidimensional Social Desirability Inventory) (Paulhus, 1988). This measure can be found in Appendix E.

**Trait Emotional Intelligence Questionnaire-Short Form (TEIQue-SF; Explicit empathy).** The TEIQue-SF (Petrides & Furnham, 2006), a subscale of which will be used to assess cognitive empathy, is a 30-item, self-report scale that measures trait emotional intelligence and emotional self-efficacy (i.e., the accuracy in managing and identifying one’s own emotions and the emotions of others). For the TEIQue, trait emotional intelligence is viewed as a hierarchical structure and is divided into four factors which contain 15 facets in total. The first factor comprising the TEIQue is Emotionality (i.e., the ability to perceive and express one’s own emotions as well as to
perceive the emotions of others) which consists of the facets: Emotion Perception, Trait Empathy, Emotion Expression, and Relationships. An example of a question from the Emotionality factor is “I find it difficult to see other things from another person’s viewpoint”. The second factor is referred to as Self-control (i.e., control over one’s urges and desires) and consists of Emotion Regulation, Stress Management, Impulsivity, Adaptability, and Self-motivation. The third factor is referred to as Sociability (i.e., social relationships and social influence) and includes Assertiveness, Emotion Management, Social Awareness, and Self-esteem. The last factor is Well-being (i.e., positive self-regard) also consists of Self-esteem as well, but also includes Trait Happiness and Trait Optimism (Petrides, 2009). For the current study, only the subscale of Emotionality was used since it is the most related to empathy (specifically, cognitive empathy) and is the least likely to create content overlap with the measures of psychopathy (unlike the Self-control subscale).

The TEIQue-SF is based on the long form of the TEIQue and was created by selecting two items from each of the 15 subscales of the TEIQue, based on the correlations of the items with the total subscale scores. The TEIQue-SF does not produce scores on the 15 facets, but does yield scores on the four factors although with lower internal consistencies (around .69). The TEIQue-SF presents statements and uses a 7-point Likert scale, ranging from completely disagree to completely agree (e.g., “Expressing my emotions with words is not a problem for me”). Scores for the Emotionality subscale range from 8-56. Petrides and Furnham (2006) found internal consistency to be .84 for men and .89 for women. In another study, Petrides, Perez-Gonzales, and Furnham (2007) found the internal consistency of the total score to be .76.
The TEIQue has also been found to demonstrate good criterion validity. Petrides et al., (2007) found the TEIQue to be a positive predictor for adaptive coping styles and a negative predictor for maladaptive coping styles. Petrides, Frederickson, and Furnham (2004) found the TEIQue to be positively associated with academic achievement, particularly in those with low IQ’s. The researchers also found trait emotional intelligence to be negatively associated with deviant behavior (e.g., truancy, expulsions). The TEIQue has shown convergent validity by being positively associated with the Big Five personality traits of Agreeableness, Conscientiousness, and Openness (Mikolajczak, Luminet, Leroy, & Roy, 2007). For the Emotionality subscale, Mikolajczak et al. (2007) found this subscale to be negatively related to alexithymia. In terms of discriminant validity, the TEIQue was found to be unrelated to cognitive ability (Mikolajczak et al., 2007). The TEIQue-SF can be found in Appendix F.

**Interpersonal Reactivity Index (IRI; Explicit empathy).** The Interpersonal Reactivity Index (IRI) (Davis, 1980) is a self-report measure consisting of four 7-item subscales, each targeting an aspect of the global empathy construct (Davis, 1980). The Perspective-Taking (PT) subscale is a cognitive measure of empathy as it assesses the ability to adopt the point of view of others. An example item from the perspective-taking subscale is “Before criticizing somebody, I try to imagine how I would feel if I were in their place.” The other three subscales (i.e., Fantasy Scale, Empathic Concern, and Personal Distress) measure affective empathy. The Fantasy Scale (FS) measures the tendency of a participant to adopt the feelings and actions of fictitious characters. A sample question from this subscale is, “After seeing a play or movie, I have felt as though I were one of the character.” The Empathic Concern (EC) subscale measures the
tendency to feel sympathy and concern for others in unfortunate situations. A sample item from this subscale is “I often have tender, concerned feelings for people less fortunate than me.” The Personal Distress (PD) subscale is self-oriented, and it measures feelings of anxiety and tense interpersonal situations as measured by the item, “In emergency situations, I feel apprehensive and ill-at-ease. Items are rated on a 5-point Likert scale from “does not describe me well” to “describes me very well.” Scores on each subscale range from 0 – 35 with the total score ranging from 0 – 196. For the primary study analyses, I used the total score as a measure of global empathy. I then conducted follow-up analyses, using the subscale scores, to see if the results vary as a function of whether I am assessing cognitive or affective empathy.

Mullins-Nelson et al. (2006) found the IRI to demonstrate acceptable test-retest reliability (.71) and internal reliability (.77). In terms of validity, Davis (1980) found the PT scale to be negatively related to social dysfunction and unrelated to emotionality measures as hypothesized. Davis (1980) also found the Fantasy scale was unrelated to social functioning. The FS scores were also found to be related to emotionality. Empathic Concern was also found to be related to emotionality and also a non-selfish concern for others. Personal Distress was found to be strongly associated with lower self-esteem, poor interpersonal functioning, and emotional vulnerability (Davis, 1980). The IRI is included in Appendix G.

**Reading the Mind in the Eyes Test – revised (RMET; Implicit empathy).** The RMET - revised was developed by Baron-Cohen, Wheelwright, Hill, Raste, and Plumb (2001). The RMET revised is an implicit measure of cognitive empathy, measuring the ability to identify a mental state based solely on viewing the eye region. Unlike explicit
measures, the RMET will force participants to perceive the emotions of others, rather than simply reporting that they can do so. The RMET-revised consists of 36 pictures of the eye region. Participants are given four words depicting complex mental states to choose from (1 target, 3 foils) for each picture. Correct answers are scored 1 point, making the range of scoring 0 to 36.

For the RMET the stimuli were viewed by eight judges (four male and four female) who were told to choose a word from a group of target words and foils to match a word to the stimulus. At least five out of the eight had to agree in order for the stimulus to be accepted and no more than two judges could pick a single foil word (Baron-Cohen, Wheelwright, Hill, Raste, and Plumb (1997). The RMET was tested on college students who were shown to be able to identify the correct emotion at a rate significantly greater than chance. For complex emotions, the pictures of just the eyes did not significantly differ from those of the whole face, suggesting that emotion can be determined from eyes alone (Baron-Cohen, et. al., 1997) The RMET-revised demonstrates construct validity in that it is negatively related to the Autism Spectrum Quotient ($r = -.53$) (Baron-Cohen, et. al., 2001). This was expected, due to an individual with autism’s lack of ability to read social cues. This measure can be found in Appendix H.

**Procedure**

Participants completed a packet consisting of a demographic questionnaire and the seven measures: the Levenson Self-Report Psychopathy Scale (LSRP; Levenson et al., 1995), the Psychopathic Personality Inventory – Revised (PPI-R; Lilienfeld & Widows, 2005), the State - Trait Anxiety Inventory (STAI; Spielberger, et. al., 1970), the Balanced Inventory of Desirable Responding (BIDR; Paulhus, 1984), the Trait Emotional
Intelligence Questionnaire – Short Form (TEIQue-SF; Petrides & Furnham, 2006), the Interpersonal Reactivity Index (IRI; Davis, 1980), and the Reading the Mind in the Eyes Test (RMET revised; Baron-Cohen, et. al., 2001). The demographic questionnaire always came first, and the remaining measures were counterbalanced using a random starting order with rotation. Participants were thanked for their participation and debriefed. These procedures were reviewed and approved by the appropriate institutional review board.
CHAPTER III
RESULTS

Preliminary Analysis

Table 1 summarizes the means, standard deviations, ranges, and Cronbach’s alpha values of the continuous variables for this study. Preliminary analyses were conducted to examine the relationships between demographic variables or social desirability and criterion variables (i.e., the empathy measures) to assess for potential confounding variables. These results are summarized in Table 2. Specifically, zero-order correlations were calculated between the criterion variable and participant age. No significant correlations between age and the empathy measures were found; therefore, age was not controlled in the primary analyses. The results indicated that there was a significant, positive relationship between explicit empathy, as measured by the Trait Emotional Intelligence Questionnaire-Short Form, and both the self-deceptive enhancement ($r = .36$, $p < .001$) and impression management ($r = .25$, $p < .01$), as measured by the Balanced Inventory of Desirable Responding. Specifically, participants who scored higher on explicit empathy were more likely to score higher on both types of socially desirable responding than participants who scored lower in explicit empathy. Thus, these two subscales of the BIDR were controlled for in the main analyses involving the TEIQue-SF.
Table 1

Descriptive Statistics for Continuous Study Variables

<table>
<thead>
<tr>
<th>Variables</th>
<th>M</th>
<th>SD</th>
<th>Min-Max</th>
<th>α</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>19.27</td>
<td>1.16</td>
<td>18-23</td>
<td></td>
</tr>
<tr>
<td>LSRP Primary</td>
<td>49.83</td>
<td>9.76</td>
<td>30-74</td>
<td>.84</td>
</tr>
<tr>
<td>LSRP Secondary</td>
<td>29.67</td>
<td>7.33</td>
<td>16-53</td>
<td>.83</td>
</tr>
<tr>
<td></td>
<td>20.16</td>
<td>4.47</td>
<td>10-34</td>
<td>.70</td>
</tr>
<tr>
<td>PPI-R</td>
<td>295.70</td>
<td>35.33</td>
<td>203-398</td>
<td>.92</td>
</tr>
<tr>
<td>STAI</td>
<td>40.20</td>
<td>9.20</td>
<td>22-68</td>
<td>.89</td>
</tr>
<tr>
<td>BIDR Decep</td>
<td>164.63</td>
<td>20.48</td>
<td>117-220</td>
<td>.73</td>
</tr>
<tr>
<td>BIDR IM</td>
<td>87.36</td>
<td>12.18</td>
<td>52-116</td>
<td></td>
</tr>
<tr>
<td></td>
<td>77.27</td>
<td>13.74</td>
<td>38-114</td>
<td></td>
</tr>
<tr>
<td>TEIQue-SF Emotionality</td>
<td>151.82</td>
<td>21.86</td>
<td>77-208</td>
<td>.88</td>
</tr>
<tr>
<td></td>
<td>39.46</td>
<td>7.32</td>
<td>17-56</td>
<td></td>
</tr>
<tr>
<td>IRI Cognitive</td>
<td>67.41</td>
<td>12.76</td>
<td>29-97</td>
<td>.82</td>
</tr>
<tr>
<td>IRI Affective</td>
<td>18.04</td>
<td>4.82</td>
<td>4-28</td>
<td></td>
</tr>
<tr>
<td></td>
<td>49.37</td>
<td>10.72</td>
<td>15-74</td>
<td></td>
</tr>
<tr>
<td>RMET</td>
<td>24.90</td>
<td>5.20</td>
<td>8-33</td>
<td>.76</td>
</tr>
</tbody>
</table>

*Note. Decep = Self-Deceptive Enhancement; IM = Impression Management; TEIQue-SF = Trait Emotional Intelligence Questionnaire – Short Form; IRI = Interpersonal Reactivity Index; RMET = Reading the Mind in the Eyes Test.*
Table 2

Zero-Order Correlations Between the Continuous Demographic Variables (Age), Social Desirability (Self-Deceptive Enhancement and Impression Management), and the Criterion Variables (Explicit Empathy and Implicit Empathy)

<table>
<thead>
<tr>
<th>Variable</th>
<th>Age</th>
<th>Decep</th>
<th>IM</th>
<th>TEIQue</th>
<th>IRI</th>
<th>RMET</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
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<td>---</td>
<td>---</td>
<td>---</td>
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</tr>
<tr>
<td>IM</td>
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<td>.30**</td>
<td>---</td>
<td>---</td>
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</tr>
<tr>
<td>TEIQue</td>
<td>.05</td>
<td>.36**</td>
<td>.25**</td>
<td>---</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>IRI</td>
<td>-.05</td>
<td>-.04</td>
<td>.14</td>
<td>.36**</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>RMET</td>
<td>-.09</td>
<td>.14</td>
<td>.17*</td>
<td>.36**</td>
<td>.36**</td>
<td>---</td>
</tr>
</tbody>
</table>

* *p < .05 ** * *p < .01

Note. Decep = Self-Deceptive Enhancement; IM = Impression Management; TEIQue = Trait Emotional Intelligence Questionnaire – Short Form; IRI = Interpersonal Reactivity Index; RMET = Reading the Mind in the Eyes Test.
The results also indicated that there was a significant positive relationship between implicit empathy (Reading the Mind in the Eyes Test - revised) and the Impression Management scale of the BIDR ($r = .17, p < .05$). Specifically, participants who scored higher on implicit empathy were more likely to score higher on impression management than those who scored lower in implicit empathy. Impression management was, therefore, controlled for in the main analyses involving the RMET. Further, using three one-way Analyses of Variances (ANOVAS), possible racial differences in empathy were conducted. The results indicated that there was a significant race difference on the TEIQue-SF measure of explicit empathy, $F(4, 164) = 5.09, p < .01$, the IRI measure of explicit empathy, $F(4, 164) = 4.13, p < .01$, and the RMET measure of implicit empathy, $F(4, 164) = 21.30, p < .001$. Specifically, Tukey HSD and Scheffe post hoc tests indicated that Caucasians scored higher ($M = 40.78, SD = 7.02$) than Asians ($M = 34.16, SD = 4.77$) on the TEIQue-SF and higher ($M = 68.83, SD = 12.54$) than Asians ($M = 58.48, SD = 12.69$) on the IRI measures of explicit empathy. Caucasians also scored higher ($M = 26.50, SD = 3.96$) than Asians ($M = 18.12, SD = 5.98$) on the RMET measure of implicit empathy. Gender was excluded from the demographic variables used in these preliminary analyses as it was examined later in the primary analyses.

**Primary Analysis**

**Hypothesis 1.** The first hypothesis (i.e., that primary psychopathy would be positively related to explicit measures of empathy, but negatively related to implicit measures of empathy) was tested using zero-order correlations. A correlation matrix was computed between primary psychopathy as measured by the LSRP and both explicit empathy and implicit empathy. It was expected that a significant positive correlation
would be found between primary psychopathy and explicit measures of empathy (i.e., the IRI and the TEIQue-SF) and a negative correlation would be found between primary psychopathy and the implicit measure of empathy (i.e., the RMET). The results yielded no significant correlations between the LSRP primary psychopathy subscale and any of the empathy measures (See Table 3).

A different set of analyses was conducted to test the same hypothesis using the other method of assessing psychopathy (i.e., the four groups created using the combination of PPI-R and STAI scores). Group membership was used as the between subjects variable for each ANCOVA, and there were four levels of this variable (one for each group created). Social desirability was entered as a covariate in the analyses involving the measures where positive correlations were found, as described above, to control for potential confounding effects of social desirability. It was expected that the primary psychopathy group would not differ significantly from the anxiety and pathology-free groups in the analyses involving the IRI and the TEIQue-SF, but would score significantly lower than the anxiety and pathology-free groups in the third ANCOVA in which implicit empathy (RMET – revised) is the dependent variable.
Table 3

Zero-Order Correlations Between the Continuous LSRP Variables (Primary and Secondary) and the Criterion Variables (Explicit Empathy and Implicit Empathy)

<table>
<thead>
<tr>
<th>Variable</th>
<th>Primary</th>
<th>Secondary</th>
<th>TEIQue-SF</th>
<th>IRI</th>
<th>RMET</th>
</tr>
</thead>
<tbody>
<tr>
<td>Primary</td>
<td>--</td>
<td></td>
<td></td>
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<tr>
<td>Secondary</td>
<td>.33</td>
<td>--</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TEIQue-SF</td>
<td>-.03</td>
<td>-.12</td>
<td>--</td>
<td></td>
<td></td>
</tr>
<tr>
<td>IRI</td>
<td>-.05</td>
<td>.03</td>
<td>.34**</td>
<td>--</td>
<td></td>
</tr>
<tr>
<td>RMET</td>
<td>.05</td>
<td>-.14</td>
<td>.23**</td>
<td>.18*</td>
<td>--</td>
</tr>
</tbody>
</table>

*p<.05  **p<.01

Note. TEIQue = Trait Emotional Intelligence Questionnaire – Short Form; IRI = Interpersonal Reactivity Index; RMET = Reading the Mind in the Eyes Test.
The results indicated that the primary psychopathy group did not differ from the anxiety and pathology-free groups in the analyses involving the IRI and TEIQue-SF measures of explicit empathy, as expected (See Tables 4 and 5). Post hoc tests (Tukey HSD and Scheffe) indicated a trend in the expected direction for the analyses involving the RMET – revised measure of implicit empathy with the primary psychopathy group ($M = 24.38$, $SD = 4.89$) scoring lower than the anxiety group ($M = 26.63$, $SD = 3.58$) and the pathology-free group ($M = 26.60$, $SD = 3.90$), but this trend did not reach significance (See Table 6).

**Hypothesis 2.** The second hypothesis (i.e., that secondary psychopathy will be negatively related to both implicit and explicit measures of empathy) was also tested using zero-order correlations. A correlation matrix was computed between secondary psychopathy (LSRP) and explicit empathy, and implicit empathy. It was expected that a significant negative correlation would be found between secondary psychopathy and both explicit and implicit measures of empathy. The results yielded no significant correlations between the LSRP secondary psychopathy subscale and the empathy measures (See Table 3).

As with the first hypothesis, a separate set of analyses was conducted using the other method of assessing psychopathy (i.e., creating the four groups based on combinations of PPI-R and STAI scores). The same analyses that were used in the first hypothesis were used for this hypothesis. In support of this hypothesis, it was expected that the secondary psychopathy group would score significantly lower than the anxiety and pathology-free groups in all three analyses.
### Table 4

*Factorial ANOVA with Pathology as the Independent Variable and the IRI as the Dependent Variable.*

<table>
<thead>
<tr>
<th>Source</th>
<th>df</th>
<th>MS</th>
<th>F</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>3</td>
<td>404.58</td>
<td>2.55</td>
<td>.06</td>
</tr>
<tr>
<td>Within Groups</td>
<td>167</td>
<td>158.60</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>170</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Table 5

*Factorial ANCOVA with Pathology as the Independent Variable and the TEIQues-SF as the Dependent Variable with Social Desirability Entered as the Covariate.*

<table>
<thead>
<tr>
<th>Source</th>
<th>df</th>
<th>MS</th>
<th>F</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Decep</td>
<td>1</td>
<td>408.86</td>
<td>9.89</td>
<td>.00</td>
</tr>
<tr>
<td>IM</td>
<td>1</td>
<td>61.96</td>
<td>1.50</td>
<td>.22</td>
</tr>
<tr>
<td>Pathology</td>
<td>3</td>
<td>300.26</td>
<td>7.26</td>
<td>.00</td>
</tr>
<tr>
<td>Error</td>
<td>165</td>
<td>41.36</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Note.* Decep = Self-deceptive Enhancement; IM = Impression Management.
Table 6

*Factorial ANCOVA with Pathology as the Independent Variable and the RMET as the Dependent Variable with Impression Management Entered as a Covariate.*

<table>
<thead>
<tr>
<th>Source</th>
<th>df</th>
<th>MS</th>
<th>F</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>IM</td>
<td>1</td>
<td>34.83</td>
<td>1.46</td>
<td>.23</td>
</tr>
<tr>
<td>Pathology</td>
<td>3</td>
<td>166.71</td>
<td>6.97</td>
<td>.00</td>
</tr>
<tr>
<td>Error</td>
<td>166</td>
<td>23.93</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Note.* IM = Impression Management
The results indicated that the secondary psychopathy group did not significantly differ from the anxiety and pathology-free groups in the analyses involving the IRI measure of explicit empathy (See Table 4) In the analyses involving the TEIQue-SF measure of explicit empathy, a significant group difference was found with Tukey HSD and Scheffe post hoc tests indicating the secondary psychopathy group ($M = 34.68, SD = 6.76$) scored lower than the primary psychopathy group ($M = 41.08, SD = 5.94$), the anxiety group ($M = 39.53, SD = 6.87$), and the pathology-free group ($M = 42.83, SD = 6.94$) (See Table 5). A significant group difference was also found in the analyses involving the RMET measure of implicit empathy. Specifically, post hoc tests (Tukey HSD and Scheffe) indicated the secondary psychopathy group ($M = 22.23, SD = 6.47$) scored lower than the anxiety group ($M = 26.63, SD = 3.58$) and the pathology-free group ($M = 26.60, SD = 3.90$), but not significantly lower than the primary psychopathy group ($M = 24.38, SD = 4.89$) (See Table 6).

**Hypothesis 3.** The third and final hypothesis (i.e., that gender will act as a moderator between secondary psychopathy and explicit measures of empathy) was tested using multiple regression. Two regression equations were calculated (one for each explicit measure of empathy). The criterion variable in this equation was empathy. The predictor variable of secondary psychopathy (as measured by the LSRP) was mean centered prior to creating the interaction variable which minimizes problems associated with multicollinearity (Cohen, Cohen, West, & Aiken, 2003). For the regression equation involving the TEIQue-SF, self-deceptive enhancement and impression management were entered in the first step to control for these variables. The predictor variables (e.g., secondary psychopathy and gender) and the product of these two variables
were entered in the next step. It was expected that the beta weight would be significant for the Gender x Secondary Psychopathy interaction.

The results indicated that the Gender x Secondary Psychopathy interaction was not significant in neither the analyses involving the IRI, nor the analyses involving the TEIQque-SF (See Tables 7 and 8). Thus, the hypothesis that gender would moderate the relationship between secondary psychopathy and explicit empathy was not supported. The results did indicate, however, a significant main effect for gender in the analysis involving the IRI and the analysis involving the TEIQque-SF. Women scored significantly higher \((M = 71.95, SD = 12.27)\) than men \((M = 61.60, SD = 10.96)\) on the IRI measure of explicit empathy. Women also scored significantly higher \((M = 40.17, SD = 7.59)\) than men \((M = 38.56, SD = 6.90)\) on the TEIQque-SF measure of explicit empathy.
Table 7

*Regression Analyses Predicting Explicit Empathy (IRI) from Gender x Secondary Psychopathy Interactions*

<table>
<thead>
<tr>
<th>Variable</th>
<th>β</th>
<th>t</th>
<th>p</th>
<th>R²</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Secondary</td>
<td>-.36</td>
<td>-.53</td>
<td>.60</td>
<td>.17</td>
<td>.00</td>
</tr>
<tr>
<td>Gender</td>
<td>10.42</td>
<td>5.72</td>
<td>.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gender x Secondary</td>
<td>.30</td>
<td>.74</td>
<td>.46</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Note.* Secondary = Secondary Psychopathy (LSRP); Gender x Secondary = Gender x Secondary Psychopathy Interaction.

Table 8

*Regression Analyses Predicting Explicit Empathy (TEIQue-SF) from Gender x Secondary Psychopathy Interactions*

<table>
<thead>
<tr>
<th>Variable</th>
<th>β</th>
<th>t</th>
<th>p</th>
<th>R²</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Step 1</td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Decep</td>
<td>.78</td>
<td>4.79</td>
<td>.00</td>
<td>.15</td>
<td>.00</td>
</tr>
<tr>
<td>IM</td>
<td>.32</td>
<td>1.68</td>
<td>.10</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Step 2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Secondary</td>
<td>-.36</td>
<td>-.93</td>
<td>.35</td>
<td>.19</td>
<td>.00</td>
</tr>
<tr>
<td>Gender</td>
<td>2.17</td>
<td>2.04</td>
<td>.04</td>
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<tr>
<td>Gender x Secondary</td>
<td>.10</td>
<td>.43</td>
<td>.67</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Note.* Decep = Self-deceptive Enhancement; IM = Impression Management; Secondary = Secondary Psychopathy (LSRP); Gender x Secondary = Gender x Secondary Psychopathy (LSRP) Interaction.
Secondary Analysis

A secondary analysis was performed to assess any significant differences in the psychopathy – empathy relationship when distinguishing between cognitive and affective empathy. Because the IRI was the only measure used in the current study that consisted of both cognitive and affective subscales, this measure was the only measure examined in the secondary analysis. Unlike the primary analyses which utilized the total score on the IRI as the dependent variable, a total cognitive score was derived from the Perspective Taking subscale, and a total affective score was derived from the combined scores of the other three subscales. Factorial ANOVAS were performed using the IRI total cognitive score and the IRI total affective score as dependent variables with group membership (i.e., primary psychopathy, secondary psychopathy, anxiety, or pathology-free) as the between subjects variable. No significant results were found when using the IRI total affective score. In the analyses involving the IRI total cognitive score; however, a significant group difference was found with Tukey HSD and Scheffe post hoc tests indicating the secondary psychopathy group ($M = 16.06, SD = 5.14$) scored lower on cognitive empathy than the pathology-free group ($M = 20.06, SD = 4.26$) (See Table 9).
Table 9

*Factorial ANOVA with Pathology as the Independent Variable and the IRI total cognitive score as the Dependent Variable.*

<table>
<thead>
<tr>
<th>Source</th>
<th>df</th>
<th>MS</th>
<th>F</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>3</td>
<td>130.68</td>
<td>6.13</td>
<td>.001</td>
</tr>
<tr>
<td>Within Groups</td>
<td>167</td>
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</tr>
<tr>
<td>Total</td>
<td>170</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
The goal of this study was to build upon existing research (Ali et al., 2009; Mullins-Nelson et al., 2006; Vidal et al., 2010) by using an implicit measure of empathy, as well as the explicit measures that are more commonly used. It was hypothesized that primary psychopathy would not be significantly related to explicit measures of empathy, as found in previous studies, but would demonstrate a significant negative relationship with the implicit measure of empathy (Hypothesis 1). While there was a trend in the expected direction, this hypothesis was not supported.

Based on previous research (Ali et al., 2009; Mullins-Nelson et al., 2006; Vidal et al., 2010), secondary psychopathy was hypothesized to be negatively related to all measures of empathy (Hypothesis 2). This finding was replicated in the current study. Specifically, those with secondary psychopathy demonstrated a lack of empathy on one explicit measure and the implicit measure when compared to those without either type of psychopathy.

Due to the results of previous studies (Eisenberg & Fabes, 1990) indicating a significant gender difference in empathy using explicit measures, but not implicit measures, gender was hypothesized to moderate the relationship between secondary psychopathy and explicit measures of empathy (i.e., women with secondary psychopathy were expected to score higher on explicit measures of empathy than their male
counterparts) (Hypothesis 3). This hypothesis was not supported. However, findings from previous research (e.g., Davis, 1983; Eisenberg & Strayer, 1987) were replicated in that women, overall, demonstrated greater empathy than men on the explicit measures. In the following sections, I will discuss the results related to each hypothesis, limitations of this study, further directions to be explored in future research, and clinical implications.

**Hypothesis 1: The Primary Psychopathy-Empathy Relationship**

Some support was found for this hypothesis in that the primary psychopathy group scored higher on the TEIQue-SF measure of explicit empathy when compared to the secondary psychopathy group. Although a trend was observed when using the second method of assessing psychopathy (i.e., forming four groups by combining scores on the PPI-R and the STAI), the hypothesized negative relationship between primary psychopathy and implicit empathy was not supported. This finding is inconsistent with past research (Ali et al., 2010) that found a significant negative relationship between primary psychopathy and implicit empathy. The results of the current study regarding explicit empathy, however, were similar to previous studies (Mullins-Nelson et al., 2006) in that a deficit in empathy was not found among those with primary psychopathy when explicit measures were used.

The lack of a significant relationship between primary psychopathy and implicit empathy in the current study could be due to the dimension of empathy assessed by the implicit measure used in this study (i.e., the Reading the Mind in the Eyes test). The RMET – revised is a measure of cognitive empathy. Past research has shown individuals with primary psychopathy to lack affective empathy, but show no deficits in cognitive
empathy (Vidal et al., 2010). These results suggest that individuals with primary psychopathy do not experience significant deficits in cognitive empathy. Support for the hypothesized deficit in implicit empathy may have been found had an implicit measure of affective empathy been used (i.e., heart rate, galvanic skin response, etc.) to measure the emotional response experienced by individuals with primary psychopathy.

**Hypothesis 2: The Secondary Psychopathy-Empathy Relationship**

Support for this hypothesis was found, using the second method of assessing psychopathy (i.e., forming four groups by combining scores on the PPI-R and the STAI), but not the first method using the LSRP. Using this method, individuals in the secondary psychopathy group were found to score lower than the other three groups on the TEIQue-SF measure of explicit empathy and the RMET measure of implicit empathy. These results are consistent with previous research (Ali et al., 2009; Mullins-Nelson et al., 2006) that has demonstrated a significant deficit in empathy among those with secondary psychopathy. No significant results regarding the secondary psychopathy-empathy relationship were found using the IRI measure of explicit empathy. This discrepancy of results could be related to the bi-dimensionality of the empathy construct being assessed. The TEIQue-SF and the RMET both assess cognitive empathy, whereas the IRI assesses both cognitive and affective empathy.

Secondary analyses revealed that, when assessing the relationship using only the cognitive empathy subscales and not the affective empathy subscales, individuals in the secondary psychopathy group scored significantly lower than those in the pathology-free group. There was also a trend in the expected direction for the relationship between the secondary psychopathy and the anxiety group. This suggests that individuals with
secondary psychopathy experience a deficit in cognitive empathy, but may not experience a significant deficit in affective empathy. Previous researchers have found similar deficits in measures of cognitive empathy among individuals with secondary psychopathy (Grieve & Mahar, 2010; Vidal et al., 2010). This deficit in cognitive empathy may be related to the high anxiety characteristic of those with secondary psychopathy (Vidal et al., 2010). Since secondary analyses revealed the secondary psychopathy group scored significantly lower than the pathology-free group, but not the anxiety group, it is likely anxiety may account for some of the variance in cognitive empathy. The ability to correctly interpret the emotions of others is necessary for career success and success in interpersonal functioning (Vidal et al., 2010). Lack of success in these areas likely contributes to anxiety. Emotional intelligence, which includes the ability to perceive emotions, has been found to be positively related to psychological well-being (Tsauosis & Nikolauo, 2005).

The lack of a deficit in affective empathy could be related to early theories of secondary psychopathy (Karpman, 1948) proposing that secondary psychopathy results from an environmental disturbance. Thus, individuals with secondary psychopathy are likely born with an intact conscience and the capacity to experience emotions (e.g., guilt, love, etc.), but the environmental disturbance leads to the development of so much hostility and aggression that these emotions are prevented from functioning properly. The existence of these negative emotions masks the capacity to experience empathy which likely leads to those with secondary psychopathy engaging in antisocial behavior. (Karpman, 1948; Vidal et al., 2010).
No significant correlations were found between secondary psychopathy and either of the empathy measures when assessing secondary psychopathy using the LSRP. This is inconsistent with the previous research of Grieve and Mahar (2010) who found secondary psychopathy, as measured by the LSRP, to be negatively correlated with emotional intelligence and positively correlated with perceived poor emotional skills. Grieve and Mahar (2010) also used an undergraduate sample, so it is unclear what accounts for this inconsistency. The dimensional approach used in the LSRP to measure psychopathy has been advocated for by other research (Walters, Brinkley, Magaletta, & Diamond, 2008). Walters et al. (2008) used the LSRP with a sample of federal prison inmates and found the mean secondary psychopathy score to be 21.10 which is only 1 point higher than the mean found in the current study. Use of the LSRP in an undergraduate sample does not appear to account for the lack of significant findings in the current study.

**Hypothesis 3: Gender by Secondary Psychopathy Interaction**

No support for this hypothesis was found by using either method of assessing psychopathy. Women did score higher on the empathy measures than men, which is consistent with previous research (Eisenberg et al., 1983), but the interaction between gender and secondary psychopathy was not significant. Since previous research had found women to score higher on explicit measures of empathy, it was hypothesized that gender would affect the strength of the relationship between secondary psychopathy and explicit empathy. The lack of support for this hypothesis may be related to the use of the LSRP as the measure of secondary psychopathy. The LSRP has demonstrated validity using undergraduate samples in past research (as mentioned above), but did not yield any significant results in the current study.
The lack of significance when analyzing the moderating effects of gender may be related to the lack of significant correlations, in general, when using the LSRP to assess secondary psychopathy. Still, the possibility exists that there is no difference in correlations when analyzing the secondary psychopathy-empathy relationship in men and women, regardless of the measure of secondary psychopathy used. Since women, overall, scored higher than men in explicit empathy, but this distinction was not noticed when examining those with secondary psychopathy, it is possible secondary psychopathy results in the same empathy deficits across genders even when explicit measures are used. This may be due to secondary psychopathy being highly correlated with borderline personality disorder (Salekin, 1997; Skeem et al., 2003). It is possible the features of BPD commonly found in those with secondary psychopathy (i.e., impulsivity, anxiety, hostility) may be prohibiting women with secondary psychopathy from demonstrating greater explicit empathy than men with secondary psychopathy, unlike their non-psychopathic counterparts.

**Limitations and Future Directions**

One limitation of the current study is the use of undergraduate students as the sample. While a sample of offenders may be ideal, previous studies assessing psychopathy have used an undergraduate sample (Ali et al., 2009; Mullins-Nelson et al., 2006) and both measures, the LSRP and the PPI-R, have demonstrated adequate validity among non-institutionalized participants (Levenson et al., 1995; Uzieblo et al., 2010). That being said, a possible future direction would be to replicate this research using an offender sample that is likely to have higher rates and more severe levels of psychopathy.
The rate of psychopathy in the current study may not be completely accurate due to the use of self-report measures to assess the psychopathy construct. Since individuals with psychopathy may be more likely than other individuals to minimize psychopathology, it is likely that those individuals are underreporting their psychopathic attributes. Because of this possibility, a measure of social desirability was included, but it is likely this was not sufficient to fully correct the problem. This limitation could be addressed in future research through the use of other-report measures where information is obtained by someone familiar with the individual. Clinical interviews, such as the Psychopathy Checklist-Revised (Hare, 2003), could also be used to increase accuracy in identifying psychopathic characteristics.

The current study did not attempt to differentiate cognitive and affective empathy when conducting the primary analyses. Further, the implicit measure utilized in the current study is primarily a measure of cognitive empathy (Baron-Cohen et al., 2001). As mentioned above, previous research (Vidal et al., 2010) suggests that individuals with primary psychopathy may not experience a deficit in cognitive empathy, but experience a deficit in affective empathy. Future research should include an implicit measure of affective empathy (e.g., heart rate, galvanic skin response, etc.) to further explore the empathy deficits thought to be essential to the construct of psychopathy. The current study also relied on the use of the LSRP to assess secondary psychopathy when examining gender as a possible moderator in the relationship between secondary psychopathy and explicit empathy. Future research should utilize other validated measures of secondary psychopathy when looking at this possible moderation.
Clinical Implications and Conclusions

The findings of the current study do not provide evidence that gender moderates the relationship between secondary psychopathy and empathy. However, we did find some support for the theorized deficits in empathy experienced by individuals with secondary psychopathy. This finding has implications for the treatment of secondary psychopathy and the importance of empathy training for those individuals. Further, the results from the secondary analyses seem to suggest that those with secondary psychopathy may specifically benefit from interventions addressing cognitive empathy. Interventions addressing deficits in cognitive empathy are frequently used in the treatment of borderline personality disorder (Bateman & Fonagy, 2008) and likely would be useful in the treatment of secondary psychopathy, as well. Improving empathy among those with secondary psychopathy could lead to a decrease in the antisocial behavior that is characteristic of the construct since deficits in empathy have been found to be related to a history of aggressive and socially unacceptable behaviors (Cohen & Strayer, 1996).

Some support was also found for the use of implicit measures of empathy when assessing these deficits in individuals with psychopathy, particularly with primary psychopathy. It is possible those with primary psychopathy may be experiencing more empathy deficits than they are willing to endorse on self-report measures. Although more research is needed to fully address this phenomenon, the negative trend found when using the implicit measure of empathy compared to the lack of significant results when using the explicit measures suggests that implicit measures should be used to assess empathy deficits when diagnosing and treating those with primary psychopathy. Despite these results, the limitations previously mentioned still need to be addressed in future research,
and more research is needed in order to tailor empathy interventions to match the specific empathy deficits experienced by women and men with primary and secondary psychopathy.
REFERENCES


Expression Inventory. *The Use of Psychological Testing for Treatment Planning and Outcome Assessment.* 292-391.


APPENDIX A

DEMOGRAPHIC DATA SHEET

Please take a few moments to complete the demographic information on this page and then proceed in completing the remainder of the assessment packet in the order in which the questionnaires are presented.

Participant Number ________________

Age: ________

Gender:  Male  Female

Race: _________________________

Year in School:  Freshman  Sophomore  Junior  Senior
APPENDIX B

LEVENSON SELF-REPORT PSYCHOPATHY SCALE (LSRP)

Please answer the following questions using the scale below:
1 = Disagree strongly
2 = Disagree somewhat
3 = Agree somewhat
4 = Agree strongly

Primary Psychopathy

1. Success is based on survival of the fittest; I am not concerned about the losers.
2. For me, what’s right is whatever I can get away with.
3. In today’s world, I feel justified in doing anything I can get away with to succeed.
4. My main purpose in life is getting as many goodies as I can.
5. Making a lot of money is my most important goal.
6. I let others worry about higher values; my main concern is with the bottom line.
7. People who are stupid enough to get ripped off usually deserve it.
8. Looking out for myself is my top priority.
9. I tell other people what they want to hear so that they will do what I want them to do.
10. I would be upset if my success came at someone else’s expense. RS
11. I often admire a really clever scam.
12. I make a point of trying not to hurt others in pursuit of my goals. RS
13. I enjoy manipulating other people’s feelings.

14. I feel bad if my words or actions cause someone to feel emotional pain. RS

15. Even if I were trying very hard to sell something, I wouldn’t lie about it. RS

16. Cheating is not justified because it is unfair to others. RS

Secondary Psychopathy

1. I find myself in the same kinds of trouble, time after time.

2. I am often bored.

3. I find that I am able to pursue one goal for a long time. RS

4. I don’t plan anything very far in advance.

5. I quickly lose interest in tasks I start.

6. Most of my problems are due to the fact that other people just don’t understand me.

7. Before I do anything, I carefully consider the possible consequences. RS

8. I have been in a lot of shouting matches with other people.

9. When I get frustrated, I often “let off steam” by blowing my top.

10. Love is overrated.

RS denotes reverse score items
APPENDIX C

PSYCHOPATHIC PERSONALITY INVENTORY – REVISED

This test measures different personality characteristics – that is, the ways in which people’s personality styles make them different from each other. Read each statement carefully and decide how false or true it is as a description of you. Then, mark the best choice that corresponds to your answer on this form. Use the answer choices provided as follows: F = False(1), MF = Mostly False(2), MT = Mostly True(3), T = True(4).

Even if you feel that a statement is neither false nor true about you, or if you are not sure which answer to choose, select the answer that is the closest to describing you. Try to be as honest as you can. Please be sure to give your own opinion about whether each statement is false or true about you. Remember, you have the right to leave any and/or all of the questions blank.

1. If I really want to, I can persuade most people of almost anything. F MF MT T

2. When I meet people, I can often make them interested in me with just one smile. F MF MT T

3. Dangerous activities like skydiving scare me more than they do most people. RS F MF MT T

4. I have always seen myself as something of a rebel. F MF MT T

5. I hate having to tell people bad news. RS F MF MT T

6. Sometimes I wake up feeling nervous without knowing why. RS – S.I. F MF MT T

7. I like to act first and think later. F MF MT T

8. Sometimes I forget my name. F MF MT T

9. At times, I worry that I have hurt the feelings of others. RS F MF MT T
F(1) = False, MF(2) = Mostly False, MT(3) = Mostly True, T(4) = True

10. I am easily flustered in pressured situations. RS – S.I. F MF MT T
11. I tell a lot of “white lies.” F MF MT T
12. I would find the job of a movie stunt person exciting. F MF MT T
13. When my life gets boring, I like to take chances. F MF MT T
14. I’ve never cared about society’s “values of right and wrong.” F MF MT T
15. I might like to hang out with people who “drift” from city to city with no permanent home. F MF MT T
16. If I’d had fewer bad breaks in life, I’d be more successful. F MF MT T
17. It would bother me to cheat on a test even if no one was hurt by it. RS F MF MT T
18. A lot of people have tried to “stab me in the back.” F MF MT T
19. People’s reactions to the things I do often are not what I would expect. F MF MT T
20. On big holidays, I never eat more than I should. F MF MT T
21. I find it hard to make small talk with people I don’t know well. RS F MF MT T
22. I’m not good at getting people to do favors for me. RS F MF MT T
23. I get mad if I don’t receive special favors I deserve. F MF MT T
24. I am hardly ever the center of attention. RS F MF MT T
25. It might be exciting to be on a plane that was about to crash but somehow landed safely. F MF MT T
26. I pride myself on being offbeat and different from others. F MF MT T
27. A lot of times, I worry when a friend is having personal problems. RS F MF MT T
F(1) = False, MF(2) = Mostly False, MT(3) = Mostly True, T(4) = True

28. I tend to get crabby and irritable when I have too many things to do. **RS – S.I.**
F  MF  MT  T

29. A lot of times, I repeat the same bad decisions. F  MF  MT  T

30. I think that it should be against the law to badly injure someone on purpose. **RS**
F  MF  MT  T

31. I get mad when I hear about the injustices in the world. **RS**
F  MF  MT  T

32. I don’t let everyday hassles get on my nerves. **S.I.**
F  MF  MT  T

33. I could be a good “con artist.”
F  MF  MT  T

34. I have a talent for getting people to talk to me.
F  MF  MT  T

35. I like (or would like) to play sports with a lot of physical contact.
F  MF  MT  T

36. I might like to travel around the country with some motorcyclists and cause trouble.
F  MF  MT  T

37. I have never wished harm on someone else.
F  MF  MT  T

38. People usually give me the credit that I have coming to me. **RS**
F  MF  MT  T

39. If I want to, I can get people to do what I want without them ever knowing.
F  MF  MT  T

40. When I’m with people who do something wrong, I usually get the blame.
F  MF  MT  T

41. People are impressed with me after they first meet me.
F  MF  MT  T

42. I have no bad habits.
F  MF  MT  T

43. In conversations, I’m the one who does most of the talking.
F  MF  MT  T

44. I try to be the best at everything I do. **RS**
F  MF  MT  T
F(1) = False, MF(2) = Mostly False, MT(3) = Mostly True, T(4) = True

<p>| | | | |</p>
<table>
<thead>
<tr>
<th></th>
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</thead>
<tbody>
<tr>
<td>45. To be honest, I believe that I am more important than most people.</td>
<td>F</td>
<td>MF</td>
<td>MT</td>
</tr>
<tr>
<td>46. I feel sure of myself when I’m around other people.</td>
<td>F</td>
<td>MF</td>
<td>MT</td>
</tr>
<tr>
<td>47. Parachute jumping would really scare me. RS</td>
<td>F</td>
<td>MF</td>
<td>MT</td>
</tr>
<tr>
<td>48. I’d like to spend my life writing poetry in a commune.</td>
<td>F</td>
<td>MF</td>
<td>MT</td>
</tr>
<tr>
<td>49. I look out for myself before I look out for anyone else.</td>
<td>F</td>
<td>MF</td>
<td>MT</td>
</tr>
<tr>
<td>50. I am high-strung. RS – S.I.</td>
<td>F</td>
<td>MF</td>
<td>MT</td>
</tr>
<tr>
<td>51. When people lend me something, I try to get it back to them quickly. RS</td>
<td>F</td>
<td>MF</td>
<td>MT</td>
</tr>
<tr>
<td>52. Whenever I hear an airplane flying above me, I look down at the ground.</td>
<td>F</td>
<td>MF</td>
<td>MT</td>
</tr>
<tr>
<td>53. I often feel guilty about small things. RS</td>
<td>F</td>
<td>MF</td>
<td>MT</td>
</tr>
<tr>
<td>54. When I’m in a frightening situation, I can “turn off” my fear almost at will. S.I.</td>
<td>F</td>
<td>MF</td>
<td>MT</td>
</tr>
<tr>
<td>55. I’ll break a promise if it’s too hard to keep</td>
<td>F</td>
<td>MF</td>
<td>MT</td>
</tr>
<tr>
<td>56. I like to stand out in a crowd.</td>
<td>F</td>
<td>MF</td>
<td>MT</td>
</tr>
<tr>
<td>57. It would be fun to fly a small airplane by myself.</td>
<td>F</td>
<td>MF</td>
<td>MT</td>
</tr>
<tr>
<td>58. I like to dress differently from other people.</td>
<td>F</td>
<td>MF</td>
<td>MT</td>
</tr>
<tr>
<td>59. Every once in a while, I nod my head when people speak to me even though I’m not paying attention to them. RS</td>
<td>F</td>
<td>MF</td>
<td>MT</td>
</tr>
<tr>
<td>60. People “rake me over the coals” for no good reason.</td>
<td>F</td>
<td>MF</td>
<td>MT</td>
</tr>
<tr>
<td>61. In school or at work, I try to “stretch” the rules just to see what I can get away with.</td>
<td>F</td>
<td>MF</td>
<td>MT</td>
</tr>
<tr>
<td>62. I’ve often been betrayed by people I trusted.</td>
<td>F</td>
<td>MF</td>
<td>MT</td>
</tr>
</tbody>
</table>
F(1) = False, MF(2) = Mostly False, MT(3) = Mostly True, T(4) = True

<table>
<thead>
<tr>
<th>Question</th>
<th>Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>63. The opposite sex finds me sexy and appealing.</td>
<td>F</td>
</tr>
<tr>
<td>64. I have never pretended to know something I didn’t know.</td>
<td>F</td>
</tr>
<tr>
<td>65. I have a hard time standing up for my rights.</td>
<td>RS</td>
</tr>
<tr>
<td>66. When a task gets too hard, I’ll drop it and move on to something else.</td>
<td>F</td>
</tr>
<tr>
<td>67. I enjoy seeing someone I don’t like get into trouble.</td>
<td>F</td>
</tr>
<tr>
<td>68. I get embarrassed more easily than most people.</td>
<td>F</td>
</tr>
<tr>
<td>69. High places make me nervous.</td>
<td>F</td>
</tr>
<tr>
<td>70. I get restless when my life gets too predictable.</td>
<td>F</td>
</tr>
<tr>
<td>71. It would break my heart to see a poor or homeless person walking the streets at night.</td>
<td>F</td>
</tr>
<tr>
<td>72. Some people say that I am a “worry wart.”</td>
<td>F</td>
</tr>
<tr>
<td>73. I like having my vacations planned out.</td>
<td>F</td>
</tr>
<tr>
<td>74. I smile at a funny joke at least once in a while.</td>
<td>F</td>
</tr>
<tr>
<td>75. It bothers me a lot when I see someone crying.</td>
<td>F</td>
</tr>
<tr>
<td>76. I get stressed out when I’m “juggling” too many tasks.</td>
<td>F</td>
</tr>
<tr>
<td>77. I like to (or would like to) wear expensive and “showy” clothing.</td>
<td>F</td>
</tr>
<tr>
<td>78. It’s easy for me to go up to a stranger and introduce myself.</td>
<td>F</td>
</tr>
<tr>
<td>79. I would not like to be a race-car driver.</td>
<td>F</td>
</tr>
<tr>
<td>80. I don’t care about following the “rules”; I make my own rules as I go along.</td>
<td>F</td>
</tr>
</tbody>
</table>
F(1) = False, MF(2) = Mostly False, MT(3) = Mostly True, T(4) = True

81. I never give an opinion unless I’ve thought it over carefully. F MF MT T

82. Few people in my life have taken advantage of me. RS F MF MT T

83. I don’t take advantage of people even when it would be good for me. RS F MF MT T

84. I’ve been the victim of a lot of bad luck. F MF MT T

85. When people are mad at me, I usually win them over with my charm. F MF MT T

86. I sometimes put off unpleasant tasks. RS F MF MT T

87. I’m hardly ever the “life of the party.” RS F MF MT T

88. I am careful when I do work that involves detail. RS F MF MT T

89. I’ve thought a lot about my long-term career goals. RS F MF MT T

90. Some people have gone out of their way to make my life difficult. F MF MT T

91. I would make a good actor. F MF MT T

92. I sometimes lie just to see if I can get someone to believe me. F MF MT T

93. I agree with the motto, “If you are bored with life, risk it.” F MF MT T

94. If I had grown up during the 1960s, I would have been a “hippie.” F MF MT T

95. I can honestly say that I’ve never met anyone I disliked. F MF MT T

96. I function well under stress. S.I. F MF MT T

97. I feel bad about myself after I tell a lie. RS F MF MT T

98. I get deeply attached to people I like. RS F MF MT T
F(1) = False, MF(2) = Mostly False, MT(3) = Mostly True, T(4) = True

99. People who know me well know they can depend and rely on me. RS
   F  MF  MT  T

100. I feel that life has treated me fairly. RS
    F  MF  MT  T

101. If I do something that gets me in trouble, I don’t do it again. RS
    F  MF  MT  T

102. I frequently have disturbing thoughts that become so powerful that I think I can hear claps of thunder or crashes of cymbals inside my head.
    F  MF  MT  T

103. I have to admit that I’m a bit of a materialist.
    F  MF  MT  T

104. I like my life to be unpredictable and surprising.
    F  MF  MT  T

105. I like to poke fun at established traditions.
    F  MF  MT  T

106. I occasionally feel like giving up on difficult tasks.
    RS
    F  MF  MT  T

107. When I’m stressed, I often see big, red, rectangular shapes moving in front of my eyes.
    F  MF  MT  T

108. I push myself as hard as I can when I’m working. RS
    F  MF  MT  T

109. I get very upset when I see photographs of starving people. RS
    F  MF  MT  T

110. Ending a friendship is (or would be) very painful for me. RS
    F  MF  MT  T

111. I haven’t thought much about what I want to do with my life.
    F  MF  MT  T

112. I’m sure some people would be pleased to see me fail in my life.
    F  MF  MT  T

113. I hardly ever end up being the leader of a group. RS
    F  MF  MT  T

114. I often lose patience with people when I have to keep explaining things.
    F  MF  MT  T
F(1) = False, MF(2) = Mostly False, MT(3) = Mostly True, T(4) = True

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<tbody>
<tr>
<td>115</td>
<td>I might like flying across the ocean in a hot-air balloon.</td>
<td>F</td>
<td>MF</td>
<td>MT</td>
</tr>
<tr>
<td>116</td>
<td>Many people see my political beliefs as “radical.”</td>
<td>F</td>
<td>MF</td>
<td>MT</td>
</tr>
<tr>
<td>117</td>
<td>I occasionally feel annoyed at people. RS</td>
<td>F</td>
<td>MF</td>
<td>MT</td>
</tr>
<tr>
<td>118</td>
<td>I don’t get nervous under pressure. S.I.</td>
<td>F</td>
<td>MF</td>
<td>MT</td>
</tr>
<tr>
<td>119</td>
<td>I worry about things even when there’s no reason to. RS – S.I.</td>
<td>F</td>
<td>MF</td>
<td>MT</td>
</tr>
<tr>
<td>120</td>
<td>I do favors for people even when I know I won’t see them again. RS</td>
<td>F</td>
<td>MF</td>
<td>MT</td>
</tr>
<tr>
<td>121</td>
<td>When I am doing something important, like taking a test or doing my taxes, I check it over first. RS</td>
<td>F</td>
<td>MF</td>
<td>MT</td>
</tr>
<tr>
<td>122</td>
<td>People I thought were my “friends” have gotten me into trouble.</td>
<td>F</td>
<td>MF</td>
<td>MT</td>
</tr>
<tr>
<td>123</td>
<td>I often put off doing fun things so I can finish my work. RS</td>
<td>F</td>
<td>MF</td>
<td>MT</td>
</tr>
<tr>
<td>124</td>
<td>When an important person is talking to me, I usually try to pay attention. RS</td>
<td>F</td>
<td>MF</td>
<td>MT</td>
</tr>
<tr>
<td>125</td>
<td>How much I like someone really depends on how much that person does for me.</td>
<td>F</td>
<td>MF</td>
<td>MT</td>
</tr>
<tr>
<td>126</td>
<td>Sometimes I do dangerous things on a dare.</td>
<td>F</td>
<td>MF</td>
<td>MT</td>
</tr>
<tr>
<td>127</td>
<td>Keeping the same job for most of my life would be dull.</td>
<td>F</td>
<td>MF</td>
<td>MT</td>
</tr>
<tr>
<td>128</td>
<td>I occasionally have bad thoughts about people who hurt my feelings. RS</td>
<td>F</td>
<td>MF</td>
<td>MT</td>
</tr>
<tr>
<td>129</td>
<td>When a friend says hello to me, I generally either wave or say something back. RS</td>
<td>F</td>
<td>MF</td>
<td>MT</td>
</tr>
<tr>
<td>130</td>
<td>I think long and hard before I make big decisions. RS</td>
<td>F</td>
<td>MF</td>
<td>MT</td>
</tr>
</tbody>
</table>
F(1) = False, MF(2) = Mostly False, MT(3) = Mostly True, T(4) = True

131. When someone is hurt by something I say or do, that’s their problem. F MF MT T
132. I tell people only the part of the truth they want to hear. F MF MT T
133. I’ve learned from my big mistakes in life. RS F MF MT T
134. I get blamed for many things that aren’t my fault. F MF MT T
135. It bothers me to talk in front of a big group of strangers. RS F MF MT T
136. I quickly get annoyed with people who do not give me what I want. F MF MT T
137. If I were a firefighter, I would like the thrill of saving someone from the top of a burning building. F MF MT T
138. I would like to have a “wild” hairstyle. F MF MT T
139. Even when I’m busy, I never have second thoughts about helping people who ask for favors. F MF MT T
140. I can remain calm in situations that would make many other people panic. S.I. F MF MT T
141. I’m the kind of person who gets “stressed out” pretty easily. RS – S.I. F MF MT T
142. I cringe when an athlete gets badly injured during a game on TV. RS F MF MT T
143. I usually think about what I’m going to say before I say it. RS F MF MT T
144. Some people have made up stories about me to get me in trouble. F MF MT T
145. I watch my finances closely. RS F MF MT T
146. During the day, I see the world in color rather than in black-and-white. RS F MF MT T
F(1) = False, MF(2) = Mostly False, MT(3) = Mostly True, T(4) = True

147. To be honest, I try not to help people unless there’s something in it for me. F MF MT T

148. I am a daredevil. F MF MT T

149. I would like to hitchhike across the country with no plans. F MF MT T

150. I have never exaggerated a story to make it sound more interesting. F MF MT T

151. Sometimes I go for several days at a time not knowing if I’m awake or asleep. F MF MT T

152. I try to use my best manners when I’m around other people. RS F MF MT T

153. I often place my friends’ needs above my own. RS F MF MT T

154. If I can’t change the rules, I try to get others to bend them for me. F MF MT T

RS denotes reverse score items.
S.I. denotes Stress Immunity Scale items that will be removed upon scoring.
APPENDIX D

STATE-TRAIT ANXIETY INVENTORY

A number of statements which people have used to describe themselves are given below. Read each statement and then circle the appropriate value to the right of the statement to indicate how you generally feel. There are no right or wrong answers. Do not spend too much time on any one statement but give the answer which seems to describe how you generally feel. Remember, you have the right to leave any and/or all of the questions blank.

<table>
<thead>
<tr>
<th>Statement</th>
<th>Almost Never</th>
<th>Sometimes</th>
<th>Often</th>
<th>Almost Always</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. I feel pleasant</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>2. I feel nervous and restless</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>3. I feel satisfied with myself</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>4. I wish I could be as happy as others seem to be</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>5. I feel like a failure</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>6. I feel rested</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>7. I am “calm, cool, and collected”</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>8. I feel that difficulties are piling up so that I cannot overcome them</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>9. I worry too much over something that really doesn’t matter</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>10. I am happy</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>
11. I have disturbing thoughts 1 2 3 4
12. I lack self-confidence 1 2 3 4
13. I feel secure RS 1 2 3 4
14. I make decisions easily RS 1 2 3 4
15. I feel inadequate 1 2 3 4
16. I am content RS 1 2 3 4
17. Some unimportant thought runs 1 2 3 4
   through my mind and
   bothers me
18. I take disappointments so keenly 1 2 3 4
   that I can’t put them out of
   my mind
19. I am a steady person RS 1 2 3 4
20. I get in a state of tension or 1 2 3 4
   turmoil as I think over my
   recent concerns and interests

RS denotes reverse score items.
BALANCED INVENTORY OF DESIRABLE RESPONDING

Using the scale of 1 to 7 below, write a number beside each statement to indicate how much you agree with it. Remember, you have the right to leave any and/or all of the questions blank.

Strongly Disagree Strongly Agree
1 2 3 4 5 6 7

Self-Deceptive Enhancement Scale

_____ 1. My first impressions of people usually turn out to be right.

_____ 2. It would be hard for me to break any of my bad habits. RS

_____ 3. I don’t care to know what people really think of me.

_____ 4. I have not always been honest with myself. RS

_____ 5. I always know why I like things.

_____ 6. When my emotions are aroused, it biases my thinking. RS

_____ 7. Once I’ve made up my mind, other people can seldom change my opinion.

_____ 8. I am not a safe driver when I exceed the speed limit. RS

_____ 9. I am fully in control of my own fate.

_____ 10. It’s hard for me to shut off a disturbing thought. RS

_____ 11. I never regret my decisions.

_____ 12. I sometimes lose out on things because I can’t make up my mind soon enough. RS
13. The reason I vote is because my vote can make a difference.
14. My parents were not always fair when they punished me. RS
15. I am a completely rational person.
16. I rarely appreciate criticism. RS
17. I am very confident of my judgments.
18. I have sometimes doubted my ability as a lover. RS
19. It’s all right with me if some people happen to dislike me.
20. I don’t always know the reasons why I like to do things. RS

Impression Management Scale
21. I sometimes tell lies if I have to. RS
22. I never cover up my mistakes.
23. There have been occasions when I have taken advantage of someone. RS
24. I never swear.
25. I sometimes try to get even rather than forgive and forget. RS
26. I always obey laws, even if I’m unlikely to get caught.
27. I have said something bad about a friend behind his or her back. RS
28. When I hear people talking privately, I avoid listening.
29. I have received too much change from a salesperson without telling him or her. RS
30. I always declare everything at customs.
31. When I was young I sometimes stole things. RS
32. I have never dropped litter on the street.
33. I sometimes drive faster than the speed limit. RS
34. I never read sexy books or magazines.
35. I have done things that I don’t tell other people about. **RS**
36. I never take things that don’t belong to me.
37. I have taken sick-leave from work or school even though I wasn’t really sick. **RS**
38. I have never damaged a library book or stole merchandise without reporting it.
39. I have some pretty awful habits. **RS**
40. I don’t gossip about other people’s business.

**RS** denotes reverse score items (Award 1 point for each “6” or “7” responses and 0 points for any other response)
TRAIT EMOTIONAL INTELLIGENCE QUESTIONNAIRE – SHORT FORM

Please answer each statement below by putting a circle around the number that best reflects your degree of agreement or disagreement with that statement. Do not think too long about the exact meaning of the statements. Work quickly and try to answer as accurately as possible. There are no right or wrong answers. There are seven possible responses to each statement ranging from ‘Completely Disagree’ (number 1) to ‘Completely Agree’ (number 7).

1. Expressing my emotions with words is not a problem for me. 1 2 3 4 5 6 7
   (E)

2. I often find it difficult to see things from another person’s viewpoint. 1 2 3 4 5 6 7
   (E) RS

3. On the whole, I’m a highly motivated person. 1 2 3 4 5 6 7

4. I usually find it difficult to regulate my emotions. 1 2 3 4 5 6 7
   (S-C) RS

5. I generally don’t find life enjoyable. 1 2 3 4 5 6 7
   (W) RS

6. I can deal effectively with people. 1 2 3 4 5 6 7
   (S)

7. I tend to change my mind frequently. 1 2 3 4 5 6 7
   (S-C) RS

8. Many times, I can’t figure out what emotion I’m feeling. 1 2 3 4 5 6 7
   (E) RS

9. I feel that I have a number of good qualities. 1 2 3 4 5 6 7
   (W)
10. I often find it difficult to stand up for my rights. 1 2 3 4 5 6 7
(S) RS

11. I’m usually able to influence the way other people feel. 1 2 3 4 5 6 7
(S)

12. On the whole, I have a gloomy perspective on most things. 1 2 3 4 5 6 7
(W) RS

13. Those close to me often complain that I don’t treat them right. 1 2 3 4 5 6 7
(E) RS

14. I often find it difficult to adjust my life according to the circumstances. 1 2 3 4 5 6 7
RS

15. On the whole, I’m able to deal with stress. 1 2 3 4 5 6 7
(S-C)

16. I often find it difficult to show my affection to those close to me. 1 2 3 4 5 6 7
(E) RS

17. I’m normally able to “get into someone’s shoes” and experience their emotions. (E) 1 2 3 4 5 6 7

18. I normally find it difficult to keep myself motivated. 1 2 3 4 5 6 7
RS

19. I’m usually able to find ways to control my emotions when I want to. 1 2 3 4 5 6 7
(S-C)

20. On the whole, I’m pleased with my life. 1 2 3 4 5 6 7
(W)

21. I would describe myself as a good negotiator. 1 2 3 4 5 6 7
(S)

22. I tend to get involved in things I later wish I could get out of. 1 2 3 4 5 6 7
(S-C) RS

23. I often pause and think about my feelings. 1 2 3 4 5 6 7
(E)

24. I believe I’m full of personal strengths. 1 2 3 4 5 6 7
(W)
25. I tend to “back down” even if I know I’m right. (S) RS

26. I don’t seem to have any power at all over other people’s feelings. (S) RS

27. I generally believe that things will work out fine in my life. (W)

28. I find it difficult to bond well even with those close to me. (E) RS

29. Generally, I’m able to adapt to new environments.

30. Others admire me for being relaxed. (S-C)
APPENDIX G

INTERPERSONAL REACTIVITY INDEX

The following statements inquire about your thoughts and feelings in a variety of situations. For each item, indicate how well it describes you by choosing the appropriate letter on the scale at the top of the page: A, B, C, D, or E. When you have decided on your answer, fill in the letter on the answer sheet next to the item number. READ EACH ITEM CAREFULLY BEFORE RESPONDING. Answer as honestly as you can. Thank you.

ANSWER SCALE:

A               B               C               D               E
DOES NOT       DESCRIBES ME
DESCRIBE ME    VERY WELL
WELL

1. I daydream and fantasize, with some regularity, about things that might happen to me. ____ (FS)

2. I often have tender, concerned feelings for people less fortunate than me. ____ (EC)

3. I sometimes find it difficult to see things from the "other guy's" point of view. ____ (PT) RS

4. Sometimes I don't feel very sorry for other people when they are having problems. ____ (EC) RS

5. I really get involved with the feelings of the characters in a novel. ____ (FS)

6. In emergency situations, I feel apprehensive and ill-at-ease. ____ (PD)

7. I am usually objective when I watch a movie or play, and I don't often get completely caught up in it. ____ (FS) RS

8. I try to look at everybody's side of a disagreement before I make a decision. ____ (PT)
9. When I see someone being taken advantage of, I feel kind of protective towards them. (EC)

10. I sometimes feel helpless when I am in the middle of a very emotional situation. (PD)

11. I sometimes try to understand my friends better by imagining how things look from their perspective. (PT)

12. Becoming extremely involved in a good book or movie is somewhat rare for me. (FS) RS

13. When I see someone get hurt, I tend to remain calm. (PD) RS

14. Other people's misfortunes do not usually disturb me a great deal. (EC) RS

15. If I'm sure I'm right about something, I don't waste much time listening to other people's arguments. (PT) RS

16. After seeing a play or movie, I have felt as though I were one of the characters. (FS)

17. Being in a tense emotional situation scares me. (PD)

18. When I see someone being treated unfairly, I sometimes don't feel very much pity for them. (EC) RS

19. I am usually pretty effective in dealing with emergencies. (PD) RS

20. I am often quite touched by things that I see happen. (EC)

21. I believe that there are two sides to every question and try to look at them both. (PT)

22. I would describe myself as a pretty soft-hearted person. (EC)

23. When I watch a good movie, I can very easily put myself in the place of a leading character. (FS)

24. I tend to lose control during emergencies. (PD)

25. When I'm upset at someone, I usually try to "put myself in his shoes" for a while. (PT)

26. When I am reading an interesting story or novel, I imagine how I would feel if the events in the story were happening to me. (FS)
27. When I see someone who badly needs help in an emergency, I go to pieces. ____ (PD)

28. Before criticizing somebody, I try to imagine how I would feel if I were in their place. ____ (PT)
APPENDIX H

READING THE MIND IN THE EYES TEST – REVISED

For each set of eyes, choose and circle which word best describes what the person in the picture is thinking or feeling. You may feel that more than one word is applicable but please choose just one word, the word which you consider to be most suitable. Before making your choice, make sure that you have read all 4 words. You should try to do the task as quickly as possible but you will not be timed. If you really don’t know what a word means you can look it up in the definition handout.

Record Sheet
P jealous panicked arrogant hateful
1 playful comforting irritated bored
2 terrified upset arrogant annoyed
3 joking flustered desire convinced
4 joking insisting amused relaxed
5 irritated sarcastic worried friendly
6 aghast fantasizing impatient alarmed
7 apologetic friendly uneasy dispirited
8 despondent relieved shy excited
9 annoyed hostile horrified preoccupied
10 cautious insisting bored aghast
11 terrified amused regretful flirtatious
12 indifferent embarrassed skeptical dispirited
13 decisive anticipating threatening shy
<table>
<thead>
<tr>
<th></th>
<th>Irritated</th>
<th>Disappointed</th>
<th>Depressed</th>
<th>Accusing</th>
</tr>
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<td>Flustered</td>
<td>Encouraging</td>
<td>Amused</td>
</tr>
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<td>15</td>
<td>Irritated</td>
<td>Thoughtful</td>
<td>Encouraging</td>
<td>Sympathetic</td>
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<td>Affectionate</td>
<td>Playful</td>
<td>Aghast</td>
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<tr>
<td>17</td>
<td>Decisive</td>
<td>Amused</td>
<td>Aghast</td>
<td>Bored</td>
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<tr>
<td>18</td>
<td>Arrogant</td>
<td>Grateful</td>
<td>Sarcastic</td>
<td>Tentative</td>
</tr>
<tr>
<td>19</td>
<td>Dominant</td>
<td>Friendly</td>
<td>Guilty</td>
<td>Horrified</td>
</tr>
<tr>
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<td>Fantasizing</td>
<td>Confused</td>
<td>Panicked</td>
</tr>
<tr>
<td>21</td>
<td>Preoccupied</td>
<td>Grateful</td>
<td>Insisting</td>
<td>Imploring</td>
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<tr>
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<td>Apologetic</td>
<td>Defiant</td>
<td>Curious</td>
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<td>Irritated</td>
<td>Excited</td>
<td>Hostile</td>
</tr>
<tr>
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<td>Incredulous</td>
<td>Despondent</td>
<td>Interested</td>
</tr>
<tr>
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<td>Shy</td>
<td>Hostile</td>
<td>Anxious</td>
</tr>
<tr>
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<td>Joking</td>
<td>Cautious</td>
<td>Arrogant</td>
<td>Reassuring</td>
</tr>
<tr>
<td>27</td>
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<td>Joking</td>
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<td>Aghast</td>
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<td>Reflective</td>
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<td>Flirtatious</td>
<td>Hostile</td>
<td>Disappointed</td>
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<tr>
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<td>Ashamed</td>
<td>Confident</td>
<td>Joking</td>
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<tr>
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<td>Guilty</td>
<td>Fantasizing</td>
<td>Concerned</td>
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<tr>
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<td>Baffled</td>
<td>Distrustful</td>
<td>Terrified</td>
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<td>Insisting</td>
<td>Contemplative</td>
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<td>Nervous</td>
<td>Suspicious</td>
<td>Indecisive</td>
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<td></td>
<td></td>
</tr>
</tbody>
</table>
Practice
Answers:
P – panicked
1. – playful
2. – upset
3. – desire
4. – insisting
5. – worried
6. – fantasizing
7. – uneasy
8. – despondent
9. – preoccupied
10. – cautious
11. – regretful
12. – skeptical
13. – anticipating
14. – accusing
15. – contemplative
16. – thoughtful
17. – doubtful
18. – decisive
19. – tentative
20. – friendly
21. – fantasizing
22. – preoccupied
23. – defiant
24. – pensive
25. – interested
26. – hostile
27. – cautious
28. – interested
29. – reflective
30. – flirtatious
31. – confident
32. – serious
33. – concerned
34. – distrustful
35. – nervous
36. – suspicious