

Understanding the Rorschach Egocentricity Index with Incarcerated Women

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Abstract

The Rorschach Comprehensive System Egocentricity Index (EGOI) and its component variables have been useful in understanding antisocial and psychopathic individuals (Gacono & Meloy, 1994; Gacono, Meloy, & Heaven, 1990). In this study, the EGOI, Personality Assessment Inventory (PAI) scales, and the Psychopathy Checklist-Revised (PCL-R) were used with a sample of incarcerated women. The EGOI, Fr + rF, and pairs were examined in relation to PCL-R Items 1 (Glibness/Superficial Charm) and 2 (Grandiose Sense of Self-Worth), PCL-R Factor 1, PCL-R facet 1, and the PAI MAN-G and ANT-E scales. The EGOI and reflections were significantly correlated with PCL-R Item 1 and a combination of PCL-R Items 1 and 2. Unlike highly narcissistic male offenders where grandiosity elevates reflections and EGOI, female psychopaths (PCL-R total score ≥ 30 ; $N = 85$) and non-psychopathic females (PCL-R total score ≤ 24 ; $N = 40$), did not demonstrate a significant difference for their mean EGOI; however, female psychopaths were more likely to produce protocols with a high EGOI (≥ 0.44) with and without reflections and they had more pairs (a finding consistent with conceptual differences between male and female psychopaths). The utility of the EGOI with incarcerated women is discussed.

Introduction

Exner (2003) used the Egocentricity Index (EGOI) in his Rorschach Comprehensive System (CS) for understanding self-concern/self-focus and its relationship to narcissism (see Langer, 2004 for synopses of previous EGOI studies; also see Gacono, 1988; Gacono & Meloy, 1994). The index looks at reflections, pairs (2), and the number of responses ($3r + (2)/R$); Exner (2003) reported strong validity of the index¹.

While Hermann Rorschach had little to say about the Rorschach and antisocial personality, Robert Lindner (1943) began a thorough examination of psychopathy with the Rorschach. Though his work was cut short by his untimely death (Gacono & Meloy, 1994), Gacono and Meloy extended Lindner's work with antisocial and psychopathic individuals. They have thoroughly explored the relationship of various Rorschach variables related to narcissism and its vicissitudes with offenders (see Gacono & Meloy, 1994; Gacono, Heaven, & Meloy, 1990; Gacono, Meloy & Bridges, 2008). Cunliffe and Gacono (2005; 2008) have extended this study to women offenders. Smith (Smith, Gacono, & Cunliffe, 2018; Smith, Gacono, Cunliffe,

¹ Others have questioned its validity (Mihura, Meyer, Dumitrascu, & Bombel, 2013), though there were methodological problems with some of the studies used in the analyses (see Smith et al., 2018).

Kivisto, & Taylor, 2014) has continued this work and demonstrated the presence of gender differences between the male and female psychopath, consistent with original and developing theoretical differences² (Cunliffe et al., 2016; Gacono & Meloy, 1994; Smith, Gacono, & Cunliffe, 2018). The expansion of this body of work with offenders, and particularly psychopaths (with their high levels of narcissism confirmed by PCL-R scores), where characterological egocentricity is expected makes this an ideal population for studying the EGOI.

Reflections and Pairs

Prior to creating the Egocentricity Index in the CS, Exner focused on reflections and pair responses (see Gacono, 1988 for a review). Exner (1969) found the reflection score incidentally when examining Beck's FV scores with four groups of 20 male subjects (gay males, antisocial offenders, depressive males with recent suicidal gestures, and non-patients). As noted by Gacono and Meloy (1994; Gacono et al., 1990) in these antisocial populations the Vista relates to a failed reflection—that is the inability of grandiosity to ward off threats to self-worth (Gacono & Meloy, 1997). The antisocial and gay male groups gave significantly more reflections than the other groups. Pairs were also tallied in the sample because they were considered a more subtle or controlled form of a reflection response (Exner, 1969).

Following this study, Exner devised a sentence completion blank (Self-Focus Sentence Completion; SFSC) to examine narcissism/self-focus. The measure was provided to 750 college and non-college populations. From these participants, two groups of 40 participants were made, those high in narcissism and low in narcissism. They were then administered the Rorschach. Many more reflections and pair responses were found in the high narcissism group compared to the low narcissism group. This was replicated when the sentence blank and reflection response were revised (Exner, 1973; see Gacono, 1988 for a summary).

Exner (1974) found that those that looked longer in a mirror gave more reflection/pair responses than those looking for a shorter amount of time in a mirror. Exner (1974) stated “when a reflection answer [occurs] in a record, it should be regarded carefully, regardless of the [EGOI], in that it probably represents an intense self-focus which may contribute to reality distortions, especially in interpersonal situations” (p. 294). Studies have found patients that provided reflections demonstrated a poor response to treatment (Exner, 1978; Exner & Andronikof-Sanglade, 1992; Weiner & Exner, 1991). Reflections have been related to the diagnostic criteria for narcissistic personality disorder with good support for its relation to narcissism (Hilsenroth, Fowler, Padawar, & Handler, 1997; Mihura et al., 2013). Gacono and colleagues have also found percentages of reflections in male offender groups such as psychopaths, sexual homicide perpetrators, and pedophiles where high levels of narcissism or pathological self-focus are expected (Gacono, 2016; Gacono et al., 2008).

Egocentricity Index

Based on the above studies, Exner (1974) created the Egocentricity Index. He stated Reflection and pair answers represent a form of self-centeredness or *egocentricity*, too much or too little may accompany psychopathological states, and that improvement from these conditions is marked by a change toward a level of improvement from these conditions and is marked by a change toward a level of

² The male psychopaths tended to be more grandiose and detached, while the females presented with more helplessness, poor self-regard, and painful rumination (Smith, Gacono, and Cunliffe, 2018).

egocentricity which is more consistent with that found in nonpatient records. (Exner, 1974, p. 293).

Gacono and Meloy (1994) further elaborated on the meaning of these variables. They linked reflections in antisocial samples to arrogant grandiosity (ala the Kernberg narcissist, 1975) and the pair response to “twinship” and mirroring (in the Kohut narcissist, 1971). By extension, the reflections in psychopaths would be linked to sadism and the pairs to masochism (see Gacono & Meloy, 1994³).

Exner used SFSC scores and Rorschach data from 325 nonpatient adults to create the EGOI and the choice to weigh the reflections by three ($3r + (2)/R$) resulted from a discriminant functions analysis. Exner (1986) provided many insightful points about the EGOI, including, “an excess of self-concern, *or* a lack of sufficient self-concern are both related to psychopathological states, in other words, egocentricity is a natural characteristic of the individual, which probably functions as an asset unless *overdone* or *underdeveloped*” (p. 396). Further, he stated, “an excess of self-centeredness, as illustrated by a high Index, does not necessarily equate with a positive self-image, but does represent the likelihood of more involvement with the self at the expense of a lesser, more superficial involvement with others” (Exner, 1986, p. 396). Additionally, Exner reported

If the Index includes a reflection response, it suggests that the self-involvement will be marked by a more juvenile, narcissistic-like tendency to overestimate personal worth. A low Egocentricity Index appears to signal negative self-esteem, that is, placing a low value on personal worth, probably because of a sense of failure to meet desires and/or expectations for oneself. It seems reasonably clear that a low Index is a precursor to an increase in the frequency and/or intensity of depressive experiences (p. 396).

Currently, the EGOI is an “estimate of self-concern and possibly self-esteem” (Exner, 2003, p. 477). Further, a high EGOI with a reflection relates to narcissistic-like features while a high EGOI with no reflections suggests an “unusually strong concern with self ... [that] can easily lead to a neglect of the external world” (Exner, 2003, p. 478).

Recent meta-analyses have questioned the validity of the Rorschach Comprehensive System’s Egocentricity Index (EGOI; Mihura, Meyer, Dumitrascu, & Bombel, 2013). Little support was found for it with the eight samples used examining high and low EGOI scores ($N = 1075$). A high EGOI being defined as either narcissistic or distress-related while a low EGOI was defined as negative self-esteem. It should be noted that many of the studies included in the Mihura et al. (2013) meta-analyses had methodological problems (internal validity issues) that make it impossible to determine their validity (see Smith et al., 2018); consequently, the results of these meta-analyses should not be used to discredit the EGOI (further studies such as this one are needed). For example, Arffa (1982) provided IQ scores; however, no statistics were provided for number of responses (R), Lambda, inter-rater reliability, and a small sample size was used (groups of 12). George and Kumar (2008) did not provide IQ or Education level and they did not provide statistics for R or Lambda. Hilsenroth et al. (1997) removed low R and high lambda protocols; however, no statistics were provided for either R or Lambda and groups had less than 20 in their sample sizes. Petrosky (2006) did not provide any statistics for IQ, R, Lambda, inter-rater reliability, and the comparison groups had less than 20 participants. These issues with the validity studies in the Mihura et al. (2013) make it impossible to determine if the findings were an artifact of constricted protocols (low responses or high Lambda; Smith et al., 2018).

³ They also discovered significant amounts of the omnipotence defense in psychopathic males.

In another Rorschach scoring system, Rorschach Performance Assessment System (R-PAS; Meyer, Viglione, Mihura, Erard, & Erdberg, 2011) reflections are retained but the EGOI is not. They argue that “there is almost no empirical support” (p. 462) for the EGOI as a measure of self-focus or self-esteem (despite Exner’s original work and subsequent work by others such as Gacono & Meloy, 1994). There was a relationship for EGOI to narcissism but lower than with reflections and they argue there is less support for the pairs (2) response. However, though they suggest the EGOI has no interpretative value, it is still retained in the R-PAS Suicide Composite (Meyer et al., 2011).

EGOI, Reflections, and Pairs & Offenders

Incarcerated/offender populations have been used as participants examining many Rorschach variables including the EGOI (e.g., Exner, 1969; Gacono & Meloy, 1994; Gacono, Meloy, & Berg, 1992). Exner’s studies with antisocial offenders lead Gacono (1988) to examine narcissism in male offenders with different levels of psychopathy. The SFSC was used to examine narcissism in offenders high in psychopathy and those with moderate levels of psychopathy. Though there was no difference between groups, the mean score on the SFSC was like Exner’s (1973) findings. Despite not finding group differences, the inclusion of the SFSC with psychopathic males allowed Gacono to postulate differences in the presentation of self-focus. Further, Gacono (1988) found that those high in psychopathy ($PCL-R \geq 30$) were all narcissistic but they fell into groups consistent with early theoretical observations offered by Karpman, Partridge, and others (see Gacono, 1988; Smith, 2013 for a review). For example, the psychopath that produced reflections and was blatantly arrogant was different from the psychopath that produced SFSC hysterical, grandiose, and paranoid types of responses without Rorschach reflections. He concluded that self-centeredness manifests differently on the Rorschach and was influenced by many factors, including characterological presentation.

Gacono, Meloy, and Heaven (1990) found that severe male psychopaths ($PCL-R$ total score ≥ 30) had a significantly higher EGOI ($M = 0.46$) and reflections ($M = 0.86$) than moderate non-psychopathic scorers ($PCL-R$ total score < 30 ; EGOI $M = 0.30$; $Fr + rF M = 0.14$). There was no difference related to pairs (severe; $M = 5.52$; moderate; $M = 5.19$). Gacono et al. (1990) were conservative of their interpretations of the EGOI for male psychopaths. The low EGOI within the moderate psychopaths suggested an ineffective way of regulating their self-worth. Gacono and Meloy (1991) found a mean EGOI of 0.37 (Reflections $M = 0.72$; Pairs $M = 5.37$) for incarcerated antisocial personality disordered (ASPD) males. Gacono and Meloy (1994) examined Rorschach data including EGOI, Pairs, and Reflections for male offenders (EGOI $M = 0.38$; $Fr + rF M = 0.67$; Pairs $M = 5.85$), male psychopaths (EGOI $M = 0.41$; $Fr + rF M = 0.85$; Pairs $M = 6.24$), female offenders (EGOI $M = 0.40$; $Fr + rF M = 0.47$; Pairs $M = 6.29$), and schizophrenic ASPD offenders (EGOI $M = 0.40$; $Fr + rF M = 0.57$; Pairs $M = 7.17$).

Cunliffe and Gacono (2005, 2008) did not find differences between non-psychopathic females ($PCL-R \leq 24$) and psychopathic females ($PCL-R \geq 30$) on reflections (psychopaths $Fr + rF M = 0.44$; non-psychopaths $Fr + rF M = 0.72$); however, the psychopathic females had more EGOI $\geq .44$ without reflections ($Fr + rF = 0$) than the non-psychopathic offenders and they had more pairs. Male and female psychopaths ($PCL-R \geq 30$) had the same average EGOI ($M = 0.40$); however, females had significantly more EGOI $\geq .44$ and $Fr + rF = 0$ than the males (Smith, Gacono & Cunliffe, 2018).

Recent meta-analyses (Mihura et al., 2013; Wood et al., 2010) have included offender studies to examine the validity of the EGOI. Wood et al. (2010) found a small but significant

positive correlation ($r = 0.097$) for psychopathy and EGOI (see Cunliffe et al., 2012 for a discussion about methodological issues with Wood et al.). The Mihura et al. meta-analyses included offender studies; however, there were many problems with a significant number of the individual studies (see Smith et al., 2018). Franks, Sreenivasan, Spray, and Kirkish (2009) did not find support of previous Gacono and Meloy studies as the male psychopaths ($PCL-R \geq 30$) had few reflections ($M = 0.18$) and a low EGOI ($M = 0.33$); however, they provided only scores for IQ subsets but not overall IQ scores, mean R was provided but not range, and whole Lambda mean was given ($M = 1.45$) but no range. This high Lambda alone would limit the production of many variables including reflections making one wonder if there were enough $Fr + rF$ in these studies to allow for comparison (Gacono, 2019).

In some better designed studies, such as Loving and Russell (2000), PCL: Youth Version (PCL:YV) identified that male psychopathic juveniles produced greater numbers of reflections than the other groups examined; no differences between groups in relation to EGOI were found. Smith, Gacono, and Kaufman (1997) also examined this male juvenile population and they did not find any significant differences related to reflections and EGOI; however, those with an $EGOI \geq .54$ were higher in the psychopathy group than the non-psychopathic group. Gacono et al. (1992) found a significant main effect for pairs and EGOI but not reflections in comparing male psychopaths, non-psychopathic males, males diagnosed with NPD, and males diagnosed with BPD (though the psychopaths and NPDs had higher means on reflections and EGOI). These three studies (Gacono et al., 1992; Loving & Russell, 2000; Smith et al., 1997) had methodological problems such as not reporting descriptive information for IQ, R, and Lambda, some had small sample size, and one used one Rorschach protocol with less than 14 responses. Whatever the impact IQ, Responses (R), or Lambda may have had on production of Rorschach variables there is no evidence that they did so in these studies. If there was some “dampening” for the production, then a normative IQ, Lambda, and R would only have increased the number of variables produced and made the findings even stronger.

Current Study

To better understand the EGOI, Reflections, and pairs within incarcerated women, PCL-R Items 1 & 2, PCL-R Facet 1 and Factor 1, we used correlational analyses with the Rorschach variables in a validation study⁴. Two items relate to self-focus on the PCL-R: Item 1 (Glibness/Superficial Charm) and Item 2 (Grandiose Sense of Self). PCL-R Item 1 describes someone who is “glib, voluble, verbally facile ... [can] be quite likeable ... [where their] knowledge is only superficial ... may be over-concerned with the interviewer’s impression ... [and] has a reputation for smooth talking” (Hare, 2003, p. 35). PCL-R Item 2 describes someone who has “a grossly inflated view of [their] abilities and self-worth ... [their] inflated ego and exaggerated regard for [their] own abilities are remarkable, given the facts of [their] life ... [and] may also see [themselves] as the real victim of the “alleged” crime” (Hare, 2003, p. 36). The criteria for these two PCL-R Items are most closely related to the concept of narcissism (in males they correlate with NPD; Hare, 2003). However, as noted by Gacono and Meloy (1994; Gacono, 1988), not all narcissism is equal. Likely these PCL-R items relate most closely to Kernberg’s (1975; arrogant) notion of narcissism rather than Kohut’s view of narcissism (1971; self-

⁴ A validation study (studies *on* the Rorschach) would be attempting to determine the Rorschach variable meaning and it does not assume it is already valid. In an application study (studies *with* the Rorschach), Rorschach variables are assumed to be valid measures of a specific psychological construct and they can be replaced by another instrument measuring the same construct (Smith et al., 2018).

effacing). Whereas other items relate to self-centeredness, these two items are most closely linked to grandiosity and an inflated sense of self.

These two items are part of the PCL-R Factor 1⁵ which is considered the selfish, callous, and remorseless use of others factor⁶ and they had the highest coefficients in the PCL-R factor analyses of Factor 1 (Hare, 2003; Hare et al., 1990). For males, PCL-R Factor 1 has been significantly correlated with emotional stability, manipulateness, aggressive incidents, verbal threats, substance use, cold-heartedness, Machiavellian Egocentricity, and fearless dominance as well as diagnoses of Antisocial Personality Disorder (PD), Paranoid PD, Histrionic PD, and Narcissistic PD (Hare, 2003; Heilbrun et al., 1998; Hildebrand & de Ruiter, 2004; Hildebrand, de Ruiter, & Nijman, 2004; Malterer, Lilienfeld, Neumann, & Newman, 2010; Miller, Lynam, Widiger, & Leukefeld, 2001; Poythress et al., 2010; Rutherford, Alterman, & Cacciola, 2000).

In women, PCL-R Factor 1 has been significantly correlated with negative emotionality, impulsivity, physical abuse, sexual abuse, less suicide attempts, fearless dominance, impulsive aggressiveness, interpersonal aggression, alienation, risk-taking behaviors, protective factors against substance abuse, egocentricity, antisocial behaviors, recidivism, and stimulus seeking. It also correlates with diagnoses of Narcissistic PD, Borderline PD, Histrionic PD, Obsessive Compulsive PD, and Antisocial PD (Berardino, Meloy, Sherman, & Jacobs, 2005; Hare, 2003; Kennealy, Hicks, & Patrick, 2007; Salekin, Rogers, & Sewell, 1997; Salekin, Rogers, Ustad, & Sewell, 1998; Verona, Hicks, & Patrick, 2005; Warren et al., 2003). The relationship between the PCL-R and the EGOI and its subcomponents provide an increased understanding of self-focus in females as PCL-R items are scores based on real-world behaviors and traits and are correlated with other measures of narcissism (Gacono & Meloy, 1994).

The Personality Assessment Inventory (PAI; Morey, 1991) also has subscales that examine grandiosity and egocentricity which are theoretically linked to the EGOI. Grandiosity falls within the Mania Scale (Mania – Grandiosity; MAN-G) while Egocentricity falls in the Antisocial features scale (Antisocial – Egocentricity; ANT-E). These PAI scales will also be used in correlational analyses with EGOI, reflections, and pairs.

Using an application study procedure⁷, female psychopaths (PCL-R total score ≥ 30 ; $N = 85$) and non-psychopaths (PCL-R total score ≤ 24 ; $N = 40$) will be compared on the EGOI, Pairs (2), EGOI $\geq .44$ and Reflections ≥ 1 and EGOI $\geq .44$ and Reflections = 0. The female psychopaths were expected to produce significantly more of the Rorschach variables assessed compared to the non-psychopaths. We make no assumptions that our findings with women apply to men – in fact, previous research supports gender differences in psychopaths (Cunliffe & Gacono, 2005, 2008; Gacono & Meloy, 1994; Smith, Gacono, & Cunliffe, 2018).

Method

Participants. Archival data were used for this study. The females ($N = 180$) were part of separate research projects conducted by Doctoral Level Psychologists at various medium sized state prisons in the United States (California, Wyoming, and Kentucky). Due to the nature of

⁵ The PCL-R is said to have a two Factor, four facet structure. Factor 1 is also considered the Interpersonal/affective features while Factor 2 is considered the chronically unstable, antisocial, and socially deviant lifestyle factor or socially deviant lifestyle. Items 1 and 2 also fall on facet 1 which is the Interpersonal facet (Hare, 2003).

⁶ We chose to use the original name of the factor as it provides a more thorough description (Hare, 1991).

⁷ A study *with* the Rorschach (Smith et al., 2018).

female prisons in the USA, the security levels of the women ranged from camp to maximum. Instant offenses for the population were: 72% (130) were drug related, 10 % (18) had a violent crime, 5% had a sex offense (9), and 13% (23) had another type of crime. All participants randomly received a flyer requesting their participation and all inmates volunteered for participation in the various studies. They signed informed consent forms to be included in research. They did not receive any monetary incentives and participation did not affect their sentence. The research studies were approved by the various institutions.

Measures

The Shipley Institute of Living Scale (SILS; Shipley & Zachary, 1986) or the Shipley-2 (Shipley, Gruber, Martin, & Klein, 2009), Psychopathy Checklist-Revised (PCL-R; Hare, 2003), Personality Assessment Inventory (PAI; Morey, 1991) and Rorschach Inkblot Test (Exner, 2003; Rorschach, 1921/1942) were administered in accordance with procedures outlined in the test manuals. PCL-R interviews and ratings, SILS/Shipley-2, PAI, and the Rorschach administrations were completed by Doctoral Level Psychologists (Ph.D. or Psy.D.) with extensive training in the scoring, administration, and interpretation of the measures.

The SILS/Shipley-2 provided an estimate of intelligence. These were used to screen out participants whose IQ score was lower than 80 (see Gacono, Loving, & Bodholdt, 2001; Smith et al., 2018). The Personality Assessment Inventory (PAI; Morey, 1991) is a 344 item self-report measure. It examines psychopathology and personality characteristics. It contains validity, clinical, treatment, and interpersonal scales. When examining the validity of a protocol, participants were retained for analyses only if they obtained an Infrequency (INF) score below 75T, an Inconsistency (ICN) score below 73T, and a Negative Impression Management (NIM) score below 77T (as outlined in Morey, 1991).

The Psychopathy Checklist-Revised (Hare, 2003) was used to assess psychopathy level. This measure contains 20 items and is administered via a file review and a semi-structured interview (e.g., Gacono, 2005). The PCL-R has been found to contain a two factor, four facet structure. Prior to the PCL-R interview, an in-depth file review is needed in which medical, legal, psychiatric, and pertinent institutional files were reviewed. During the interview the personality characteristics and antisocial behaviors are evaluated on a three-point ordinal scale with a total score range of 0 to 40. Gacono's (2005) *Clinical and Forensic Interview Schedule* (CFIS) was used to organize record and interview information. File reviews and interviews were completed for each participant. The inter-rater reliability estimates (Spearman Rho) were .93 for Factor 1 and $\geq .87$ for Facet 1 and PCL-R items 1 and 2.

While the Rorschach Inkblot Test has been useful for elucidating the psychology of individuals, it is not used to diagnose psychopathy (determine who is or is not a psychopath; see Gacono, 1998; Piotrowski, 2017). Like other personality measures, it assesses traits and other aspects of personality functioning. All the Rorschach protocols were administered and scored per the Exner Comprehensive System Guidelines (Exner, 2003). Kappa coefficients for all Rorschach EGOI, reflections, and pairs ranged from .82 to .92 (all in the excellent range; Fleiss, Levin, & Paik, 2013). Twenty protocols were scored by two raters and inter-rater reliability was calculated from these protocols.

Procedure

Within the entire sample, the EGOI, Reflections, and Pairs were used in correlational analyses with PCL-R Items 1 and 2, PCL-R Factor 1 and Facet 1, and PAI scales: MAN-G and ANT-E. Female psychopaths (PCL-R total score ≥ 30 ; $N = 85$) and non-psychopathic females (PCL-R total score ≤ 24 ; $N = 40$) were compared on Pairs, EGOI, EGOI $\geq .44$ and Reflections \geq

1 and EGOI $\geq .44$ and Reflections = 0. Within the comparisons, female offenders who have a moderate level of psychopathy (PCL-R total score > 24 but < 30) were excluded. The reasoning for this was due to Hare's (2003) suggestion that less than 24 on the PCL-R is exemplar of individuals lower in psychopathy.

Data Analysis. The Statistical Package for Social Sciences (SPSS) version 22, was used for all calculations. The data were analyzed for means, standard deviations, and ranges. Due to the nature of the Rorschach variables selected (unequal distribution, J-Shaped curves; Exner, 1995), these variables were examined with non-parametric statistics (Spearman rho, Chi-square, Mann-Whitney U statistics; Viglione, 1995), though parametric tests were also used when appropriate (*t*-tests).

Results

The total sample consisted of 180 female offenders. The ethnicities of the sample were: 110 White (61.1%), 47 Black (26.1%), 18 Hispanic (10.0%), 3 Asian (1.7%), and 2 Native-American (1.1%). Twelve participants were excluded due to IQ < 80 . The mean IQ was 97.5 ($SD = 12.57$; 80-155) and the mean age was 34.54 ($SD = 9.72$; 20-70). On the Rorschach, the mean number of responses (R) was 21.39 ($SD = 7.92$; 14 – 55) and the mean for the Lambda was 0.77 ($SD = 0.56$; 0.06-4.33). The mean for the EGOI was 0.39 ($SD = 0.171$; 0.00-0.91), the mean for Fr + rF was 0.58 ($SD = 0.985$; 0-5; Fr + rF $> 0 = 33\%$), and the mean for pairs was 6.63 ($SD = 4.32$; 0-25; pairs $> 0 = 98\%$). PCL-R mean scores were: total score was 28.57 ($SD = 5.77$, 10.50-39), Facet 1 was 5.92 ($SD = 1.62$; 0-8), and Factor 1 was 11.59 ($SD = 2.96$, 1-16). Of the 180 participants, only 156 PAI protocols were examined (excluded due to NIM, INF and/or INC scores). The mean for PAI MAN-G scale was 49.94 ($SD = 13.38$; 31-83) and the mean for PAI ANT-E was 55.82 ($SD = 11.53$; 39-92).

Table 1

Correlational Analyses between Rorschach, PCL-R, and PAI scores

	PCL-R Factor I	PCL-R Facet 1	PCL-R Item 1	PCL-R Item 2	PCL-R Items 1 & 2	PAI MAN- G	PAI ANT- E
EGOI	0.17	0.16	0.21*	0.16	0.22*	-0.02	-0.13
Fr + rF	0.11	0.16	0.18*	0.12	0.18*	-0.01	-0.11
Pairs	0.033	0.089	0.05	0.08	0.07	0.03	-0.04

Note. Statistic = Spearman ρ ; EGOI = Egocentricity Index; Fr + rF = Reflections; PCL-R = Psychopathy Checklist-Revised; PAI = Personality Assessment Inventory; MAN-G = Mania-Grandiosity; ANT-E = Antisocial – Egocentricity; * = $p < .05$.

For the correlational analyses, no significant correlations were found between EGOI and PCL-R Factor 1 and Facet 1 or the PAI scales MAN-G and ANT-E. Significant correlations were found for the EGOI with PCL-R Item 1 ($\rho [131] = 0.21$, $p = 0.015$) and a combination of PCL-R Items 1 and 2 ($\rho [130] = 0.22$, $p = 0.012$). Reflections were also significantly correlated with Item 1 ($\rho [131] = 0.18$, $p = 0.045$) and a combination of PCL-R Items 1 and 2 ($\rho [130] = 0.18$, $p = 0.044$) suggesting reflections are likely aligned with the Kernberg (1975) malignant arrogant narcissist. Pairs were not involved in any significant correlations which suggests that pairs

(mirroring/twinship) are more aligned with the self-effacing narcissist (Kohut, 1971) and that they would not be expected to correlate with PCL-R items measuring glibness and grandiosity. This provides important clues to the gender differences between psychopaths related to their egocentricity.

For the application study with female psychopaths⁸ (PCL-R total score ≥ 30 ; $N = 85$) and non-psychopathic females⁹ (PCL-R total score ≤ 24 ; $N = 40$), there was no significant difference regarding EGOI. The mean EGOI for the psychopaths was 0.39 ($SD = 0.17$) and the mean for the non-psychopaths was 0.39 ($SD = 0.22$). However, the female psychopaths were more likely to have an EGOI ≥ 0.44 ($N = 17$) and have no reflections ($Fr + rF = 0$) than the non-psychopathic females ($N = 6$; $\chi^2 = 4.34$, $p = 0.037$, $V = 0.43$). The female psychopaths were also more likely to have an EGOI ≥ 0.44 and $Fr + rF \geq 1$ ($N = 21$) than the non-psychopathic females ($N = 10$; $\chi^2 = 3.90$, $p = 0.048$, $V = 0.35$). The female psychopaths ($M = 7.01$; $SD = 4.89$) produced more Pairs (2) than the non-psychopaths ($M = 5.23$; $SD = 2.94$; $t [123] = 2.535$, $p = 0.013$, $d = 0.44$).

Discussion

Recently the EGOI has had some negative support regarding its validity in the literature (Mihura et al., 2013); however, many of the studies had internal validity issues (Smith et al., 2018). Given Exner's early work and the problems with certain meta-analyses, it would be premature to throw out the EGOI and its usefulness in clinical settings. When we turn to the theoretical literature on narcissism and psychopathy (see Gacono & Meloy, 1994 for a review), it would be expected that 1) not all psychopaths produce reflections, 2) that there are differences in personality style among highly self-focused individuals (Gacono, 1988), and 3) that if a measure is useful, than these differences will manifest within the psychological measures used to assess highly narcissistic individuals. Indeed, the failure of many studies is the lack of conceptual understanding, from a real-world perspective, of personality differences and the failure to incorporate this knowledge into their study design (see Gacono, 2019; Smith et al., 2018). There is a difference between reading about narcissism and having evaluated several hundred narcissistic people in various prison settings.

The early differences between Kohut (1971) and Kernberg (1975) were not a surprise to clinicians who approached data from real world experience—it was a pseudo-debate as both were talking about different types of narcissism and they were both right (see Gacono & Meloy, 1994). Kohut discussed the more masochistic, self-effacing narcissist and Kernberg discussed the more arrogant, belligerent, grandiose narcissist akin to the psychopath. Differences in antisocial and psychopathic personalities have been noted since the earliest work of these personalities (Cleckley, 1941; Hare, 2003; Partridge, 1930). When these differences manifest within well designed studies it does not invalidate a variable or index, it only adds to the validity when compared to clinical observations that lead to the original constructs (externally assessed studies/validation studies).

One situation typifies the problems with many of the studies found in the current literature (see Smith et al, 2018). Recently, one of the co-authors (CBG) of this article reviewed a dissertation on psychopathy related to ethnicity. In the dissertation, ethnicity was related to

⁸ Responses ($M = 21.80$; $SD = 9.02$; Range = 14-55); Lambda ($M = 0.78$; $SD = 0.51$; Range = 0.06-2.60); IQ ($M = 96.54$; $SD = 12.49$; Range = 80-155)

⁹ Responses ($M = 19.15$; $SD = 5.68$; Range = 14-33); Lambda ($M = 0.90$; $SD = 0.76$; Range = 0.14-4.33); IQ ($M = 100.69$; $SD = 13.77$; Range = 80-145)

differences in total mean PCL-R scores, and wrongly assumed that these differences reflected a bias on the part of the PCL-R. When examining the real-world histories of the two groups, the group with higher psychopathy scores had histories of violence and high levels of the Antisocial Personality Disorder (ASPD) diagnosis which were lacking in the lower scoring group. The fact that both violent behaviors and the behaviors needed to obtain an ASPD diagnosis were data points scored on the PCL-R (which would correctly elevate the PCL-R) were never considered. Consequently, without careful analysis of the entire body of data, a premature conclusion of racial bias of the PCL-R was promoted. The PCL-R scores were true reflections of the real-world histories of the two groups and added to the validity of the PCL-R rather than detracting from it. While Gacono (2019) has linked these glaring conceptual gaps in the literature to many of the discrepant findings in the literature, to pseudo-debates and apparent controversies, Bob Hare has referred to the failure of researchers to have adequate conceptual knowledge for conducting their studies as creating “arm chair” quality research. The studies become statistical monuments which only dimly reflect real world functioning.

The findings of this study demonstrate that when validating a Rorschach variable, externally assessed criteria (e.g., diagnoses) may be better than introspectively assessed criteria (e.g., self-report measures; see Mihura et al., 2013; Smith et al., 2018). The PCL-R, when properly administered and scored, is a valuable tool since items and scores are linked to real world behavior, which cannot be said for self-report measures (i.e., PAI). Though, others have argued that the Rorschach and PAI have convergent validity (Hopwood & Evans, 2017; Morey & McCredie, 2019; Smith, Gacono, Kivisto, & Cunliffe, 2019), meta-analytic findings have found externally assessed criteria rather than introspectively assessed criteria are better at validating Rorschach indices (Mihura et al., 2013). This may explain the lack of significant correlations between the EGOI, reflections, pairs and the PAI scales of MAN-G and ANT-E. Additionally, these indices may be measuring different aspects of a complex construct which will manifest differently within a given sample (see Gacono & Meloy 1994 for a review of narcissism). Equally feasible is this lack of difference applies to females – who have construct differences from male psychopaths. Gender differences must be fully explored before discounting their importance (Cunliffe et al., 2016; Gacono & Meloy, 1994; Smith, Gacono, & Cunliffe, 2018).

Though other researchers have questioned the use of the EGOI (Mihura et al., 2013; Wood et al., 2010), there is utility to using the EGOI, Pairs, and Reflections with a sample of female offenders which is consistent with using these Rorschach scores with forensic samples (Gacono & Meloy, 1994). Correlational analyses with a sample of female offenders found that the EGOI was significantly correlated with PCL-R Item 1 and a combination of PCL-R Item 1 and 2, though our results are tempered slightly since the correlation coefficient was not much higher than reflections alone. PCL-R Item 1 focuses on Glibness/Superficial charm while PCL-R Item 2 looks at Grandiose Sense of Self-Worth. The significant correlation between the EGOI and Item 1 (Glibness/Superficial Charm) relates to the hysterical style of female offenders and the attention seeking of the sample (histrionic traits). The use of superficial charm may be a defense that is reinforced by splitting the real self from a public persona. Item 1 allows the female to present herself in a positive manner, increase impression management, and to be concerned with how she is being perceived.

Gacono and Hutton¹⁰ (1994) have found that clinically many items on the PCL-R are correlated with each other (i.e., items 1 & 2) and these correlations were useful in creating a time efficient method for scoring the PCL: Screening Version (SV) and PCL-R (see Gacono, 2005). EGOI was

also significantly correlated with PCL-R Items 1 and 2. Therefore, a high EGOI appears to be measuring self-focus in female offenders, adding to the validity of the measure. Reflections, which have been related to narcissistic tendencies (Exner, 2003; Gacono & Meloy, 1994), had significant findings related to PCL-R Item 1 as well as a combination of Items 1 and 2. Therefore, more validity is given to reflections being related to narcissism for the subsample of offenders who produce the reflections.

Though attempting to validate the EGOI and reflections solely with PCL-R items/PAI scales can be beneficial, looking at the EGOI in relation to reflections may be more valuable. When examining just those that produce reflections, the correlation with Item 1 was higher ($\rho [47] = 0.30, p = 0.038$). This highlights that in these female offenders, the presence of a high EGOI and reflections relates to their self-focus and other presentations identified by PCL-R Items 1 & 2, though this self-focus would be more related to impression management and a hysterical style rather than the grandiosity seen with male offenders. Within the world of both male and female psychopaths, those who provide reflections may be a psychopathic subgroup and may be different than those who do not provide reflections.

The findings were put into context when separating the female offenders into female psychopaths (PCL-R total ≥ 30) and non-psychopaths (PCL-R total ≤ 24) in an application study. Though there was no significant difference on the EGOI between the groups, the female psychopaths were more likely to have an EGOI ≥ 0.44 without reflections (Fr + rF) than the non-psychopathic females. This suggested that the non-psychopathic females have different issues with self-focus than the psychopathic females. For the female psychopath with an increased EGOI without reflections (meaning elevated pairs), this may suggest problems with self-esteem regulation characteristics as well as displeasure with self-focus (Cunliffe & Gacono, 2005, 2008; Smith, Gacono, & Cunliffe, 2018; Weiner, 2003). This may be related to the correlation between PCL-R Factor 1 with Obsessive Compulsive PD in women (Warren et al., 2003). Further, perhaps for the non-psychopathic women, they have more traditional low self-esteem. To fully understand the self-focus of the women we must look elsewhere in the Rorschach protocol. For example, Vistas (V; failed reflection) which would be a lack of effective regulatory mechanism for grandiosity---which wards off threats to self-worth (i.e., painful rumination, Smith, Gacono, & Cunliffe, 2018). Male psychopaths may produce reflections while female psychopaths produce vista responses. It helps to also incorporate other testing data and real-world behavior. These data may suggest a self-critical style within these females. To look at one variable or piece of data for describing the complexity of personality functioning has never been supported (see Gacono & Meloy, 1994; Lindner, 1943).

The female psychopath also presented with reflections and an increased EGOI which is related to the nature of their self-focus, more so than the non-psychopathic females. This finding is different than from male psychopaths where their reflection score suggested grandiosity (Gacono & Meloy, 1994; Smith, Gacono, & Cunliffe, 2018). These two significant findings when combining reflections and EGOI, suggests that the self-focus within the female psychopaths is related to self-critical attitudes rather than grandiosity (consistent with a more

¹⁰ When examining the item correlations within the PCL-R manual, they noted that their clinical observations were supported by the statistical correlations of the individual items within each factor (see Hare, 2003).

masochistic or self-effacing type of narcissism as described by Kohut and the elevations of Obsessive-Compulsive PD). As has been suggested, the female psychopath has a pathological self-focus with self-critical attitudes related to a hysterical style (Cunliffe & Gacono, 2005, 2008; Cunliffe et al., 2016; Smith et al., 2014; Smith, Gacono, & Cunliffe, 2018). These findings, coupled with the EGOI and reflections being correlated to PCL-R Item 1, may suggest that Glibness/Superficial Charm within female psychopaths is more related to self-focus and self-perception than Item 2 Grandiose Sense of Self-Worth. A finding that relates to modifying PCL-R Item 2 for females (Cunliffe et al., 2016; Forouzan & Cooke, 2005; Smith et al., 2014, Smith, Gacono, & Cunliffe, 2018).

The female psychopaths produced more pairs (2) responses than the non-psychopaths. This finding is related to the regulatory aspects of self-worth within the psychopathic female rather than non-psychopaths, and as Exner (1974) postulated, it was a more controlled or subtle form of reflections. The pair response may be tied to twinship and masochism and linked to Obsessive Compulsive PD (Gacono et al., 1990; Kohut, 1971; Smith et al., 2019). For example, OCPD may be related to the pair response as both need to focus on two, keep things balanced and a more ruminative self-critical style (also SumV). Further, the pair response appears related to the innate need to be accepted by others for the female psychopaths relates to their dependency and attachment difficulties within their hysterical style and masochistic aggression (Smith, Gacono, & Cunliffe, 2018; in press). This suggests that there may be validity to the pair response in contrast to what others have said (Meyer et al., 2011).

Conclusions

Overall, the findings related to EGOI, reflections, and pairs with the PCL-R help better conceptualize the female offender/psychopath. They tend to have displeasure in their self-focus and their innate need to be accepted by others and the process in which they do this (glib, superficial charm) is tied to abnormal bonding and dependency. Therefore, it adds more to the model of the female psychopath with underlying hysterical style and a self-perception characterized by a pathological self-focus and damaged sense of self/self-critical attitudes (Cunliffe & Gacono, 2005, 2008; Gacono & Meloy, 1994; Smith et al., 2014; Smith, Gacono, & Cunliffe, 2018).

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