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# Exploring manifestations of grandiosity in Rorschach responding in an inpatient offender population with severe psychiatric disorders

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A Dissertation

entitled

Exploring Manifestations of Grandiosity in Rorschach Responding in an Inpatient

Offender Population with Severe Psychiatric Disorders

by

David P. Marino

Submitted to the Graduate Faculty as partial fulfillment of the requirements for the

Doctor of Philosophy Degree in Clinical Psychology

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August 2015

An Abstract of

Exploring Manifestations of Grandiosity in Rorschach Responding in an Inpatient
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The assessment of narcissistic-like grandiosity could be enhanced by developing

methods for its assessment that can complement the predominant methods used now,

which are self-report methodology via questionnaires or semi-structured interviews. The

aim of this study was to evaluate a broad number of potential ways to capture

narcissistic-like grandiose manifestations in imagery and interactive behaviors observed

in a Rorschach protocol. Specifically, I coded a set of 11 grandiose or narcissism-related

Rorschach variables, evaluated their factorial cohesiveness, and correlated the resulting

factor and its component items with a clinician rated criterion measure of grandiosity

from the Positive and Negative Syndrome Scale (PANSS). This was done using a data set

of eighty eight inpatient offenders with severe psychiatric disorders collected from the

Center for Forensic Psychiatry in Saline, Michigan. Overall, the results supported a one

factor solution, but this factor and its corresponding items did not correlate with the

grandiosity criterion measure, though on the PANSS grandiosity is specifically tied to

delusional grandiosity. In follow-up exploratory analyses, results indicated the factor had

significant positive associations with PANSS items of Excitement (.27), Suspiciousness

(.28), Somatic Concern (.23) and Guilt Feelings (.22). Overall, results provided

converging evidence that a factor defined by four Rorschach variables is present in an inpatient offender population with severe psychiatric disorders, replicating previous research with adults and children (see Gritti, Marino, Lang, & Meyer, 2014; Gritti, Stokes, Pogge, & Meyer, 2014; Marino, Meyer, & Mihura, 2012). Although this factor correlated with clinician ratings of narcissism in an outpatient sample in previous research (i.e., Gritti, Marino, et al., 2014), in this study it did not correlate with ratings of delusional grandiosity. Nonetheless, this research does provide further evidence of a consistent factor of the Potential Rorschach Grandiosity and Narcissism Variables that can be used for future research and practice.

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## List of Abbreviations

CFP ............................Center for Forensic Psychiatry
DSM-IV ......................Diagnostic and Statistical Manual – 4$^{th}$ Edition
DSM-5 ........................Diagnostic and Statistical Manual – 5$^{th}$ Edition
ICC.............................Intraclass Correlation
LDS............................Lerner Defense Scales
NPD ...........................Narcissistic Personality Disorder
PANSS.......................Positive and Negative Syndrome Scale
PBA............................Performance Based Assessment
R-PAS ........................Rorschach Performance Assessment System
RDS............................Rorschach Defense Scales
TAT............................Thematic Apperception Test
CS..............................Comprehensive System

**Chapter One**

**Introduction**

**Origins of Narcissism and Grandiosity**

Many psychologists have debated the psychological structure and the intra- and interpersonal processes of narcissism since its introduction into the psychological literature toward the end of the nineteenth century (see Ellis, 1898; Freud, 1914; Nacke, 1899; Rank, 1911). Havelock Ellis and Paul Näcke were the first to develop a psychological concept of narcissism (Ellis, 1927), which was expanded on by Otto Rank and Sigmund Freud. Ellis, an English sexologist, invoked the Greek myth of Narcissus by using the term "narcissus-like" in reference to individuals who excessively masturbate (Ellis, 1898). The following year, Näcke (1899) described a sexual perversion with the word 'Narzissmus.' Decades later, narcissism was described by Otto Rank (1911) in a publication that linked narcissism with self-admiration and vanity. This early description was adapted into the psychoanalytical literature and shortly thereafter, Sigmund Freud (1914) published his influential paper titled *On Narcissism: An Introduction* that laid the conceptual groundwork for narcissism and its corresponding grandiose components still in use today.

In *On Narcissism: An Introduction,* Freud described how two types of narcissism develop as children mature and gain a sense of self through life experiences (Freud, 1914). Children experience a normal adaptive maturational phase of healthy development (i.e., *primary narcissism*) characterized by egocentrism and the inability to take the perspective of others. They also learn to transfer their perspective and self-love to another person or object that gives reciprocal love and warmth. However, children who do not

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receive reciprocal love regress to an unhealthy state of narcissism (i.e., *secondary narcissism*) characterized by inflated self-views, self-admiration, and attention seeking behaviors. Secondary narcissism is an adaptation by the child that serves to compensate for the rejection and lack of affirmation from parents.

Freud's developmental perspective on narcissism and its corresponding grandiose component laid the foundation for subsequent theorists, including Heinz Kohut and Otto Kernberg, who have highly influenced the contemporary understanding of narcissism. Kohut defined narcissism as a normal aspect of self-development that evolves as an individual matures (Kohut, 1966) and suggested that every person has narcissistic needs that require age-appropriate adjustments to support and maintain self-esteem (Kohut, 1971). Kohut believed most children grandiosely fantasize about their own self-worth and idealize a parent figure (Kohut, 1971). The grandiose fantasies of self-worth reduce with gradual exposure to one's fallibility, as the idealized parent figure becomes the framework for core values. However, children without adequate support from caregivers are excessively vulnerable to criticism and are unable to integrate their primitive grandiose fantasies of self-worth with realistic self-views of shortcomings (Kohut, 1968). This combination leads to a brittle and flawed sense of self that is characterized by a cluster of symptoms including a lack of enthusiasm, perverse activity (e.g., sexual behavior considered abnormal), and subjective feelings of deadness. These narcissistic symptoms are recognized through an inflated self-image that requires external mirroring in the form of recognition, confirmation, and admiration (Kohut, 1968, 1971). However, if there was a lack of external mirroring and the child had a biological disposition towards psychotic disorders, Kohut believed that these persistent grandiose delusions

could turn psychotic (Kohut & Wolf, 1978). Specifically, he theorized that individuals

with psychotic grandiosity would develop a new identity characterized by self-sufficient

grandiose fantasies and omnipotence (Kohut, 1971). Additionally, Kohut identified and

described several defense mechanisms that unfold in the treatment of narcissism and

grandiosity including mirroring and idealization (Kohut & Wolf, 1978).

In contrast to Kohut, Kernberg conceptualized narcissism as the self-esteem

regulating mechanism that all individuals experience within oneself. He introduced

*narcissistic personality structure* to help describe this process, which typically involved

two of three stages including *infantile narcissism* and either *adult narcissism* or

*pathological narcissism* (Kernberg, 1975a). Children develop normal infantile narcissism

if they receive affirmation from others and acquire sought-after interpersonal

relationships (Kernberg, 1975a). Normal infantile narcissism either develops into adult

narcissism (i.e*.,* a healthy, mature self-esteem) that includes assurances of worthiness and

respect or pathological narcissism that manifests as excessive self-absorption, an

inordinate need for love, and an overinflated grandiose sense of self amid a desperate

desire for adoration (Kernberg, 1975b, 1976, 1984). The pathological narcissist has an

exploitative interpersonal style characterized by idealizing individuals who provide

narcissistic supplies and depreciating those who do not (Kernberg, 1975b). Consequently,

narcissistic individuals do not experience life enjoyment outside of their own grandiose

fantasies or the praise received from others. Kernberg (1975a) theorized that

narcissistically grandiose individuals use defense mechanisms to protect their highly

unrealistic, perfect sense of self. These persons are unable to subsequently replace

maladaptive traits with more adaptive traits due to the avoidance function of defense mechanisms (J. C. Perry, Presniak, & Olson, 2013).

Since its theoretical inception, narcissism has primarily been defined by grandiose manifestations that lead to inter- and intra-personal problems (see Cain, Pincus, & Ansell, 2008). Additionally, these narcissistically grandiose manifestations are observed in other clinical disorders. Currently, grandiosity is defined as one of the *Diagnostic and Statistical Manual Fifth Edition* (DSM-5) personality disorder trait facets under the domain of *Antagonism* as a sense of "believing that one is superior to others and deserves special treatment; self-centeredness; feelings of entitlement; condescension towards others" (American Psychiatric Association, 2013; p. 822).

**Consequences of Narcissistic-like Grandiosity**

Untreated narcissistic-like grandiosity can lead to many complications that affect physical, mental, and social aspects of an individual's well-being. The grandiose component of pathological narcissism impacts social behavior by limiting meaningful relationships (Morf & Rhodewalt, 1993), reducing the ability to maintain or initiate relationships (Miller, Campbell, & Pilkonis, 2007), and increasing interpersonal problems or relational dysfunction (Campbell, Foster, & Finkel, 2002; Carroll, Hoenigmann-Stoval, King, Weinhold, & Whitehead, 1998; Dickinson & Pincus, 2003; Ehrenberg, Gearing-Small, Hunter, & Small, 2001; Rhodewalt & Morf, 1995; Wiehe, 2003). Pathological narcissism, in particular the vulnerable component, influences physical health by triggering suicidal ideation and behaviors (Links, Gould, & Ratnayake, 2003; Ronningstam & Maltsberger, 1998) and increasing the risk of abusing drugs or alcohol (Luhtanen & Crocker, 2005; Vaglum, 1999). Overall, pathological narcissism affects

mental health, including decreased self-esteem (Barry, Frick, & Killian, 2003; Washburn, McMahon, King, Reinecke, & Silver, 2004), increased prevalence of Axis I disorders (Bachar, Hadar, & Shalev, 2005; Ronningstam, 1996), increased impulsivity (Vazire & Funder, 2006), and hypersensitivity to insults or criticism (Bushman & Baumeister, 1998). There is a substantial amount of evidence suggesting the need to identify and effectively treat the grandiose components of narcissism in order to reduce the harmful consequences of narcissistic vulnerability.

Narcissistically grandiose individuals often feel too superior to accept help or treatment, which makes these individuals especially difficult to treat and leads to minimal treatment gains (Hilsenroth, Holdwick, Castlebury, & Blais, 1998; Kernberg, 2007; Plakun, 1989). *Narcissistic Personality Disorder* (NPD), which primarily focuses on grandiose manifestations (see Cain et al., 2008), has high comorbidity, most commonly occurring with borderline, passive-aggressive, antisocial, and histrionic personality disorders (Becker, Grilo, Edell, & McGlashan, 2000; Clemence, Perry, & Plakun, 2009; Gunderson, Ronningstam, & Smith, 1991; Pfohl, Coryell, Zimmerman, & Stangl, 1986). Narcissistically grandiose individuals use an omnipotent style of responding to others that distresses mental health professionals and that is likely to cause difficulties with sustaining interpersonal relationships (i.e., work, family, intimate) or meeting personal goals (Miller et al., 2007). Past research has highlighted the clinical utility of assessing grandiosity in a real-world psychotherapeutic context. For example, empirical research has demonstrated that grandiosity is negatively related to the use of adjunctive treatment services and positively predicts client-initiated termination of psychotherapy (Ellison, Levy, Cain, Ansell, & Pincus, 2013).

Although narcissistically grandiose individuals are especially difficult to treat (Hilsenroth et al., 1998; Kernberg, 1998; Plakun, 1989), personality assessment can expeditiously improve psychotherapeutic treatment in many ways. For example, personality assessment can promote better therapeutic alliance and treatment retention (Ackerman, Hilsenroth, Baity, & Blagys, 2000; Hilsenroth, Peters, & Ackerman, 2004), enhance psychotherapy treatment outcomes (Jobes, Wong, Conrad, Drozd, & Neal-Walden, 2005), and deliver direct therapeutic benefits (Finn & Tonsager, 1992; Newman & Greenway, 1997). However, narcissistically grandiose individuals can be difficult to assess, as they may display pretentious behavior during test administration, such as needing special treatment, craving admiration, and displaying an alienating sense of entitlement with an egocentric social façade full of self-references (H. D. Lerner, 1988). These narcissistically grandiose needs may also appear to be disrespectful of the testing procedures (e.g., setting up appointments, adhering to session times, respecting administration techniques). The examiner may subsequently respond to the client in detrimental ways, such as departing from standardized testing procedures to give special treatment (P. M. Lerner, 1988). Consequently, individuals with untreated narcissistic-like grandiosity often face adversity and cause problems for those around them.

Narcissistic-like grandiosity manifests in other pathological disorders, particularly for individuals with Bipolar I and Bipolar II disorders during manic and hypomanic episodes. Grandiosity has been classified as a cardinal symptom of mania (Leibenluft, Charney, Towbin, Bhangoo, & Pine, 2003) and the DSM-5 defines Bipolar I and Bipolar II disorders as consisting of elevated mood and grandiosity accompanied by increased impulsivity or inattention (American Psychiatric Association, 2013). The DSM-5

distinguishes grandiosity in manic and hypomanic episodes from NPD when the grandiosity causes mood change or functional impairments. In general, narcissistic-like grandiosity manifests during manic episodes as extreme and aggressive. Aggressiveness is a relatively common component of acute grandiose manic episodes (Cassidy, Ahearn, & Carroll, 2002; Ghaemi, Stoll, & Pope, 1995; Quirk & Lelliott, 2001; Sato et al., 2003; Yesavage, 1983). For example, the grandiose component of Bipolar I disorder may lead to dangerous, reckless behaviors. This is likely due to the expansive mood, poor judgment, and excessive optimism (e.g., spending sprees, road rage, and sexual promiscuity). Likewise, several researchers have noted an overlap in the grandiose components of NPD and the manic phases of Bipolar I and Bipolar II Disorders leading to high comorbidity (Akiskal, 1992; Brieger, Ehrt, & Marneros, 2003; Stormberg, Ronningstam, Gunderson, & Tohen, 1998; Vieta et al., 2000). Additionally, Garno and colleagues (2005) and Mantere and colleagues (2006) have estimated that up to 31% of individuals diagnosed with Bipolar I or Bipolar II disorders reach the criteria for a Cluster B personality disorder including individuals with NPD, Antisocial, Borderline, and Histrionic Personality Disorders.

Narcissistic-like grandiosity is also considered a key feature that defines the Schizophrenia Spectrum and other Psychotic Disorders in DSM-5 (American Psychiatric Association, 2013). Specifically, grandiose delusions occur when an individual believes they possess exceptional abilities, wealth, or fame and are considered one of six types of delusions outlined in the DSM-5. Furthermore, there is a Grandiose subtype of Delusional Disorder defined as "a conviction of having some great (but unrecognized) talent or insight or having made some important discovery" (American Psychiatric

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Association, 2013; p. 90). Lake (2008) described through several case studies how manic grandiosity has the potential to develop into paranoia when mania brings about delusions of owning possessions of exaggerated value that others want (e.g., having a Star Wars missile design that the KGB and NSA desired). Additionally, grandiose delusions of valuable possessions is characterized as a symptom that is potentially suggestive of a psychotic mood disorder (Lake, 2008). For psychotic individuals, grandiosity serves the patient by offering an escape to an alternative and pleasant fantasy-based reality that gives the patient a sense of purpose and significance (Mackinnon, 1977). When psychotic individuals lose their sense of delusional grandiosity and the corresponding omnipotent identity serving to provide the preferred alternative reality, they often feel depressed (Potik, 2014). For individuals exiting their psychotic phase and facing this depression, it is imperative for the treating practitioner to help these individuals understand their grandiose fantasies in order to help establish adaptive, reality-based behavioral skills (Potik, 2014).

Narcissistic-like grandiosity is also found in psychopathy (Gustafson & Ritzer, 1995; Paulhus & Williams, 2002; Ronningstam, 2005a, 2005b), as these behaviors have the potential to develop into aggressive behaviors (Barry, Frick, Adler, & Grafeman, 2007; Barry et al., 2003; Barry, Grafeman, Adler, & Pickard, 2007; Baumeister, Smart, & Boden, 1996; Washburn et al., 2004) and sexually aggressive behaviors (Baumeister, Catanese, & Wallace, 2002; Bushman & Baumeister, 1998; Bushman, Bonacci, van Dijk, & Baumeister, 2003; Ryan, 2004). Many criminals commonly feature five of the nine grandiose NPD traits included in the DSM (American Psychiatric Association, 1994, 2000, 2013), including a grandiose sense of self-importance, a belief in one's

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"specialness," a sense of entitlement, exploitation, and lack of empathy (Blickle, Schlegel, Fassbender, & Klein, 2006; Stone, 2009). Additionally, narcissistic-like grandiosity promotes antisocial behaviors in psychopaths (Ronningstam, 2005a, 2005b). For example, incarcerated violent offenders often feel superior and entitled to special privileges (Baumeister, Bushman, & Campbell, 2000). Psychopathy has been conceptualized as an aggressive version of narcissism (Kernberg, 1975a; Meloy, 1988) and as an extreme variant along the narcissistic spectrum (Stone, 2009). In fact, three of the twenty items of Hare's Revised Psychopathy Checklist (Hare, 2003) explicitly overlap with DSM-IV NPD criteria, including a grandiose sense of self-worth, lack of empathy, and failure to accept responsibility for one's own actions (Stone, 2009). It is important that narcissistically grandiose individuals receive better treatment to avoid the corresponding consequences of criminal behaviors. Despite the many challenges to treating narcissistic-like grandiosity, the potential for personality assessment to expedite treatment and improve overall outcomes has made reliable and valid assessment of narcissistic-like grandiosity a priority.

**Assessing Narcissistic-like Grandiosity**

Accurately assessing the grandiose components of pathological narcissism is difficult due to theoretical disagreements regarding its basic conceptualization, the predominant methodology used for assessment, and its undesirable nature. The diagnostic definition and conceptualization of NPD from the DSM (American Psychiatric Association, 1980, 1994, 2000, 2013) has been debated amongst social and personality psychologists, clinical psychologists, and psychiatrists (see Cain et al., 2008). NPD is generally conceptualized through expressions of grandiosity and vulnerability across

clinical theory and social and personality psychology (Luhtanen & Crocker, 2005; Vaglum, 1999), whereas the DSM-5 psychiatric definition (unchanged from the DSM-IV) exclusively focuses on expressions of grandiosity and neglects the vulnerable component (Cain et al., 2008). The theoretical disagreement has contributed to uncertain NPD prevalence rates (Miller & Campbell, 2011; Miller et al., 2007; Oldham, Skodol, Kellman, & Hyler, 1992; Widiger, 2011) and increased comorbidity with other personality disorders (Cain et al., 2008; Miller & Campbell, 2008). Frequent comorbidity amongst the personality disorders is in part because they are all able to fit into the broad borderline personality organization construct (J. C. Perry et al., 2013).

Optimal assessment is obtained through the integration of information from multiple methods of data collection (e.g., self-report, peer-report, clinician rating, and performance-based assessments) that provide clinicians and other mental health professionals with a richer, more comprehensive understanding of the individual (Handler & Hilsenroth, 2006; Meyer et al., 2001). Multi-method assessments provide various perspectives about the psychological functioning of an individual and can increase the utility of the assessment (Hilsenroth, Handler, & Blais, 1996). Assessment quality is maximized when integrated data from multiple methods of assessment are valid but not highly intercorrelated (Hilsenroth et al., 1996; Meehl, 1954). To comprehensively assess narcissistic-like grandiosity, examiners need to evaluate internal characteristics and overt interpersonal and behavioral aspects of the person (Hilsenroth et al., 1996). Thus, an implicit measure that can complement the results of self-report, peer-report, and clinician ratings could provide incremental value. Identifying and treating narcissistically

grandiose individuals also could be enhanced if multiple methods are used to adequately cover each construct (Miller, Campbell, Pilkonis, & Morse, 2008).

One way to provide incremental narcissistically grandiose information that is otherwise unattainable is through performance based assessments (PBAs). PBAs have the ability to access "individualistic functions and thus reveal personality activity directly" (Viglione & Rivera, 2013; p. 618). They produce observable and documentable aspects of relevant behavior, associations, perceptions, emotions, and interpersonal components within the testing room. PBAs can take many forms with the task stimulus typically being incomplete, contradictory, ambiguous, evocative or suggestive with little external structure, direction, or guidance provided to the respondent. Rather than rating a trait to one's self, such as in self-report methodology, the respondent performs a task that elicits information about the personality in vivo. In other words, the respondent demonstrates target behaviors by doing something while the administrator observes and transcribes the behavior (Viglione & Rivera, 2013). PBAs can reveal unique traits that help answer vexing questions about how various characteristics combine into complex coping behaviors. Most importantly, PBAs have much to offer in understanding and predicting behavior outside of prescribed social roles, including how one responds to demands across situations and time, as well as issues that are implicit in nature (see Bornstein, 1999; Shedler, Mayman, & Manis, 1993; Viglione, 1999).

The Thematic Apperception Test (TAT; Murray, 1943) is a PBA that requires the participant to make up stories about inconclusive drawings of people in ambiguous situations. This task is composed of 20 incomplete drawings that are designed to expose latent intentions, interests, and interpersonal styles. Although there are 20 cards in the

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TAT, most practitioners typically use between 8 and 12 selected cards that they believe

are particularly relevant to the participant (Weiner & Greene, 2008). Of the many scoring

systems for the TAT that have been created, the TAT Ambitious-Narcissistic Style Scale

was designed to measure an interrelated set of personality dispositions involving highly

ambitious, assertive, self-confident, vigorous, and dominant behaviors (Harder, 1979).

The scoring system for Harder's Ambitious Narcissistic TAT scale measures the

ambitious-narcissistic style through five subcategories including Intrusiveness/Thrusting,

Exhibitionism/Voyeurism, Urethral Excitation, Mastery/Competence/Power, and Self-

Potency. Despite initial evidence that suggested Harder's Ambitious Narcissistic TAT

scale was positively correlated with similar scales that were developed for an early

memories test and the Rorschach Inkblots, the TAT has faced scrutiny with reliability and

validity, primarily due to the absence of standardized norms and the lack of a commonly

used scoring system (Lilienfeld, Wood, & Garb, 2000).

**Rorschach Inkblots**

The Rorschach Inkblots provide a PBA measure in which personality

characteristics are determined from the way people respond to various standardized

stimuli (Weiner, 1994). It represents an alternative approach for obtaining clinical

information during the assessment procedure relative to self-reports, peer-reports, and

clinician ratings. Verbal, nonverbal, and interpersonal behavior are coded, along with

perceptual attributions by asking participants to describe what they see in ten suggestive

but incomplete inkblots (instead of what they see in themselves). The responses to this

standardized task provide "a visual attribution to the stimulus, as well as a verbal

explanation or elaboration" (p. 1; Meyer, Viglione, Mihura, Erard, & Erdberg, 2011).

This in vivo problem-solving task permits the examiner to observe and assess an individual's personality and processing style that is unrelated to how they might describe themselves. The Rorschach can provide a clinically rich glimpse of what underlies narcissistic-like grandiosity because of its ability to provide a unique source of information that can be used in conjunction with other methods to more fully understand a person (Hilsenroth & Stricker, 2004).

The Rorschach is commonly used across various clinical settings (Camara, Nathan, & Puente, 2000) and is used in forensic settings (Archer, Buffington-Vollum, Stredny, & Handel, 2006; Boccaccini & Brodsky, 1999). The Rorschach's advantages for use in forensic assessment (Erard, 2012; Gacono, Evans, Kaser-Boyd, & Gacono, 2008) include the ability to evaluate a litigant's perceptions and the events they experience through their performance without depending on the litigant's self-observations or verbal self-understanding. The litigant's most pressing preoccupations, ability to think clearly about their experience, and representations of interpersonal relationships are also measured. Additionally, the lack of guidance while completing the task can lead to confusion regarding how an individual should present oneself, either positively or negatively. For example, the validity of self-presentations must be interpreted cautiously when individuals self-report serious cognitive deficiencies or emotional disturbances as a consequence of their injuries, but do not have abnormal results on their Rorschach assessment (Erard, 2012). In contrast, the validity of self-presentations must be cautiously interpreted when individuals have an overly defensive self-reporting style, but demonstrate unexpected psychopathology on the Rorschach (Ganellen, 1994, 2008; Ganellen, Wasyliw, Haywood, & Grossman, 1996; Grossman, Wasyliw, Benn, &

Gyoerkoe, 2002). It is advantageous to use the Rorschach in litigation because it provides

an assessment of implicit features of personality, which includes traits, motives, and

tendencies (Erard, 2012). These qualities in turn help predict how plaintiffs function

outside the focus of typical expectations or within unstructured social interactions

(Bornstein, 2002; Finn, 2011; McGrath, 2008).

The Rorschach Performance Assessment System (R-PAS; Meyer et al., 2011) is a

method for administering, scoring and interpreting the Rorschach. R-PAS was created as

a continuation of the Comprehensive System, the once predominant Rorschach scoring

system (CS; Exner, 1974, 2003). However, after the death of the CS creator, Dr. John

Exner, the CS was left unmodified because his heirs decided to make no further

adjustments to the system. The authors of R-PAS specify that developmental work to

create the R-PAS (from 2006-2011) was essentially an extension of the research begun

by the Rorschach Research Counsel, which was a group led by Exner to review and

conduct research that would advance its empirical foundation (Meyer et al., 2011). R-

PAS aims to seek transparency between what is coded in the microcosm of the task and

what is inferred in day-to-day behavior (Foster & Cone, 1995; Viglione & Rivera, 2003)

and is focused on variables that have the best empirical support (Mihura, Meyer,

Dumitrascu, & Bombel, 2013).

Clinical practice with R-PAS involves three inherently intertwined steps, starting

with test administration, followed by coding, and concluding with interpretation (see

Meyer et al., 2011). R-PAS administration involves two parts entitled the *Response* and

*Clarification Phases*. The Response Phase allows participants to answer the question

"what might this be?" by giving two or three responses for each inkblot. The test

administrator transcribes what is communicated (i.e., words and gestures) and manages

the number of responses either by prompting for another response if only one is given or

asking for the card back after a fourth response is provided. The Clarification Phase

follows the Response Phase to resolve coding uncertainties. In this phase, the participant

is asked to explain where they saw the percept and how they saw it the way they did. Test

administrators code R-PAS protocols immediately following test administration

according to objectively defined criteria that answer a variety of questions, including

what is seen, how well it fits to the inkblot, and if there are issues with thought processes.

Many aspects of the respondent's performance on the Rorschach are coded including

their verbal, nonverbal, and interpersonal behaviors. After coding the protocol, the final

step is interpretation. The first nomothetic principle for R-PAS interpretation is to

formulate hypotheses for the results in terms of the referral question and background

data. After interpretive results have been generated, the examiner scans the results; sifts

through interpretive postulates for each variable; synthesizes inferences by considering

each score in relation to other scores, test data, history, and observed behavior; and

finally summarizes what is learned about the target and addresses the referral question

(Meyer et al., 2011). Similar to other PBAs, R-PAS provides information regarding the

implicit qualities of an individual and therefore, such information is best used in

conjunction with information that assesses explicit attitudes and behavior and allows for

more complex and differentiated psychological assessments (Hilsenroth & Stricker,

2004).

The Rorschach can add incremental data to psychological assessments when used

in conjunction with self-report measures by assessing narcissistic-like grandiosity (Blais,

Hilsenroth, Castlebury, Fowler, & Baity, 2001; Handler & Hilsenroth, 2006). Like other personality disorders, NPD is defined based on surface traits (e.g., haughtiness), specific behaviors (e.g., excessive self-reference), self-reported experiences (e.g., believing one is "special"), and beliefs or cognitions (e.g., grandiose sense of self-importance). This comprehensive definition makes differential diagnosis difficult, but one way individuals with personality disorders can be differentiated is to identify the particular defense mechanisms they use (J. C. Perry et al., 2013). For example, narcissistically grandiose individuals have been associated with expert ratings of specific defense mechanisms including omnipotence, idealization, devaluation, fantasy, and denial (Clemence et al., 2009; J. C. Perry et al., 2013; J. D. C. Perry & Perry, 2004). The Rorschach can provide information about the presence of narcissistic defenses and other grandiose manifestations that are otherwise unlikely to show up in self-report measures.

**Grandiosity and Narcissism Assessment with the Rorschach**

For well over six decades, researchers have studied how several variables from the Rorschach assess narcissistic manifestations. The history of grandiosity assessment with the Rorschach is rooted in a defense mechanism model, though the coding categories to be used in this project are conceptualized more broadly as imagery and behavior thought to be related to grandiosity and narcissism. The Rorschach has an extensive history of being used to measure defense mechanisms, notably the Lerner Defense Scales (LDS; Lerner & Lerner, 1980) and the Rorschach Defense Scales (RDS; Cooper & Arnow, 1986; Cooper, Perry, & Arnow, 1988). The LDS evaluates five defenses characteristic of the borderline personality organization including *Splitting*, *Devaluation*, *Idealization*, *Denial*, and *Projective Identification.* The RDS was created to

address limitations of the LDS, which only coded human content, by coding animals, inanimate objects, and humans and also coding the occurrence of more adaptive, mature defenses (Porcerelli & Hibbard, 2004). The RDS scoring categories rely primarily on the content of Rorschach responses, including human and nonhuman percepts, and secondarily on formal scores and examiner-patient interactions. The RDS scoring manual has twenty-five defenses at three levels of personality organization including neurotic (e.g., *Isolation*, *Intellectualization*, *Rationalization*), borderline (e.g., *Primitive Idealization*, *Omnipotence*), and psychotic (e.g., *Hypomanic Denial*). There is no single Rorschach variable that, by itself, defines narcissism or grandiosity (Handler & Hilsenroth, 2006), but several variables have been identified in R-PAS, LDS, RDS, and other research as possible indicators of narcissistic-like grandiosity.

Omnipotence, the "cardinal defense of narcissistic patients" (Cooper & Arnow, 1984; p. 292), is used to defend against conflicts of ambition achievement, counter-dependence, and resentment over being thwarted by others (J. D. C. Perry & Perry, 2004). Omnipotence has been linked to narcissistic-like grandiosity through various methods including self-reported traits of power-strivings (Prifitera & Ryan, 1984) and expert ratings of omnipotent behavior during interviews, which include anger, irritability, and demeaning the interviewer or interview process, while presenting as special and entitled (Clemence et al., 2009; J. D. C. Perry & Perry, 2004). Omnipotence measured through the Rorschach was initially coded for the content of responses (e.g., self-aggrandizing percepts, images of status, perceiving oneself above objects within the percept) and testing behavior (e.g., excessive pride, self-assurance, self-righteousness, and haughtiness; Schafer, 1954). The RDS scale of *Omnipotence,* drawing on the

formulations of Kernberg (1975b) and Stolorow and Lachman (1980), was conceptualized as an idealization of the self in which "there is an unconscious conviction that one deserves to be lauded by others and treated as privileged" (Cooper & Arnow, 1984; p. 30). Omnipotence is exemplified through self-proclaimed remarkable test-taking abilities, special powers and capacities, and unique capacities outside the testing situation (e.g., "I think you are going to hear some very distinctive responses. My vocabulary is incredible"). Additionally, this scale captures instances when the respondent perceives him- or herself in the blot and offers excessive, self-aggrandizing remarks following the response (e.g., "looks like a beautiful woman with a full, formal gown that looks like me when I was dressed up to go to the prom. I was the prettiest girl at the prom that night") or when the patient defends against scrutiny by the examiner by using the "editorial we" ("Here we see a bat"; Schafer, 1954).

In addition to omnipotence, narcissistically grandiose individuals tend to use the defense mechanism of idealization (Akhtar & Thomson, 1982; Kernberg, 1983; Kohut, 1966, 1977). These individuals use this defense to vicariously share in the power and greatness of idealized objects to gratify their own narcissistic needs. There is also an empirical link between idealization and narcissistic-like grandiosity through expert ratings of omnipotent behavior (Clemence et al., 2009; J. C. Perry et al., 2013). Idealization is described by the second criterion for NPD from the DSM-IV that describes a "preoccupation with fantasies of unlimited success, power, brilliance, beauty or ideal love" (American Psychiatric Association, 1994).

Both the LDS (Lerner & Lerner, 1980) and the RDS (Cooper & Arnow, 1986; Cooper et al., 1988) have included a subscale of idealization within their respective

coding systems. The LDS scale of Idealization is coded when the individual identifies with unrealistic, all good, or powerful human objects (e.g., "two handsome muscular Russians doing that famous dance", "Mickey Mantle", "a bust of queen Victoria"). Idealization involves a denial of unwanted characteristics of the self or object and the enhancement of the object by projecting one's own omnipotence onto it (Lerner & Lerner, 1980). The RDS scale of Primitive Idealization is built around the LDS scale of Idealization, with the main difference being Primitive Idealization codes human, animal and inanimate objects, whereas Idealization of the LDS codes human content exclusively. As such, Primitive Idealization is also coded when any percepts are described in excessively positive terms (e.g., "a seahorse, a beautiful animal in all its splendor and beauty"), include specific great percepts (e.g., "Jesus Christ", "Mighty Mouse"), and when aspects of the testing procedure or test administrator are described with excessive positivity (e.g., "you really know how to listen"). Idealization measured through the Rorschach is related to the specific DSM-IV NPD criterion of having grandiose fantasies of success (Hilsenroth, Fowler, Padawer, & Handler, 1997).

The defense mechanism of idealization is associated with narcissistic-like grandiosity in the research literature. For example, individuals with NPD give significantly more grandiose content responses (i.e., "when percepts were articulated beyond a simply neutral image") on the Rorschach relative to a group of Borderline Personality Disorder patients and more Primitive Idealization responses relative to either psychopathic or non-psychopathic Antisocial Personality Disorder groups (Berg, 1990; p. 541). In another study, individuals with NPD produced significantly more Idealization responses relative to individuals with Borderline Personality Disorder, psychopathic

Antisocial Personality Disorder, and non-psychopathic Antisocial Personality Disorder (Berg, 1990; Gacono, Meloy, & Berg, 1992). NPD patients also produced a greater amount of Idealization responses relative to a group of patients with Cluster C disorders including Avoidant, Dependent, and Obsessive-compulsive personality disorders (Hilsenroth, Hibbard, Nash, & Handler, 1993).

*Reflections* have a history of being related to narcissism, including being a main component of the *Egocentricity Index* of the Comprehensive System (Exner, 2003). Reflections in R-PAS are coded when a response contains an object and its symmetrically identified mirror image or reflection (Meyer et al., 2011). These responses may suggest a need for mirroring affirmation or a self-centered view in individual processing, much like in the myth of Narcissus. Reflections are theorized to represent a certain self-absorption and involvement that the "other" exists as a mirror or an extension of the self (Kwawer, 1980). To exemplify this phenomenon, Lerner (1988) provided an example of a narcissistically grandiose sixteen-year old girl who offered several Reflection responses on the Rorschach (e.g., "It looks like a clown going up to a mirror and putting his hand on the mirror and making a face of himself"). Lerner believed her frequent perception of mirror images on the Rorschach exemplified both her reliance on the reflection of herself in others in order to know herself and the need for gratification in her interpersonal relationships. Gacono and colleagues (1990) demonstrated that NPD patients produced a greater number of Reflections responses relative to non-psychopathic antisocial patients, BPD patients, and non-patient males. The production of Reflections was associated with individual DSM-IV NPD criteria including grandiose fantasies of success, excessive entitlement, and a pretentious sense of self-importance (Hilsenroth et al., 1997).

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Reflections in conjunction with the Minnesota Multiphasic Personality Inventory-2 (MMPI-2) NPD–O scale independently predicted the DSM-IV NPD criteria (i.e., total number assigned to subjects) and accounted for more than one third of the total variance, despite these scales not being significantly correlated with one another (Blais et al., 2001). A recently conducted meta-analysis showed Reflections was significantly related (r =.23, N = 809, k = 16) to its criteria of narcissistic personality and ratings of narcissism on a sentence completion test (Mihura et al., 2013).

Although past research has indicated the ability of Reflections to accurately measure narcissistic-like grandiosity, Horn, Meyer, and Mihura (2009) concluded that the rate of Reflection responses was strongly influenced by the critical stimulus features related to card orientation and thus was independent of narcissistic characteristics of the respondent. Additionally, these authors suggested Reflections may be more likely interpreted as indicating narcissistic-like grandiose qualities "when the imagery in the coded percept is aligned with the phenomenology thought to be associated with narcissistic-like qualities" (p. 355; S. L. Horn et al., 2009). Specifically, Reflections may serve as an indicator of narcissistic-like grandiosity "to the extent that a human or animal is viewing itself in a reflective surface and not when the response is simply a landscape reflection" (p. 374; Meyer et al., 2011).

The narcissistically-associated *Personal Knowledge Justification* variable (Meyer et al., 2011) is coded when one uses personal experience, otherwise unknown to the test administrator, to justify or bolster a response (e.g., "It's a tulip. I know they look just like that; we grow them in the backyard"). Personal Knowledge Justification is a *thematic code* that is largely based upon the Comprehensive System Special Score of Personals

(Exner, 2003). Meyer and colleagues (2011) interpret Personal Knowledge Justification as an effort to immunize oneself against challenge or criticism and possibly an attempt to "one-up" the examiner, with the implied assertion that "I'm seeing it that way because I have personally seen, heard, touched, tasted, smelled or otherwise had experience with it" (p.131). Schafer (1968) first mentioned a patient with manic tendencies using personal knowledge to justify a Rorschach response while clarifying an image of a bearskin on Card IV stating, "I've often seen them stretched out on the floor" (p. 293). Personal Knowledge Justification has been empirically linked to NPD as NPD patients produce more relative to a control group of nonclinical subjects (Hilsenroth et al., 1997). A recently conducted meta-analysis showed Personal Knowledge Justification had a significant but inconsistent association ($r = .26$, $N = 123$, $k = 3$) with groups that are likely to use justification based on personal experience (Mihura et al., 2013).

Marino and colleagues (2012) assessed the convergence of these four Rorschach variables, including Reflections, Personal Knowledge Justification, Primitive Idealization, and Omnipotence, using the R-PAS normative sample database. Factor-analytic results indicated a single dimensional structure with substantive loadings for three out of the four codes (Primitive Idealization, Omnipotence, and Personal Knowledge Justification). Reflections just had a modest factor loading and it was largely independent of this factor. This was consistent with the literature showing how Reflections may be a less valid indicator of narcissistically grandiose functioning (S. L. Horn et al., 2009; Mihura et al., 2013). Gritti and colleagues (2013) assessed the convergence of these same Rorschach variables in a clinical sample of outpatients. Corroborating the results from Marino et al. (2012), this study observed a single

dimensional structure with substantive loadings from Primitive Idealization, Omnipotence, and Personal Knowledge Justification, with Reflection having a minimal contribution. Next, the authors observed significant positive correlations of this single factor with clinician ratings of narcissism using the Shedler-Westen Assessment Procedure (SWAP-200; Westen & Shedler, 1999, 2000) NPD scales, including the SWAP-PD-T scale (based on DSM-IV criteria emphasizing grandiosity) and the SWAP-Q-T (which also encompasses low-self-esteem criteria associated with narcissistic vulnerability). These factor analytic studies led to a follow-up project that attempted to cast a broader net to capture grandiosity and narcissism by considering other potentially relevant variables that could be found in the literature or that could be developed a priori.

Meyer, Gritti, and Marino (2015) created an expanded set of eleven Rorschach variables that might measure narcissistic grandiosity named the *Potential Rorschach Grandiosity and Narcissism Variables*. The Potential Rorschach Grandiosity and Narcissism Variables serve as an extension to the primary core of three variables (i.e., Omnipotence, Primitive Idealization, and Personal Knowledge Justification) that were previously validated (Gritti et al., 2013; Marino et al., 2012). Two additional variables included in the Potential Rorschach Grandiosity and Narcissism Variables draw on existing measures in the literature to assess magical and exhibitionistic percepts that may be similar to the defense mechanism of idealization, in that they may aid the narcissistic individual's inflated self-view. Percepts related to magic are thought to help narcissistically grandiose individuals vicariously share in the power and greatness of these magical objects to gratify one's own narcissistic needs. *Magic* (Homann, 2013) is coded when magical figures and objects associated with magic are seen in Rorschach

imagery (e.g., "two witches"). *Exhibitionism* was first defined as a grandiose content variable on the Rorschach with humans performing activities for the benefit of an audience, such as dancing and/or exhibitionistic enhancement of the individual through costuming, adornment, or other external trappings (Wagner, 1965). Wagner (1965) validated this variable with an experimental group of women employed as exotic dancers by comparing their amount of exhibitionistic responses to three other matched control groups of women. Relative to the control groups, the women employed as exotic dancers produced significantly more exhibitionistic human movement responses, providing evidence that exhibitionistic human movement relates to actual exhibitionistic behavioral tendencies. Meyer and colleagues (2015) extended Wagner's initial coding criterion when creating Exhibitionism by encompassing objects (including humans, animals, and inanimate objects) that are designed for display to an audience or actually on display to an audience (e.g., "symphony conductor"). Thus, the coding is not limited to responses in which humans are engaged in activity.

Devaluation is another defense mechanism potentially associated with narcissistically grandiose individuals since Reich (1933) described the "cold disdain" of the phallic-narcissistic character. The interpersonal relationships of narcissistically grandiose individuals typically involve overt contempt and devaluation of others (Akhtar & Thomson, 1982). These individuals devalue those from whom they cannot expect narcissistic supplies or those whom they envy as a means to avoid feelings of shame associated with being ordinary or disappointing to others. Narcissistically grandiose individuals also use devaluation to ward off fears of being mediocre or ordinary, or disappointing to others (Kernberg, 1983, 1998). This defense is linked to NPD through

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expert ratings of devaluing behavior during clinical interviews (Clemence et al., 2009; J. D. C. Perry & Perry, 2004). The RDS and LDS both contain a devaluation subscale, but the criteria do not adequately map onto themes of narcissistic-like grandiosity per se. Devaluation measured by both of these scales is more characteristic of Borderline Personality Disorder (see Mihura, 2006). Instead, Meyer and colleagues have attempted to operationalize narcissistic devaluing behavior on the Rorschach through a new scoring code, entitled *Narcissistic Devaluation*, which captures slightly different manifestations of narcissistic devaluing. Narcissistic Devaluation occurs when an individual describes narcissistically embellished, positive, or appealing objects that are also devalued, dismissed, or denigrated (e.g., "an ugly flower"). In contrast, Meyer et al., developed *Narcissistic Deflation* to measure the vulnerable component of narcissism and shame but to do so in a way that would not overlap with generic depression, deflation, or low self-image. Narcissistic Deflation is coded when an object is described as missing a key part of its identity (e.g., "A bird without wings.") or is described as dying, decaying, deteriorating, or eroding. Thematically, the goal is to code imagery of inadequacy, ineptitude and incompleteness.

Narcissistic individuals use denial as a defense when faced with a fact that is too uncomfortable to accept. Denial allows this fact to be rejected even if there is overwhelming evidence to suggest the contrary. Denial plays an important role for understanding the longitudinal continuity of narcissism. Although denial is an immature defense characteristic of young children, it sometimes continues to be used by older individuals who exhibit evidence of psychopathology (e.g., Cramer, 1999; Vaillant, 1994). Additionally, narcissism is characterized by immaturity and avoiding the

recognition of a negative and vulnerable self-representation (Morf & Rhodewalt, 2001).

Denial serves to protect the individual over time from recognizing the negative

consequences of narcissistically grandiose behavior and has been longitudinally linked

with the presence of pathological narcissism in individuals in early adolescence through

their early 20s (Cramer, 2011). The RDS and LDS both have a denial subscale, but the

criteria do not adequately map themes or dynamics that would be specific to narcissism

or narcissistic-like grandiosity. Therefore, Meyer and colleagues (2015) tried to

operationalize a *Narcissistic Denial* code to capture instances when the respondent

implicitly attempts to preserve a positive or inflated perception by denying or minimizing

the impact of perceptions connected to themes of weakness or inferiority (e.g., "this

person is not desperate").

In addition to denial, narcissistically grandiose individuals use grandiose fantasies

of superiority, wealth, and power to ward off narcissistic injuries such as failure or

disappointment (Akhtar & Thomson, 1982; Kernberg, 1983). Fantasy can also work

alongside other defenses, such as omnipotence and devaluation, to compensate for real

action or accomplishment when a sense of failure, disappointment or powerlessness is

prominent (J. D. C. Perry & Perry, 2004). Similar to idealization, fantasy maps onto the

second criterion of NPD described by the DSM-IV as a "preoccupation with fantasies of

unlimited success, power, brilliance, beauty or ideal love" (American Psychiatric

Association, 1994). Narcissistically grandiose individuals often provide Rorschach

responses that involve excessively expansive or manic productions inundated with

fantasies (H. D. Lerner, 1988). Meyer and colleagues (2015) have operationalized

expansive and elevated mood associated with more manic like states of grandiosity on the

Rorschach through the code of *Elevated Mood States*. Elevated Mood States captures instances when individuals identify positive affective states in their percepts (e.g., "Two people dancing to exhaustion") or in their personal experience (e.g., "I know I'm going to enjoy this because I'm in such a good mood."). Elevated Mood States includes two subcomponents of the RDS scale of *Hypomanic Denial* and one subcomponent of the RDS scale of *Pollyannish Denial* (Cooper & Arnow, 1986; Cooper et al., 1988). The RDS scale of *Hypomanic Denial* has two subcomponents featuring a hypomanic mood state, the first of which captures instances when figures are described with an emphasis on fun, pleasure, and happiness, and convey a sense of a mildly euphoric affect state (e.g., "Two bears playing together around a tree"). The other *Hypomanic Denial* subcomponent occurs when objects are described with increased energy, self-esteem, and/or gregariousness (e.g., "Two very confident looking people"). The subcomponent of *Pollyannish Denial* that measures an elevated mood state occurs when the respondent expresses overt happy, cheerful, and/or self-confident mood states (e.g., "I know I'm going to enjoy this because I'm in such a good mood").

Finally, Meyer and colleagues (2015) created an expanded version of Personal Knowledge Justification entitled *Expanded Personal Reference*. It includes seeing oneself in the card or in the response (e.g., "That's my anger"), linking oneself to the percept (e.g., "Looks like the space shuttle…if I were in there, I'd be driving it"), and referring to personal experiences even if they do not justify the response (e.g., "The colors are so beautiful that I think of flowers. I like a lot of flowers."). Thematically, what is being coded are expressions of the notion that "everything relates to me."

In a preliminary set of analyses, the convergence of the expanded set of Potential Rorschach Grandiosity and Narcissism Variables was assessed using a pre-adolescent sample (Gritti, Stokes, et al., 2014). It was not clear if narcissistic-like grandiosity would manifest similar to an adult sample because of the developmental stage of the pre-adolescent sample. After factor analyzing the Potential Rorschach Grandiosity and Narcissism Variables, six of these variables (Omnipotence, Idealization, Narcissistic Devaluation, Exhibitionism, Expanded Personal Reference, and Personal Knowledge Justification) were found to define a single factor. However, there was ambiguity about the presence of a second factor. After eliminating variables that did not appear to cohere (Elevated Mood States, Narcissistic Deflation, Reflection, and Magic), statistical criteria now suggested two factors were present. When extracting two factors from the smaller correlation matrix, Omnipotence, Idealization, Narcissistic Devaluation, and Exhibitionism defined the first factor, whereas the second factor was defined by Expanded Personal Reference, and Personal Knowledge Justification. These two factors were then correlated with three Devereux Scales of Mental Disorders (DSMD; Naglieri, LeBuffe, & Pfeiffer, 1994), which served as the criterion measure. Because the standard narcissism scale from the Devereux was derived from existing items written to assess alternative constructs and has problems with face validity in its item content (e.g., "Appears obsessed or preoccupied with a specific object or idea"), the authors created two supplemental scales, one focused on dominance, exploitativeness, and jealousy and one more broadly focused on domineering, aggrandizing, and externalizing qualities. The children's parents (and staff, in limited cases) rated the children on the DSMD. However, correlations for both factors with the DSMD were non-significant, although Idealization

significantly correlated with the last scale described, indicating that it may play a role in the personality structure of children with psychopathology and a narcissistic organization.

Gritti, Marino, et al. (2014) provided preliminary analyses that explored the convergence of the expanded set of Potential Rorschach Grandiosity and Narcissism Variables on the normative adult dataset used by Marino et al. (2012) and the adult outpatients sample used for Gritti et al. (2013). After factor analyzing the Potential Rorschach Grandiosity and Narcissism Variables in the normative adult sample, four variables including Expanded Personal Reference, Omnipotence, Personal Knowledge Justification, and Idealization (and to a lesser extent Narcissistic Denial and Elevated Mood States), were observed to define a single factor hypothesized to measure aggrandizing behavior. The factor analysis conducted with the adult outpatient sample yielded a 2-factor solution. The primary factor was clearly defined by Expanded Personal Reference, Personal Knowledge Justification, Idealization, and Omnipotence, paralleling the results in the nonpatient sample. The other less significant factor was not strongly defined by any variables but had moderate sized loadings from Reflection, Elevated Mood States, Magic, Exhibitionism, Narcissistic Denial, Narcissistic Deflation, and Narcissistic Devaluation. The first factor, but not the second, was again positively correlated with narcissistically-grandiose functioning as evaluated by clinician ratings from the SWAP-200 (Westen & Shedler, 1999, 2000) NPD scales, with correlations of .45 and .41, respectively, with the DSM NPD scale and the clinical Q-sort generated NPD scale including a vulnerable component.

**Rationale for the Current Study**

Several Rorschach variables have shown potential to provide a performance based assessment of narcissistic-like grandiosity. Given the use of the Rorschach in forensic settings (Archer et al., 2006; Boccaccini & Brodsky, 1999) and the strong relationship between narcissistic-like grandiosity and criminality (Blickle et al., 2006; Stone, 2009), research is warranted to find a method of assessing narcissistic manifestations that is not reliant on introspection or observer ratings. The Potential Rorschach Grandiosity and Narcissism Variables have produced somewhat different results across three samples (Gritti et al., 2013; Gritti, Stokes, et al., 2014; Marino et al., 2012) that may be a function of clinical versus non-clinical status, developmental status, or perhaps a need for additional coding calibration. Nonetheless, there was converging evidence across samples for a single "Aggrandizing Factor" defined by Expanded Personal Reference, Personal Knowledge Justification, Omnipotence, and Idealization. This project will make use of the full set of eleven Potential Rorschach Grandiosity and Narcissism Variables to see if similar results emerged in a clinical forensic sample. Specifically, I expected to see at least one factor defined by Expanded Personal Reference, Personal Knowledge Justification, Omnipotence, and Idealization. However, it is not clear if I will see a second factor like that observed in the other adult clinical sample (Gritti, Marino, et al., 2014). In addition, I will determine if the factor(s), as well as unique features of any individual score, are correlated with a criterion measure of clinician-rated grandiosity. The goal of this study is to further evaluate whether evidence supports using the Rorschach to obtain a standardized, in vivo assessment of narcissistic-like grandiose manifestations in a sample of inpatient offenders with severe psychiatric disorders.

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**Chapter Two**

**Methods**

**Participants**

A research team consisting of University of Toledo (UT) students and professors as well as Dr. Nicole Kletzka, an employee for the Center for Forensic Psychiatry (CFP), led a collaborative project to collect data at the CFP, which is a 210-bed inpatient forensic psychiatric hospital in Saline, Michigan. The CFP houses most patients in the state who have been deemed either not guilty by reason of insanity or incompetent to stand trial. Dr. Kletzka served as the coordinator and liaison for the participants, CFP staff, and the UT researchers. The team collected 88 valid R-PAS protocols from CFP patients (78 Males, average age 40.84; SD = 13.47). The ethnicity of the CFP sample was approximately 47% Caucasian (41), 45% Black (40), 6% Hispanic (4), 2% Asian, (2), and one person's ethnicity data was missing. Of the 88 respondents, 59% were adjudicated not guilty by reason of insanity (52) and 41% were adjudicated incompetent to stand trial (36). Of the 36 respondents who were incompetent to stand trial, 8 exceeded their 15 month status and had been civilly probated, as their mental illness did not remit sufficiently in the allotted 15 months of competency restoration treatment to regain trial competency. Finally, although diagnoses were not rigorously established, the Axis I Diagnoses of the CFP sample was approximately 51% with a psychotic disorder, either schizophrenia or delusional disorder (45), 27% with Schizoaffective Disorder (24), 9% with Bipolar Disorder (8), 8% with other affective disorders such as Major Depressive Disorder (7), 1% with Cognitive Disorder Not Otherwise Specified (1), and 4% of the data was missing (3).

Upon approval by the IRB from the Michigan Department of Community Health and UT, Dr. Kletzka oriented clinicians and patients to the research project. The informative session for clinicians illustrated the specific role in the study that the clinicians were to execute and allowed Dr. Kletzka to address questions from the clinicians about the study or their role. Afterward, Dr. Kletzka oriented potential participants about the study by providing information about the Rorschach, expectations for their role in the study, and advantages and disadvantages regarding participation. She distributed a copy of the informed consent to interested patients. At the conclusion of the introductory meeting, Dr. Kletzka provided toiletry items and sugarless candy to everyone regardless of their decision to participate. If patients desired to participate, Dr. Kletzka communicated with evaluation services and the inpatient unit to schedule a time and location for a UT-based researcher to administer the tests with the patient.

The examiner began the test administration by reviewing the informed consent and determining the patient's understanding of the testing procedure and ability to provide consent. Afterward, the participant signed the informed consent form and the test administrator began to build rapport with the patient. The test administrator exclusively recorded the patient's study-specific identification number, the date of testing, and his or her name on all testing materials including the Rorschach responses and location charts. The entire administration took approximately 1.5 hours. At the conclusion, patients were rewarded with their selection of security-approved incentives such as phone cards, stamp books, or an MP3 player, each valued at approximately $10. Finally, the test administrator provided CFP staff with recording forms for the Rorschach responses and Dr. Kletzka contacted the patient's psychiatrist and chief clinician to review the patient's

mental status during the following weekly treatment team meeting or no later than one week following the completion of the testing. Specifically, the treatment team discussed the mental status of the patient on the unit around the time of testing after which the chief clinician and the psychiatrist independently evaluated the patient with selected items from the Positive and Negative Syndrome Scale (PANSS). Additionally, staff from the CFP recorded demographic information for each patient, including gender, age, race, diagnosis, and legal status, as well as additional clinically relevant information such as incident reports, medication use and adjustments, instances of seclusions and restraint, and instances of 1 on 1 monitoring by CFP staff for the two weeks preceding and two weeks following the assessment. Dr. Kletzka de-identified the information by using each patient's study-specific identification number, which was eventually given to the researchers at the University of Toledo. Patient study-specific ID numbers were connected to their names and CFP ID numbers in a password protected computer at the CFP that was inaccessible to UT researchers.

The Rorschach protocols were individually administered in line with the principles and techniques outlined in the R-PAS manual (Meyer et al., 2011) by the UT research team. Each team member received R-PAS administration proficiency training prior to CFP data collection through coursework at the University of Toledo. The number of responses generated to the test ranged from 14 - 33 (M = 22.87, SD = 4.18). Focusing on just the 88 protocols with at least 16 responses, which is the standard minimum in R-PAS, the number of responses generated to the test ranged from 16 – 33 (M = 23.15, SD = 3.96).

**Measurements**

**Potential Rorschach Grandiosity and Narcissism Variables.** Rorschach
protocols from the CFP were scored using the pool of Potential Rorschach Grandiosity
and Narcissism Variables described previously that were thought to potentially be
associated with narcissistically grandiose qualities and functioning. Some of these
variables are already rooted in the Rorschach literature including Omnipotence,
Idealization and Elevated Mood States (Cooper & Arnow, 1986; Cooper et al., 1988),
Reflection and Personal Knowledge Justification (Meyer et al., 2011), Exhibitionism
(Wagner, 1965), and Magic (Homann, 2013). Other variables, including Expanded
Personal Reference, Narcissistic Devaluation, Narcissistic Deflation, and Narcissistic
Denial, were created a priori to capture other potential manifestations of narcissism and
grandiosity (Meyer et al., 2015). Even though all the variables were described above,
they will be briefly reviewed again here. Appendix A provides a more detailed definition
of each variable, coding guidelines and example responses. For a preliminary
understanding of the base rates of the Potential Rorschach Grandiose and Narcissism
variables, I have provided descriptive statistics on the prevalence of these variables in the
R-PAS Normative Sample Database in Table 1.

*Table 1*

*Descriptive statistics of Potential Rorschach Grandiosity and Narcissism Variables in R-PAS Normative Sample*

| Grandiosity and Narcissism Variable | Base rate | Mean | SD | Min | Max | Skew | Kurtosis |
|---|---|---|---|---|---|---|---|
| Omnipotence | 1.24% | 0.29 | 0.93 | 0 | 9 | 6.48 | 54.12 |
| Idealization | 6.13% | 1.43 | 1.87 | 0 | 9 | 1.91 | 3.87 |
| Personal Knowledge Justification | 3.30% | 0.77 | 1.29 | 0 | 8 | 3.08 | 12.89 |
| Expanded Personal Reference | 6.95% | 1.63 | 2.41 | 0 | 15 | 2.30 | 6.96 |
| Elevated Mood States | 6.54% | 1.53 | 1.56 | 0 | 8 | 1.31 | 2.04 |
| Narcissistic Devaluation | 0.27% | 0.06 | 0.24 | 0 | 1 | 3.67 | 11.62 |
| Narcissistic Deflation | 1.12% | 0.26 | 0.54 | 0 | 3 | 2.52 | 8.06 |
| Narcissistic Denial | 0.09% | 0.02 | 0.19 | 0 | 2 | 9.64 | 97.10 |
| Exhibitionism | 2.53% | 0.59 | 1.03 | 0 | 6 | 2.31 | 6.44 |
| Magic | 0.80% | 0.19 | 0.44 | 0 | 2 | 2.34 | 4.96 |
| Reflection | 2.09% | 0.49 | 0.87 | 0 | 4 | 1.77 | 2.38 |

Note: Base rate was calculated by dividing the number of responses with a particular Rorschach Grandiosity and Narcissism Variable by the total number of responses in the R-PAS Normative Sample (3394) and then multiplying that number by 100 for the percentage.

To compute interrater reliability, I randomly selected 40 protocols, 20 protocols from the CFP dataset and 20 protocols from the 145 full-text English protocols in the R-PAS normative data set (Meyer et al., 2011), for me and a second rater (Dr. Emanuela S. V. Gritti) to code independently. Then, using the benchmarks from Cicchetti (Cicchetti, 1994) and the exact agreement intraclass correlation (ICC) for a single rater under a two-way random effects model, we computed interrater reliability at the protocol level. Initial interrater reliability results using a different set of 40 protocols were obtained for a conference presentation in March 2015. The results were inadequate for three variables,

including Expanded Personal Reference (.61), Narcissistic Devaluation (.00), and Exhibitionism (.54) in part due to the careful attention to detail that is required when coding the Potential Rorschach Grandiosity and Narcissism Variables. Thus, Dr. Gritti and I calibrated our coding by resolving our coding disagreements through discussion and updating the coding guidelines.

*Omnipotence.* The coding criteria for Omnipotence was primarily developed from the RDS criteria that were designed to capture fears of powerlessness and worthlessness that are disavowed or denied (Cooper & Arnow, 1986; Cooper et al., 1988). Omnipotence is coded when an individual acts as or claims to have unrealistic powers, specialness, influence, or inflated worth. Individuals that use Omnipotence believe they are deserving of privileged treatment and praise from others. Meyer and colleagues (2015) substantially elaborated the Omnipotence definition and also added a component of intellectually aggrandizing behavior drawn from the RDS Intellectualization defense (Cooper & Arnow, 1986).

*Idealization.* The coding criteria for Idealization was developed from the RDS criteria for *Primitive Idealization* (Cooper & Arnow, 1986; Cooper et al., 1988), the LDS criteria for *Idealization* (Lerner & Lerner, 1980), and the Grandiosity Content proposed by Berg (1990). Individuals that use Idealization are thought to identify with unrealistic, all good and/or powerful objects to vicariously share the power and greatness of the idealized objects as gratification of their own narcissistic grandiose needs. Meyer and colleagues (2015) substantially elaborated its definition and also added an element from the RDS criteria for  Hypomanic Denial in which inkblot features are aggrandized, even

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when the content of the response itself is not (Cooper & Arnow, 1986; Cooper et al., 1988).

*Personal Knowledge Justification.* The coding criteria for Personal Knowledge Justification comes from R-PAS (Meyer et al., 2011). Personal Knowledge Justification is coded "when the respondent refers to personal knowledge or experience to justify or bolster a response. Most often the source of knowledge is private and not a source of information that the examiner also shares" (pp. 131-132).

*Expanded Personal Reference.* Expanded Personal Reference is coded when an individual  positively (not anxiously or fearfully) links oneself to the percept and references personal experiences even without direct justification of the percept (Meyer et al., 2015). Meyer et al. (2015) designed Expanded Personal Reference to expand the traditional Personal Knowledge Justification coding category by capturing more instances of personal reference. The core phenomenon of Expanded Personal Reference is the notion that "everything relates to me".

*Elevated Mood States.* Meyer and colleagues (2015) developed the Elevated Mood States coding criteria from subcomponents of two scales from the RDS, *Hypomanic Denial* and *Pollyannish Denial* (Cooper & Arnow, 1986; Cooper et al., 1988). Elevated Mood States is coded when individuals identify positive affective states in their percepts or in their personal experience. For example, Elevated Mood States is coded when figures are described with an emphasis on fun, pleasure, pleasantness, happiness, and the like or have an elevated, buoyant, or hypomanic mood state. Additionally, Elevated Mood States is coded when the respondent expresses feelings of positive, elevated, or euphoric mood. The definition of Elevated Mood States for the

Potential Rorschach Grandiosity and Narcissism Variables has been substantially elaborated relative to the RDS.

*Narcissistic Devaluation.* The Narcissistic Devaluation coding criteria reflects instances when narcissistically embellished objects or positive and appealing objects are devalued, dismissed, or denigrated (Meyer et al., 2015). Specifically, Narcissistic Devaluation is coded when an object of beauty or strength is tarnished or described in harsh and critical ways. This includes instances when positive or appealing objects have disfiguring or disturbing attributes added.

*Narcissistic Deflation.* The Narcissistic Deflation coding criteria portrays instances when an object (including humans, animals, and inanimate objects) is missing a key part of its identity, possesses deflated or impotent parts, or is described as dying, decaying, deteriorating, or eroding (Meyer et al., 2015). To differentiate Narcissistic Deflation from Narcissistic Devaluation, Narcissistic Deflation is designed to code shame and impotence relative to Narcissistic Devaluation, which is designed to code denigration or disgust. Additionally, there is an assumption that the perceiver identifies more directly with the percept when Narcissistic Deflation is coded, while the perceiver invokes a distancing, disgust-like reaction when Narcissistic Devaluation is coded (Meyer et al., 2015).

*Narcissistic Denial.* The Narcissistic Denial coding criteria captures instances when the respondent implicitly attempts to deny or minimize the impact of perceptions connected to weakness, vulnerability, fragileness, inferiority, or unattractiveness (Meyer et al., 2015). This minimizing technique is used in an attempt to implicitly preserve a positive or inflated perception (Meyer et al., 2015). Narcissistic Denial is only coded for

depression and dysphoric states (e.g., "This animal has not been abandoned"), but not aggressive, dangerous, or malicious qualities (e.g., "This murderer is not dangerous).

*Exhibitionism.* Wagner initially defined Exhibitionism as humans engaging in exhibitionistic movement (i.e., an activity performed for the benefit of an audience). The current coding criteria for Exhibitionism extends Wagner's initial coding criterion by encompassing objects (including humans, animals, and inanimate objects) designed for display to an audience or actually on display to an audience (Meyer et al., 2015).

*Magic.* The coding criteria for Magic, as defined by Homann (2013), encompasses magical figures (e.g., wizards) and objects associated with magic (e.g., witch's broom). Respondents using Magic are thought to vicariously share the power and greatness of magical figures and objects as gratification of one's own narcissistic needs.

*Reflections.* The coding criteria for Reflections comes from the R-PAS manual (Meyer et al., 2011). Reflections are "coded when a response contains an object and its symmetrically identified mirror image or reflection. Some reflection codes directly involve the representation of a person or animal viewing itself in a reflective surface. Such responses might suggest a need for mirroring affirmation or a self-centered view in one's processing" (Meyer et al., 2011; pp. 110-111). Because Reflection has not fared well as a marker of narcissistic-like grandiosity in the previous factor analyses (see Gritti, Marino, et al., 2014) there is a question as to whether its validity might be improved if coding was more specific like that suggested in the R-PAS manual. Therefore, I will conduct a series of exploratory analyses using subsets of the reflection codes based on Horn and colleagues (2009) research suggesting that the critical stimulus features related to the card orientation influence the rate of Reflection responses. Sequentially, these

analyses will break down reflection responses into five categories including if a sentient being is reflected, if a human is reflected, if the reflection was seen in the upright orientation, if the reflecting object is looking at itself, and if the reflection is seen in the upright orientation *and* that object is looking at itself. These analyses were previously conducted for Marino and colleagues (2012) research. The findings suggested that Reflections in the upright orientation had slightly better correspondence with the factor.

**Positive and Negative Syndrome Scale (PANSS).** The Positive and Negative Syndrome Scale (PANSS; S. G. Kay, Fiszbein, & Opler, 1987) is a 30-item scale designed to obtain a measure of positive (items P1to P7) and negative (items N1 to N7) symptoms in schizophrenic patients, and a measure of general psychopathology (G1 to G16). Each PANSS item is accompanied by a symptom definition and detailed anchoring criteria for all seven rating points (1- absent, 2- minimal, 3- mild, 4- moderate, 5- moderate severe, 6- severe, and 7- extreme). These points were consulted before ratings were rendered. The expert rater initially considered whether the symptom was present (scoring 1 if it is absent) and if so, then the severity was determined by reference to the symptom criteria from the anchoring points (scoring 2-7 depending on symptom severity). For this study, the rating of the P5 Grandiosity item served as the main criterion measure and was obtained from treatment teams meeting in the week after the Rorschach assessment was completed.

The P5 Grandiosity item measures "exaggerated self-opinion and unrealistic convictions of superiority, including delusions of extraordinary abilities, wealth, knowledge, fame, power and moral righteousness. The detailed anchoring criteria for all seven rating points for the P5 Grandiosity item include the following:

1- Absent - Definition does not apply.

2- Minimal - Questionable pathology, may be at the upper extreme of normal limits.

3- Mild - Some expansiveness or boastfulness is evident, but without clear-cut grandiose delusions.

4- Moderate - Feels distinctly and unrealistically superior to others. Some poorly formed delusions about special status or abilities may be present but are not acted upon.

5- Moderate Severe - Clear-cut delusions concerning remarkable abilities, status or power are expressed and influence attitude but not behavior.

6- Severe - Clear-cut delusions of remarkable superiority involving more than one parameter (wealth, knowledge, fame, etc) are expressed, notably influence interactions and may be acted upon.

7- Extreme - Thinking, interactions and behavior are dominated by multiple delusions of amazing ability, wealth, knowledge, fame, power and/or moral stature, which may take on a bizarre quality.

The reliability for the raters on the P5 Grandiosity item was computed using the intraclass correlation for exact agreement using a one-way random effects model. Because each patient (except one in the final sample) was rated twice, with the rating averaged, the reliability of the average ratings is reported.

In post hoc analyses, I also explored potential correlates with the other PANSS items that had been rated by CFP clinicians. The other items included P1 Delusions, P2

Conceptual Disorganization, P3 Hallucinatory Behavior, P4 Excitement, P6

Suspiciousness, P7 Hostility, N1 Blunted Affect, N4 Passive Social Withdrawal, G1

Somatic Concern, G2 Anxiety, G3 Guilt Feelings, G6 Depression, G8

Uncooperativeness, G9 Unusual Thought, G11 Poor Attention, and G14 Poor Impulse.

Before executing these correlations, two raters (Drs. Meyer and Gritti) and I

independently reviewed the definition of each PANSS item and judged how well the

factor should correlate with each item using a 5 point scale ranging from -2 (Will

negatively correlate with Factor) to +2 (Will positively correlate with Factor). From this

point, I averaged our three ratings for comparison with the actual correlations. To see the

exact criteria of the other selected PANSS items, please refer to Appendix B.

**Procedures**

Data were analyzed after I eliminated Narcissistic Denial from the PCA and three

of the ninety-one cases in the CFP dataset. Narcissistic Denial was eliminated because I

did not code a single instance of it in the data set. The three CFP cases were eliminated

because they were lacking at least sixteen responses. The final data set contained ten

Rorschach variables over eighty-eight cases.

The dimensionality of the ten Potential Rorschach Grandiosity and Narcissism

Variables was assessed using principle components analyses. The resulting factor was

correlated with the P5 Grandiosity item of the PANSS, which served as the criterion

measure of narcissistic-like grandiosity. In the week after the Rorschach assessment was

completed, the treatment teams discussed the patient's behavior over the course of the

past week before the psychiatrist on the team and the treating clinician independently

made individual ratings on the PANSS. These scores were then averaged to serve as the

criterion variable of narcissistic grandiosity. In an exploratory analysis, I examined the potentially unique associations that were present for the individual Potential Rorschach Grandiosity and Narcissism Variables and the P5 Grandiosity item of the PANSS. Subsequently, I also investigated the correlates of the factor with other PANSS items

Before a principle components analyses was executed, the Potential Rorschach Grandiosity and Narcissism Variables distributions were analyzed and abnormal skew and kurtosis was fixed with transformations. I applied a sequential ladder of transformations, ranging from the inverse reciprocal of the squared variable up to the square root of the variable. These transformations were applied to all variables, giving preference to the square root results for less skewed variables and in cases when more substantial transformations only provided slight improvements.

Next, the intercorrelation matrices for the sample were analyzed using the Kaiser-Meyer-Olkin (Kaiser, 1974) statistic and Bartlett's sphericity test (Bartlett, 1937) to ensure that the matrix was suitable for factor analysis. Second, parallel analysis (J. L. Horn, 1965) and minimum average partial correlations (Velicer, 1976) were analyzed to help determine how many components to retain (Velicer, Eaton, & Fava, 2000; Zwick & Velicer, 1986) by using O'Connor's (2000) SPSS syntax. Parallel Analysis allowed for a comparison of the eigenvalues from the CFP forensic data set to the average eigenvalues extracted from correlation matrices of randomly generated, uncorrelated variables that contain the same number of cases and variables as the CFP forensic data set. A factor was retained if the actual eigenvalue from the CFP forensic data set was bigger than its corresponding eigenvalue from the parallel random data. In order to obtain a sampling distribution for each eigenvalue, researchers typically generate many random datasets. To

enhance accuracy, a comparison of actual eigenvalues to the 95th percentile of the

sampling distributions for the random eigenvalues is optimal rather than a comparison to

the mean of those distributions (Longman, Cota, Holden, & Fekken, 1989). I compared

the actual eigenvalues to the 95th percentile of the eigenvalues drawn from 1,000

randomly generated datasets. Parallel Analysis stands as one of the most accurate

methods for determining the number of factors or components to retain because of its

ability to adjust for the effect of sampling error (Hayton, Allen, & Scarpello, 2004;

Steger, 2006). For the minimum average partial correlations test (Velicer, 1976), the

number of components to retain was determined by successively extracting components

from the correlation matrix and computing the average of the squared residual off-

diagonal correlations in the matrix at each step, and then finding the minimum of those

averages.

I expected to find a single dimensional structure with substantive loadings from

Expanded Personal Reference, Personal Knowledge Justification, Idealization, and

Omnipotence, consistent with the converging evidence across three samples (i.e., Gritti et

al., 2013; Gritti, Stokes, et al., 2014; Marino et al., 2012). It was unclear whether a

second substantive factor would emerge, as one previously appeared with adults in a

clinical sample but not in a nonpatient sample. Additionally, although all eleven variables

were compiled or created in an effort to cast a broad net for capturing potential

expressions of narcissism and grandiosity, they differ in their foundation, which could

impact the results. One variable is based on the identification of structural inkblot

qualities (i.e., the symmetry contributing to Reflections), six variables are based on

perceived content (i.e., Idealization, Narcissistic Devaluation, Narcissistic Deflation,

Narcissistic Denial, Exhibitionism, Magic), two are based on the respondent's interaction

style with the stimuli and examiner (i.e., Omnipotence, Personal Knowledge

Justification), and two are based on perceived content *or* the respondent's interaction

style with the stimuli and examiner (i.e., Elevated Mood States, Expanded Personal

Reference). These practical distinctions may override the theoretical expectation for a

single latent dimension. It should be noted that the CFP inpatient offender populations

used for this study with severe psychiatric disorders typically display less NPD and

antisocial personality disorders relative to a medium or high security prison population.

Therefore, it was possible that I would observe less grandiose manifestations than

hypothesized.

From this point, the study used a correlational design to test the specific logically

expected hypothesis that the Potential Rorschach Grandiosity and Narcissism Variables

would correlate with PANSS ratings of grandiosity. I anticipated medium sized

correlations ($r \approx .30$). I used G*Power 3 (Faul, Erdfelder, Lang, & Buchner, 2007) to

identify an appropriate number of participants with an a priori statistical power analysis.

The specific statistical parameters I input into G*Power 3 included setting a two-tailed

probability level to alpha = .05, an expected effect size of .30 and 80% power. Results

indicated that I would need 84 participants to have 80% confidence to detect a medium

sized effect in the population (i.e., power = .80 to detect a population $r = .30$). This study

relied on data from 88 participants leading to a slightly higher level of statistical power

(.82). I hypothesized that the factor of narcissistically grandiose manifestations on the

Rorschach would moderately correlate with clinician ratings of grandiosity as measured

by the PANSS. Regardless of the factor results, I also explored the ability of the 10 codes

to correlate on their own with the Grandiosity criterion and also the ability of the

potential factor(s) to correlate with other selected PANSS variables.

## Chapter Three

## Results

Before testing my first hypothesis, I evaluated interrater reliability for the Rorschach coding. As shown in Table 2, the ICC was good to excellent for the following variables: Omnipotence, Idealization, Personal Knowledge Justification, Elevated Mood States, Narcissistic Deflation, Exhibitionism, Magic, Reflection, and the Reflection subtypes. Narcissistic Devaluation had a kappa coefficient and an ICC of zero. Because of the very low base rate of this code in the 995 available responses, it only takes a single disagreement to lead to a chance-corrected agreement of zero. Dr. Gritti did not assign Narcissistic Devaluation for any of the 995 responses, whereas I coded it once. With low base rate variables, the absolute percent agreement also can be an informative measure of the agreement between the two raters. Absolute percent agreement for NDV is 99.9%. Interrater reliability could not be calculated for NDN because neither of the raters assigned that code on these 40 protocols, meaning there was 100% agreement.

*Table 2.*

*Intraclass Correlation Coefficients of the Potential Rorschach Grandiosity and*

*Narcissism Variables in the CFP and R-PAS Normative Samples*

| Variable | Intraclass Correlation Coefficient | Marino Base Rate | Gritti Base Rate |
|---|---|---|---|
| Omnipotence | .65 | 0.40% | 0.20% |
| Idealization | .83 | 4.62% | 5.23% |
| Personal Knowledge Justification | .81 | 2.31% | 2.01% |
| Expanded Personal Reference | .78 | 6.23% | 5.03% |
| Elevated Mood States | .90 | 6.03% | 5.33% |
| Narcissistic Devaluation | .00 | 0.10% | 0.00% |
| Narcissistic Deflation | .93 | 1.01% | 0.80% |
| Narcissistic Denial | NA | 0.00% | 0.00% |
| Exhibitionism | .82 | 1.81% | 1.91% |
| Magic | .82 | 0.50% | 0.50% |
| Reflection | .94 | 1.91% | 1.71% |

Note: Base rate was calculated by dividing the number of responses with a particular
Rorschach Grandiosity and Narcissism Variable by the total number of responses and then
multiplying that number by 100 for the percentage.

Next, I analyzed the descriptive data for all variables including the reflection

subtypes (Table 3). The ten primary variables had skew between 1.64 and 5.23. Three of

the variables, Narcissistic Devaluation, Magic, and Reflections, severely departed from

normality with high skew (> 3.0) and kurtosis (> 21.0). Most of the other variables were

moderately skewed (> 2.0) or kurtotic (> 7.0). Although some of the more substantial

transformation led to slight improvements, the square root worked reasonably well for all

variables except Narcissistic Devaluation, Magic, and several of the reflection subtypes,

which could not be fixed. Thus, I applied a square root transformation for all variables.

The revised skew values are shown in the final column of Table 3.

*Table 3.*

*Descriptive statistics of the Potential Rorschach Grandiosity and Narcissism Variables in*

*CFP Sample*

| Grandiose and Narcissism Variable | Base Rate | Mean | SD | Min | Max | Skew | Kurtosis | Skew After Transfor-mation |
|---|---|---|---|---|---|---|---|---|
| Omnipotence | 0.91% | 0.22 | 0.65 | 0 | 4 | 3.84 | 16.65 | 2.57 |
| Idealization | 4.76% | 1.11 | 1.51 | 0 | 9 | 2.40 | 8.41 | 0.50 |
| Personal Knowledge Justification | 2.59% | 0.60 | 0.94 | 0 | 4 | 1.64 | 2.12 | 0.84 |
| Expanded Personal Reference | 7.45% | 1.68 | 2.45 | 0 | 15 | 2.62 | 9.94 | 0.64 |
| Elevated Mood States | 3.80% | 0.82 | 1.00 | 0 | 4 | 1.73 | 2.20 | 0.32 |
| Narcissistic Devaluation | 0.14% | 0.03 | 0.18 | 0 | 1 | 5.23 | 25.88 | 5.22 |
| Narcissistic Deflation | 0.72% | 0.16 | 0.50 | 0 | 3 | 3.69 | 14.92 | 2.76 |
| Narcissistic Denial | 0.00% | 0.00 | 0.00 | 0 | 0 | | | |
| Exhibitionism | 1.20% | 0.28 | 0.59 | 0 | 3 | 2.31 | 5.76 | 1.52 |
| Magic | 0.29% | 0.07 | 0.30 | 0 | 2 | 4.76 | 24.30 | 4.10 |
| Reflection | 1.11% | 0.25 | 0.86 | 0 | 6 | 4.80 | 26.50 | 2.98 |
| Reflection - Sentient Beings | 0.62% | 0.14 | 0.46 | 0 | 3 | 4.16 | 19.90 | 2.98 |
| Reflection – Humans | 0.10% | 0.02 | 0.15 | 0 | 1 | 6.52 | 41.41 | 6.52 |
| Reflection – Upright | 0.38% | 0.08 | 0.35 | 0 | 2 | 4.66 | 22.00 | 4.11 |
| Reflection – Looking at self | 0.05% | 0.01 | 0.11 | 0 | 1 | 9.38 | 88.00 | 9.38 |
| Reflection – Upright and Looking | 0.05% | 0.01 | 0.11 | 0 | 1 | 9.38 | 88.00 | 9.38 |

Note: Base rate was calculated by dividing the number of responses with a particular Rorschach Grandiosity and Narcissism Variable by the total number of responses in the CFP Sample (2081) and then multiplying that number by 100 for the percentage.

The effective reliability (i.e., ICC average of both raters) for the P5 Grandiosity item of the PANSS was excellent (ICC = .77) indicating that this variable was rated consistently (Table 4). The effective reliability for all of remaining PANSS items were variable ranging from 0.22 – 0.83 (Table 4), with the lowest agreement on internal emotional states (i.e., Guilt Feelings, Depression, and Anxiety).

*Table 4.*

*Intraclass Correlation Coefficients of Selected PANSS Items*

| Selected PANSS Item | Intraclass Correlation Coefficient |
|---|---|
| P1 Delusions | .64 |
| P2 Conceptual Disorganization | .83 |
| P3 Hallucinatory Behavior | .77 |
| P4 Excitement | .60 |
| P5 Grandiosity | .77 |
| P6 Suspiciousness | .55 |
| P7 Hostility | .67 |
| N1 Blunted Affect | .66 |
| N4 Passive Social Withdrawal | .64 |
| G1 Somatic Concern | .78 |
| G2 Anxiety | .53 |
| G3 Guilt Feelings | .22 |
| G6 Depression | .45 |
| G8 Uncooperativeness | .71 |
| G9 Unusual Thought | .82 |
| G11 Poor Attention | .81 |
| G14 Poor Impulse | .64 |

The KMO statistic was .64 and indicated that the CFP data set was suitable for factor analysis, though the degree and patterning of the correlation matrix was within the mediocre range. Bartlett's sphericity test indicated there was not an identity matrix and correlations were present for analysis (p < 0.01). Parallel analysis results indicated that one real factor was present because the eigenvalue was more than expected by random

chance for the first factor but less than expected by random chance for the subsequent

factors (Figure 1). Specifically, the actual eigenvalues produced from the PCA were 2.38,

1.37, 1.24, and 1.04, whereas the ninety-fifth percentile of the predicted eigenvalues

produced from parallel analysis were 1.73, 1,50, 1.34, and 1.21. Additionally, minimum

average partial correlations results indicated only one factor was present because the

average of the squared partial correlations was the lowest after the first factor was

extracted (Figure 2). Thus, both results indicated it was appropriate to extract a single

factor.

*Figure 1.*

*Parallel Analysis Results for CFP Sample*



**Parallel Analysis Results for CFP Sample**
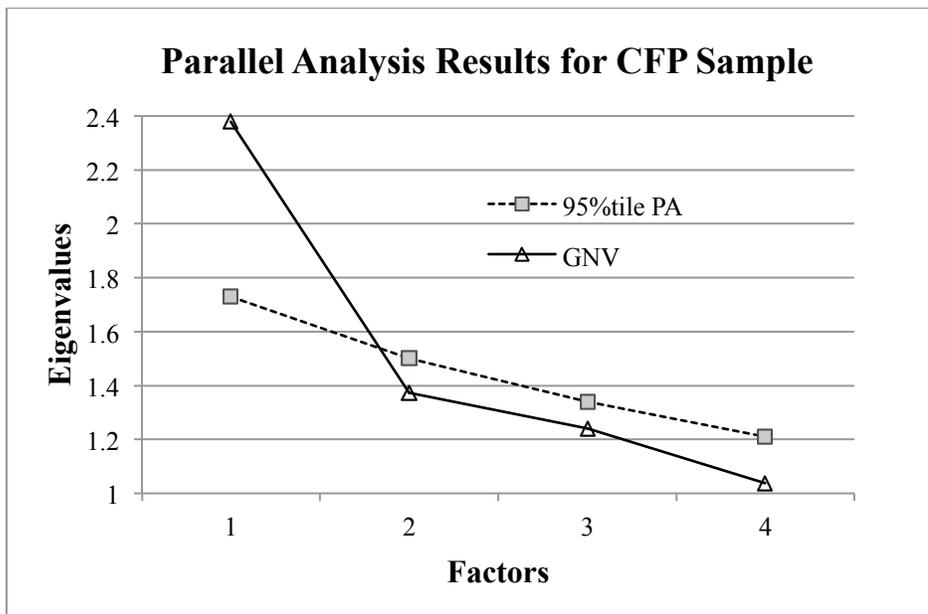
*Figure 2.*

*Minimum Average Partial Correlations Results for CFP Sample*
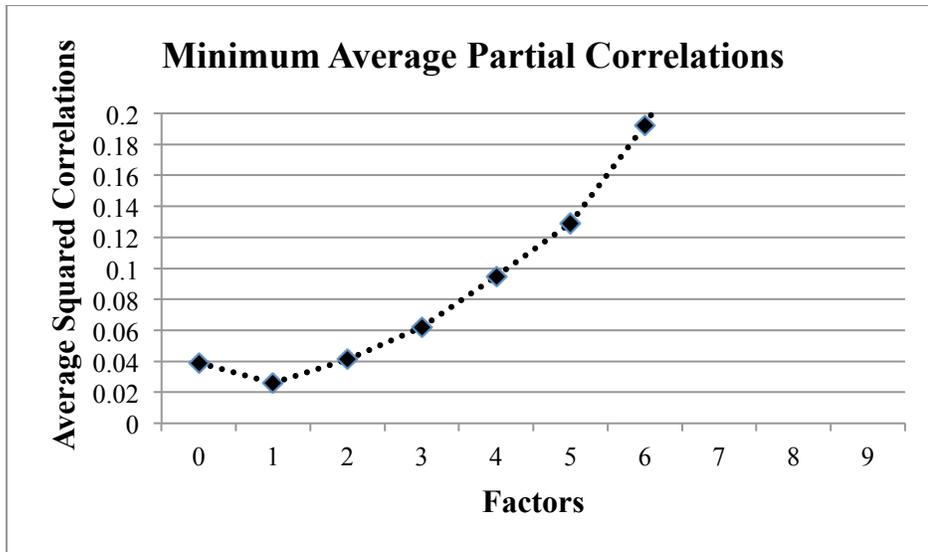


After a single factor was extracted using PCA, Expanded Personal Reference, Personal Knowledge Justification, Idealization, and Omnipotence loaded highly (>.55) onto the factor, Reflection, Exhibitionism, and Elevated Mood States had modest loadings (< .50 and >.35), and Magic, Narcissistic Deflation, and Narcissistic Devaluation had negligible loadings (< .35) (Table 5). Although most of these results were expected, the results for Reflection (.48) were higher than in previous literature.

*Table 5.*

*Loadings for the Potential Rorschach Grandiosity and Narcissism Variables in the CFP*

*Sample*

| Variable | Loading |
|---|---|
| Expanded Personal Reference | .73 |
| Personal Knowledge Justification | .69 |
| Idealization | .67 |
| Omnipotence | .56 |
| Reflection | .48 |
| Exhibitionism | .41 |
| Elevated Mood States | .36 |
| Magic | .18 |
| Narcissistic Deflation | .17 |
| Narcissistic Devaluation | .15 |

Next, the five subtypes of reflections were sequentially entered in the PCA in

place of regular Reflection. Initial findings suggested that Reflections featuring a sentient

being (.55), Reflections when the object is looking at itself (.50), and Reflections seen in

the upright orientation with the object looking at itself (.50) had slightly better

correspondence with the factor relative to regular Reflection (.48). However, both

Reflections when the object is looking at itself and Reflections seen in the upright

orientation and looking at itself need to be disregarded because there was only one

subject who had a positive score for each variable. Also, the .07 factor loading difference

between Reflections featuring a sentient being and original Reflections is negligible.

Therefore, the factorial scores for the final single component solution with regular

Reflection were saved and used for subsequent analyses.

A frequency distribution of the P5 Grandiosity score is provided in Table 7. Its M,

SD, skew, and kurtosis were 2.32, 1.47, 1.30, and 1.24 respectively, indicating it was

reasonably normally distributed. Neither the single component nor any of the Potential

Rorschach Grandiosity and Narcissism Variables correlated significantly with the P5

Grandiosity item of the PANSS (all *p*s > .05) (Table 6).

*Table 6.*

*Pearson Correlations of the Single Factor and the Potential Rorschach Grandiosity and*

*Narcissism Variables with the PANSS-P5 Grandiosity Item*

|  | PANSS-P5 Grandiosity |
|---|---|
| Single Factor Extracted | .02 |
| Omnipotence | -.02 |
| Idealization | -.13 |
| Personal Knowledge Justification | .01 |
| Expanded Personal Reference | .03 |
| Elevated Mood States | .17 |
| Narcissistic Devaluation | .00 |
| Narcissistic Deflation | .04 |
| Exhibitionism | .04 |
| Magic | -.04 |
| Reflection | .08 |

Note: ** Correlation is significant at the p < .01 level; * Correlation
is significant at the p < .05 level.

Table 7 provides descriptive statistics for all selected PANSS items. The skew for

the PANSS items ranged from 0.30 - 1.95 and kurtosis ranged from ranged from -1.10 –

3.78. Thus, the skew and kurtosis indicated that all selected PANSS items had a

reasonably normal distribution (Table 7).

*Table 7.*

*Descriptive statistics of the Selected PANSS Items*

| PANSS Item | Mean | SD | Min | Max | Skew | Kurtosis |
|---|---|---|---|---|---|---|
| P1 Delusions | 3.23 | 1.78 | 1 | 7.0 | 0.30 | -1.10 |
| P2 Conceptual Disorganization | 2.70 | 1.49 | 1 | 6.5 | 0.68 | -0.56 |
| P3 Hallucinatory Behavior | 2.14 | 1.42 | 1 | 6.5 | 1.25 | 0.64 |
| P4 Excitement | 1.89 | 0.91 | 1 | 5.0 | 1.05 | 0.93 |
| P5 Grandiosity | 2.32 | 1.47 | 1 | 7.0 | 1.30 | 1.24 |
| P6 Suspiciousness | 2.56 | 1.20 | 1 | 6.0 | 0.72 | 0.14 |
| P7 Hostility | 2.06 | 1.00 | 1 | 6.0 | 1.02 | 1.54 |
| N1 Blunted Affect | 2.70 | 1.48 | 1 | 6.5 | 0.59 | -0.62 |
| N4 Passive Social Withdrawal | 2.42 | 1.25 | 1 | 5.5 | 0.54 | -0.70 |
| G1 Somatic Concern | 1.80 | 1.25 | 1 | 7.0 | 1.95 | 3.78 |
| G2 Anxiety | 2.35 | 0.88 | 1 | 5.5 | 0.83 | 1.13 |
| G3 Guilt Feelings | 1.81 | 0.82 | 1 | 4.5 | 0.93 | 0.48 |
| G6 Depression | 2.09 | 0.87 | 1 | 4.5 | 0.61 | 0.10 |
| G8 Uncooperativeness | 1.98 | 0.99 | 1 | 5.0 | 0.95 | 0.16 |
| G9 Unusual Thought | 2.78 | 1.56 | 1 | 6.5 | 0.76 | -0.37 |
| G11 Poor Attention | 2.17 | 1.12 | 1 | 5 | 0.62 | -0.84 |
| G14 Poor Impulse | 2.21 | 0.93 | 1 | 5 | 0.70 | 0.24 |

The results in Table 8 indicate there were significant positive associations between the factor and the PANSS items of Excitement (.27), Suspiciousness (.28), Somatic Concern (.23) and Guilt Feelings (.22). The effective reliability (i.e., ICC for the average of all raters) for our predictions about how the factor should correlate with the other PANSS items was excellent (ICC = .92), indicating that this variable was rated consistently. The average of the ratings are shown in the final column of Table 8. The raters accurately predicted a positive association for P6 Suspiciousness and for P4 Excitement; they also accurately predicted no associations between the factor and the P2

Conceptual Disorganization, P3 Hallucinatory Behavior, G6 Depression, G9 Unusual

Thought, and G11 Poor Attention items. However, we incorrectly anticipated positive

associations for P1 Delusions, P7 Hostility, G8 Uncooperativeness, and G14 Poor

Impulse Control, as well as negative associations for N1 Blunted Affect, N4 Passive

Social Withdrawal, and G2 Anxiety. The expected associations with P7 Hostility and N1

Blunted Affect were in the expected direction and close to significant (ps = .0504 and

.071, respectively). Finally, we anticipated no association with G1 Somatic Concern

rather than a positive association, and a negative association with G3 Guilt Feelings

rather than a positive association.

*Table 8.*

*Pearson Correlations of Selected PANSS Items with the Single Factor of the Potential*

*Rorschach Grandiosity and Narcissism Variables with the Average of Predicted Ratings*

*of Factor and PANSS Correlations*

| Selected PANSS Item | Single Factor Extracted | Mean Predicted Factor and PANSS Correlations based on ratings from -2 to +2 |
|---|---|---|
| P1 Delusions | .04 | 1.00 |
| P2 Conceptual Disorganization | .08 | 0.00 |
| P3 Hallucinatory Behavior | -.12 | 0.00 |
| P4 Excitement | .27* | 0.33 |
| P6 Suspiciousness | .28** | 0.67 |
| P7 Hostility | .21 | 1.00 |
| N1 Blunted Affect | -.19 | -0.67 |
| N4 Passive Social Withdrawal | -.14 | -1.33 |
| G1 Somatic Concern | .23* | 0.00 |
| G2 Anxiety | .14 | -0.33 |
| G3 Guilt Feelings | .22* | -1.00 |
| G6 Depression | .16 | 0.00 |
| G8 Uncooperativeness | .17 | 0.67 |
| G9 Unusual Thought | .02 | 0.00 |
| G11 Poor Attention | -.13 | 0.00 |
| G14 Poor Impulse | .16 | 0.67 |

Note: ** Correlation is significant at the $p < .01$ level; * Correlation is significant at the $p < .05$ level.

However, the significant associations observed between the Aggrandizing Factor and the selected PANSS items must be interpreted with caution due to low interrater reliability for some of the PANSS items. Specifically, the intraclass correlation coefficient for G3 Guilt Feelings (0.22) was poor. Because of the low interrater reliability for G3 Guilt Feelings, I explored the correlations with each PANSS rater individually. The association with the Aggrandizing Factor was not significant for either the treating clinician (r = .12, p = .27) or psychiatrist (r = .20, p = .07). Also, I checked this significant relationship by exploring the scatterplot of G3 Guilt Feelings and the Aggrandizing Factor Scores (see Figure 3) to determine if the results may be attributed to an outlier. The results did not suggest the correlation was due to an outlier.

*Figure 3.*

*Scatterplot for PANSS G3 Guilt Feelings and the Aggrandizing Factor Scores*
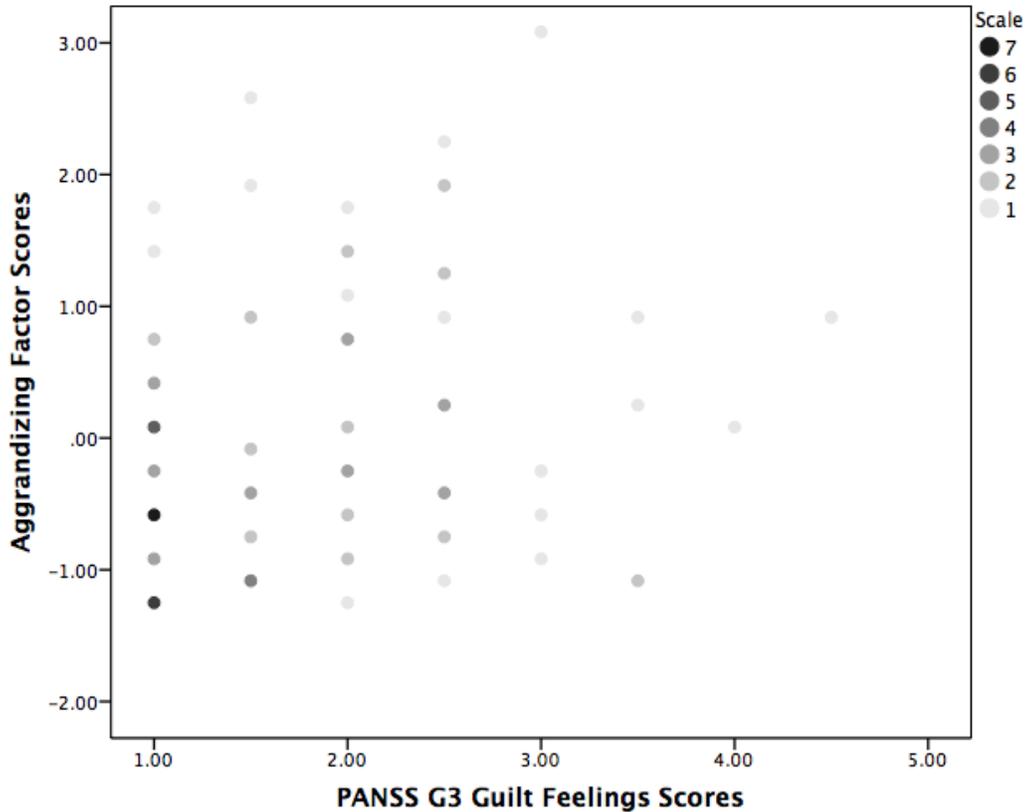


Finally, I examined the individual correlations of the four core variables that make up the Aggrandizing Factor with the significant PANSS items (Table 9). Expanded Personal Reference was significantly associated with excitement ($r = .28$, $p < .01$), suspiciousness ($r = .30$, $p < .01$), somatic concern ($r = .35$, $p < .01$) and anxiety ($r = .21$, $p < .05$), whereas Personal Knowledge Justification significantly correlated with suspiciousness ($r = .43$, $p < .01$) and somatic concern ($r = .29$, $p < .01$).

*Table 9.*

*Pearson Correlations of the Significant PANSS Items with the Four Core Potential*

*Rorschach Grandiosity and Narcissism Variables*

| PANSS Item | Omnipotence | Idealization | Personal Knowledge Justification | Expanded Personal Reference |
|---|---|---|---|---|
| P4 Excitement | .11 | .07 | .14 | .28** |
| P6 Suspiciousness | .15 | .02 | .43** | .30** |
| G1 Somatic Concern | .12 | .11 | .29** | .35** |
| G3 Guilt Feelings | .06 | .12 | .17 | .21 |

Note: ** Correlation is significant at the p < .01 level; * Correlation is significant at the p < .05 level.

**Chapter Four**

**Discussion**

This study examined the factorial structure and validity of the Potential Rorschach Grandiosity and Narcissism Variables that Meyer et al. (2015) created or refined from scales previously defined in the literature. Potential findings were particularly of interest because of the known relationships between narcissistic-like grandiosity and criminality (Blickle et al., 2006; Stone, 2009), as well as other severe psychological disorders including Bipolar Disorders (Cassidy et al., 2002; Ghaemi et al., 1995; Leibenluft et al., 2003; Quirk & Lelliott, 2001; Sato et al., 2003; Yesavage, 1983), Psychotic Disorders (Lake, 2008; Mackinnon, 1977; Potik, 2014), and psychopathy (Gustafson & Ritzer, 1995; Paulhus & Williams, 2002; Ronningstam, 2005a, 2005b). Furthermore, this research aimed to capture grandiosity using Rorschach imagery in order to further develop and validate a performance based assessment of narcissistic manifestations that can incrementally add to psychological assessments for an inpatient offender population. To my knowledge, this is the first study to examine whether narcissistic-like grandiose behaviors identified through Rorschach responses can be observed in a population with severe psychiatric disorders.

My study used predefined factor-analytic methods to investigate how well potential grandiose and narcissistic markers fit together to gauge meaningful information about narcissistic-like behaviors. The first hypothesis attempted to replicate results found in previous factor-analytic research that demonstrated the Potential Rorschach Grandiosity and Narcissism Variables were defined by a single dimensional structure measuring aggrandizement with substantive loadings from Expanded Personal Reference,

Personal Knowledge Justification, Idealization, and Omnipotence. As expected, I was able to replicate those results and provided further evidence of the Aggrandizing Factor defined by these four variables in an inpatient offender population with severe psychiatric disorders. This finding is very similar to the factorial structure found in Marino et al. (2012) and similar to the first of two components found in Gritti, Marino, et al. (2014). See Table 10 for factor loading comparisons for the Potential Rorschach Grandiosity and Narcissism Variables across three samples. Given that this factor structure has been observed across several different samples, it seems plausible that these four variables are defining a group of aggrandizing Rorschach imagery and behaviors.

Surprisingly, as seen in Table 5, Reflection had a much larger loading in the CFP factor defined by the four core variables relative to the loadings of Reflection observed in the R-PAS Normative Sample and the Milan Adult Outpatient Sample. To ensure that Reflection's factor loading was not due to an outlier (e.g., a subject who had produced 6 Reflection responses in his protocol), I explored the scatter plots of the square root transformed Reflection with the other transformed variables. However, the scatterplots indicated that the associations between Reflection with Omnipotence, Elevated Mood States, Personal Knowledge Justification, and Expanded Personal Reference in the CFP database were not aberrant due to an outlier in the CFP dataset. Future research is needed to investigate if the high loading for Reflection onto the factor can be replicated in other samples.

*Table 10.*

*Comparison of Loadings for the Potential Rorschach Grandiosity and Narcissism*

*Variables Across Three Adult Samples*

| Variable | CFP Inpatient Offender Sample | R-PAS Normative Sample | Milan Outpatient Sample Component 1 | Milan Outpatient Sample Component 2 |
|---|---|---|---|---|
| Omnipotence | .56 | .62 | .62 | -.14 |
| Idealization | .67 | .61 | .54 | .31 |
| Personal Knowledge Justification | .69 | .64 | .74 | -.11 |
| Expanded Personal Reference | .73 | .78 | .75 | .24 |
| Elevated Mood States | .36 | .48 | .17 | .57 |
| Narcissistic Devaluation | .15 | .32 | .04 | .50 |
| Narcissistic Deflation | .17 | .14 | -.04 | .35 |
| Narcissistic Denial | | .48 | .10 | .14 |
| Exhibitionism | .41 | .33 | .12 | .70 |
| Magic | .18 | .12 | - .19 | .45 |
| Reflection | .48 | .13 | .05 | .53 |

I tested the second hypothesis by examining if the Aggrandizing Factor defined

by the core four variables would have a medium sized correlation ($r \approx .30$) with the

merged P5 Grandiosity item of the PANSS completed by the patient's psychiatrist and

chief clinician. Unexpectedly, the results indicated that the Aggrandizing Factor was not

significantly associated with the clinician-rated criterion ($r = .02$, $p = .85$) and none of the

single component's defining variables were either. Thus, the overall meaning of this

factor in an inpatient offender population with severe psychiatric disorders was not

validated by grandiosity as rated on the PANSS. There are several potential reasons why

this result did not emerge as expected. A primary issue concerns the definition of

grandiosity on the PANSS P5 item. Compared to the DSM NPD criteria, the PANSS item

only addresses three of its criteria (i.e., having a grandiose sense of self importance, being preoccupied with fantasies of unlimited success, and believing that one is "special" and unique). It excludes from consideration the other six criteria (i.e., requiring excessive admiration, having a sense of entitlement, being interpersonally exploitative, lacking empathy, being envious of others, and showing arrogant behaviors or attitudes). Additionally, the PANSS item does not mention devaluation, a key component of the narcissistic character structure, suggesting it is a relatively different construct than what is assessed by other narcissistic-like grandiose criterion measures (e.g., SWAP-200). Specifically, the P5 Grandiosity item of the PANSS taps into much more of a psychotic or delusional manifestation of grandiosity relative to the SWAP-200. In actuality, the definition and corresponding anchoring points of the P5 Grandiosity item of the PANSS imply that the person has to be delusional and explicitly states "*delusions* of extraordinary abilities, wealth, knowledge, fame, power, and moral righteousness" (S. R. Kay, Opler, & Lindenmayer, 1988). In contrast, the SWAP-200 (Westen & Shedler, 1999) is a Q-sort method that encompasses both psychological characteristics pertaining to DSM personality disorder criteria (e.g., "appears to feel privileged and entitled;" "expects preferential treatment") and specific and relevant behavioral variables (e.g., arrogant, haughty, dismissive). These variables are then scored for the DSM-5 Personality Disorders and for the empirically-derived Personality Disorder Prototypes developed by Q-factor analysis.

Next, it is possible that the delusional content that defines P5 Grandiosity of the PANSS (e.g., "*delusions* of extraordinary abilities") may explain that lack of association. That is, to the extent that grandiose delusions are embedded within a broader psychotic

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structure, the psychosis may overshadow manifestations of narcissistic grandiosity. In actuality, the NPD character structure that the Aggrandizing Factor is exemplifying may not be present within this population because the grandiose delusions exhibited are primarily a manifestation of a psychotic disorder. Specifically, a major review on grandiose delusions by Knowles, McCarthy-Jones, and Rowse (2011) never references narcissism as a predictor of grandiose delusions. A second issue is the surprising transience of grandiose delusions and the propensity for grandiose and paranoid delusions to switch with each other (see Appelbaum, Robbins, & Vesselinov, 2004). Overall, these findings suggest that grandiose delusions emerge from a broader psychotic structure and not from the kind of narcissistically grandiose character structure that typifies people with narcissistic-like grandiosity.

Exploratory analyses revealed that the Aggrandizing Factor was correlated with excitement, suspiciousness, somatic concern, and guilt feelings (Table 7) and nearly correlated with hostility (r = .21 p = .0504) and blunted affect ($r$ = -.19, p = .07). After examining the individual correlations of the four core variables that make up the Aggrandizing Factor with the PANSS items, only Expanded Personal Reference and Personal Knowledge Justification were significantly correlated suggesting they are driving these associations. Specifically, Expanded Personal Reference was significantly associated with excitement, suspiciousness, and somatic concern whereas Personal Knowledge Justification significantly correlated with suspiciousness and somatic concern. Omnipotence and Idealization were not significantly correlated with any of the four PANSS items considered.

The raters accurately predicted that the Aggrandizing Factor would be correlated with hyperactivity as reflected in accelerated motor behavior, heightened responsivity to stimuli, hypervigilance or excessive mood lability (P4 Excitement) and also unrealistic or exaggerated ideas of persecution, as reflected in guardedness, a distrustful attitude, suspicious hypervigilance or frank delusions that others mean harm (P6 Suspiciousness). Both of these variables feature elements of hypervigilance and distrust that may link to the defensive nature of certain Potential Rorschach Grandiosity and Narcissism Variables, such as Personal Knowledge Justification (e.g., representing assertions of personal knowledge to defend one's self-image involving a sense of insecurity, as if one's descriptions are being challenged).

In contrast, the raters did not predict that the Aggrandizing Factor would be related to physical complaints or beliefs about bodily illness or malfunctions ranging from a vague sense of ill-being to clear-cut delusions of catastrophic physical disease (G1 Somatic Concern) or a sense of remorse or self-blame for real or imagined misdeeds in the past (G3 Guilt Feelings). It is possible that the Aggrandizing Factor is correlated with those items because G1 Somatic Concern and G3 Guilt Feelings both reflect a preoccupation with the self (self-integrity or self-punishment). Regarding these unpredicted associations, further research is needed to investigate if these associations are replicable.

Overall, this study provides further evidence that Expanded Personal Reference, Personal Knowledge Justification, Idealization, and Omnipotence consistently correlate together and define a single component measuring aggrandizement. However, this study fails to replicate the results from Gritti, Marino, et al. (2014) that demonstrated that the

Aggrandizing Factor correlated with clinician ratings of grandiosity on the SWAP-200 Narcissistic PD-T (r = .45, p < .01) and the Narcissistic Q-T (r .41, p < .01) scales.

It is important to interpret these results within the context of its limitations. First, the current study is limited by the use of only a single criterion measure of grandiosity, the P5 Grandiosity item of the PANSS. In contrast, the significant positive relationships observed between the Aggrandizing Factor and the narcissistic grandiosity criterion in Gritti, Marino, et al. (2014) were found using a clinician rated Q-sort instrument (i.e., SWAP-200). Also, it is possible that there is misalignment between what the Aggrandizing Factor is assessing and what the P5 Grandiosity item of the PANSS is measuring, which is a possible reason for the non-significant correlation. Specifically, the inconsistent findings from this study relative to Gritti, Marino, et al. (2014) may be explained by differences with the instruments used to define grandiosity. Future research with inpatient offenders with severe psychiatric disorders should investigate if incorporation of SWAP-200 ratings as the criterion variable could produce a positive association with the single component made up of the four core variables.

A second limitation of this study is that many of the Potential Rorschach Grandiosity and Narcissism Variables had low base rates in the CFP sample. Out of a total of 88 protocols, three of the variables were coded in five or less of the protocols including Narcissistic Devaluation (3), Narcissistic Denial (0), and Magic (5). Interestingly, Omnipotence and Reflection, both of which loaded highly onto the factor, were only coded in 12 and 11 protocols respectively. The low base rates of several of these variables may have contributed to the non-significant correlations with the criterion variable. Comparing the three adult samples, all of the Potential Rorschach Grandiose

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and Narcissism Variables except for Expanded Personal Reference had a lower base rate

in the CFP sample relative to the R-PAS Normative Sample; and all but Expanded

Personal Reference, Omnipotence, and Personal Knowledge Justification were less

frequent in the CFP sample than in the Milan Outpatient Sample (Table 11).

*Table 11.*

*Comparison of Base Rates for the Potential Rorschach Grandiosity and Narcissism*

*Variables Across Three Adult Samples*

| Variable | CFP Inpatient Offender Sample | R-PAS Normative Sample | Milan Outpatient Sample |
|---|---|---|---|
| Omnipotence | 0.91% | 1.24% | 0.88% |
| Idealization | 4.76% | 6.13% | 5.79% |
| Personal Knowledge Justification | 2.59% | 3.30% | 2.33% |
| Expanded Personal Reference | 7.45% | 6.95% | 5.14% |
| Elevated Mood States | 3.80% | 6.54% | 5.27% |
| Narcissistic Devaluation | 0.14% | 0.27% | 0.88% |
| Narcissistic Deflation | 0.72% | 1.12% | 1.93% |
| Narcissistic Denial | 0.00% | 0.09% | 0.31% |
| Exhibitionism | 1.20% | 2.53% | 3.73% |
| Magic | 0.29% | 0.80% | 0.79% |
| Reflection | 1.11% | 2.09% | 2.37% |

Third, because of their low base rates, the skew for Omnipotence, Narcissistic

Devaluation, Narcissistic Deflation, Magic, and Reflection severely departed from

normality and remained abnormal even after conducting square root, log, and inverse

reciprocal transformations. Next, this study is limited because of the careful attention that

is required for coding the Potential Rorschach Grandiosity and Narcissism Variables.

Specifically, each of the variables feature distinct criteria that need to be prudently

adhered to ensure reliable coding. For example, when conducting preliminary coding of

the CFP dataset, I consistently over-coded Narcissistic Deflation by coding objects that

had clearly been aggressed upon (e.g., "a guy with his head blown off"), which is an exclusionary criterion, rather than objects that are simply missing a key part of their identity (e.g., "A bird without wings"). Consequently, the initial factor structure did not resemble my final results. However, after calibrating and recoding with more attention to detail, the base rate for Narcissistic Deflation was greatly reduced and the current factor structure observed in this study replicated previous results. Also, the significant associations observed between the factor and the selected PANSS items must be interpreted with caution due to low interrater reliability for some of the PANSS items.

A final limitation involves the nature of the population at the CFP, all of who are inpatient offenders with severe psychiatric disorders. Given that a majority of the subjects were either incompetent to stand trial or not guilty by reason of insanity, it is less likely that these subjects portray narcissistic-like grandiose personality traits due to their impaired reality testing stemming from severe psychiatric disorders. Additionally, it would have been helpful to use diagnostic information as an additional source of validity data, including narcissism or manic grandiosity. However, clinicians at the CFP are disinclined to make personality disorder diagnoses because it opposes conditions for incompetent to stand trial or not guilty by reason of insanity (i.e., personality disorder diagnoses go against the idea of these patients having severe and persistent mental illnesses). Furthermore, the DSM Personality Disorder diagnoses in the CFP dataset were unreliable and consequently unable to be explored.

The current research has provided further evidence of a consistent Aggrandizing Factor from among the Potential Rorschach Grandiosity and Narcissism Variables that is defined by Expanded Personal Reference, Personal Knowledge Justification, Idealization,

and Omnipotence. It remains to be discovered if this cohesive and meaningful pattern of narcissistic-like functioning from implicit personality assessment is largely consistent with the expected results described in the literature about narcissistically grandiose behaviors in individuals with severe and persistent mental illnesses. However, exploratory analyses hinted that the factor may tap into suspicious and hypervigilant behaviors. Additional research is warranted to investigate if the Aggrandizing Factor produced from the Potential Rorschach Grandiosity and Narcissism Variables can predict narcissistic-like grandiosity using a different criterion measure (e.g., SWAP-200) in inpatient offenders with severe psychiatric disorders. Also, it is still unclear how the Aggrandizing Factor can influence treatment related behaviors of inpatient offenders with severe psychiatric disorders. For example, future research may examine whether individuals who score high in the Aggrandizing Factor tend to develop idealizing representations of some treatment providers and act with haughty arrogance towards others or externalize responsibility for their illness, perhaps leading to longer lengths of stay in an inpatient forensic psychiatric hospital. Overall, this research has advanced the use of the Rorschach in forensic assessments by demonstrating further evidence that four codes from a performance based task produces a cohesive factor that potentially measures aggrandizing behaviors. When used in conjunction with self-report methodology, the core four variables that comprise the Aggrandizing Factor have the promise to add incremental information in pursuit of gaining a more complete understanding of the whole person using multi-method assessment.

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# Appendix A

**Coding Criteria for Potential Rorschach Grandiosity and Narcissism Variables**
**University of Toledo Psychological Assessment Lab**
Gregory J. Meyer, Emanuela S. Gritti, David P. Marino
Last Updated May 25, 2015

# Introduction:

This manual provides coding guidelines for 11 variables thought to be associated with grandiosity and narcissistic qualities: Omnipotence, Idealization, Elevated Mood States, Personal Knowledge Justification, Expanded Personal Reference, Narcissistic Devaluation, Narcissistic Deflation, Narcissistic Denial, Exhibitionism, Magic, and Reflection. The manual provides a general definition of each variable as well as coding guidelines and example responses. Many of the variables described here have roots in the Rorschach literature already (Omnipotence, Idealization, Elevated Mood States, Personal Knowledge Justification, Exhibitionism, Magic, and Reflection) though the others are new (Expanded Personal Reference, Narcissistic Devaluation, Narcissistic Deflation, and Narcissistic Denial). This coding manual has been undergoing fairly continuous revision and updating and we anticipate this will continue in the future.

# Omnipotence (OMP)

Omnipotence coding draws heavily on the criteria developed for the Rorschach Defense Scales (Cooper & Arnow, 1986; Cooper, Perry, & Arnow, 1988). As a defense, omnipotence is seen when a person claims to have or acts as if s/he has unrealistic powers, specialness, influence, or inflated worth in an effort to deal with fears of powerlessness and worthlessness, which are disavowed or denied. As noted by Cooper and Arnow (p. 14), "This may take the form of a conviction that the individual has the right to expect gratification and homage from others or to be somehow treated as a special person. Omnipotence often involves an idealization of the self in which there is an unconscious conviction that one deserves to be lauded by others and treated as privileged." To the original Omnipotence criteria developed by Cooper and Arnow, we have added an aggrandizing form of intellectualization that draws on some of their coding criteria for the Intellectualization defense. Also, we extended the code to instances in which the person asserts that the task is easy, that the response is obvious, that he or she is doing well, or that the percept looks the way it does because of personal wishes or feelings.

### Scoring Criteria
(*Italic font indicates our additions or elaborations to the original criteria by Cooper & Arnow*)

1) During either the Response Phase or Clarification Phase the individual describes himself or herself with blatant and excessively positive terms. This may take one or several forms.
   a) Individual makes laudatory remarks to special abilities. References may be made to the self as having special test-taking abilities or special capabilities outside of the testing situation.
      i) "I think you are going to hear some very distinctive responses. My vocabulatory [sic] is such that it will only be truly understandable by the next century."
      ii) "That looks like a seahorse. Due to my keen sensibilities I can discern that to be an especially pretty seahorse. It might not look like that to many others, however."
      iii) "I saw some interesting things on that card; that was really quite clever of me. I've always been told I'm quite clever."
      iv) "I could go on with this all night."
      v) *"Yes actually it's hard to find me scared of something."*
   b) Individual sees himself in the actual blot (i.e. percept includes the self) or his possessions and this is elaborated with *positive or* aggrandizing remarks.

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      i)    "That looks like me when I was dressed up to go to the prom.  I was the prettiest girl at the prom that night."

      ii)   *"This looks just like my tongue, this is my tongue… I wonder if this card was modeled after my tongue."*

2) In describing the percept the person uses the word "we" in referring to himself as the perceiver.  Schafer (1954, p. 241) refers to this as the "editorial we." *It is also known as the "royal we". In a related manner, code instance when the respondent uses "us" when referring to him or herself as the perceiver.*

   a)  "Here we see a person." *(Note: The respondent is not showing the card to the examiner.)*
   b)  "We will say it looks like a snake assuming we are asked to see such things."
   c)  *"Let us move forward to the next card."*
   d)  *"Let's find something that's not so disgusting."*
   e)  *Below Threshold:*
      i)   *This is a big giant from outer space and we're looking upward towards him, from below. (In this context, we assume the "we" is indicating that the two are looking at the card together or collaboratively)*

3) The individual "lectures" the examiner on how to improve his testing technique.
   a)  "You might do better doing the pictures first (points to location sheet) and from these you could easily write down what I saw."
   b)  *"You would be able to keep up with me better if you learned shorthand."*

4) The individual gives the examiner permission to write something down or to ask various questions, etc*., or directs the examiner to do certain things*
   a)  "You can write down that I said I was tired of this."
   b)  *"Here's a good one; listen to this."*
   c)  *"Just go ahead and ask if you need me to explain that."*
   d)  *"Don't write that down." (stated in an assertive way, not anxiously or with embarrassment)*

5) The person tells the examiner how to improve the inkblots *or what should or should not be included in the inkblot*.
   a)  "This card would work better if you moved this section up to the top."
   b)  "If I was making these cards, I would do it different. There's ways they could be improved."
   c)  *"This is the gray matter of the brain. It resembles the picture in the book I have that have the same shape. Actually the picture [inkblot] should be a little bit different; these points don't make any sense."*
   d)  *"It's two bears, but the red should absolutely not be there. It's misguided; a picture of bears should not include these red parts."*

6) The individual demonstrates a kind of haughtiness in relation to the examiner *with an arrogantly superior and disdainful attitude*.
   a)  "I think I've spelled that idea out sufficiently."
   b)  *"If you can't see that now, I don't think I can help you out."*

7) *The person asserts that the task is easy, that the response is obvious, that he or she is doing well, or that the percept looks the way it does because of personal wishes or feelings. Code the latter for declarations and assertions, not for anxious or hesitant statements.*
   a)  *"Oh, here's an easy one."*
   b)  *"Oh yeah, I got a great one here."*
   c)  *"I'm impressed that I found that one." (referring to the response object)*
   d)  *"I said it looks like a bat because it just does. It's obvious."*
   e)  *"A penis. Definitely that's what the artist intended."*
   f)  *"A woman's body – it's obvious, anyone could see it."*
   g)  *"Why does it look like a tunnel? Well, because that is what I had in mind."*

h) "A landscape." CP: "I don't know, it just has the feel of a landscape, that's all."

i) "A flower." CP: "Because I want it to be. Flowers always give me a good feeling, so that's why."

j) Below Threshold:

    i) "A landscape." CP: "I don't know, I guess it has the feel of a landscape. I'm not sure what else to say; it just looks that way to me."

    ii) "A flower." CP: "I'm not sure; maybe flowers are on my mind or something. They do give me a good feeling. Do you see it?"

8) *The person shows intellectualized and polished verbiage in an attempt to show her alleged knowledge and erudition.* This may take the form of presenting the response in an overly technical, scientific, literate, or intellectual way (from Intellectualization: Lerner & Lerner, 1980) or there is an exaggerated striving for aesthetic, historical, or scientific specificity in the content (Schafer, 1954). This includes instances in which technical jargon is used to describe the response such as the naming of animal genera, geologic periods, culturally atypical gods, uncommon anatomy, specific human tribes, or various historical figures: *To qualify the verbalization needs to sound clearly technical, educated, or specialized and not available to common knowledge.*

a) "Two tragic Kafkaesque figures."

b) "A lateral trilobite from the Cenozoic period."

c) "Here are two homo sapiens with conical craniums and extended gluteals."

d) "Enlongated cylindroids."

e) "Myelinated *axons with the typical dendritic branching*"

f) "Two Theyyam Gods, really look like them, but probably you don't even know what I am talking about; but they are exactly like them"

g) Below Threshold: Terminology that is reasonably part of common knowledge

    i) "A power station"

    ii) "A microscope"

    iii) "A human heart"

    iv) "The Virgin Mary"

## Idealization (IDL)

Idealization coding relies heavily on the Primitive Idealization criteria developed for the Rorschach Defense Scales (Cooper & Arnow, 1986; Cooper, Perry, & Arnow, 1988), which in turn incorporate the Idealization coding criteria developed for the Lerner Defense Scales (Lerner & Lerner, 1980). These criteria also subsume the Grandiosity Content proposed by Berg (1990). As a defense, idealization occurs when a person identifies with unrealistic, all-good or powerful objects. As Cooper and Arnow (p. 15) note, "The defensive aim of this aggrandizement of objects is to ensure the individual's protection against 'bad' objects; objects are made so powerful that they cannot be destroyed or harmed by one's own aggression or by that projected onto other objects. Another aim is to vicariously share in the power and greatness of the idealized objects as gratification of one's own narcissistic needs." To Cooper and Arnow's original criteria, we added an element from their Hypomanic Denial coding in which inkblot features are aggrandized, even when the content itself is not.

One of the most challenging aspects of coding Idealization concerns powerful objects. The aim is to code for objects that are powerful in an aggrandized way, as great, strong, larger-than-life, important, heroic, magnificent, or grand, but not to code for objects that are powerful in a dangerous way, as intimidating, feared, malevolent, or aggressive. The intent here is to code for objects aligned with the grandiosity of narcissism rather than the callousness of psychopathy. But deciphering the line between these can be challenging. In general, objects qualify for the Idealization code when they are described with adjectives suggesting superiority, greatness, excellence, power, largeness, importance, fame, impressiveness, magnificence, specialness, virtuousness, or beauty. In general, objects do not qualify for the Idealization code when they are

described with adjectives suggesting threat, danger, maliciousness, aggressiveness, malevolence, or harm.

**Scoring Criteria**
*(Italic font indicates our additions or elaborations to Cooper & Arnow)*

1) **Human, Human-Like, Animal, and Animal-Like Figures**
    a) Human figures and animals are described in blatant and excessively positive terms.
        i) "Two handsome, muscular Russians doing that famous dance."
        ii) "A seahorse, a beautiful animal in all its splendor and beauty."
        iii) *"Two fancy women in an argument"*
        iv) *"A giant [powerful] butterfly"*
        v) *"A heroic [huge] puppy"*
        vi) *"A massive [gigantic] guy"*
        vii) *"A towering figure"*
        viii) *Below Threshold: "A big elephant", "Crab with a big claw", "Ants are crawling around and they are all happy" [code EMS instead], "Bigfoot [or Yeti]", "Godzilla"; objects that are imposing but dangerous, threatening, or damaged in some way*
    b) Parts of human or animal figures are described in blatant and extreme positive terms.
        i) (Card I) "It looks like a gorgeous female body, so supple, perhaps a ballet dancer."
        ii) (Card X) "A rippling, muscular arm."
        iii) *Below Threshold: "It looks like a heavy leg, maybe from a horse."*
    c) Human figures or positively described distortions of human form are perceived. This would include officials, figures of fame or strength, athletic superstars (Lerner & Lerner, 1980).
        i) "Charles de Gaulle."
        ii) "An astronaut, one of those fellows who landed on the moon."
        iii) "Jesus Christ."
        iv) *"Like a rock star; here's his guitar too."*
        v) *Warrior; General; Knight; Ninja [powerful, aggrandized figures despite links to aggression]*
        vi) *King; Queen*
        vii) *Angel*
        viii) *Below Threshold: "A trumpet player"; "soldier"; "policeman"; "evil queen"; "angel with horns"; "two monks"; "priests"; "Two karate guys"*
    d) Specific great or spectacular animal percepts.
        i) (Card VIII) "It looks like Mighty Mouse."
        ii) (Card VIII) "It looks like Rin Tin Tin."
        iii) *Pegasus; Thunderbird;*
        iv) *Below Threshold: "A deer or moose with antlers."; "Mickey Mouse"; "Dragon"; "Griffin"; "Minotaur"; "Gargoyle" is typically seen as frightening so it is not coded unless its positive qualities are noted*
    e) Percepts that involve an enhancement of the human form. This rating would include statues of famous figures, giants, supermen, angels, idols, mythological figures, and deities (Lerner & Lerner, 1980).
        i) "A bust of Queen Victoria."
        ii) "Powerful beings from another planet ruling over these other creatures."
        iii) "A bust of Jesus Christ."
        iv) *"Iron Man", "Wizard", "Super Hero"*
        v) *"Superman's feet"*
        vi) *"Santa Claus", "Mermaid"*
        vii) *Below Threshold: "The Terminator"; "Looks like a monster to me" (a monster would generally be below threshold, unless the emphasis was on aggrandized qualities over threat potential); Devil, Warlock (enhancement needs to be positive); Troll, Elf, Dwarf, Cupid, or other unelaborated mythological figure not aggrandized or embellished.*

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**2) Inanimate Objects**
 a) Objects described in blatant and excessively positive terms.
  i) *"A mighty baseball bat."*
  ii) *"An ornately decorated chair."*
  iii) *"Beautiful pastel colors"*
  iv) *"Fancy old dress"*
  v) *"Giant sunglasses"*
  vi) *Below Threshold: "A pretty flower"; "It's nice; a nice scene" (Unelaborated use of the words "pretty" or "nice" fall below threshold.)*
 b) Objects that are possessions or part of the apparel or tools of figures of adoration, or strength.
  i) "A crown, a king's crown."
  ii) "A crest of royalty."
  iii) *"A castle"*
  iv) *"Chandelier"*
  v) *Precious stones (e.g., "a diamond", "rubies", "a giant emerald") and metals (e.g., "gold", "a silver pot", "a platinum earing")*
  vi) *"Trophy" or "Medal of Honor"*
  vii) *"Coat of arms"*
  viii) *"Chalice"*
  ix) *"The Holy Shroud"*
  x) *Aggrandized objects of strength on the border of not being coded due to threat potential:*
   (1) *"Indian War Bonnet"*
   (2) *"A Samurai's sword"*
   (3) *(Card IV) "A helmet with downturned horns and a nose guard…curves and point at the top look like a decorated and fearsome top."*
   (4) *(Card VI) "A decorated shield with a sword on top of it; a coat of arms"*
  xi) *Below Threshold: "The dress of a can-can dancer"; "a crest of some sort, maybe a school crest that has lions"; "A tomahawk/sword/gun";*
 c) *Objects that are themselves considered spectacular, magnificent, or venerated as figures of adoration or strength*
  i) *"It's like the Golden Gate Bridge"*
  ii) *"A basilica, like the Duomo in Florence"*
  iii) *"The statue of Christ the Redeemer in Rio"*
  iv) *"A totem pole, decorated with feathers, sitting on a hill"*
  v) *"A beautiful painting with colors that provide peace, serenity, and joy"*
  vi) *"The Star of David"*
  vii) *"The Statue of Liberty"*
  viii) *"An Aztec pyramid"*
  ix) *"A massive starship"*
  x) *Below Threshold: "A totem pole" (unelaborated), "A fancy building of some sort," "Abstract art", unelaborated "Eiffel Tower" to D11 of Card X, unelaborated "Star… the way it's shaped"; unelaborated spaceship or rocket; "battleship", "warship", "jet fighter", or "modern bomber" (i.e., objects designed for combat); "Mayan ruins" (any object in "ruins" would not qualify, even if once spectacular); objects associated with reverence more than adoration or strength (e.g., Synagogue, Chinese Temple; unelaborated church with a big cross); "Mayan (or Aztec, and the like) building" unless the percept was elaborated in some ornamental manner.*
 d) Percepts involving spectacular natural phenomena
  i) (Card IX) "It looks like the Grand Canyon."
  ii) *(Card X) "A nebula. Different cloud formations which would represent different stages of formation of planets and the solar system."*
  iii) *(Card VI) "An aerial view of a giant canyon with a river flowing down it"*
  iv) *(Card VIII) "A rainbow… all the different colors"*

      *v)*   *Below Threshold: unelaborated "coral"*

**3) Behaviors Towards the Examiner or Testing Procedures**
    a) The individual refers to the examiner, testing procedure, or testing materials in blatantly positive terms.
       i) "You really know how to listen – I wish the other Doctors did as well."
       ii) "These tests were really amazing – you must have learned so much about me. I know you could help me."
    b) Laudatory remarks toward the tester that appear to serve the function of the individual sharing in the greatness of the idealized tester.
       i) "It's easy and more productive for me this time around in taking the test. You're so much more intelligent and sensitive seeming than the other psychologist."
    *c) Idealized comments about the inkblot. These are responses in which the content itself does not qualify for IDL but the respondent describes the idealized and positive quality of the inkblot image.*
       *i) (Card I, side D) "Witches. They are very well drawn witches."*
       *ii) (Card III) "Two people fighting. How cleverly conceived and artistically laid out."*

***Multi-object Responses***. *When one object in a response meets criteria for IDL but another does not (e.g., "two crabs holding emeralds") code IDL so long as the other object is relatively benign or neutral. IDL would not be coded if the overall percept conveys a sense of danger or malevolence (e.g., "bloody ghosts flying around a castle").*

# Personal Knowledge Justification (PER)

**(From the R-PAS Manual; Meyer et al. [2011]; pp. 131-132; copyrighted material)**

"Personal Knowledge Justification (PER) responses occur when the respondent refers to personal knowledge or experience to justify or bolster a response. Most often the source of knowledge is private and not a source of information that the examiner also shares. Some examples of PER phrasing follow:

"*It's a tulip. I know they look just like that; we grow them in the backyard.*" PER
"*It looks like a boomerang… Because I've used them before and that's what they look like.*" PER
"*It's obviously boogers. I know because I have boys.*" PER
"*A fighter airplane. This is not the version they fly today. To get it, you'd have to have studied the difference between the modern and classic fighter plane as I have.*" PER

The requirement that a PER justify or bolster a response is not always easily discernible in response verbiage and behavior. PER is interpreted as representing assertions of personal knowledge to defend one's self-image in a way that can be perceived as self-centered, boastful, and annoying. It also involves a sense of insecurity, as if one's descriptions are being challenged. In essence one codes the implied assertion that "*I'm seeing it that way because I have personally seen, heard, touched, tasted, smelled, or otherwise had experience with it.*"

***Do not code PER.*** PERs are not coded when the respondent is clearly just sharing his or her experience with the examiner and trying to make a personal connection. In and of themselves, statements about personal attitudes, interests, likes, and dislikes do not qualify as PER. Thus, one would not code PER for "*The colors are so beautiful that I think of flowers. I like a lot of flowers. I particularly like chrysanthemums.*" Also, do not code PER for simple asides like, "*I must be getting hungry.*" Respondents must clearly be using their personal experience to justify the percept that they described. Examiners generally would not code reference to what the respondent considers to be common knowledge or public facts (e.g., "*It looks like that old-style hair-do they used to wear,*" "*It looks like the dragon from Harry Potter; did you see that movie?*") unless it is clearly being used as a response justification based on personal knowledge (e.g.,

"*That looks like Alfred Hitchcock's head. I've seen all of his movies and that looks like him,*"
"*Looks like a map of Ireland. I was looking at a map of it just last week.*").

For similar reasons, simple statements about the test response process or the respondent's performance, such as, "*I'm seeing a lot of masks,*" "*I'm really nervous about what the test will reveal about me,*" or "*I saw this the last time I took this test*" are not coded PER. Also, statements like "*It's facing me,*" or "*I'm too scared, I don't want to look at it any more*" are not PER because the personal comments do not use personal experience to support or justify the response looking the way it does.

***Do code PER.*** Some subtle examples that do cross the threshold are the following, "*It looks just like one of my daughter's finger-paintings,*" or "*It looks just like my beagle, Trixie.*" Here, even though the respondents do not sound very defensive, they could have said "a finger-painting" or even "a child's finger-painting" in the first example or "a beagle" in the second example, but instead they offered personal experience in support of the percepts in a way that made the percepts less vulnerable to dispute or challenge. After all, the examiner – like most other people – is not in a position to say the percept is faulty or flawed because it does not look like her daughter's finger-painting or the respondent's beagle."

## Expanded Personal Reference (EPR)

This code reflects an expanded version of the traditional PER coding category that includes seeing oneself in the card (e.g., "That looks like the back of my throat."), putting oneself into the response in some way (e.g., "It's like I'm lying on the ground looking up at this giant standing over me."), linking oneself to the percept (e.g., "It's a rose. They're my favorite flower."), expressing personal feelings about the percept (e.g., "I feel sad about this one; it looks like an animal got hurt."), and referencing one's personal experiences related to the percept even if they do not directly justify the percept (e.g., "it looks like pizza. I'd like one right now because I'm hungry."). The core phenomenon being coded is the notion that "everything relates to me." This code is almost always accompanied by the first person pronouns "I", "me", or "my".

However, not all uses of a first person pronoun qualify for an EPR code. Falling below threshold for coding are references to personal inadequacy or inability (e.g., "I'm not very good at this", "I'm not very creative"), anxiousness about task performance or evaluation (e.g., "I hope that doesn't make me sound crazy"; "I'm seeing a lot of animals; is that normal?"), uncertainty about the nature of a percept (e.g., "I'm thinking it's an alligator but I don't know the difference between an alligator and a crocodile…"; "A butterfly with funny wings, I've never seen one quite like this before"), and comments about the approximate nature of a percept (e.g., "I want to say a heart again. I keep getting images of it but it is not quite complete."). In addition, do not code the simple self-references that occur when respondents describe what the percept looks like to them (e.g., "To me this looks like…", "I would say this looks like…"), ask the examiner questions about appropriate task behavior (e.g., "Is it okay if I turn it?", "Do I have to use the whole thing?"), or indicate when they are finished (e.g., "That's all I see in that one.", "I know you'd like me to see two or three, but that's really all I can make out of it.").

Although it is a subtle difference, if the respondent refers to his or her decision making process in an externalized way where parts of the self are described as autonomous rather than referring to the self as a cohesive agent, code EPR. For instance, code "Because of the curve, my eyes decided these were hands", but do not code "Because of the curve, I was thinking these were hands". Similarly, code "My brain decided these are elves", but do not code "To me these are elves". Finally, code "A moth; it's gray like my head pictures moths to be", but do not code "A moth; it's gray like I picture moths to be".

Another subtle distinction has to do with statements about perspective or vantage point. If the respondent places him or herself into the percept, code the response for EPR. However, if the

respondent is communicating to the examiner about how to understand the perspective being described, do not code EPR. Thus, code EPR for, "These look like islands in the ocean, like I am [flying/hovering/in the sky] above them" but do not code EPR for, "These look like islands in the ocean, like [I'm looking from above/I'm seeing it from an aerial perspective/you're looking at a map]." Similarly, code EPR for, "It's far off in the distance, like I'm here peering at it through the mist" but do not code EPR for, "It's far off in the distance, like I'm/you're seeing through a mist."

Coding EPR also can be complicated when it occurs in the context of circumstantial rambling responses where the respondent's ideation strays from the Rorschach task onto other topics. Not infrequently these other topics can be accompanied by personal stories and remembrances. These kinds of derailments away from the task are not coded EPR. However, confusing and loose communications are still coded for EPR if they meet the basic criteria where the respondent links him or herself to the percept, puts him or herself into the card or into the response in some way, expresses personal feelings about the percept, or references personal experiences related to the percept in ways that do not directly justify the percept. Thus, the following clarification in response to a percept of a jaw with teeth on Card IV is not coded for EPR because the derailed communication about the self does not relate to the percept: "Right here, Louisiana. They got surfing down there, in Mississippi but that's not the way I want the government to think of me. I don't want to get into a cult. Two or three main drives in the computer, I racked up a phone card, a computer energy card, type that in there and randomly ask questions I don't talk to any crazy people on it but still I'm using a code for it, looking at some of the stuff there's China, Brazil, Canada and Niagara." EPR is coded in the following response to Card I, with the relevant text supporting the code in italic font: "It looks like a tarantula on a leaf that I seen on a commercial the other day [PER would be coded here]. And it goes around like that it has these big ol' eye things and this is right there and the reflection makes it look like, the spider and the hair has a face to it and two on each side and long sticks and they are maybe five inches or it looks like a tarantula and uh a with a hand grip wrench or it looks like there's a uh could be coming over a leaf like a leaf in front of it *and it's peeking around at me*. I don't know if this is a study where you need to bring a third or fourth person but this is more intimacy. Yeah it would be a tarantula with the white spots here and the bulb blocked by the leaf. *I get real scared when I see stuff like that*. Can I turn it upside down?" Similarly, EPR is coded in the following clarification for a dragon seen on Card I, with the supporting communication in italic font: "Yeah, see his ears, his eyes and his teeth, and uh… the reason why I see that is because the devil is an ancient serpent, a fiery red and green seven-headed dragon, *that is a serpent (points to card) and that reminded me of him. He is always around me, but he is not bothering me, he is always talking to me telling me to call the sheriff and help me get out of here*, but…."

A final set of distinctions has to do with personal reactions. When the respondent expresses feelings about the percept, the key coding question is whether the reactions are about "it", the object being seen, or "I", the personal feelings and reactions of the perceiver about the object being seen. Code EPR for "This gives me a feeling of an unorganized mess" but do not code EPR for "It's an unorganized mess." Similarly, code EPR for "Internal anatomy… it looks like a medical student made it up; [it's obnoxious to me / I find it obnoxious]" but do not code EPR for "Internal anatomy… it looks like a medical student made it up; [it's obnoxious / it looks obnoxious]". Also, at times people have reactions to the cards themselves rather than to a percept. This probably occurs most often on Card VIII when people express surprise or pleasure at the fact that the card is so colorful. These spontaneous reactions to the stimuli seem different than the reactions people have to their own responses. EPR is coded for the latter, personal reactions to one's productions, but not to the former, reactions to the card in the absence of a response.

Note: If the person actually sees him or herself in the card in a positive or aggrandizing way, code OMP rather than EPR, and if the person is using personal experience to clearly justify why they are seeing the percept, code PER rather than EPR. Also, if two distinct response verbalizations qualify for more than one code, both would be assigned (e.g., "They look like the kind of penguins

I've seen at our zoo [PER]… I feel bad for them [EPR]; they have their heads down like they're sad or dejected.")

**General Examples:**
1) *"The colors are so beautiful that I think of flowers. I like a lot of flowers."*
2) *"That looks like ice cream. I must be getting hungry." (Stated with assurance not embarrassment, anxiousness, or muttered to self.)*
3) *"It looks pretty much like a heart. Like that Valentine I saw in your waiting room."*
4) *"That looks like pain, you know? It reminds me of a bad headache I had earlier today."*
5) *"Two people lifting a heavy basket. I hurt my back one time lifting something heavy."*
6) *"Looks like an old woman. Kind of reminds me of my mother."*
7) *"Sort of looks like a rabbit here. My father was a hunter; we went rabbit hunting once."*
8) *"A pretty sunset. That's my favorite time of day."*
9) *"That's my anger" (Here the person is seeing himself in the inkblot, but it is not embellished in a positive or aggrandizing way so it does not qualify for OMP.)*
10) *"That's like a boomerang. If I was holding it, I'd hold it right here (demonstrates)."*
11) *"This one looks like a dog. We always had dogs when I was a kid and I still do now."*
12) *"Two black bears. They're my favorite kind of bear."*
13) *"A pretty yellow flower. That might be the best shade of yellow I've ever seen."*
14) *"Two eyes. It looks like they're watching me."*
15) *"A mask. Like if I was wearing it, I'd be looking out of the eye holes here."*
16) *"A monster. I watch a lot of horror movies." (Stated with assurance not embarrassment, anxiousness, or muttered to self.)*
17) *"Looks like the space shuttle. If I were in there, I'd be driving it."*
18) *"Very nice colorful clothes. I always dress up in colors, and the walls of my house are all red and blue."*
19) *"I don't like this. I don't know why I can't say it reminds me of anything but it's sinister or something happening."*
20) *"I see a lot of similarity between these two women. She has more wash than the other. I'd take away symbolism from that. I think things of a symbolic nature register real high with me because I think that should say something."*
21) *"Lungs, kidneys. I'm disappointed I don't see a heart."*
22) *"It reminds me of what I think I might see if I looked under a microscope." (Had the respondent said "It reminds me of what you/someone might see if you/they looked under a microscope" this would not be coded.)*
23) *"Two lions. I'm just such an animal person; I see them everywhere."*
24) *"A kind of bird, very tall, staring straight at me, it is very mad at me. Maybe going to kick something, maybe me."*
25) *"The lady doesn't have a head, but I don't care."*

## Elevated Mood States (EMS)

*The Elevated Mood State coding is derived from two subcomponents of Hypomanic Denial and one subcomponent of Pollyannish Denial from the Cooper and Arnow (1986) Rorschach Defense Scales. What these criteria have in common is positive affective states identified in percepts or in the respondent him or herself. Note that when applying the criteria below, if happy or uplifted characters are also doing something aggressive or destructive, coding can be complicated. If the characters experiencing the affect are un-conflicted about what they are doing, code the response EMS. However, if the characters are ambivalent in their experiences or they are not aware of something adverse about to happen to them, do not code EMS.*

1) Figures are described with an emphasis on fun, pleasure, pleasantness, happiness, and the like. Include figures engaged *together* in activities such as dancing, playing, or relaxing. These kinds of responses should convey the sense of a mildly euphoric affect state. *(This is in contrast to idealization, which refers to the exaggeration of an object's power, worth, or*

*attractiveness rather than to its affect state.)* *Objects or figures that* could be *associated with fun, pleasure, relaxation, happiness, etc. (e.g., "A fireworks display", "A dancer", "A ballroom", "A pretty landscape") but that are not elaborated in a way to indicate the activity or experience of elevated mood is present are not coded. A person or animal smiling would qualify unless it was elaborated in a way to suggest sinister or malevolent intent. Similarly, a single person or animal described as dancing would qualify.*

   a) (Card IV) "There is a boy having a lot of fun sitting on a waterplug. I mean a fire plug. His feet are in opposite directions. His head is back. I think he is laughing." (Schafer, 1954, p.244).

   *b) (Card IX) "Two girls dancing with very full skirts. Their hair is blowing back from their heads. They seem to be enjoying themselves, carefree.*

   *c) (Card VIII) "Two bears playing together around a tree."*

   *d) "Two people making love" or "Two people kissing": responses describing people involved in such activities qualify for EMS, so long as they appear consensual and pleasurable.*

   *e) "Two animals giving each other a High-5"*

   *f) "Bears playing patty-cake"*

   *g) "Someone playing hopscotch, jumping."*

*2) Objects are described as having elevated, buoyant, or hypomanic mood states. This category is a step up in intensity from 1) because it goes beyond simple positive affect, happiness, enjoyment, or fun to more frank hypomania: e.g., increased energy, increased self-esteem, gregariousness, overenthusiasm, restlessness, triumphant attitude or stance.*

   *a) (Card III) "Two very confident looking people."*

   *b) (Card IV) "A man so full of energy he doesn't know where to go first."*

   *c) (Card VII) "Two dancers. They look so happy that they couldn't sit still if they wanted to."*

   *d) (Card X) "A party! Just an explosion of color, energy, and excitement."*

   *e) (Card X) "This person has just had a great idea and he's telling this one."*

   *f) (Card III) "Two people dancing to exhaustion."*

   *g) (Card III) "An orchestra leader who is passionate about it…The red is the passion."*

*3) The respondent expresses feelings of positive, elevated, or euphoric mood. This would include overt reference to feeling happy, cheerful, self-confident, etc.*

   *a) (Prior to Card I) "I know I'm going to enjoy this because I'm in such a good mood."*

   *b) (Card X) "I'm glad to see this one. It makes me feel good. It's just how I feel – full of light and sunshine."*

## Narcissistic Devaluation (NDV)

Narcissistic devaluation is coded in instances when narcissistically invested or embellished objects (e.g., grand, idealized, valuable, attractive, appealing, important, magical, magnificent, elegant, special) or otherwise positive and appealing objects are also devalued, dismissed, or denigrated. In essence an object of beauty or strength is tarnished or described in pejorative, critical ways. This includes instances when otherwise positive or appealing objects have disfiguring or disturbing attributes added (e.g., "*a sexy woman but she has the head of a gorilla*"). Thus, one would not code "*an ugly dog*", but one would code "*a stupid giant*". The "ugly dog" captures a negative image, but it does not relate specifically to narcissistic dynamics because a dog on its own is not a clearly positive or appealing object. On the other hand, the "stupid giant" is a more specific devaluation of a larger than life object. Simple amalgams of incongruous object features (e.g., "*a raccoon head with chicken wings*", "*two people with the heads of a chicken*", "*a weird bat with a slug mouth*") are not coded. Similarly, conflicting imagery in a percept that is generally malevolent, dangerous, or aversive would not be coded (e.g., RP: "*A beautiful costume with two ugly blue spiders on it.*" CP: "*It looks like a monster, see here's the head and the legs here; the spiders are part of the costume. He's like evil and he wants spiders over him.*").

One of the challenges with the NDV code is differentiating narcissistic devaluation from general devaluation, where any object can be denigrated or devalued. For narcissistic devaluation it is important that the object being devalued or denigrated is positive or appealing. This is fairly easy to do when the objects are embellished as special or important in some way. It is less easy to do when the objects are not. The standard here is to think of what most people would consider positive and appealing rather than neutral or mixed. On the Rorschach some of the more common generally positive or appealing images are flowers and butterflies, as most people like them and find them pleasant. (The common giants, angels, and wizards qualify because they possess special or enhanced attributes). However, other commonly seen objects do not carry general appeal or specialness, including a person, bear, bat, pelt, crab, or tree. These affectively mixed or neutral objects would not be assigned an NDV code unless they were invested or embellished in some fashion.

**General Examples:**
1) *"An ugly flower".*
2) *"This here looks like a flat-chested princess."*
3) *"A fancy woman with breasts, high-heeled shoes, and a bird's beak for a mouth."*
4) *"A disgusting-looking piece of modern architecture."*
5) *"It looks like a wizard wearing a dunce cap."*
6) *"Like some royal guy with a red robe and silver crown holding ridiculous looking blue pom-poms."*
7) *(Card IV) "It looks like a man who everybody thinks is great but I think he stinks."*
8) *"A graceful manta ray with some ugly tumor down here."*
9) *"An aristocratic looking old woman with sagging aboriginal breasts."*
10) *Below Threshold:*
    a) *"A humpback"*
    b) *"A disgusting picture; just looks like chaos."*

# Narcissistic Deflation (NDF)

Narcissistic Deflation captures instances when objects are missing a key part of their identity (e.g., "*A bird without wings*"), possess deflated or impotent parts (e.g., "*A giant with tiny limp arms*"), or are described as dying, decaying, deteriorating, or eroding. The idea here is to code imagery of inadequacy, ineptitude and incompleteness. In many respects, this code captures instances when a sentient object would likely feel ashamed of itself if it were on display, such as "*a deer with broken antlers*". Objects that have clearly been aggressed upon (e.g., "*a guy with his head blown off*") would not be coded.
**Note**: To help differentiate NDV and NDF, recognize that Deflation is designed to code shame and impotence rather than denigration or disgust. Interpretively, with NDF we assume the perceiver identifies with the percept more directly than in the distancing disgust-like reaction that is presumed with devaluation. Also, assigning an NDF code does not rule out also assigning an IDL code (e.g., "*An angel with broken wings*").

**General Examples:**
1) *"A bird without wings."*
2) *"A woman, but she's lacking breasts"*
3) *"A body without a backbone."*
4) *"A headless person."*
5) *"King Kong but without arms."*
6) *"A teapot without its spout."*
7) *"A snail that lost his shell."*
8) *"Like a mountain peak, but the ridges are eroding away."*
9) *"Two busts; here is the neck, bent forward like an old lady that has osteoporosis."*
10) *"It looks like a cedar tree. Like what you would see on the flag of Lebanon… sort of a tree that has been cut down; it has lost a lot of its mass."*

11) *"A tree that lost its leaves"*
12) *"I'm seeing a tower in the distance, a castle, on top of a mountain… The castle is precarious… it looks like it could tip off of the mountain. Everything around it has been worn away or destroyed."*
13) *"A deer without his antlers."*
14) *"Upside down butterfly (does not turn the card). CP: Here is the little antennas, wings, the tail; the wings are not complete, it seems big parts are missing."*
15) *"A very large scary monster; like you're looking up and its towering above you… it has these flimsy arms. They are kind of… there's a contradiction there. They don't fit the object. You'd expect the monster to have stronger arms. Maybe, I don't know, maybe it's weaker than it appears."*
16) *"I see a stem that got broken off; it's small and it's supposed to be big."*
17) *"A melting iceberg with faded colors"*
18) *Below Threshold:*
    a) *"A bear without a tail"*
    b) *"A cat that's been run over and flattened by a truck or something"*
    c) *"A fall leaf with a hole in it"*
    d) *A bloody, injured bird that needs urgent care".*

# Narcissistic Denial (NDN)

Narcissistic Denial (NDN) captures instances in which the individual implicitly aims to preserve a positive or inflated perception by denying or minimizing the impact of perceptions connected to themes of weakness, vulnerability, fragileness, inferiority, or unattractiveness. This definition includes depression and dysphoric states but not aggressive, dangerous, or malicious qualities

## Scoring Criteria

1) *A percept of weakness, vulnerability, fragileness, inferiority, or unattractiveness is negated or its significance is actively diminished:*
   a) *"This person is not desperate"*
   b) *"This animal has not been abandoned"*
   c) *"This is not an ugly butterfly"*
   d) *"It looks like a girl crying. She is not really crying, probably she is just acting".*
   e) *"This person is bleeding but doesn't feel any pain".*


2) *A percept or response clearly presents features of weakness, vulnerability, fragileness, inferiority, or unattractiveness but is also described or further elaborated in contradictory positive terms:*
   a) *"(on an achromatic card) This is all black… it's a dark and gloomy thing… But actually black is the combination of all the colors so in fact it doesn't upset me but is also pretty cool".*
   b) *"This man is old and sick but he also looks very rich and powerful."*
   c) *"A nice broken dress".*

3) *Material in the response connected to weakness, vulnerability, fragileness, inferiority, or unattractiveness is minimized by resorting to humor or by placing the imagery in a funny or lighthearted context:*
   a) *"This is a very sad and desperate face, maybe she is screaming. But actually her features are so contracted that it is kind of comic and hilarious looking."*
   b) *"That's the dead body of a woman. But not scary or sad; it's kind of funny, like from the Corpse Bride movie."*

NDN is different from criterion A of OMP (e.g., "*Yes actually it's hard to find me scared of something*") because NDN is coded for features of the percept while OMP is coded for references to the individual him or herself.

## Exhibitionism (EXH)

Wagner (1965, p. 523) originally defined exhibitionistic responses that were limited to humans engaged in movement; "An exhibitionistic M was operationally defined as a human movement response which involved an activity performed for the benefit of an audience (e.g., skating, dancing, playing an instrument) and/or an exhibitionistic enhancement of the individual through costuming, adornment, or other external trappings (e.g., 'dressed in costume for a ball', 'decked out in his Sunday best', 'wearing tight toreador pants')." Note that the last three examples could entail objects that do not qualify for a human movement code. Our expanded coding encompasses non-M responses consisting of objects that are designed for display to an audience or actually on display to an audience, such as "a symphony conductor", "a movie star", "a can-can dancer", "a rock star", "A showgirl with a large dress. It looks like a swallow tail dress", "two Japanese showgirls", "a peacock; here's his tail feathers", or "A ballerina".
We also code mirroring responses where the audience and the object are the same, such as "a weightlifter checking himself out in the mirror" or "a bear doing dance moves in front of a window or mirror; he can see himself". As indicated by the last example, coding is not limited to human objects, such that percepts of "A show dog strutting his stuff", "Big blackbirds taking a bow", or "Bears doing a choreographed dance" would qualify. Even inanimate objects could qualify if they are clearly on display or for display. So "a carved bust sitting on a pedestal" or "a beautiful painting ready for hanging on a museum wall" would qualify, though a simple picture, painting, or sculpture would not. "Clowns" qualify for EXH only if clearly in a context of being on display or for show, rather than scary; a "clown face" generally would not qualify. A "mask" on its own (e.g., "Looks like a tribal mask of some sort.") generally would not qualify because it is designed to hide rather than exhibit the wearer. However, a mask would be coded if it was elaborated in a way that indicated it was for a performance or a party (e.g., "An elaborate mask, like one made to wear at Carnival"). Characters described as engaging in an activity that may or may not be for display to an audience (e.g., "dancing", "skating", "playing drums", "fighting", "wrestling") would not be coded unless the context clearly indicated or implied it was for the benefit of an audience. However, characters described as being in costume would be coded by default because costumes are for the benefit of an audience (e.g., "A woman wearing a costume; she's got like butterfly wings and frilly antenna on her head."). Costumes and dresses that clearly are designed for display are coded even if they are not being worn, such as "a bustier dress; it is very beautiful but has to be saved for parties and special occasions" or a "feminine dress, the dress of a can-can dancer".

## Magic (MAG)

This code was first articulated by Homann (2013) in her study of omnipotence. It encompasses Magical Figures and also Objects Associated with Magic. Magical Figures include wizards, witches, magicians, sorcerers, genies, witch doctors, exorcists, shamans, or other figures engaged in magic, telepathy, mind-reading, sorcery, or casting spells. Spirits (including ghosts, demons, sprites, and fairies), gnomes (including trolls, elves, and goblins), and mythical beings (including dragons and unicorns) are not coded unless they are attributed magical abilities. Objects Associated with Magic include all the clothing, buildings, utensils, or objects associated with any of the objects coded above (witch's hat, wizard's cape, witch's broom, sorcerer's wand, amulet, magic bottle, magical object) or specifically identified as having magical or supernatural power. Note that MAG does not differentiate between malevolent and benevolent objects.

# Reflection (r)

**(From the R-PAS Manual; Meyer et al. [2011]; pp. 110-111; copyrighted material)**

Reflection is coded when a response contains an object and its symmetrically-identified mirror image or reflection; e.g., "*a bear stepping across rocks and water; here's his reflection in the water* (to the W of Card VIII)" or "*a woman looking at herself in the mirror* (D9, Card III)." When a Reflection is coded, a Pair is not coded for the same objects.

Some reflection codes directly involve the representation of a person or animal viewing itself in a reflective surface. Such responses might suggest a need for mirroring affirmation or a self-centered view in one's processing, much like in the myth of Narcissus. It is not clear whether the common landscape reflections given with the card turned sideways involve a less obvious expression of the same phenomenon.

Reflection is coded when a response contains an object and its mirror image or reflection. The most common Reflection occurs when the respondent turns Card VIII sideways and reports a reflection of a landscape scene. This response may or may not include the animal at D1 reflected in the water. Other examples of Reflection responses include "*a woman looking at herself in the mirror* (D9, Card III)" or "*a steamboat and its reflection* (Card IV, sideways)." Like a Pair, a Reflection must be based on the symmetry of the card so that the response objects are identical and seen on opposite sides of the vertical midline; that is, the response object and its reflection are at the same location on the either side of the card (e.g., Card VIII, animal and its reflection at D1). Thus, with the card upright, a reflection is "horizontal" on the left and right but not "vertical" in the up and down plane, so that "*a butterfly* (Card III, D3) *reflected in water* (D7)" is not coded.

In many cases, Reflection responses are quite obvious, for example "*a person and her reflection*" to the two D9's on Card III. In some cases, however, the words, "reflection" or "mirror," may simply refer to the symmetry of the blot. When one is not sure whether there is a Reflection (e.g., "*a person and a mirror image; yeah two of them*"), one should require that the reflective surface (e.g., water or mirror, etc.) be mentioned if the coding ambiguity is not spontaneously eliminated in other ways. **When Reflection is coded, a Pair is never coded.**

**Positive and Negative Syndrome Scale (PANSS) Rating Criteria**

**Reduced Item Set Featuring 17 out of 30 Items for use at the CFP**

# Positive and Negative Syndrome Scale (PANSS) Rating Form for MI CFP

**Pt. Name:**                                                    **Study ID #:**
**Name of Rater:**                                          **Date:**

Each PANSS item is accompanied by a specific definition as well as detailed anchoring criteria for all seven rating points. These seven points represent increasing levels of psychopathology, as follows:

| 1 – Absent | 2 – Minimal | 3 – Mild | 4 – Moderate | 5 – Moderate Severe | 6 – Severe | 7 – Extreme |
|---|---|---|---|---|---|---|

In assigning ratings, first consider whether an item is at all present, as judging by its definition. Some of the items refer to behaviors that may be observed on interview, though make ratings based on your understanding of the patient over the past week from all available information, including your observation and information from other treatment team members.

If the item is **absent, it is scored 1**, whereas if it is present then determine its severity by reference to the particular criteria from the anchoring points. **The highest applicable rating point is always assigned**, even if the patient meets criteria for lower points as well. In judging the level of severity, **utilize a holistic perspective in deciding which anchoring point best characterizes the patient's functioning** and rate accordingly, whether or not all elements of the descriptions are observed.

The rating points of 2 to 7 correspond to incremental levels of symptom severity:
- A rating of **2 (minimal)** denotes **questionable or subtle or suspected pathology**, or it also may allude to the **extreme end of the normal range**.
- A rating of **3 (mild)** is indicative of a symptom whose presence is **clearly established but not pronounced** and interferes little in day-to-day functioning.
- A rating of **4 (moderate)** characterizes a symptom which, through representing a serious problem, either **occurs only occasionally or intrudes on daily life only to a Moderate extent**.
- A rating of **5 (Moderate severe)** indicates marked manifestations that **distinctly impact on one's functioning** but are **not all-consuming** and usually can be contained at will.
- A rating of **6 (severe)** represents **gross pathology** that is **present very frequently**, proves **highly disruptive** to one's life, and often **calls for direct supervision**.

- A rating of **7 (extreme)** refers to the **most serious level of psychopathology**, whereby the **manifestations drastically interfere in most or all major life functions**, typically **necessitating** close **supervision** and **assistance** in many areas.

## PANSS Items: ASSESS BASED UPON BEHAVIORS EVIDENT DURING THE PAST WEEK ONLY

**P1.     DELUSIONS** – Beliefs which are unfounded, unrealistic and idiosyncratic.
**Typical Basis for Rating** – Thought content expressed in the interview and its influence on social relations and behavior.

| | |
|---|---|
| 1 | **Absent** – Definition does not apply |
| 2 | **Minimal** – Questionable pathology; may be at the upper extreme of normal limits |
| 3 | **Mild** – Presence of one or two delusions which are vague, uncrystallized and not tenaciously held. Delusions do not interfere with thinking, social relations or behavior. |
| 4 | **Moderate** – Presence of either a kaleidoscopic array of poorly formed, unstable delusions or a few well-formed delusions that occasionally interfere with thinking, social relations or behavior. |
| 5 | **Moderate Severe** – Presence of numerous well-formed delusions that are tenaciously held and occasionally interfere with thinking, social relations and behavior. |
| 6 | **Severe** – Presence of a stable set of delusions which are crystallized, possibly systematized, tenaciously held and clearly interfere with thinking, social relations and behavior. |
| 7 | **Extreme** – Presence of a stable set of delusions which are either highly systematized or very numerous, and which dominate major facets of the patient's life. This frequently results in inappropriate and irresponsible action, which may even jeopardize the safety of the patient or others. |

**P2.     CONCEPTUAL DISORGANIZATION** – Disorganized process of thinking characterized by disruption          of goal-directed sequencing, e.g. circumstantiality, loose associations, tangentially, gross illogicality or thought block.
**Typical Basis for Rating** – Cognitive-verbal processes observed during the course of interview.

| | |
|---|---|
| 1 | **Absent** – Definition does not apply |
| 2 | **Minimal** – Questionable pathology; may be at the upper extreme of normal limits |
| 3 | **Mild** – Thinking is circumstantial, tangential or para-logical. There is some difficulty in directing thoughts towards a goal, and some loosening of associations may be evidenced under pressure. |
| 4 | **Moderate** – Able to focus thoughts when communications are brief and structured, but becomes loose or irrelevant when dealing with more complex communications or when under minimal pressure. |
| 5 | **Moderate Severe** – Generally has difficulty in organizing thoughts, as evidenced by frequent irrelevancies, disconnectedness or loosening of associations even when not under pressure. |
| 6 | **Severe** – Thinking is seriously derailed and internally inconsistent, resulting in gross irrelevancies and disruption of thought processes, which occur almost constantly. |
| 7 | **Extreme** – Thoughts are disrupted to the point where the patient is incoherent. There is marked loosening of associations, which result in total failure of communication, e.g. "word salad" or mutism. |

**P3.     HALLUCINATORY BEHAVIOR** – Verbal report or behavior indicating perceptions which are not generated by external stimuli. These may occur in the auditory, visual, olfactory or somatic realms.
**Typical Basis for Rating** – Verbal report and physical manifestations during the course of interview as well as reports of behavior by primary care workers or family.

| 1 | **Absent** – Definition does not apply |
|---|---|
| 2 | **Minimal** – Questionable pathology; may be at the upper extreme of normal limits |
| 3 | **Mild** – One or two clearly formed but infrequent hallucinations, or else a number of vague abnormal perceptions which do not result in distortions of thinking or behavior. |
| 4 | **Moderate** – Hallucinations occur frequently but not continuously, and the patient's thinking and behavior are only affected to a minor extent. |
| 5 | **Moderate Severe** – Hallucinations occur frequently, may involve more than one sensory modality, and tend to distort thinking and/or disrupt behavior. Patient may have a delusional interpretation of these experiences and respond to them emotionally and, on occasion, verbally as well. |
| 6 | **Severe** – Hallucinations are present almost continuously, causing major disruption of thinking and behavior. Patient treats these as real perceptions, and functioning is impeded by frequent emotional and verbal responses to them. |
| 7 | **Extreme** – Patient is almost totally preoccupied with hallucinations, which virtually dominate thinking and behavior. Hallucinations are provided a rigid delusional interpretation and provoke verbal and behavioral responses, including obedience to command hallucinations. |

**P4.     EXCITEMENT** – Hyperactivity as reflected in accelerated motor behavior, heightened responsivity to stimuli, hypervigilance or excessive mood lability.
**Typical Basis for Rating** – Behavioral manifestations during the course of interview as well as reports of behavior by primary care workers or family.

| 1 | **Absent** – Definition does not apply |
|---|---|
| 2 | **Minimal** – Questionable pathology; may be at the upper extreme of normal limits |
| 3 | **Mild** – Tends to be slightly agitated, hypervigilant or mildly over-aroused throughout the interview, but without distinct episodes of excitement or marked mood lability. Speech may be slightly pressured. |
| 4 | **Moderate** – Agitation or overarousal is clearly evident throughout the interview, affecting speech and general mobility, or episodic outbursts occur sporadically. |
| 5 | **Moderate Severe** – Significant hyperactivity or frequent outbursts of motor activity are observed, making it difficult for the patient to sit still for longer than several minutes at any given time. |
| 6 | **Severe** – Marked excitement dominates the interview, delimits attention, and to some extent affects personal functions such as eating or sleeping. |
| 7 | **Extreme** – marked excitement seriously interferes in eating and sleeping and makes interpersonal interactions virtually impossible. Acceleration of speech and motor activity may result in incoherence and exhaustion. |

**P5.     GRANDIOSITY** – Exaggerated self-opinion and unrealistic convictions of superiority, including delusions of extraordinary abilities, wealth, knowledge, fame, power and moral righteousness.
**Typical Basis for Rating** – Thought content expressed in the interview and its influence on behavior.

| 1 | **Absent** – Definition does not apply |
|---|---|
| 2 | **Minimal** – Questionable pathology; may be at the upper extreme of normal limits |
| 3 | **Mild** – Some expansiveness or boastfulness is evident, but without clear-cut grandiose delusions. |
| 4 | **Moderate** – Feels distinctly and unrealistically superior to others. Some poorly formed delusions about special status or abilities may be present but are not acted upon. |
| 5 | **Moderate Severe** – Clear-cut delusions concerning remarkable abilities, status or power are expressed and influence attitude but not behavior. |
| 6 | **Severe** – Clear-cut delusions of remarkable superiority involving more than one parameter (wealth, knowledge, fame, etc) are expressed, notably influence interactions and may be acted upon. |
| 7 | **Extreme** – Thinking, interactions and behavior are dominated by multiple delusions of amazing ability, wealth, knowledge, fame, power and/or moral stature, which may take on a bizarre quality. |

**P6.      SUSPICIOUSNESS/PERSECUTION** – Unrealistic or exaggerated ideas of persecution, as reflected in guardedness, ad distrustful attitude, suspicious hypervigilance or frank delusions that others mean harm.

**Typical Basis for Rating** – Thought content expressed in the interview and its influence on behavior.

| 1 | **Absent** – Definition does not apply |
|---|---|
| 2 | **Minimal** – Questionable pathology; may be at the upper extreme of normal limits |
| 3 | **Mild** – Presents a guarded or even openly distrustful attitude, but thoughts, interactions and behavior are minimally affected. |
| 4 | **Moderate** – Distrustfulness is clearly evident and intrudes on the interview and/or behavior, but there is no evidence of persecutory delusions. Alternatively, there may be indication of loosely formed persecutory delusions, but these do not seem to affect the patient's attitude or interpersonal relations. |
| 5 | **Moderate Severe** – Patient shows marked distrustfulness, leading to major disruption of interpersonal relations, or else there are clear-cut persecutory delusions that have limited impact on interpersonal relations and behavior. |
| 6 | **Severe** – Clear-cut pervasive delusions of persecution that may be systematized and significantly interfere in personal relations. |
| 7 | **Extreme** – A network of systematized persecutory delusions dominates the patient's thinking, social relations and behavior. |

**P7.      HOSTILITY** – Verbal and nonverbal expressions of anger and resentment, including sarcasm, passive-aggressive behavior, verbal abuse and assaultiveness.

**Typical Basis for Rating** – Interpersonal behavior observed during the interview and reports by primary care workers or family.

| 1 | **Absent** – Definition does not apply |
|---|---|
| 2 | **Minimal** – Questionable pathology; may be at the upper extreme of normal limits |
| 3 | **Mild** – Indirect or restrained communication of anger, such as sarcasm, disrespect, hostile expressions and occasional irritability. |
| 4 | **Moderate** – Presents an overtly hostile attitude, showing frequent irritability and direct expression of anger or resentment. |
| 5 | **Moderate Severe** – Patient is highly irritable and occasionally verbally abusive or threatening. |
| 6 | **Severe** – Uncooperativeness and verbal abuse or threats notably influence the interview and seriously impact upon social relations. Patient may be violent and destructive but is not physically assaultive towards others. |
| 7 | **Extreme** – Marked anger results in extreme uncooperativeness, precluding other interactions, or in episode(s) of physical assault towards others. |

**N1.      BLUNTED AFFECT** – Diminished emotional responsiveness as characterized by a reduction in facial expression, modulation of feelings and communicative gestures.

**Typical Basis for Rating** – Observation of physical manifestations of affective tone and emotional responsiveness during the course of the interview.

| 1 | **Absent** – Definition does not apply |
|---|---|
| 2 | **Minimal** – Questionable pathology; may be at the upper extreme of normal limits |
| 3 | **Mild** – Changes in facial expression and communicative gestures seem to be stilted, forced, artificial or lacking in modulation. |
| 4 | **Moderate** – Reduced range of facial expression and few expressive gestures result in a dull appearance |
| 5 | **Moderate Severe** – Affect is generally 'flat' with only occasional changes in facial expression and a paucity of communicative gestures. |
| 6 | **Severe** – Marked flatness and deficiency of emotions exhibited most of the time. There may be unmodulated extreme affective discharges, such as excitement, rage or inappropriate uncontrolled laughter. |
| 7 | **Extreme** – Changes in facial expression and evidence of communicative gestures are virtually absent. Patient seems constantly to show a barren or 'wooden' expression. |

**N4.** **PASSIVE/APATHETIC SOCIAL WITHDRAWAL** – Diminished interest and initiative in social interactions due to passivity, apathy, energy or avolition. Leads to reduced interpersonal involvements and neglect of daily living activities.

**Typical Basis for Rating** – Reports on social behavior from primary care workers or family.

| 1 | **Absent** – Definition does not apply |
|---|---|
| 2 | **Minimal** – Questionable pathology; may be at the upper extreme of normal limits |
| 3 | **Mild** – Shows occasional interest in social activities but poor initiative. Usually engages with others only when approached first by them. |
| 4 | **Moderate** – Passively goes along with most social activities but in a disinterested or mechanical way. Tends to recede into the background. |
| 5 | **Moderate Severe** – Passively participates in only a minority of activities and shows virtually no interest or initiative. Generally spends little time with others. |
| 6 | **Severe** – Tends to be apathetic and isolated, participating very rarely in social activities and occasionally neglecting personal needs. Has very few spontaneous social contacts. |
| 7 | **Extreme** – Profoundly apathetic, socially isolated and personally neglectful. |

**G1.** **SOMATIC CONCERN** – Physical complaints or beliefs about bodily illness or malfunctions. This may range from a vague sense of ill-being to clear-cut delusions of catastrophic physical disease.

**Typical Basis for Rating** – Thought content expressed in the interview.

| 1 | **Absent** – Definition does not apply |
|---|---|
| 2 | **Minimal** – Questionable pathology; may be at the upper extreme of normal limits |
| 3 | **Mild** – Distinctly concerned about health or bodily malfunction, but there is no delusional conviction and over-concern can be allayed by reassurance. |
| 4 | **Moderate** – Complains about poor health or bodily malfunction, but there is no delusional conviction, and over-concern can be allayed by reassurance. |
| 5 | **Moderate Severe** – Patient expresses numerous or frequent complaints about physical illness or bodily malfunction, or else patient reveals one or two clear-cut delusions involving these themes but is not preoccupied by them. |
| 6 | **Severe** – Patient is preoccupied by one or a few clear-cut delusions about physical disease or organic malfunction, but affect is not fully immersed in these themes, and thoughts can be diverted by the interviewer with some effort. |
| 7 | **Extreme** – Numerous and frequently reported somatic delusions, or only a few somatic delusions of a catastrophic nature, which totally dominate the patient's affect or thinking. |

**G2.** **ANXIETY** – Subjective experience of nervousness, worry, apprehension or restlessness, ranging from excessive concern about the present or future to feelings of panic.

**Typical Basis for Rating** – Verbal report during the course of interview and corresponding physical manifestations.

| 1 | **Absent** – Definition does not apply |
|---|---|
| 2 | **Minimal** – Questionable pathology; may be at the upper extreme of normal limits |
| 3 | **Mild** – Expresses some worry, over-concern or subjective restlessness, but no somatic and behavioral consequences are reported or evidenced. |
| 4 | **Moderate** – Patient reports distinct symptoms of nervousness, which are reflected in mild physical manifestations such as fine hand tremor and excessive perspiration. |
| 5 | **Moderate Severe** – Patient reports serious problems of anxiety which have significant physical and behavioral consequences, such as marked tension, poor concentration, palpitations or impaired sleep. |
| 6 | **Severe** – Subjective state of almost constant fear associated with phobias, marked restlessness or numerous somatic manifestations. |
| 7 | **Extreme** – Patient's life is seriously disrupted by anxiety, which is present almost constantly and at times reaches panic proportion or is manifested in actual panic attacks. |

**G3.**     **GUILT FEELINGS** – Sense of remorse or self-blame for real or imagined misdeeds in the past.

**Typical Basis for Rating** – Verbal report of guilt feelings during the course of interview and the influence on attitudes and thoughts.

| 1 | **Absent** – Definition does not apply |
|---|---|
| 2 | **Minimal** – Questionable pathology; may be at the upper extreme of normal limits |
| 3 | **Mild** – Questioning elicits a vague sense of guilt or self-blame for a minor incident, but the patient clearly is not overly concerned. |
| 4 | **Moderate** – Patient expresses distinct concern over his responsibility for a real incident in his life but is not pre-occupied with it and attitude and behavior are essentially unaffected. |
| 5 | **Moderate Severe** – Patient expresses a strong sense of guilt associated with self– deprecation or the belief that he deserves punishment. The guilt feelings may have a delusional basis, may be volunteered spontaneously, may be a source of preoccupation and/or depressed mood, and cannot be allayed readily by the interviewer. |
| 6 | **Severe** – Strong ideas of guilt take on a delusional quality and lead to an attitude of hopelessness or worthlessness. The patient believes he should receive harsh sanctions as such punishment. |
| 7 | **Extreme** – Patient's life is dominated by unshakable delusions of guilt, for which he feels deserving of drastic punishment, such as life imprisonment, torture, or death. There may be associated suicidal thoughts or attribution of others' problems to one's own past misdeeds. |

**G6.**     **DEPRESSION** – Feelings of sadness, discouragement, helplessness and pessimism.

**Typical Basis for Rating** – Verbal report of depressed mood during the course of interview and its observed influence on attitude and behavior.

| 1 | **Absent** – Definition does not apply |
|---|---|
| 2 | **Minimal** – Questionable pathology; may be at the upper extreme of normal limits |
| 3 | **Mild** – Expresses some sadness of discouragement only on questioning, but there is no evidence of depression in general attitude or demeanor. |
| 4 | **Moderate** – Distinct feelings of sadness or hopelessness, which may be spontaneously divulged, but depressed mood has no major impact on behavior or social functioning and the patient usually can be cheered up. |
| 5 | **Moderate Severe** – Distinctly depressed mood is associated with obvious sadness, pessimism, loss of social interest, psychomotor retardation and some interference in appetite and sleep. The patient cannot be easily cheered up. |
| 6 | **Severe** – Markedly depressed mood is associated with sustained feelings of misery, occasional crying, hopelessness and worthlessness. In addition, there is major interference in appetite and or sleep as well as in normal motor and social functions, with possible signs of self-neglect. |
| 7 | **Extreme** – Depressive feelings seriously interfere in most major functions. The manifestations include frequent crying, pronounced somatic symptoms, impaired concentration, psychomotor retardation, social disinterest, self-neglect, possible depressive or nihilistic delusions and/or possible suicidal thoughts or action. |

**G8.     UNCOOPERATIVENESS** – Active refusal to comply with the will of significant others, including the interviewer, hospital staff or family, which may be associated with distrust, defensiveness, stubbornness, negativism, rejection of authority, hostility or belligerence.

**Typical Basis for Rating** – Interpersonal behavior observed during the course of the interview as well as reports by primary care workers or family.

| | |
|---|---|
| 1 | **Absent** – Definition does not apply |
| 2 | **Minimal** – Questionable pathology; may be at the upper extreme of normal limits |
| 3 | **Mild** – Complies with an attitude of resentment, impatience, or sarcasm. May inoffensively object to sensitive probing during the interview. |
| 4 | **Moderate** – Occasional outright refusal to comply with normal social demands, such as making own bed, attending scheduled programs, etc. The patient may project a hostile, defensive or negative attitude but usually can be worked with. |
| 5 | **Moderate Severe** – Patient frequently is incompliant with the demands of his milieu and may be characterized by other as an "outcast" or having "a serious attitude problem". Uncooperativeness is reflected in obvious defensiveness or irritability with the interviewer and possible unwillingness to address many questions. |
| 6 | **Severe** – Patient is highly uncooperative, negativistic and possibly also belligerent. Refuses to comply with the most social demands and may be unwilling to initiate or conclude the full interview. |
| 7 | **Extreme** – Active resistance seriously impact on virtually all major areas of functioning. Patient may refuse to join in any social activities, tend to personal hygiene, converse with family or staff and participate even briefly in an interview. |

**G9.     UNUSUAL THOUGHT CONTENT** – Thinking characterized by strange, fantastic or bizarre ideas, ranging from those which are remote or atypical to those which are distorted, illogical and patently absurd.

**Typical Basis for Rating** – Thought content expressed during the course of interview.

| | |
|---|---|
| 1 | **Absent** – Definition does not apply |
| 2 | **Minimal** – Questionable pathology; may be at the upper extreme of normal limits |
| 3 | **Mild** – Thought content is somewhat peculiar, or idiosyncratic, or familiar ideas are framed in an odd context. |
| 4 | **Moderate** – Ideas are frequently distorted and occasionally seem quite bizarre. |
| 5 | **Moderate Severe** – Patient expresses many strange and fantastic thoughts, (e.g. Being the adopted son of a king, being an escapee from death row), or some which are patently absurd (e.g. Having hundreds of children, receiving radio messages from outer space from a tooth filling). |
| 6 | **Severe** – Patient expresses many illogical or absurd ideas or some which have a distinctly bizarre quality (e.g. having three heads, being a visitor from another planet). |
| 7 | **Extreme** – Thinking is replete with absurd, bizarre and grotesque ideas. |

**G11.     POOR ATTENTION** – Failure in focused alertness manifested by poor concentration, distractibility from internal and external stimuli, and difficulty in harnessing, sustaining or shifting focus to new stimuli.

**Typical Basis for Rating** – Manifestations during the course of interview.

| | |
|---|---|
| 1 | **Absent** – Definition does not apply |
| 2 | **Minimal** – Questionable pathology; may be at the upper extreme of normal limits |
| 3 | **Mild** – Limited concentration evidenced by occasional vulnerability to distraction and faltering attention toward the end of the interview. |
| 4 | **Moderate** – Conversation is affected by the tendency to be easily distracted, difficulty in long sustaining concentration on a given topic, or problems in shifting attention to new topics. |
| 5 | **Moderate Severe** – Conversation is seriously hampered by poor concentration, distractibility, and difficulty in shifting focus appropriately. |
| 6 | **Severe** – Patient's attention can be harnessed for only brief moments or with great effort, due to marked distraction by internal or external stimuli. |
| 7 | **Extreme** – Attention is so disrupted that even brief conversation is not possible. |

**G14.     POOR IMPULSE CONTROL** – Disordered regulation and control of action on inner urges, resulting in sudden, unmodulated, arbitrary or misdirected discharge of tension and emotions without concern about consequences.

**Typical Basis for Rating** – Behavior during the course of interview and reported by primary care workers or family.

| | |
|---|---|
| 1 | **Absent** – Definition does not apply |
| 2 | **Minimal** – Questionable pathology; may be at the upper extreme of normal limits |
| 3 | **Mild** – Patient tends to be easily angered and frustrated when facing stress or denied gratification but rarely acts on impulse. |
| 4 | **Moderate** – Patient gets angered and verbally abusive with minimal provocation. May be occasionally threatening, destructive, or have one or two episodes involving physical confrontation or a minor brawl. |
| 5 | **Moderate Severe** – Patient exhibits repeated impulsive episodes involving verbal abuse, destruction of property, or physical threats. There may be one or two episodes involving serious assault, for which the patient requires isolation, physical restraint, or p.r.n. sedation. |
| 6 | **Severe** – Patient frequently is impulsive aggressive, threatening, demanding, and destructive, without any apparent consideration of consequences. Shows assaultive behavior and may also be sexually offensive and possibly respond behaviorally to hallucinatory commands. |
| 7 | **Extreme** – Patient exhibits homicidal, sexual assaults, repeated brutality, or self-destructive behavior. Requires constant direct supervision or external constraints because of inability to control dangerous impulses. |