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Editorial:

Contribution of Projective Techniques to the Study of Happiness

Positive Psychology has been an emerging force in the field of psychology and mental health for the past 3 decades (Chang et al., 2022; Snyder & Lopez, 2002), and the topic of 'Happiness' is a major construct of study in this movement (Selin & Davey, 2012). Indeed, the subject matter of happiness has attracted extensive research attention in India or by Indian scholars (e.g., Arunachalam, 2019; Banavathy & Choudry, 2014; Deb et al., 2020; Gotise & Upadhyay, 2018; Holder et al., 2012; Nagar, 2018; Peltzer & Pengpid, 2013; Reddy, 2023; Sahoo & Sahu, 2009; Singh & David, 2018; Singh & Jha, 2008; Srivastava & Misra, 2003). Interestingly, a perusal of scholarly repositories confirms that projective psychology has not made a significant impact in the field of positive psychology (see Brown, 2009; Piotrowski, 2017). However, a review of the scientific literature clearly indicates that projective assessment techniques have been applied in the study of the issue of Happiness. This commentary provides a brief overview of this body of literature and argues that projective tests are, indeed, ideal measures in gaining an understanding on the role of happiness in maintaining not only emotion regulation but also positive mental health.

Early on, projective techniques were utilized in the study of happiness within the landscape of the emotional life of the individual (Wallen, 1954). Using the Rorschach, Mukerji (1969) studied the dimensions of love, aggression, and happiness as proposed by the Indian psychologist Das Gupta. Based on a thematic analysis, Newbigging (1955) found that the affective features of TAT cards prompt corresponding levels of happiness depicted in the feeling-tone of produced stories. Subsequent research on adult samples using projective methods (Rorschach, TAT, Sentence Completion) has studied the issue of happiness in reference to Vipassana meditation, drug usage, marital adjustment, athletics, and personality factors (see Benson, 2000; McAdams & Bryant, 1987; Sharma & Sharma, 2009; Sharma et al., 2008; Sheimbein, 1974; Stillerman, 1987; Thakur & Thakur, 1980; Yadav & Singh, 2010). Almost all investigations on the study of happiness in children have utilized Human-Figure-Drawings, where the focus has been on emotional-affective states (Bonoti & Misalidi, 2015; Misalidi & Bonoti, 2014; Oncu et al., 2009; Winston et al., 1995). The construct 'Happiness' comprises a state of contentment, well-being, openness, and the unadulterated freedom to enjoy life. The main Rorschach indicator is the ratio of unpleasant versus pleasant affect in the record; hostility, anxiety, dependency, negative affect, and somatic preoccupation responses tend to reflect a state of unhappiness (Mukerji, 1969).

Noteworthy, only one study utilized multiple projective tests (Healy, 1984), and only one involved an adolescent sample (Guo et al., 2007). The current review of the literature identified a very interesting methodological observation; that is, none of the studies cited above attempted to substantiate findings based on projective test results by including self-report measures specific in the assessment of happiness. Recent advances in the assessment field emphasize the importance of multi-source evaluation in order to provide a more detailed and integrated perspective on clinical constructs (see Hopwood & Bornstein, 2014). Likewise, obtaining corroborating evidence, via multi-method designs, would greatly buttress research findings in conjunction with clinical data from projective techniques. Hence, the table below lists several of the major measures, specific to the construct of happiness, evident in the research literature.

Prominent Self-Report Measures on Happiness

Satisfaction with Life Scale
Subjective Happiness Scale

Positive & Negative Affect Scale
Positive & Negative Affect Schedule
Oxford Happiness Questionnaire
Oxford Happiness Inventory
Life Satisfaction Scale
Happiness Scale

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Personality on Display: How Personality Traits are Revealed in What we Write and Say

Stephen P. Joy & Wilson McDermut

This study examined the relationship between major personality traits (Extraversion, Neuroticism, and Psychoticism) rated based on open-ended responses to the Rotter Incomplete Sentences Blank (RISB) and a variety of self-report measures: the NEO-PI-R, SNAP, IIP-SC, SGABS, SWL scale, PDSC, and PDSQ. RISB trait ratings correlated well with comparable self-report scales and displayed a pattern of relationships with other scales similar to that found via self-report. Neuroticism correlated significantly with a variety of personal and interpersonal problems as well as psychiatric and personality disorders. Extraversion appears to be somewhat protective against problems associated with social anxiety or poor relational functioning. Psychoticism was associated with a domineering, manipulative style and with criteria for the most severe personality disorders. Based on these findings, personality traits can be rated using this performance-based method while still allowing for qualitative clinical interpretation of the personal statements made by examinees.

Introduction:

Personality psychology has been and continues to be an active area of research in the social sciences (Piotrowski, 2021). Whether working clinically or in research contexts, personality psychologists want people to tell us about themselves and want supportive data that enjoys a high degree of reliability (precision and objectivity). Unfortunately, these imperatives sometimes work against each other. When people are allowed to speak freely, they provide us with a rich trove of poorly organized information, and we are hard pressed to analyze it without lapsing into armchair speculation. Most personality assessment nowadays seeks to maximize reliability the easy way: using self-report inventories that severely restrict the range of responses a person may make in order to simplify scoring. These represent a remarkable technology but are also limited in scope. People simply cannot tell us what they wish or need to unless the inventory contains an item specifying exactly that concern.

Performance-based (or "projective") personality tests offer an alternative. The potential drawback to these measures is the difficulty of establishing or utilizing a formal scoring system. This has been a major factor in the diminishing focus on such techniques in clinical training (Piotrowski, 2017). However, it is possible to do so – and essential for the future of projective methods that the stream of new research continues to flow (Piotrowski, 2022).

The projective methods that most closely resemble the free flow of verbiage that results when we ask people to tell us about themselves are sentence completion (Rotter et al., 1992) and storytelling techniques (Teglasi, 2010). Of these, sentence completion measures are easier to work with, because the units of behavior are relatively small and numerous. If scoring systems for sentence completion measures proved adequately reliable and valid, then we would have the best of both worlds: objective, precise ratings and open-ended personally clinically relevant information contained in a single assessment.

One promising new system (see Joy, 2017) enables trained raters, even students, to produce reliable scores for the three major personality traits in Hans Eysenck's P-E-N model (Psychoticism, Extraversion, Neuroticism; Eysenck, 1952) based on completions of the Rotter Incomplete Sentences Blank (RISB; Rotter, Lah, & Rafferty, 1992) stems. Higher-order personality factors constitute a useful framework for understanding individual differences, even if such models are not quite as all-encompassing

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as their proponents believe. Extraversion and Neuroticism, each first described by Eysenck, are generally acknowledged as two of these factors. They are sufficiently well known that only a brief description of each will be necessary. Psychoticism is less widely recognized and requires a more in-depth description.

Extraversion refers to the degree to which a person is outgoing. Lower-level traits that form aspects of Extraversion include sociability, dominance, and activity. Highly extraverted people have wide circles of acquaintances, exert influence in social circles, and enjoy engaging in a variety of activities, including physical ones. These individuals are highly reward-sensitive and experience frequent positive emotions. Extraversion exerts some degree of protection against some mental disorders, notably those characterized by anxiety and withdrawal.

Neuroticism refers to the intensity and duration of the stress response. Lower-level traits that form aspects of Neuroticism include guilt, anxiety, and resentment. Neuroticism is thought of as a dimensional diathesis for many forms of mental disorders, including anxiety disorders, dysthymia, and somatic symptom disorders. Those high in Neuroticism are punishment-sensitive and experience frequent negative emotions.

Extraversion and Neuroticism are conceptualized as independent dimensions, though in practice scores on self-report inventories display negative correlations (typically in the r = -.25 range) despite the efforts that have been made to differentiate the factors.

Psychoticism is a complex construct. Eysenck (1992) conceptualized it as a diathesis dimension for psychotic mental disorders (just as Neuroticism is supposed to be a diathesis for milder forms of mental disturbance). However, it should not be confused with the ways in which other researchers have characterized schizotype, psychosis proneness, or psychoticism itself. To begin with, it is supposed to be a normal dimension of personality; Eysenck's Psychoticism scale was constructed to exclude all pathological content. Its characteristics do not center on thought disorder, but rather on a kind of impersonal, egocentric style – what Bleuler might have termed 'autistic'. Individuals high in Psychoticism are likely to treat others as competitors at best, objects to be manipulated at worst. They act in the service of their own personal interests, willing to violate social norms, engage in aggression, and act on impulse. These traits may sound more like psychopathy than psychosis, and indeed, high scorers on Eysenck's Psychoticism scale often display features of personality disorders. Eysenck's theoretical model proposed that there is a single dimension running from extreme conformity at one end, through the average range, then through a range in which original (even creative) thought is facilitated, then into a problematic range related to personality disorders, and ultimately into the realm of frank psychosis.

Psychometrically, Eysenck's Psychoticism scale is less reliable than those he devised for Extraversion and Neuroticism (Eysenck & Eysenck, 1985). This raises the possibility that it is a heterogeneous construct, and indeed scores on the scale correlate negatively with two of the "Big Five" traits, Agreeableness and Conscientiousness. But there are other personality models with similar constructs, such as Tellegen's dimension of constraint vs. disconstraint (1985; Clark, 1993). Moreover, there is some evidence supporting Eysenck's contention that high scorers on the Psychoticism scale resemble people with schizophrenia in terms of various cognitive and even physiological parameters (Eysenck & Eysenck, 1976).

To date, it has been demonstrated that reliable personality trait ratings can be made based on RISB completions, that these ratings correlate strongly with scores on the revised Eysenck Personality Questionnaire (Eysenck & Eysenck, 1985), and that these ratings also correlate with certain other criteria – for example, Psychoticism ratings with creativity (Joy, 2017). However, all samples for which data have been reported to date were drawn from the same college. The present study will explore the relationships between RISB-rated personality traits and a wide variety of self-report measures in a different population. In addition to providing a series of validity checks, this will help to extend the nomological net cast by the new scoring system, enhancing its interpretive possibilities for future users.

Method:

Participants:

Undergraduate students at a mid-sized urban university in the northeastern United States participated in exchange for course credit. A total of 78 completed at least one measure, but some either failed to complete some measures or omitted too many responses for their results to be considered valid, leaving a final sample of 66.

Measures:

All participants completed the Rotter Incomplete Sentences Blank (RISB: Rotter, Lah, and Rafferty, 1992), a 40-item sentence completion test. Data for 2 respondents who omitted more than 20 items were excluded. The RISB was scored for Eysenck's "really big three" personality traits (Extraversion, Neuroticism, and Psychoticism) using the system introduced by Joy (2017). This task was performed by two research assistants (an advanced undergraduate and a first-year graduate student) trained by the author. The effective reliability of their averaged ratings, calculated using the Spearman-Brown prophecy formula, were .78 (Neuroticism, or N), .60 (Extraversion, or E), and .66 (Psychoticism, or P).

NEO-PI-R. The NEO Personality Inventory – Revised (Costa & McCrae, 1993), a 240-item self-report inventory, is a widely used measure of the "Big Five" traits: Extraversion, Agreeableness, Conscientiousness, Neuroticism, and Openness to Experience. Two of these (Extraversion, Neuroticism) derive from Eysenck, and two others (Agreeableness, Conscientiousness) tend to correlate negatively with Eysenck's Psychoticism. The scales have internal consistency of .85 or above (Cronbach's alpha). Norms are based on a representative sample of 1,000 adults.

SNAP. The Schedule for Nonadaptive and Adaptive Personality (Clark, 1993) is a 375-item self-report inventory developed factor analytically. Its 12 primary dimensions represent problematic personality characteristics; they are termed Mistrust, Manipulativeness, Aggression, Self-Harm, Eccentric Perceptions, Dependency, Exhibitionism, Entitlement, Detachment, Impulsivity, Propriety, and Workaholism. Three higher-order factors (Positive Temperament, Negative Temperament, and Disinhibition) underlie them. These are recognizable variants on Eysenck's three factors, with Positive Temperament resembling Extraversion (or perhaps the B.A.S. in Gray's revised reinforcement sensitivity model), Negative Temperament resembling Neuroticism (or perhaps Gray's B.I.S.), and Disinhibition resembling Psychoticism. The SNAP trait and temperament scales have demonstrated good internal consistency, with median alpha values ranging between .76 and .84 (Clark, 1993). In a college sample, the test–retest reliability of these scales was .81 at 1 month, and .79 at 2-month follow-up.

IIP-SC. The Interpersonal Inventory of Problems – Short Circumplex (Soldz, Budman, Demby, & Merry, 1995) is a 32-item, 8-scale measure of the circumplex model of interpersonal difficulties standardized on a nationally representative sample of 800 adults. Its scales are termed Domineering, Vindictive, Cold, Socially Inhibited, Nonassertive, Overly Accommodating, Self-Sacrificing (also known as Overly Nurturant), and Intrusive. Adjacent scales are considered more closely related than those farther apart; the circle closes where Intrusive meets Domineering. The circumplex model is conceptualized around two independent dimensions, Power (most strongly loaded on Domineering, negatively on Nonassertive) and Love (most strongly loaded on Self-Sacrificing, negatively on Cold/Aloof). The IIP-SC has been shown to have adequate reliability (internal consistency ranging from .66 to .83) among college students (Hopwood et al., 2008).

SGABS. The Shortened General Attitude and Beliefs Scale (Lindner, Kirkby, Wertheim, & Birch, 1999) is a 26-item self-report inventory intended to measure constructs related to Albert Ellis' Rational-Emotive Behavior Therapy (REBT; Ellis & Dryden, 1979). The theory posits that humans can be both rational/realistic or irrational/unrealistic. Rational cognitions is associated with greater resilience and a

more balanced approach to life. Irrational cognitions essentially make impossible demands on life and so lead to unhappiness. The SGABS includes a single scale measuring "rational" beliefs and six scales measuring various "irrational" cognitions termed Self-Downing, Need for Achievement, Need for Approval, Need for Comfort, Other-Downing, and Demand for Fairness. These resemble cognitive biases found in other CBT models and, in some cases, psychodynamic defense mechanisms. (It should be noted that "need for achievement" is not equivalent to the motivational construct that has been widely studied via the TAT – the latter is an adaptive characteristic under most conditions.) Despite the brevity of the SGABS scales, their internal consistency hovers around .80 – quite respectable.

PDSC. The Personality Disorder Symptom Checklist (Chiu, 2008) is a 115-item self-report inventory keyed to the diagnostic criteria for personality disorders outlined in the DSM-IV (American Psychiatric Association, 1994). It covers all 10 official diagnoses as well as three proposed diagnostic categories described in the Appendix. Internal consistency ranges from .51 (Schizoid) to .81 (Self-Defeating). Sensitivity and specificity relative to diagnoses confirmed by structured interview vary, but overall, 76% of personality disordered persons are identified as such, while 79% of non-personality-disordered persons are also correctly identified.

PDSQ. The Psychiatric Diagnostic Screening Questionnaire (Zimmerman & Mattia, 2001) is a 125-item self-report inventory intended to assist in psychiatric diagnosis. Its scales include diagnostic criteria for many common disorders (major depression, panic disorder, agoraphobia, post-traumatic stress disorder, obsessive-compulsive disorder, generalized anxiety disorder, social phobia, bulimia/binge eating disorder, alcohol abuse or dependence, drug abuse or dependence, somatization disorder, and hypochondriasis) plus a six-item screen for psychosis. Internal consistency averages .86 across the 13 main scales, which display good sensitivity and specificity relative to diagnoses confirmed by structured interview. (Sensitivity and specificity are inversely correlated, and the authors reported multiple values for each, but in general, at least 80% of individuals were correctly classified. The only scale to fall short of this standard was the psychosis screen, on which about 75% were correctly identified as psychotic or nonpsychotic.)

SWL. The Satisfaction with Life scale (Diener et al., 1985) is a 5-item self-report inventory measuring the extent to which a person is satisfied or dissatisfied with their life. Internal consistency is in the .85 range. It has been utilized in hundreds of studies.

Procedure:

Participants completed all measures in a single session. They were seated comfortably in an environment free from distractions.

Data Analysis and Operational Hypotheses:

Since the focus of interest is on validating the RISB personality scales and examining their relationships with other measures, simple zero-order correlations were calculated between each RISB scale and each of the self-report scales.

Each RISB scale was expected to correlate with similar self-report scales. Thus, RISB-rated Extraversion should correlate with the NEO-PI-R Neuroticism and SNAP Positive Temperament scales; RISB-rated Neuroticism, with NEO-PI-R Neuroticism and SNAP Negative Temperament; RISB-rated Psychoticism, with NEO-PI-R Agreeableness and Conscientiousness (negative correlations) and SNAP Disinhibition. Because the NEO-PI-R scales do not precisely capture Eysenck's Psychoticism construct, these correlations are expected to be relatively weak.

RISB-rated Neuroticism was expected to display the strongest correlations with the many self-report measures of interpersonal problems, cognitive distortions, personality disorders and psychiatric disorders. RISB-rated Extraversion was expected to display negative correlations with personality features

and forms of psychopathology that involve social avoidance and low self-confidence. RISB-rater Psychoticism was expected to correlate selectively with qualities related to the "Dark Triad" of narcissism, Machiavellianism, and antisocial behavior as well as with the more severe personality disorders and possibly psychotic-like experiences.

In addition to the scale-by-scale correlations, we reasoned that a construct-valid new measure of a major personality trait should display a similar pattern of correlations with other constructs to that shown by already-existing measures of the same trait. We had taken over 50 measurements for each participant, providing a rich trove of data. Accordingly, we computed correlations across these vectors of correlations. We predicted that the patterns for the RISB-rated traits would resemble those for the two self-report measures almost as strongly as the patterns for the two self-reports resembled each other.

Results:

The mean RISB Extraversion score was 2.51 (SD = 2.41). The mean RISB Neuroticism score was 4.59 (SD = 4.55). The mean RISB Psychoticism score was 2.08 (SD = 3.59). The figures for Extraversion and Neuroticism were close to the mean of means for the four samples reported by Joy (2017), which were 3.05 and 2.64, respectively. The figure for Neuroticism was higher than the mean of means for those samples, which was 1.83 – though variability across samples was present in those studies as well. RISB-rated Extraversion correlated with Neuroticism at r = -.31 and with Psychoticism at r = -.20; Neuroticism and Psychoticism correlated at r = .40. The three traits were, then, relatively independent of one another, though the .40 correlation might imply that the raters had some difficulty differentiating statements indicative of these two traits.

Table 1 displays the correlations between the RISB-rated traits and the two self-report measures of approximately analogous traits, the NEO-PI-R and the SNAP. Each RISB-rated trait correlated significantly with its self-report analogues, except that Psychoticism only trended toward a significant (inverse) relationship with NEO-PI-R Agreeableness. The relationships between RISB and NEO-PI-R measures of Extraversion and Neuroticism were quite strong.

Table 1. Correlations between RISB-rated Traits and Self-Reported Traits (NEO-PI-R and SNAP)

	RISB Personality Rating		
Self-Reported Trait	**Psychoticism**	**Extraversion**	**Neuroticism**
NEO-PI-R Extraversion	.07	.48***	-.13
Agreeableness	-.23^{+}	.10	.21^{+}
Conscientiousness	-.28*	.24^{+}	-.34**
Neuroticism	.30*	-.32**	.54***
Openness	.17	-.05	.05
SNAP			
Negative Temperament	.22^{+}	-.17	.44***
Positive Temperament	-.07	.25*	-.30*
Disinhibition	.32**	.09	.14

Key: RISB = Rotter Incomplete Sentences Blank (trait scores); NEO-PI-R = NEO Personality Inventory – Revised; SNAP = Schedule for Non adaptive and Adaptive Personality.

$^{+}$ p<.10;* p<.05; ** p<.01; *** p<.001

Table 2 displays the correlations between the RISB-rated traits and the problematic personality characteristics measured by the SNAP. Neuroticism was positively correlated with multiple SNAP scales, especially Dependency and Self-Harm; only Entitlement and (marginally) Exhibitionism correlated in the negative direction. Those high in Neuroticism do not think highly of themselves. Extraversion correlated

negatively with several SNAP scales, notably Detachment and Mistrust; only Exhibitionism correlated in the positive direction. Psychoticism showed a predictable positive correlation with Manipulativeness and a marginal one with Aggression, but also an unexpected correlation with Dependency.

Table 2. Correlations between RISB-rated Traits and SNAP Maladaptive Personality Scales

	RISB Personality Rating		
SNAP Scale	**Psychoticism**	**Extraversion**	**Neuroticism**
Mistrust	.10	-.32**	.28*
Manipulativeness	.38**	.06	.25*
Aggression	.21^{+}	.02	.04
Self-Harm	.21^{+}	-.30*	.57***
Eccentric Perception	.16	-.12	.17
Dependency	.27*	-.22^{+}	.65***
Exhibitionism	.14	.26*	-.22^{+}
Entitlement	.08	.17	-.27*
Detachment	.09	-.34**	.30*
Impulsivity	.20	.02	.16
Propriety	-.10	.14	.24*
Workaholism	.08	-.05	.02

Key: RISB = Rotter Incomplete Sentences Blank (trait scores); SNAP = Schedule for Nonadaptive and Adaptive Personality
$^{+}$ p<.10;* p<.05; ** p<.01; *** p<.001

Table 3 displays the correlations between the RISB-rated traits and interpersonal problems as measured by the IIP-SC. As expected, Neuroticism correlated positively with many scales, especially those near the "love" pole, while Psychoticism loaded more closely on the "power" pole. Extraversion correlated negatively with non-assertiveness (those high in Extraversion are comfortable expressing their wishes or views).

Table 3. Correlations between RISB-rated Traits and Interpersonal Circumplex Problems

	RISB Personality Rating		
IIP-SC Scale	**Psychoticism**	**Extraversion**	**Neuroticism**
Domineering	.34**	.14	.13
Vindictive	.09	.00	-.08
Cold	.15	-.15	.15
Socially Avoidant	.05	-.18	.31*
Nonassertive	.00	-.28*	.44***
Exploitable	.09	-.12	.48***
Self-Sacrificing	.09	-.14	.38***
Intrusive	.23^{+}	-.04	.25*

Key: RISB = Rotter Incomplete Sentences Blank (trait scores); IIP-SC = Interpersonal Inventory of Problems – Short Circumplex
+ p<.10;* p<.05; ** p<.01; *** p<.001

Table 4 displays the correlations between RISB-rated traits and irrational thinking measured by the SGABS. Neuroticism correlated positively with virtually every form of irrational thinking but negatively with rational thinking. Those high in Extraversion were somewhat less likely to exhibit certain forms of irrational thinking, notably self-downing and other-downing. Those high in Psychoticism were more likely to engage in other-downing, but also marginally more likely to report rational thinking.

Table 4. Correlations between RISB-rated Traits and Irrational Cognitive Biases

	RISB Personality Rating		
S-GABS	**Psychoticism**	**Extraversion**	**Neuroticism**
Rational	.21^{+}	.09	-.36**
Self-Downing	.12	-.32**	.41***
Achievement	.12	-.16	.38**
Approval	.07	-.21^{+}	.40***
Comfort	.26*	-.30*	.39***
Fair	.04	.01	.21^{+}
Other-Downing	.30*	-.24*	.23^{+}
Irrational Total	.06	-.20	.38**

Key: RISB = Rotter Incomplete Sentences Blank (trait scores); SGABS = Shortened General Attitude and Belief Scale. Note: "Rational" measures realistic, adaptive cognitions; all other SGABS scales measure irrational, maladaptive ones.
$^{+}$ p<.10;* p<.05; ** p<.01; *** p<.001

RISB-rated Neuroticism was strongly and negatively correlated with Satisfaction with Life (r = -.56, p<.001). RISB-rated Psychoticism showed a moderate negative correlation with life satisfaction (r = -.35, p<.01), while RISB-rated Extraversion showed a positive correlation that fell short of statistical significance (r = .20).

Table 5 displays the correlations between the RISB-rated traits and psychiatric symptoms measured by the PDSQ. The main finding, unsurprisingly, is that Neuroticism correlates with the number of symptoms endorsed for multiple disorders; the relationship with Major Depressive Disorder was especially strong. High levels of Extraversion were associated with lower levels of social anxiety (extraverted people do not shy away from social contact) and fewer panic symptoms. Psychoticism showed no relationship with any of these symptom clusters.

Table 5. Correlations between RISB-rated Traits and Criteria met for Psychiatric Disorders

	RISB Personality Rating		
PDSQ Scale	**Psychoticism**	**Extraversion**	**Neuroticism**
Major Depressive Disorder	.18	-.11	.54***
Post-Traumatic Stress Disorder	.09	-.05	.10
Bulimia/Binge Eating Disorder	.10	-.10	.45***
Panic Disorder	.05	-.25*	.36**
Agoraphobia	-.02	-.10	.08
Social Anxiety Disorder	-.05	-.25*	.37**
Generalized Anxiety Disorder	-.11	-.05	.29*
Somatic Symptom Disorder	-.03	-.03	.26*
Total # of Symptoms	.07	-.22^{+}	.50***

Key: RISB = Rotter Incomplete Sentences Blank (trait scores); PDSQ = Psychiatric Disorder Screening Questionnaire
$^{+}$ p<.10;* p<.05; ** p<.01; *** p<.001

Table 6 displays the correlations between the RISB-rated traits and personality disorder criteria measured by the PDSC. Again, Neuroticism was associated with many problems; correlations were statistically significant with symptoms of most personality disorders, including an extraordinary .78 correlation with Dependent PD. High levels of Extraversion were associated with fewer symptoms of certain personality disorders, notably Avoidant (extraverted people do not avoid social contact) and Depressive. Psychoticism correlated significantly with symptoms of the most severe personality disorders: Schizotypal, Borderline, Narcissistic, and (at the .10 level) Antisocial. The anomalous association between Psychoticism and Dependency recurred here.

Table 6. Correlations between RISB-rated Traits and Criteria met for Personality Disorders

	RISB Personality Rating		
PDSC Scale	**Psychoticism**	**Extraversion**	**Neuroticism**
Paranoid	.10	-.14	.23^{+}
Schizoid	.08	-.11	.07
Schizotypal	.35**	-.17	.43**
Borderline	.25*	-.25*	.48***
Histrionic	.15	-.05	.33**
Narcissistic	.25*	.08	.13
Avoidant	.01	-.32**	.54***
Dependent	.28*	-.12	.78***
Obsessive-Compulsive	.12	-.01	.11
Antisocial	.21^{+}	.11	.04
Depressive	.07	-.31**	.44***
Negativistic	.05	-.04	.27*
Self-Defeating	.20	-.25*	.55***
Personality Disorder	.26*	-.16	.54***

Key: RISB = Rotter Incomplete Sentences Blank (trait scores); PDSC = Personality Disorder Screening Checklist
$^{+}$ p<.10;* p<.05; ** p<.01; *** p<.001

Table 7 shows the results of the correlated vectors analysis. Here, correlations between scales measuring the three core constructs of interest and all remaining scales in the data set served as raw data. The research question is: to what degree are theoretically similar constructs behaving alike in their relationships with other constructs? This incorporates both convergent and discriminant forms of validity. The data set includes two self-report measures of each construct (NEO-PI-R and SNAP) as well as the performance-based RISB ratings. The vectors for RISB-rated traits were about as strongly related to either of the two self-reports as the self-reports were to each other. (Note that the weakest correlations are with Conscientiousness, which is less closely related to the other constructs.) This is strong evidence for the construct validity of the RISB trait rating system.

Table 7. Correlated Vectors Analysis: Relationships among Patterns of Correlations between Personality Traits (RISB, NEO-PI-R, and SNAP) and Other Measures

	Psychoticism*	**Extraversion†**	**Neuroticism§**
RISB x NEO-PI-R	.50	.77	.86
RISB x SNAP	.68	.77	.75
NEO-PI-R x SNAP	.54	.76	.91

Key: RISB = Rotter Incomplete Sentences Blank (trait scores); NEO-PI-R = NEO Personality Inventory – Revised; SNAP = Schedule for Nonadaptive and Adaptive Personality. Note: all correlations are statistically significant at the .001 level.
* For SNAP, Disinhibition; for NEO-PI-R, reversed Conscientiousness
† For SNAP, Positive Temperament
§ For SNAP, Negative Temperament

Discussion:

The present results are significant in several ways. First, they strengthen the case for the validity of the procedure for rating personality traits based on sentence completions. Previous research (Joy, 2017) was largely limited to demonstrating their correlation with the Eysenck scales, with some additional evidence pertaining to self-reported symptoms and creative works. Based on the current analysis, Extraversion, Neuroticism, and Psychoticism as rated from RISB protocols also correlate well with similar scales from

other well-validated self-report measures (the NEO-PI-R and SNAP) – and in a sample drawn from a different population.

Second, the nomological net cast by these trait ratings has been expanded considerably. Not only do the results of RISB analysis correlate with self-report measures of similar traits, but they also display similar patterns of correlation with multiple other measures. Both convergent and discriminant validity have been demonstrated across a wide range of constructs. Indeed, were one to generate descriptions of the three major traits based solely on the results reported herein, they would read almost like definitions of the traits drawn from a personality textbook.

Third, the potential clinical value of the RISB has been extended. Based on trait ratings, we can now draw inferences regarding likely interpersonal problems, cognitive distortions, maladaptive personality characteristics, and even psychiatric diagnoses or personality disordered features. Naturally these must be treated as hypotheses, not as confirmed facts – but the same is true when using self-report data.

As has been noted previously (Joy, 2020), the usefulness of a system for identifying the expression of personality traits in a sentence completion test is not limited to those occasions on which such a test is employed. The structure of these tests is such that responses resemble the sorts of personal statements made during clinical interviews or even in casual conversation. Whenever we hear a person make a statement known to be associated with a particular personality trait we can and should make mental note of the fact; along with the ordinary surface meaning of the utterance, important diagnostic information has been presented. For instance, a person stating that "other people are easy to figure out and defeat" is not only saying that they have experienced competitive success, but that they view life as a zero-sum game and enjoy the cut-throat competition involved – a strong marker of high Psychoticism.

Naturally, there are limitations to the present study and ways in which the research program needs to be extended.

First, the sample consists of undergraduate volunteers. Work with other populations, especially samples drawn from clinical settings, is needed before we can draw strong inferences about people referred for assessment.

Second, the measures used (other than the RISB) were all self-report inventories. Given how much personality research is conducted solely via such instruments, this is not a major problem. However, it does mean that we cannot evaluate the extent to which the RISB ratings provide added value, tapping into layers of personality than cannot be accessed via self-report. This would require the use of additional interview-, observation-, or performance-based assessment procedures, or possibly experimental tasks.

Third, we ran a great many analyses with only a handful of strong predictions. Although nearly all of our findings are consistent with what is known about the three personality traits, it is likely that other patterns of results also would have made sense. And there were a few anomalous findings, notably the inexplicable correlation between Psychoticism and dependency. At least a few of our results are liable to be due to peculiar qualities of the sample. On the other hand, this is also true of the self-report trait measures, and the fact that the vectors of correlations for the self-report trait measures so closely resembled that for the RISB ratings suggests that there was nothing specifically awry with the latter. Results vary across samples to some degree no matter what measures are used, which is why work with many samples is important.

Finally, our work was limited to the semi-objective scores derived from RISB protocols. In clinical practice, sentence completion measures are valued for the qualitative information they provide. Yet as far as we are aware, the validity of the inferences derived by clinicians based on examination of test protocols has not been subjected to proper investigation. Some inferences may seem self-evident – for example, that a

person stating “my father was a good provider but never seemed to notice me” experienced a lack of paternal affection – but even ideas that seem obvious are hypotheses that need to be put to the test.

Future research into the RISB personality trait rating system, then, ought to (1) extend into new populations, especially clinical groups; (2) utilize not only self-report inventories but also other types of measure that may be sensitive to implicit aspects of personality; and (3) begin to incorporate qualitative analysis as well as quantitative scores, with rigorous validity tests of the clinical inferences derived from individual test protocols. Meanwhile, the present findings are strong enough to suggest that at a minimum, one can derive personality trait scores from RISB protocols that can substitute for those obtained via the self-report method – so any additional uses of the instrument would constitute purely incremental validity.

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Color and Emotion, Art in the Rorschach: A Commentary on Piotrowski's (2023) The Color Red and the Assessment Process

Carl B. Gacono[1]

Rorschach emphasized the importance of color in his earliest discussions (Rorschach, 1942). Its crucial role for understanding one's inner life was made clear by its inclusion in the experience balance (EB), and the many nuanced interpretations attributed to its various manifestations. While the construct validity between color and emotion has been empirically established, there are less frequent discussions of its face or logical validity. Art, color theory and modern painting provide a deeper understanding of the convergence between color and emotion. Dr. Piotrowski's discussion of the color red highlights the importance of color in general and red in particular. Red is a lightning rod for strong affect including both aggressive and libidinal drive. The Rorschach excels at offering a blueprint for the manner in which a patient tolerates, manages, and even struggles with affect. Due to its vibrancy and association with both libidinal and aggressive drive, the color red, in particular, provides an essential marker for the idiographic and nomothetic study of the nuances of emotion and their expression. At times, the patient's reaction to red on the Rorschach will indicate the perceptual-cognitive distortions suggested by Piotrowski.

Commentary:

Rorschach emphasized the importance of color in his earliest discussions (Rorschach, 1942). Its centrality to understanding one's emotional life was made clear by its inclusion (FC, CF, C) in the experience balance (EB, Erlebnistypus; key to the extratensive style [Exner, 2003]), and the many nuanced interpretations attributed to its various manifestations (e.g., color naming [CN], color projection [CP]).

While the relationship between color and emotion has been empirically established (Construct Validity, Exner, 2003), there have been less frequent discussions of its face or logical validity. Is it a stretch to associate a fuzzy bear (FT, TF, T; texture) with affectional relatedness, a reflection with self-absorption (Fr, rF), a Vista (V, VF, V) with negatively tinged introspection, or "two ants attacking a submarine" as an indication of a lapse in reality testing? In a similar vein, who would fail to see the convergence of emotion and color in an angry person "seeing red", or, at times, any of us feeling "blue". Being "green" with envy would likely be a less welcomed emotional state.

Borrowing from art, color theory and modern painting a deeper understanding of the convergence between color and emotion is obtained (Gacono, 2017, 2018, 2019). The links between the two are inseparable. It is not a coincidence that Hermann Rorschach was both an artist and researcher, and that, the Holtzman Inkblots are paintings without compare[2]. The master artist, Cezanne, known for his intuitions concerning life and art, opined, "A work of art that does not begin in emotion is not art;" a sentiment likely shared by Rorschach and Holtzman.

From the Impressionists forward (Fauvists [in Paris], German expressionists, abstract expressionist [New York school]) the focus of modern art replaced formal composition with the linking of internal experience (emotion, images, fantasy) with the artistic product. The painting process, an affective rather than cognitive one, involved the transfer of internally channeled experience to the canvas. The only goal was to create harmony (balance), a painting that "worked." Color (CF, C), rather than form, became central

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[1] Special thanks to Drs. Anna Maria Rosso and Jason M. Smith for their helpful comments and suggestions.

[2] It is with fondness, I recall discussing the artistic development of the Holtzman Blots over lunch with their designer. The fact that they are works of art, was intentional on the part of W. Holtzman.

to expressing emotion. Vibrancy was obtained through the juxta-positioning of complementary colors (in lay terms opposites; also warm with cool colors). Placing a primary color (blue, red, yellow) in proximity to a combination of the other two creates a harmonious yin/yang. For example, blue (cool or cold) pops when placed next to orange (a combination of red and yellow; hot or warm). As I previously noted, "In order to paint harmony one must be able to see music."

This creative process mirrors those operating in our inner worlds. One's ability to experience joy is dependent upon the ability to tolerate painful affect, to process loss, to mourn and grieve. Constricting or avoiding one emotion dampens the others. Emotional balance or maturity is only obtained through tolerance for the range of emotions (Gacono, 2018, 2019). This balance allows for a vibrancy to one's emotional state. Life and art are inseparable. The underlying personality functioning revealed through the Rorschach is subject to these principles.

Through an analysis of the chromatic, achromatic, and shading response (and other Comprehensive System [CS] affective cluster variables) the Rorschacher intuits much about an individual's emotional life. Rorschach patterns provide a canvass for understanding and viewing one's capacity for affect, how it is managed, and the stimuli for disruptions or regressions in general, and cognitive functioning in particular. The original CS structural summary allowed for comparing X+% with F+%, thereby, providing a rapid indication of an individual's perceptual accuracy with (X+%) and without emotion (F+%); a simple, yet beautiful thing. Queries during testing feedback such as "I wonder if you tend to make better decisions when emotions are not involved?" "Perhaps you are at your best when things are simple, and you can focus on one thing at a time? (Lambda), provided another measure of Rorschach validity.

Dr. Piotrowski's (2023) discussion of the color red highlights the importance of color in general and red in particular. Red is a lightning rod for strong affect including both aggressive and libidinal drive. CF and C are associated with impulsivity, explosiveness, aggression, and indulgence. Equally important and ubiquitous during Valentine's Day celebrations is its association with passion and love. How many of us have ever heard a response to Card III like, "Two people they must be in love. (?) Because of the red heart in the middle."

How red is used reveals much about how a patient manages strong affect. Inhibitions in many neurotic and higher levels of functioning patients may lead to disruptions in cognitive functioning (accompanied by lapses in form quality) as well as painful internalizations in the form of guilt or even shame. Their therapeutic task is to identify, tolerate, and express (assertion). In characterological and psychotic individuals (CF and Pure C types), where acting out is ubiquitous, the Rorschach may point toward the need to identify, master, or control.

How a person reacts to red, provides a template for how they deny, avoid, or minimize strong affect. Is there a delayed response (color shock) to cards with red? Does the patient assimilate the color location but avoid using color in forming the percept? Do they offer, "A pretty flower" to a red area but, even when prompted, fail to articulate using it in forming the object? Do verbalizations suggest a preoccupation with or difficulties processing color? "I didn't know what to do with the red. Do I have to include it? I guess it really wasn't important anyway?" A low affective ratio (Afr) in combination with an FC:CF+C of 1:6 and poor form for color suggests that the patient avoids emotions because they lack the maturity to manage them. Certainly, the color red and its associations with strong emotion becomes a focal point for assessing a variety of defensive operations (Lerner, 1991; Rosso, Gacono, Camoirano, & Smith, in preparation; Smith & Gacono, 2022).

After understanding the patient's characteristic mode for processing affect, like reflections or texture responses (Gacono & Meloy, 1994), there is much to be gained by examining individual responses. Is red dominated by form (FC), well-articulated, and accompanied by good form with an absence of

cognitive slippage or affective disruption? Or is it more fluid (CF & C) with minus form or absent form (C), with concurrent cognitive (FAB, INC) or emotional (MOR) dysfunction? Is there the pathognomonic presence of CN or CP in the protocol? The examiner always interprets, ala Schafer (1954), these nuanced expressions (especially reactions to red) within scoring sequence. Consistent with Dr. Piotrowski's hypothesis (2023), potential disruptions, such as minus form or cognitive slippage, on or following Cards II or III reveal the presence of impulse and the failure of defensive operations.

As suggested by Dr. Piotrowski's (2023) commentary, the Rorschach excels in offering a blueprint for the manner in which a patient tolerates and manages affect. Red in particular, due to its vibrancy and association with both libidinal and aggressive drive, provides a marker for the idiographic and nomothetic study of the emotional nuances and their expression. Is the color red warmly embraced, or too hot to handle?

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Bibliometric Analysis of the Journal *Dreaming*: Where Is the Research on Color in Dreams?

Chris Piotrowski

The scientific investigation of dreams has attracted scholarly interest for well over a century, represented by an extensive body of knowledge. Yet, there is a dearth of studies regarding the breadth of investigatory interest areas representing this voluminous repository of research literature. The past 3 decades have seen the emergence of a rather distinguished publication with a focus on the subject matter of dreams, the journal *Dreaming*. In order to grasp the scope and investigatory domain on the topic of dreams, the current study reports on a bibliometric analysis of research studies published in *Dreaming* over the past 25 years (1998-2023). The analysis reviewed 600 articles; of these 28 were erratum, comments, editorials. Since the aim of the analysis was to include only *primary* research, these 28 references were deleted from the pool of articles. Thus, the total dataset represented 572 studies. The author determined the topical descriptor that reflected the main focus/aim of each study and maintained a frequency tally across individual topical categories. The top 10 investigatory subjects were (in rank order): Theory/model, nightmares, dream content, lucid dreaming, methods/types of data analysis, cross-cultural, dream recall, post-traumatic states, specific measures/scales related to dreaming, and neurophysiology. A myriad of salient topics received sparse coverage. Study 1 discusses the implications of these findings. Study 2 reviews research studies, indexed in *PsycINFO*, on the specific topic of colors in dreams, as this was an under-represented area of study in the journal *Dreaming*, based on the current bibliometric analysis. Researchers are urged to expand literature search strategies in order to obtain a comprehensive overview of select subject areas.

Introduction:

Historically, as studies on a specific area of investigation accumulate over the years, there comes a time to review the scope and breadth of this select body of literature. Such a scholarly endeavor provides an avenue to help us expand our understanding on the nature of the select subject matter under study. With this as a pretext, it cannot be denied that the topic of dreams and dreaming has been a lively subject area of human inquiry, culminating in extensive scholarship over recent decades (Cavallero & Foulkes, 1993; Diamond, 1962; Foulkes, 1978; Hall, 1951; Hartmann, 1970; Hoss & Gongloff, 2019). At the same time, the research stream on the topic of dreams is emergent in nature, where divergent views on most issues that comprise this field of inquiry are rather apparent (Barrett & McNamara, 2007; Hill, 2004). Hence, any clarification on the state of this evolving specialty area would be a welcome addition to the literature. Noteworthy, Nielsen and Germain (1998), in a comparative study of historical publication patterns indexed in the databases *Medline* versus *PsycINFO*, found a renewed interest in dream research evident in psychological literature since 1980. More recently, Hoffman (2013) reviewed the quality and rigor of studies published in the journal *Dreaming*. However, to date, no bibliometric study on the subject matter of dreams/dreaming has been reported. The aim of the current study is to address this void in the literature. To that end, a bibliometric review of primary research studies in the journal *Dreaming* over the past 25 years was undertaken.

Study 1

Method:

Bibliometric research designs are a well-recognized approach in investigating and identifying the structure of scholarly output regarding select topical subject matter. Indeed, over the past 2 decades this methodology has been applied across various sub-disciplines in the field of psychology, as well as analyses of individual psychology journals (e.g., Gonzalez-Alvarez & Palomar-Garcia, 2014; Mahoney et al., 2010;

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Keywords: Colors in dreams, bibliometric, Dreaming, topical analysis

Piotrowski, 2021; Piotrowski & Watt, 2022). A search in the database *PsycINFO* identified 600 studies for the journal *Dreaming* (1998-2023). Of these, 28 were book reviews, erratum/corrections, comment/replies, and editorials, which were deleted from the pool of primary reference sources. Hence, the total dataset for the current analysis was 572 peer-reviewed articles. Based on a review of each individual study, the author tagged the reference with a sole topical descriptor that best represented the main focus of each article. A frequency tally, across individual subject categories, was maintained and then summed for each topical descriptor.

Findings:

Table 1 presents the rank-order of investigatory topical areas, based on the procedure noted above. As the topic of dreams and dreaming is viewed from a wide spectrum of theoretical perspectives, it is apparent that researchers study this area based on a myriad of theories and conceptual models (e.g., Barcaro & Magrini, 2022; Bulkeley, 2019; Domhoff, 2001, 2019; Kline & Hill, 2014; Mageo, 2004; Spangler & Hill, 2015). Among the most prominent models is the 'Wake to Dream Continuity' hypothesis (Erdelyi, 2017; King & DeCicco, 2009;Malinowski & Horton, 2014). At the same time, this focus on theory/models perhaps explains the wide breadth of methodological approaches in the data collection and analysis stage of investigations (see Schredl, 2002). Moreover, this review noted the use of 16 different scales or questionnaires on dreams/dreaming which undoubtedly reflects a lack of consensus in the field with regard to measurement.

Table 1. Rank Order of Predominant Investigatory Topics

Major Topic	***n***	**%**
Theory/Model	50	9
Nightmares	42	7.5
Dream content	36	6
Lucid dreaming	27	5
Types of analyses/Methods	23	4
Cross-cultural	22	4
Dream recall	21	4
PTSD/post-traumatic states	21	4
Specific measures on dreaming	20	3.5
Brain/Neurophysiology	20	3.5
Personality	18	3
Emotions/emotion regulation	17	3
Historical factors	17	3
Religious aspects	17	3
Dream narratives	13	2
Video games	13	2
Wake to dream continuity	12	2
REM	12	2
Covid-19	11	2
Dream interpretation	11	2
Sleep disorders	11	2
Use in therapy	11	2

Sexual/Erotic dreams	10	1
Coding systems	10	1
Dreams in literature	10	1
Dreams in children	10	1
Gender differences	10	1

Note. Topics with more than 10 articles in the total dataset (*N*=572).

There appears to be extensive research attention devoted to the study of nightmares (in both adults and children), lucid dreams, and cross-cultural comparisons (Table 1). Dream researchers appear to have high interest in examining the impact of psychological traumatic states (e.g., PTSD) on both disturbances in sleep and dream content (Fabik, 2022; Jones et al., 2022). Related to stress reactions, investigators devote substantial research attention to emotional states experienced by dreamers upon awakening (Davidson et al., 2005; Yu, 2007). It is noteworthy that permeating much of the research on dreaming is the role of neurophysiology (Barcaro & Magrini, 2022; Tsunematsu, 2022), such as REM states, which is evident as an investigative issue across studies on dreams.

At the same time, individual differences factors, such as personality issues seem to be an important area of study. In recent years, researchers have directed their attention to the potentially significant impact of video gaming and the COVID-19 pandemic on both dreams and dreaming processes (Gorgoni et al., 2022; Kelly et al., 2022). Rather noteworthy, a myriad of salient topical areas received limited attention from researchers. Surprisingly, only 3 studies were found to have a major focus on the issue of dreaming in color. Hence, this served as an impetus to examine scholarly research reports on the issue of color in dreams. Study 2 provides a brief overview of this body of literature.

Study 2

The author conducted a *keyword search* of *PsycINFO* using a Boolean search for the terms: (dreams OR dreaming) and (color OR colour). The search output identified 48 journal articles. Many of these references appeared in periodicals other than the journal *Dreaming*. What follows is a discussion of this body of research. In addition, a brief synopsis of several key studies in this subject area is presented.

Dream content, themes, and clarity vary widely, and dreaming recollections are usually depicted in Black/White/Grey-scale imagery (Murzyn, 2012; Schredl et al., 2008). Although the issue of dreaming in color has intrigued the scientific world for many centuries, it wasn't until Freud's classic book, *The Interpretation of dreams* (1900), that the topic of color dreams was undertaken as a serious subject matter of clinical inquiry. Initially, this area of study was conducted under a psychoanalytic framework (Alston et al., 1993; Danckwardt, 2006; Finley, 1921; Garma, 1961; Suinn, 1966; Trosman, 1963; Woltmann, 1965; Yazmajian, 1983). By the 1940s, experimental investigations on colored dreaming appeared under the purview of academic psychology. Seminal findings noted that about 60% of college students experienced dreams in color, with females reporting a higher frequency than males (Middleton, 1942), although other investigators reported rates as high as 83% (see Bentley, 1915). Occasional journal articles on this issue appeared over the ensuing 2 decades, with rates for color dreaming as low as 9% (see Murzyn, 2008, p. 1228). Then the most integrated review of the psychological literature on dreaming in color appeared as a dissertation study entitled '*The use of color in projective tests and dreams*' (Kafka, 1963). Based on the emerging literature at the time, Kafka concluded that the presence of color in dreams reflects the physiognomic-affective perceptual style of the dreamer. Specifically, color disguises and defends against repressive impulses and dynamic conflicts. However, subsequent research findings confirmed that method of dream recollection was the major factor in prevalence estimates of color dreams, i.e., use of REM-awakening techniques (e.g., Herman et al., 1968). One intriguing theory in this field of study is that almost all dreams contain color, whether or not individuals report chromatic aspects of their dreaming upon awakening (see Snyder et al., 1968).

Table 2. ***Key Studies on Color in Dreams***

Study	Sample	Major Finding
Tatibana (1938)	Case study/Commentary	Based on theory, the author claims 2 fundamental types of colors tend to be depicted in dreams, i.e., reddish and bluish hues.
Suinn (1967)	College students	Based on the Taylor Manifest Anxiety Scale, results showed that high anxiety males and low anxiety females dreamed in more vivid colors.
Herman et al. (1968)	REM interruption procedure	Color was found in 69% of total REM awakenings, 5% for Stage 2, and 38% of sleep onset arousals; Color percepts increased as the night progressed.
Patalano (1984)	Review/Case study	Based on a psychoanalytic perspective, the author concludes that color in dreams reflects structural conflicts among the id, ego, and superego; the ego utilizes color to camouflage psychic material that has been cathected.
Okada et al. (2005)	531 undergraduates in Japan	Based on recall of a myriad of sensory modalities, the authors found that 85% of their sample dreamt in color.
Schwitzgebel et al. (2006)	300 College / High school students (15-20 years of age)	52% of the technology-advanced students reported dreaming in color at least occasionally; Least-advanced 29%.
Murzyn (2008)	2 age groups (under age 25 vs. over age 55) with different media exposure	Based on dream diaries, older people with predominant exposure to black/white media experienced more grey-scale dreams than younger counterparts who reported color dreaming.
Hoss (2010)	38,063 dream reports (Dream Bank database; dream journals)	The author concluded that recall of color in dreams aligns with neurological mechanisms and in emotional response to color.
Okada et al. (2011)	Data on dreaming in color from 2 time-frames (1993 and 2009)	In both surveys, 80% of young participants experienced color in dreams; frequency decreased as a function of age and fell to 20% by age 60; color TV may explain generational differences.
Murzyn (2012)	39 individuals (19 under age 20; 20 over 50 years of age)	Cognitive functions such as imagery skills (e.g., visualization in pictorial detail) was related to colored dreaming.
Konig et al. (2017)	Recalled dreams of 2700 participants	Based on the continuity theory of dreaming, results indicated that older adults recalled less color dreams than did their younger counterpart; the impact of color TV tends to be a moderator variable.

Yu (2020)	120 participants; 3 colored paper sheets (red, green, white)	Based on the Dream Intensity Scale, those with vivid dreams tend to be more creative and benefit from the facilitative effect of the color Green.

Conclusion:

Future research efforts on 'color in dreams' need to examine individual differences and personality characteristics (e.g., Schredl, 2008; Suinn, 1966) as critical factors in study samples. Also, the role of colors in our waking natural environment needs to be considered both a causative as well as mediative factor (e.g., Spence et al., 2006). Moreover, investigators need to clarify the factors that impact prevalence rates and methods used (i.e., REM, sleep stages, instructions to study participants) in determining color recollections (Herman et al., 1968; Jankowski et al., 1977). In fact, the widely divergent rates in recall of color content, in part, reflect the unreliability of self-report data in dream research which has been a perennial concern over the decades (Hoss, 2019; Schredl, 2008; Schwitzgebel, 2003). One interesting observation in this area of research is that while most dreams contain color depictions (Murzyn, 2008), the majority of people do not recall specific colors in dreams (Konig et al., 2017). Moreover, while dream fragments may appear in various hues, few individuals dream in grand 'technicolor' scenes (Hall, 1951, p. 62). Research to date finds the color Red (see Piotrowski, 2023) as the most recalled hue in this specific area of dream research. It has been suggested that color perception in dreams is largely determined by intricacies of the visual cortex of the brain (Padgham, 1975).

While the topic of dreams remains an active area of scientific inquiry, few researchers have focused on a) the clinical significance of dreaming in colors and b) the interpretive implications of specific colors in dreaming states (Padgham, 1975). Thus, this may be the next challenge for emerging investigation, particularly since dreams are a significant clinical issue reported by patients in psychotherapy (Crook & Hill, 2003; Fabik, 2022; Hill et al., 2008; Keller et al., 1995; Schredl et al., 2000; Tauber & Green, 1962).

Finally, in order to obtain a comprehensive overview of the extant scholarly literature on select subject matter, researchers need to adapt a multi-database search strategy. In particular, this applies to *specialty* journals where due to editorial preference the breadth of topical coverage may be somewhat restricted. Literature reviews in the social and behavioral sciences can be supplemental by including searches of allied databases such as *Medline*.

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Comparison of SIS - I and BDI- II for assessing Depression in Recurrent Breast Cancer Patients

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The study intended to examine the depression scores and diagnosed levels of depression as obtained from Somatic Inkblot Series-I (SIS-I) and Beck Depression Inventory-II (BDI-II), and to high-light the special contribution, if any, of SIS-I in assessing depression among recurrent breast cancer patients. Thirty participants in the age range of 30-60 years were administered the BD- II and SIS-I. Results indicated that, there was a positive correlation between the depression scores as obtained from SIS-I and from BDI-II. Level of depression measured by BDI -I and SIS-I did not agree completely in terms of diagnostic levels. Presence of inner depression and excessive anxiety regarding the persons' own body and physical symptoms of breast cancer were prominently observed from the content analysis of Somatic Inkblot series-I. The study indicates the need for using both self-report inventory (BDI-II) and projective techniques (SIS-I) as supplementary to each other and revealed the nature of discrepancy between them in diagnosing the level of depression.

Comparison of SIS- I and BDI-II for assessing depression in recurrent breast cancer patients:

Breast cancer patients receiving chemotherapy for their recurrent disease often report the presence of depression (Mukherjee et.al, 2018). Depression can be measured by both projective and subjective techniques. The present study purported to examine if depression in recurrent breast cancer patients may be assessed equally adequately with self-report inventory and projective techniques. Somatic Inkblot series-I (Cassel, 1980, Dubey et al. 2019) has been used as the projective measure of depression and the Beck Depression Inventory-II (Beck, 1996) has been used as subjective report inventory. The controversy between the relative effectiveness of subjective report versus projective tests in case of psychological phenomena has a long history (Anastasi & Urbina, 1997). While both are amenable to some forms of subjectivity, the inventories to biased self-perception of the participant, and the projective tests to biased interpretation and theoretical preference of the examiner, there have been claims and counter claims for proving the appropriateness of either. In general, inventories rely for check on their measures of statistical reliability and validity, and projective tests on their ability to predict and discriminate (Dubey, et al, 2019).

Objectives: The objectives of the present study are:

1. To determine the relation between the depression scores as obtained from SIS-I and from BDI-II among recurrent breast cancer patients,
2. To determine the relation between the level of depression as diagnosed from SIS-I and from BDI -II among recurrent breast cancer patients,
3. To highlight the special contribution, if any, of SIS in assessing depression among recurrent breast cancer patients.

Method:

Hypotheses:

1. There is a positive relation between the depression scores as obtained from SIS-I and from BDI-II among recurrent breast cancer patients.
2. The persons diagnosed as having a certain level of depression from BDI-II would be similarly diagnosed by SIS-I also.

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Keywords: Recurrent breast cancer, Depression, Beck Depression Inventory-II, Somatic Inkblot Series-I

Participants:

In the present study, the technique of purposive sampling has been used. Participants were 30 recurrent breast cancer patients belonging to low and medium socio-economic status, aging between 30 years to 60 years. Data were collected from Chandigarh.

Measures used:

The following tools have been used in the study:

- Brief information schedule for demographic information
- Beck Depression Inventory-II.
- SIS-I.

Procedure of data collection:

Data for the present study has been collected by a trained Clinical Psychologist under individual administration condition. At first consent was taken from each participant. The tools were administered in a predetermined sequence. Approximately, 50 minutes were required for completing the whole protocol for each person.

Scoring for BDI-II was done following the manual in terms of 'no depression', 'mild depression', moderate depression', and 'severe depression'. Scoring for SIS I was done following Application of Somatic Inkblot Series-I - New Scoring System (Cassell & Dubey, 2002). It yielded both scores for depression and levels of depression in terms of 'no or minimal depression', 'mild depression', 'moderate depression' and 'severe depression'. Following the manual, a four-point scale has been used to score the level depression. Score 0 indicates level of 'No Depression' for no depressive content in responses; Score 1 means presence of mild depressive content in the face of humans or animals and denoted as 'Mild Depression'; Score 2 that is level of 'Moderate Depression' is associated with the expression with a strong negative affect; Score 3 for depressed affect is associated with pathological anatomical response and denoted as the level of 'Severe Depression'. The responses could also be analysed qualitatively.

Results:

Initially the sample was divided in two age groups (30-45years or the younger group, and 45-60 years or the older group), and in two income groups (earning below Rs. 10000.00 per month that is low-income group, and above Rs. 10000.00 up to Rs. 25000.00 per month that is middle income group). Since age and income may contribute to depression, initially 'independent samples t-tests' were conducted to determine if there were significant differences in terms of these two variables in depression scores as assessed by BDI-II and SIS-I.

Table 1: Means, SDs, and t values indicating difference in age on scores of depressions assessed by BDI- II and SIS-I for 30 participants.

	Age	N	Mean	SD	't' value	Sig. with 28 df
BDI-II Scores of Depressions	Older	11	17.6364	6.39176	1.628	.115
	Younger	19	14.1579	5.17755		
SIS-I scores of Depressions	Older	11	1.7273	1.00905	1.214	.235
	Younger	19	1.2105	1.18223		

Table 1 revealed that there was no significant difference between the two age groups on scores of depressions assessed by BDI-II and SIS-I for the 30 participants.

Table 2: Means, SDs, and t-values indicating difference in income level on scores of depressions assessed by BDI-II and SIS-I for 30 participants

	Income	N	Mean	SD	't' value	Sig with 28 df
BDI II level off depression	Lower	22	14.7727	5.11703	-1.036	.309
	Middle	8	17.2500	7.45941		
SIS I level of depression	Lower	22	1.2727	1.12045	-1.024	.316
	Middle	8	1.7500	1.16496		

Table 2 revealed that there was no significant difference between the income groups on scores of depressions assessed by BDI-II and SIS-I for the 30 participants.

Since there was no significant difference between the two age groups and two income groups all 30 patients were treated together for subsequent calculations.

To determine the relation between the depression scores as obtained from SIS-I and from BDI-II, Pearson's Product Moment Correlation Coefficients were computed between the two sets of depression scores. The 'r' value was .639 ($p < .000$), indicating that there was considerable overlap between the two concepts. However, the 'r' value was not so large as to suggest that the two instruments assessed almost the same construct. Thus hypothesis 1 was accepted.

To compare the levels of depression (no depression or minimal, mild, moderate, severe) as diagnosed from SIS-I and from BDI-II, the levels of depression (none or minimal depression, mild, moderate, and severe depression) were calculated for all participants according to the manuals. Apparently, it was observed that with BDI-II, there were 3 people with minimal depression, 18 with mild and 9 with moderate depression. None was diagnosed as having severe level of depression with BDI-II. With SIS-I, there were 10 people with no depression, 3 with mild depression, 12 with moderate depression, and 5 with severe depression. Thus, BDI-II did not diagnose severe depression for any, while SIS-I did. SIS-I also diagnosed a smaller number of people with no depression in comparison to BDI-II.

Subsequently in BDI-II, the minimal and mild depressed groups were clubbed to represent lower depression and moderate group was treated as with higher depression. With SIS-I, the minimal and mild depressed groups were clubbed to represent lower depression and moderate and severe groups were treated as with higher depression. Cross tabulation revealed that while the two instruments agreed solely on lower depression, they disagreed on higher depression, SIS-I diagnose greater number of persons as considerably depressed (Table 3). Kappa was calculated to determine if the difference was significant. The Kappa value was found to be .494 with associated significance level of .002, indicating that the two instruments did not agree in terms of diagnostic levels. Thus, the Hypothesis 2 was rejected.

Table 3: Frequency of participants falling in low / high categories according to BDI-II and SIS-I

BDI	SIS		Total
	Lower depression	Higher depression	
BDI Lower depression	13	8	21
Higher depression	0	9	9
Total	13	17	30

Table 3 reveals that BDI-II and SIS-I agreed for those having minimal or mild depression, that is they identified equally well a substantial portion of those with no or little risk equally well. There were also 9 persons whom both scales considered as falling in the high depression category. But there were 8 persons whom the BDI-II considered as falling in lower category, but SIS-I categorized as falling in higher (moderate or severe) category.

Discussion:

From the results(tables)it has been found that level of depression assessed by BDI-II and SIS-I did not agree completely in terms of diagnostic levels. While there was considerable overlap between the two scores, and some agreement between the levels of depression defined by the two measures, there were 8 individuals out of 30, that is 26.66% of the sample, who were diagnosed as belonging to high level of depression by SIS-I, but not by BDI-II. Such finding may imply that both instruments are partly valid in diagnosing level of depression in breast cancer patients. Before accounting for the discrepancies, it would be interesting to compare the findings with global rate of depression in general as well as breast cancer population.

Table 3 reveals that BDI-II considers that out of 30 breast cancer patients, 21 (70%) had mild or no depression, and 9 (30 %) had high depression. It is also important to indicate that all these 9 individuals had moderate, and not severe depression. On the other hand, SIS-I reveals that 17 out of 30 (56.66%) patients had moderate or severe level of depression and 13 (43.33%) had minimal or mild depression. Reference to worldwide epidemiology of depression, mostly assessed by self-report inventories or clinician rating, tells us that the figures indicating rate of depression in the population varies widely, making any conclusion difficult (Grover, Dutt & Avasthi, 2010). Global lifetime prevalence rate has been estimated around 12.1% by a large-scale study (Andrade et al., 2003). In a study, conducted in South India, has reported the prevalence of 15.1 percent(Poongothai, et al. 2009). Both the instruments used in the present study reports higher prevalence of depression, which is expected because of their diseased condition. Indeed, several studies abroad and in the Indian subcontinent have also revealed a high degree of depression in breast cancer patients (Mannan, et.al., 2016, and Mukherjee et.al., 2018). Therefore, the comparisons do not provide us much assistance to account for the discrepancy between the two instruments.

Conclusion:

The result of this study should be considered carefully as studies of this kind demand longitudinal method across months; but the present study did not fulfil this demand. It is also important to state that this is an exploratory study with a smaller sample. For future research, it would be better if we try to replicate the present results with a larger sample. Still, the study indicates the need for using both self-report and projective tests as supplementary to each other and shows the nature of discrepancy that may crop up and may be used to qualify data.

It also remains for future analysis to demonstrate whether and how the patients who responded differently to BDI-II and SIS-I differ in their personality and demographical structure from those who did not, that is those who had less need to erect defences against their inner depressive disposition.

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Person Picking a Mango from a Tree: Formal elements, Anxiety and Aggression among Adolescents in Conflict with the Law

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Research on art-based assessments in clinical settings involving art therapy had led to the development of objective measurements of various elements in drawing tasks in the recent years. The study was aimed at assessing the elements that are related to anxiety and aggression manifested in the drawing task of Person Picking a Mango from a Tree (PPMT) among Adolescents in conflict with the Law (ACWL). The participants belonged to the ACWL group (122 males) and Typically Developing Adolescents (TDA) group (N=727, 401 males and 326 females) in the age range of 11-18 years. Their PPMT drawings were rated using Formal Elements of Art Therapy Scale (FEATS) by three raters who had established high inter-rater reliability. The two groups significantly differed on 10 of 14 sub-scales of FEATS- Color Fit, Implied Energy, Integration, Realism, Problem Solving, Developmental Level, Details of Object and Environment, Line Quality, Person and Perseveration. Anxiety measured through Crown-Crisp Experiential Index (CCEI) and aggression assessed using Buss-Perry Aggression Questionnaire (BPAQ) also showed significant difference between the two groups. For the TDA group, Prominence of Color, Color Fit, Implied Energy, Space, Integration, Realism, Developmental Level, Details of Object and Environment showed high correlation with total anxiety and Prominence of Color, Implied Energy, Logic and Person were correlated with aggression. For the ACWL group, elements of FEATS were significantly correlated with phobia, somatic complaints, depressive symptoms, hostility and negatively correlated with physical aggression and verbal aggression. Elements of FEATS on PPMT may be used for early identification of adolescents with anxiety and aggression.

Introduction:

Nearly a century ago, since the time, Good enough (1926) developed Draw-A-Person test (DAP), art-based assessments formed part of clinical tools of the clinicians. Several art-based assessments like Draw House-Tree-Person Test (Buck, 1964), Human Figure Drawing (Kahn & Jones, 1965), Fairy Tale Test and (Coulacoglou & Kline, 1995) got into the list of tools that are based on art. For the assessment of intelligence of children who were not literate, in India, Pathak (2002) standardized Draw-A-Man Test in the early 1960's. The art-based assessments that were in use initially were projective in nature. As the field of art therapy progressed, art-based tools that focused on other variables, like aggression, anxiety, depression, and morality got into the assessment repository of art therapists and researchers (Sanyal and Dasgupta, 2011).

Person Picking an Apple from a Tree (PPAT) developed by Gantt (1990; 2001; Gantt & Tabone, 1998) has been in extensive use in art-based research in different clinical and non-clinical settings (Bat Or & Ishai, 2016, 2020). PPAT involves a simple task of drawing using colour markers which may be viewed as 'interesting' and help children and adolescents to express themselves. However, while administering PPAT in Indian socio-cultural context to a small group of adolescents for the first time, the participants reported that they had not seen an 'apple tree' and hence they do not know how to draw the task (Kruthi & Manickam, 2014). Betts (2013) suggested that Jackfruit tree may be the appropriate one for the Indian population instead of apple. In view of the above, Kruthi & Manickam (2015) explored to find the appropriate tree instead of 'Apple' tree and found 'Mango' to be the appropriate one the in Indian setting. The task was modified to 'Draw a Person Picking a Mango from a Tree' (PPMT) and it was used in different geographical settings in India (Manickam & Sajani, 2016; Sajani, 2017). The cultural adaptation of PPAT was not only required for the tree, but also, for the

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instructions to be given in both the English Language and the vernacular language, the paper given for drawing, the order of presentation when administered along with other questionnaires and the type of markers to be used for the drawing task (Kruthi & Manickam, 2016).

To obtain objective measures of the elements of the drawing task, Gantt (1990) developed Formal Elements of Art Therapy Scale (FEATS), a rating system for assessing specific variables. The FEATS has 14 sub-scales, namely, Prominence of Color, Color Fit, Implied Energy, Space, Integration, Logic, Realism, Problem Solving, Developmental Level, Details of Object and Environment, Line Quality, Person, Rotation and Perseveration (Gantt, 1990). The FEATS is used for rating PPAT and other drawing tasks like Draw-A Person-in-the-Rain (Au, 2020).

Extensive studies were conducted using FEATS and all the subscales had established reliability and validity on different clinical and nonclinical populations. Most of the subscales of FEATS had inter rater reliability of more than .90 (Gantt, 1990). Gantt (1990, 2001) validated the scales on Problem Solving and it distinguished four diagnostic groups and a control group, and it differentiated it from every diagnostic group. Normative studies of drawing of children (Deaver, 2009) and studies were conducted to further establish the reliability and validity of the scales (Nan & Hinz (2012). In India, inter rater reliability was established by two raters on all the sub-scales of FEATS for rating PPAT and PPMT (Kruthi & Manickam, 2014).

FEATS was found to differentiate those persons with depression, anxiety and stress among young adults (Au, 2020) and was found to be useful in assessing the improvements in art therapy among the prison population (Gussak, 2004). Sajani (2017) used elements of FEATS in assessing the effectiveness of integrative art therapy for adolescents with depression. While studying the correlation of elements of FEATS with depression, Manickam and Sajani (2016) opined that there is need for validating the FEATS sub-scales with other variables like anxiety, phobia, obsessive symptoms, somatic complaints and emotional discontrol or total anxiety (Britchnell,1988).

Anxiety and subclinical mental health difficulties among adolescents:

Anxiety was earlier considered as one of the categories of psychoneurotic psychopathology along with phobia, obsession, somatization, depression, and hysteria (Crown & Crisp, 1966). With the revision of diagnostic classifications, the terminologies have changed and some of them are not in use (Pruneti et al., 2016)**.** The Crown and Crisp Experiential Index (CCEI) (Crown & Crisp, 1966, 1979), previously known as Middlesex Hospital Questionnaire is a self-rating questionnaire that serves as a quick screening device for clinically recognized 'neurotic symptoms and personality'. Pruneti et al., (2016) revised the terminology of the sub-tests of CCEI and modified as given: Anxiety symptoms, obsessive symptoms, somatic complaints, depressive symptoms, emotional discontrol and retained phobia as such. Britchnell (1988) considered the total score of CCEI as a useful and valid measure indicative of anxiety, a measure of psychoneurotic pathology which recently Matvienko-Sikar (2021) designated as the 'subclinical mental health difficulties. The scale has been used with different populations in clinical studies and has been found to be helpful in differentiating psychiatric inpatients, psychiatric outpatients with common psychiatric disorders, Anorexia Nervosa (Hsu & Crisp, 1980) maternal prenatal anxiety and depression (Matvienko-Sikar et al., 2021), health conditions (Pruneti et al., 2016) and typically growing individuals. Unlike the measures that are more clinically oriented, the CCEI identifies 'subclinical mental health difficulties' (Matvienko-Sikar, 2021) that can be used with typically developing population (Manickam, 1996).

Aggression among adolescents:

Aggression is defined as 'behaviors that are intended to hurt or harm others' (Buss & Perry, 1992). Sharma and Marimuthu (2014) surveyed 5476 participants from different geographical areas of India using Buss-Perry Aggression Questionnaire (BPAQ)(Buss & Perry, 1992), which is a four-factor questionnaire that measures physical aggression, verbal aggression, anger, and hostility and found that the typically developing adolescents had experienced more aggression compared to young adults. Though the study did not have participants who are in conflict with the law or clinical population, they found that a close to 49.2% of the participants reported experiencing frequent mood disturbance and 5.2% of them felt that there was a strong relation between aggression and mood disturbance. Chereji et al., (2012) in a meta-analytical study found a relationship between anger and violence, cognitive distortions, and violent behavior among the population of violent offenders.

Gussak (2004) had used FEATS with prison population to identify the changes in their behavior because of art therapy and this led to several questions. Can elements in FEATS differentiate the ACWL from the Typically Developing Adolescents? Can subclinical mental health difficulties and aggression be linked to the elements in FEATS? Therefore, the study was aimed at finding out the indicators of aggression and anxiety on PPMT drawings of ACWL. It was hypothesized that there will be significant difference in the 14 formal elements of FEATS between the Typically Developing Adolescents and Adolescents in conflict with the Law. The study also explored the association between the 14 formal elements with anxiety and aggression of the ACWL.

Methodology:

Participants: The participants consisted of two groups.

Group I: Adolescents in Conflict with the Law (ACWL), consisted of 122 male participants whose age ranged from 11-18 years (mean age 16 years 6 months). The data was collected from participants who were undergoing trials at observational homes and from those who attended juvenile court in Mysuru and Bengaluru districts.

Group II: Typically Developing Adolescents (TDA) consisted of 727 participants (401 male and 326 females) between the age of 11-18 years (mean age-14 years 4 months). The participants were drawn from Government schools, private-both aided and unaided schools and colleges of both rural and urban zones in Mysuru and Bengaluru districts based on proportionate stratified sampling.

Measures:

1. **Personal Data Sheet:** Developed by the researcher to gather the basic information to apply inclusion and exclusion criteria. Written informed assent from each participant and written consent was taken from each participant's parent/guardian before recruiting them for the study.

2. **Draw a Person Picking a Mango from a Tree-** Drawing Task (Kruthi & Manickam, 2016).

3. **Formal Elements of Art Therapy Scale (FEATS)** (Gantt and Tabone, 1998) has 14 sub-scales and they are Prominence of Color, Color Fit, Implied Energy, Space, Integration, Logic, Realism, Problem Solving, Developmental Level, Details of Objectand Environment, Line Quality, Person, Rotation and Perseveration, which is rated on a 5-point scale from 1-5.

4. **Crown and Crisp Experiential Index** (Crown & Crisp, 1979): A self-rating scale consisting of 48 items. Some items have 2 responses which is scored either as 0 or 2 and other items have 3 responses which is scored either as 0, 1 or 2. Scores for each sub-test is added up and interpreted according to tables provided in the manual. The Kannada translated version is available with the first author.

5. **Buss and Perry Aggression Questionnaire** (Buss and Perry, 1992): This 29-item, four-factor instrument measures Physical Aggression (PA), Verbal Aggression (VA), Anger (A) and Hostility (H). The Kannada translated version was used for the study (available with the first author). Each item is scored on a 5-point rating scale where minimum score is 1 and maximum score is 5. The sum of each sub-test is added up and interpreted according to the norms. Buss and Perry (1992) reported that the internal consistency reliability of the four factors and total scale were 0.85 for physical aggression; 0.72 for verbal aggression; 0.83 for anger; 0.77 for hostility and 0.89 for the total scale.

Procedure:

For the group I, depending on the setting and availability of the participants, they were assessed individually or in small groups. For the group II, it was administered in groups of 10 or less in number in a separate room or hall available at the institutions where there was minimum interference.

PPMT drawing task was administered first. The A3 size drawing sheets were distributed without suggesting the use of either a vertical or horizontal orientation of the paper. Following this, Luxor's set of 12 conical watercolour markers were distributed to each participant. After they were seated comfortably, the following instructions were given. "Draw a Person Picking a Mango from a Tree in the sheet given to you. You can draw the picture keeping the sheet in any position that you like- vertically or horizontally. Draw using only the materials- paper and the markers- given to you. There is no time limit. Once you finish drawing, please write your name along with your initials on the reverse side of the drawing sheet".

Rating of the drawing

The drawing sheets were randomized using computerized random table and were given to three different raters who independently rated the PPMT on 14 sub-scales of FEATS using the Manual (Gantt & Tabone, 1998). While two of the raters were involved in data collection, the rater (SV) was blind to the participants of the three groups. Rater 1 is a psychologist; Rater 2 is an art therapist and Rater 3 is a psychologist and artist (researcher).

Results:

Inter-Rater Reliability

The inter-rater reliability of the three raters for the 14 sub-scales were done and out of the 14 sub-scales all of them had significant intra class correlation among the 3 raters, ranging from 0.532 (Logic) to 0.913 and only for Perseveration the correlation was found to be 0.327.

The scores of the 14 sub-scales of ACWL were compared with that of TDA and on FEATS sub-scales, 10 out of 14 scales were found to be significant in differentiating both the groups. Five sub-scales namely Implied Energy, Realism, Developmental Level, Line Quality and Perseveration were highly significant at .00 levels. Color Fit, Integration, Problem Solving, Details of Object and Environment and Person also differentiated the groups, and it was significant at .01 level. It was observed that ACWL have lower mean scores than the TDA group in all the sub-scales except for rotation. All the scores of the sub-tests of CCEI, namely anxiety symptoms, phobia, obsessive symptoms, somatic complaints, depressive symptoms, emotional

discontrol and total anxiety of ACWL group were higher compared to that of TDA and it was significantly different for the two groups.

On comparing the BPAQ scores of ACWL and TDA, the mean scores of former in all the factors of aggression namely physical aggression, verbal aggression, anger, hostility, and total aggression significantly differentiated the groups.

Using Pearson correlation, the relationship between the elements of FEATS and sub-tests of CCEI (Table 1) and factors of BPAQ for ACWL participants were explored (Table.2). There was significant positive correlation between phobia and the elements. Prominence of Color ($r = 0.187$, $p < 0.05$), Color Fit ($r = 0.199$, $p < 0.05$), Implied Energy($r = 0.217$, $p < 0.05$), Space($r = 0.188$, $p < 0.05$), Integration ($r = 0.193$, $p < 0.05$), and Details of Object and Environment ($r = 0.082$, $p < 0.01$) were all related to phobia. Line Quality alone showed its relationship to somatic complaints ($r = 0.207$, $p < 0.05$). Prominence of Color ($r = 0.178$, $p < 0.05$), Color Fit ($r=0.196$, $p<0.05$), and Details of Object and Environment were correlated with depressive symptoms ($r = 0.207$, $p < 0.05$). None of the other elements showed any significant relationship with any of the other sub-scales of CCEI.

While analyzing the relationship between the sub-scales of FEATS and factors of BPAQ for ACWL participants it was found that there was significant positive correlation between hostility and Prominence of Color ($r = 0.285$, $p < 0.01$), Color Fit ($r = 0.250$, $p < 0.01$), Implied Energy ($r=0.253$, $p<0.01$) and Realism ($r = 0.183$, $p < 0.05$). There was significant but negative co relation between physical aggression and Line Quality ($r = -0.294$, $p < 0.01$) and perseveration ($r = -0.305$, $p < 0.01$). Rotation alone was found to be associated with verbal aggression ($r = -0.179$, $p < 0.05$). However, none of the elements showed any relationship to total aggression among adolescents who are against the law.

Table 1. Correlation of sub-scales of FEATS with CCEI

Sub-scales	Anxiety symptoms	Phobia	Obsession symptoms	Somatic complaints	Depressive symptoms	Emotional discontrol	Total anxiety
Prominence of Colour	0.055	0.187(*)	-0.044	0.053	0.178(*)	-0.012	0.108
Colour Fit	0.120	0.199(*)	-0.005	0.069	0.196(*)	-0.022	0.146
Implied Energy	0.084	0.217(*)	0.034	0.061	0.172	0.013	0.15
Space	0.111	0.188(*)	0.003	0.085	0.159	-0.023	0.137
Integration	0.049	0.193(*)	-0.118	0.043	0.156	0.043	0.099
Logic	0.016	0.114	-0.149	0.088	0.031	0.065	0.051
Realism	0.044	0.115	-0.047	0.066	0.165	0.017	0.096
Problem Solving	-0.139	0.007	-0.075	-0.009	-0.083	0.082	-0.057
Developmental Level	0.055	0.107	-0.054	0.011	0.072	-0.006	0.050
Details of Object & Environment	0.113	0.282(**)	-0.060	0.063	0.207(*)	-0.019	0.153
Line Quality	0.063	0.006	0.047	.207(*)	0.108	-0.053	0.100
Person	0.035	0.132	-0.136	0.052	0.154	0.158	0.113

Rotation	0.032	-0.049	-0.126	0.176	0.030	0.003	0.028
Perseveration	0.010	0.021	-0.012	0.214(*)	0.140	-0.038	0.089

Table 2. Correlation of sub-scales of FEATS with BPAQ

Sub-scales	Physical aggression	Verbal aggression	Anger	Hostility	Total aggression
Prominence of Color	-0.036	0.064	0.060	0.285(**)	0.126
Color Fit	0.038	0.095	0.120	0.250(**)	0.172
Implied Energy	-0.092	0.107	0.120	0.253(**)	0.116
Space	-0.095	0.066	0.060	0.165	0.050
Integration	-0.151	0.063	0.040	0.163	0.023
Logic	-0.149	-0.048	0.020	0.131	-0.018
Realism	-0.158	0.023	0.020	0.183(*)	0.007
Problem Solving	-0.093	0.066	-0.00	-0.004	-0.026
Developmental Level	-0.110	0.121	0.050	0.160	0.058
Details of Object & Environment	-0.160	0.066	0.070	0.135	0.010
Line Quality	-0.294(**)	0.039	-0.140	0.090	-0.136
Person	-0.019	0.009	0.060	0.019	0.018
Rotation	-0.103	-.179(*)	0.050	0.054	-0.040
Perseveration	-0.305(**)	-0.066	-0.100	0.078	-0.154

Discussion:

The usefulness of art-based assessments is increasingly valued in non- clinical populations. The main purpose of the study was to investigate the differences in the elements of FEATS among adolescents who conflict with the law and the typically growing adolescents. To study this, we initially assessed the inter-rater reliability of the 3 raters. The inter-rater reliability of FEATS on PPMT was highly significant though it differed from a previous study (Manickam &Sajani, 2016). The highest level of agreement was for the element of Space (.913) followed by Details of Object and Environment (.891) and in an earlier study it was found to be reverse, where in the sub-scale of Details of Object and Environment (.88) faring better than space (.821) (Manickam & Sajani (2016). Similarly, though it is highly significant, the lowest value obtained was for Perseveration (.33) in this study whereas it was Line Quality (.49) in the previously mentioned study. One of the reasons for variation could be because they used sketch pens with their participants for drawing whereas we used 'Luxor conical watercolor markers'. The inter-rater reliability reported by Bucciarelli (2011) are higher compared to the values of the present study and it may be due the fact that the author had used the apple instead of mango, had used Mr. Sketch and had engaged only two raters. Nan and Hinz (2012) observed the difficulty in rating the PPAT drawing of participants from Asia on FEATS and found that the Line Quality and Rotation had poor inter-rater reliability in their study though they used the same color markers.

Ten out of 14 scales of FEATS differentiated the adolescents who conflict with the law from the typically developing adolescents. We do not have any other studies to refer to since PPMT has not been used elsewhere nor there are studies where FEATS was used with those who are against the law. Implied Energy, Realism, Developmental Level, Line Quality and Perseveration were highly significant, and it differentiated from the TDA. Color Fit, Integration, Problem Solving, Details of Object and Environment and Person also differentiated the groups. The lower scores on the FEATS sub-scales of ACWL group indicated that they have

made drawings using inappropriate colors or single color used for the entire drawing, with less energy and space, with low line quality and realism in drawing the person and environmental details, where details were missing with no integration between the objects. The ACWL group depicted lower problem-solving skills and the drawings appeared to be done by those of 'lesser age group', from a developmental perspective.

The study also investigated the relationship between the elements and the assessed 'subclinical mental health difficulties' (total anxiety) using CCEI (Crown & Crisp, 1966, 1979), and the sub-scales anxiety symptoms, obsessive symptoms, phobia' somatic complaints, depressive symptoms, to emotional discontrol. Though CCEI is a widely used tool in India with diverse populations. It was surprising to note that ACWL had significantly higher scores on all the sub-scales in comparison to the typically developing adolescents. Most often, it is taken for granted that ACWL has different kinds of challenges and the dimension of 'anxiety and subclinical mental health difficulties' of those in conflict with the law are neglected. The findings suggest the need to explore it further.

Using PPMT on an adolescents' group who had depression, Manickam and Sajani (2016) found that 4 out of the 14 sub-scales of FEATS had significant correlation with scores on depression. Rotation was positively correlated whereas Implied Energy, Problem Solving, and Details of Object and Environment showed significant negative correlation with depression. One of the reasons could be that the study participants were recruited based on high scores of depressions using Child Depression Inventory (CDI) whereas a subscale of CCEI, which was meant to assess 'subclinical mental health difficulty' of depression, was used. In fact, the total score of CCEI indicates total anxiety than the depression dimension (Britchnell,1988). Further, to validate the subscales, those participants who had elevated scores on the 10 subscales may be clinically evaluated for phobia and 'depression' to ascertain the specificity of the tool.

FEATS was developed based on the data gathered from the inpatient clinical population (Gantt & Taborn 1998), and hence the interpretation suggest the extreme low scores to be associated with 'schizophrenia', 'bipolar disorders', depression or 'organic conditions', based on the classification before the DSM V and ICD 11 came into place. Hence there is a need for developing 'new norms' for the clinically diagnosed psychiatric disorders and a revised interpretation for the scores between the extreme low and below the standard deviation of the mean scores of the typically developing populations. This might help to identify those with minor psychiatric disorders and the diverse 'specific clinical and non-clinical groups.

In addition, the relationship between the elements and the aggression and its factors (Buss & Perry, 1992) were also done. The ACWL group scoring significantly higher on all domains of aggression on BPAQ compared to typically developing participants is in the expected lines as observed in previous studies (Gupta et al., 2015; Natarajan & Bhuvaneswari, 2021). However, there are no studies that have explored the relation between the elements of FEATS with aggression. The positive correlation between hostility and Prominence of Color, Color Fit, Implied Energy and Realism are added information and worth exploring further. Similarly, the significant but negative correlation between physical aggression and Line Quality and Perseveration and verbal aggression only associated with rotation must be validated by interviewing those with high scores on Rotation. Since none of the elements showed any relationship to total aggression among adolescents in conflict with the law, whereas the sub domains were found to be related to some of the specific elements, probably FEATS can be used to identify those with different dimensions of aggression and address them appropriately. The advantage of the drawing task is that it can be used with people who have less education and who have not attained high level of language proficiency. However, Gantt and Anderson (2009) cautioned, it is important to

take cognizance of the fact that, "No high or low score on any single scale should be considered by itself" (p.126).

While considering elements of FEATS as global variables in art-based assessments, Gantt and Anderson (2009) suggested that "…we must consider that we have research rather than a clinical scale." (p.126). To make it applicable in clinical situations, further research is needed to collect large data using PPMT and the FEATS to establish norms for the typically growing adolescents and adults in Indian or Asian population. In addition, data from adolescents and adults who are diagnosed with different clinical conditions will help to establish norms for those with psychiatric disorders in comparison to the norms set for the typically developing adolescents and adults.

Conclusion:

Person Picking an Apple from a Tree (Gantt,1990) has been extensively used in art therapy and art-based assessment research (Betts, 2013; Bat & Ishai, 2016, 2020). While administering the culturally adapted Person Picking a Mango from a Tree (PPMT) and rating the drawing task using FEATS, ten of the 14 formal elements differentiated those who conflict with the law from typically developing adolescents. Identifying the adolescents with subclinical mental health difficulties like anxiety and aggression among adolescents using FEATS at an early stage can prevent the occurrence of the major disorders. Rotation as an element found to be associated with verbal aggression is also worth exploring further. Like what Potchebutzky et al., (2020) explored, the subjective experience of the adolescents who are against law can be studied to validate the findings. Nonverbal assessment task like PPMT can be used to identify mental health difficulties among adolescents who are typically developing and those in conflict with the law for early intervention. Clinically validating the elements of FEATS scores with the adolescent and adult clinical population with major and common mental disorders may bring in additional input to the art therapists, clinicians, and psychotherapists.

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Bhagwad Gita: Foundations of Counselling and Psychotherapy in India

Satvinder Singh Saini, Gagandeep Singh, Ritvik Gupta & Krishan Kumar

This paper attempts to describe the central ideas of the Bhagavad Gita, a Hindu sacred book, about its psychotherapeutic implications in the Indian socio-cultural setting. The Gita's teachings, as delivered by Lord Krishna, guide us in the proper direction. In many aspects, conflict resolution through the Gita resembles the work of psychotherapists, who, in addition to addressing patients' concerns and conflicts, assist them with symptom resolution and pave the way to long-term recovery. Counselling and psychotherapy are critical psychological interventions in treating people experiencing emotional distress. The Bhagavad Gita's applicability and utility as a source and model for developing psychotherapeutic concepts are appropriate for the Indian context. In Western psychology, Cognitive Behaviour Therapy (CBT) was discovered in the 1900's era. Still, it was first delivered and documented in India as the Bhagwat Gita before 5000 BC. The fundamental focus of CBT therapy is to produce affirmative changes in the patient's thinking and interpretation of events rather than the event itself. In the Bhagwat Gita, events and situations remained the same, as in chapters one through eighteen; only Arjuna's thinking, emotions, and behaviour were modified after receiving discourses or CBT from Krishna. Hence, it can be said that Counselling and Psychotherapy have their underpinnings in the Bhagwat Gita.

Introduction:

It is a common notion among mental health professionals that counselling and psychotherapy were developed in the Western world and imported into India from the West. But around five thousand years ago, Lord Krishna imparted the knowledge of the Bhagavad Gita to Arjuna, the perfect example of a basic form of psychotherapy.

Bhagavad Gita is considered a balm for the turbulent mind in India. The majority of psychiatric problems are neurotic and need some form of psychotherapy. It has been recognized that psychotherapeutic models developed in the West are primarily inapplicable in the context of Oriental cultures (Surya & Jayaram, 1964). There are specific unique characteristics in the personality development of an average Indian which are essential to note in the psychotherapeutic context. Submission to authority, particularly spiritual, acceptance, readiness to accept overt situational support and reluctance to seek intra-psychic explanation (Neki, 1975), belief in transmigration of soul and fatalism (Varma & Ghosh, 1976) and superiority-inferiority complexes based on castes (Sethi et al., 1965) are some of them. In the West, on the other hand, authority is questioned, independence is fostered, and an intrapsychic explanation of conflicts is more readily accepted. In this context, the Bhagavad Gita deliberates on these hurdles and methods to overcome them to achieve emotional stability. This aligns with the coping of stress management. Let us now discuss the Bhagavad Gita's underpinning in psychotherapy in the Indian context.

Roots of Counselling and Psychotherapy in India:

In recent years, Indian scholars have written that the Gita also exemplifies psychotherapy principles, especially crisis-oriented, motivational, behavioural, humanistic, and existential (Jeste & Vahia, 2008; Balodhi & Keshavan, 2011; Reddy, 2012).

Teachings of the Gita narrated by Lord Krishna make us follow the right course of action. In many ways, the resolution of conflict through the Gita is very similar to the task of psychotherapists, who, while

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addressing anxiety and disputes of the patients, also help them with symptom resolution and pave the path to long-term recovery.

To help combat Arjuna's dilemma, Lord Krishna explains that his distress is transitory and emphasizes the importance of having an undistorted view of the world (akin to a perspective free of cognitive distortions). Seligman theorized that patients' perception and blame themselves for events beyond their control appeared to be a recurring theme of depression. Lord Krishna addresses personalization, as Arjuna unfairly holds himself responsible for the destruction, by stating that all actions occur due to a natural course and an individual who perceives self to be the cause for such activities is deluded. Lord Krishna further addresses Arjuna's conflicts by introducing the concept of the soul being eternal and that Arjuna would not annihilate the enemies by destroying their worldly bodies, thereby relieving him of the responsibility of his enemy's earthly demise. The Gita recommends using relaxation via controlled breathing and Meditation as aids towards alleviating anxiety and achieving harmony.

Both the approaches of Bhagavad Gita and psychotherapy talk about emancipation and liberation from attachments which lead to the attainment of peace and tranquillity of mind. The key aspects influencing the psychotherapy process are trust and communication, and through the knowledge of Gita, one can potentially improve both (Phogat et al., 2020).

Counselling and psychotherapy are essential and integral components of psychological interventions in managing a person with emotional distress. The applicability and usefulness of these models in the Indian context were discussed with some scepticism keeping in mind the varying cultural, religious, spiritual, and societal attitudes (broadly described as Eastern/oriental culture) by psychiatrists in the past. (Varma & Ghosh, 1976; Neki, 1975; Surya & Jayaram, 1964),

The Guru-Chela concept, as a model in psychotherapy, popularized by Dr Neki, gets widely debated in the Indian context. Eminent Indian psychiatrists and psychologists (Ramachandra Rao, 1983; Satyananda, 1972; Jeste & Vahia, 2008; Rao, 2002) discussed and proposed Bhagavad Gita as a source and model to develop psychotherapeutic concepts suitable to the Indian context.

CBT and Bhagavad Gita:

The effectiveness of CBT has been scientifically tested in several clinical trials for various psychological disorders. CBT is problem-solving oriented, time-limited, focused on the present, identifying distorted thinking, modifying beliefs, and changing the clients' consideration, behaviour and emotional response. It is based on the cognitive model: how we perceive situations influences how we feel and respond emotionally. The primary ground of CBT is that sentiments are arduous to vary directly, so CBT aims at feelings by changing thoughts and behaviours that add up to the afflicting emotions. A set of skills is built in CBT to enable an individual to be aware of thoughts & emotions; recognize how circumstances, thinking, and behaviours stimulate emotions; and advance feelings by altering distorted thoughts and behaviours.

Here CBT explains that the incident itself does not affect one’s feelings, but the interpretation of the situation and the meaning assigned to it. Hence, the fundamental concepts from Bhagwad Gita like renunciation, non-detachment to the task and its consequences, meditation, and faith in the therapist may be used to clarify the concepts of CBT and to establish a relationship or rapport that may bring the positive change in the client.

According to The Bhagavad Gita, the performer of any action is liable for the result of his deeds. Issues from the grass-root level of human thinking are tackled in The Bhagavad Gita as the corrections made in the essential thought of a person will instinctively correct his actions and their outcomes.

In Western psychology, CBT was discovered in the 1900's era, but in India, it was first delivered and documented in the form of the Bhagwat Gita way before 5000 years BC. As in modern CBT sessions, to address the current problem, the perceptions are restructured; The Krishna, after identifying the reason for Arjuna's anxiety, taught him skills to deal with it by imparting the knowledge of work commitment, meditation, interminable soul, non-duality, and work detachment concept. The entire therapy sessions were based on Arjuna's current problems and difficulties. In CBT, interpretation of the event, thinking and meaning given to it is essential rather than the event itself. The main concentration of the therapy is to make affirmative alterations in the patient's thinking and interpretation of events by him. In The Bhagwat Gita, events and situations remained the same as mentioned in chapters 1 through chapter 18; only the thinking, emotions and behaviour of Arjuna modified after receiving CBT from Krishna.

The Gita urges 'Yoga', which means 'dexterity indeed', activated using selflessness. Qualities of our lives can be tainted or supported by these three Gunas. The ideal or the best guna among the three is Satva supports accord, integrity and equilibrium in the body. A primary driver of ego, rage, gluttony and lust is Raajas, born of ardour. Finally, Taamas - a driver of ignorance and darkness keenly haze the person's mind. These three gunas present a person's genuine penchants. Firstly, one has to find out to which guna he is born, and they try to budge for “satva” gradually and finally on the way to Yoga, which frees him from guna's encumbrance of gunas. This knowledge of Guna from The Gita is of immense use to CBT therapists. A therapist can examine the subject and categorize him according to his guna, like Saatva, Rajas or Tamas. It will make it easier for the therapist to alter the subject's thinking, emotions and behaviour to get better results. The crucial element of life is Meditation, according to Krishna, which helps in focus The second element is selfless service. The first step to attain, as preached by Krishna, is the knowledge of stanch Nirvana.

Self-awareness directs a person to Yoga, derived from comprehending the divine role in everything we do. Krishna encourages maintaining self-consciousness at every flash of life, even during death Subjects suffering from Guilt, Fear, Anxiety about work, and depression can be imparted by the knowledge of Self-awareness and the divine role in everything we do. This will relieve the subject from all his distortions, and other practices of Meditation during the session will calm down his mind. Work detachment theory explained to the patient in the CBT session will remove his negative thinking and distortions in his mind making him rest his mind in eternal peace. This seems to be philosophical rather than psychological. But, these teachings of Krishna eroded the leading causes of Arjuna's anxiety and depression, i.e. conduct of sin and death of loved ones. The

Royal College of Psychiatrists advocates working with spiritual leaders as warranted in treating patients. Worldwide, irrespective of spiritual and religious backgrounds, psychiatrists and patients have accepted The Zen Principle for better results. The Bhagwat Gita teachings are spiritual but can be harnessed to benefit the patients primarily of anxiety, guilt, fear, grief and depression. Trust and communication are the essences of CBT seen in the entire episode of Gita. Complete devotion of Arjuna towards the Krishna impart lecture for the patients getting CBT sessions that for getting best results and in less period they have to follow their therapist. The setting is a battlefield, and the issue's urgency demands crisis intervention.

The Bhagavad Gita's brilliant chapters allegorically reveal glorious approaches to understanding and living existence. According to Sri Krishna, pain is a characteristic of phenomenal reality that is built-in; a person who pursues the path of knowledge and devotion realizes the Doctrine of Karma and discovers his fundamental nature. Bhagavad Gita provides more detailed explanations on how to develop resilience (Pandey and Mishra, 2021).

Arjuna was a strong warrior and a veteran of many wars. He battled against the same army and prevailed in battle. He was also known as the Pandeva Prince who lacked any notable neurotic tendencies, maladjustments, or flawed coping mechanisms. Lord Krishna, his therapist, was a well-known member of the community, a longtime friend, a relative, and a well-wisher. Lord Krishna is also rumoured to possess

supernatural abilities and renowned negotiating skills and was once a naughty lover. However, he had a tonne of common sense with the characteristics of a noble therapist.

Conclusion:

Counselling and psychotherapy are essential and integral components of psychological interventions in managing a person with emotional distress. In many ways, the resolution of conflict through the Gita is very similar to the task of psychotherapists, who, while addressing anxiety and disputes of the patients, also help them with symptom resolution and pave the path to long-term recovery. The Bhagwat Gita teachings are spiritual but can be harnessed to benefit the patients primarily of anxiety, guilt, fear, grief and depression. Trust and communication are the essences of CBT seen in the entire episode of Gita. Hence, it may be concluded that Gita is the foundation of Counselling and Psychotherapy in India

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MMPI and Rorschach Inkblot Test Profile of a Young OCD Patient: A Case Study

Zainab Parvez & Satyadhar Dwivedi

Pathological doubt is a common aspect among patients with OCD who have a variety of different obsessions and compulsions. Individuals with pathological doubt are often preoccupied by the concern that, because of their carelessness, they will be responsible for a dire event. Several studies have found that OCD is associated with low levels of confidence in relation to one's own attention, memory, and perception (Hermans, et.al, 2008). Stern and colleagues (2013) showed that OCD patients rated themselves as more uncertain during a decision-making task, under conditions without objective uncertainty. Intolerance of uncertainty includes unwillingness to tolerate the chance that negative events may occur in the future, no matter how low the probability (Holaway, 2006),In contrast, doubt is the lack of confidence or certainty in the information available to decide. Perfectionism, which is also an important aspect of OCD, is characterized by striving for flawlessness and having excessively high standards (Coles et.al, 2008).This report describes a particular individual with characteristic features of pathological doubt, which is explored through formal psychological testing.

Introduction:

Obsessive-compulsive disorder (OCD) is a common and long-lasting illness which involves an individual having uncontrollable, reoccurring thoughts (obsessions) and/or behaviors (compulsions) that he or she feels the urge to repeat over and over. According to the World Health Organization, OCD is the sixth most disabling psychiatric illness. Along with high prevalence of diagnosable clinical OCD, there is evidence that OCD symptoms are experienced by many individuals without the full OCD syndrome. Studies have reported that one-fourth of the population experiences obsessive-compulsive symptoms (OCSs), sometimes in their lives (Ruscio et al, 2010). A few researches which have studied sub threshold OCD have reported a prevalence rate of up to 12.6% (Finerber, 2013). Jaisoorya (2017) presented that the prevalence of OCD in a sample of individuals in India was about 3.3% with a higher occurrence in males than females.

The diversity of OCD symptoms can be narrowed, as there are common patterns and clusters of symptoms that occur. Some studies indicate that obsessions associated with contamination and hand washing compulsions are the most common obsessive-compulsive symptoms (Freeman, 1992; Pedrick, 2000). Other studies report that the two most common compulsions are hand washing and checking (Ball, Baer. & Otto, 1996).

Pathological doubt that occurs within the context of OCD has been understood in a variety of ways. As per its behavioural consequences, it is understood as hesitation over futile issues and difficulty to make decisions" (Berrios, 1989, p. 290). Beech (1974) viewed OCD as a disorder of decision-making, distinguished by the state of pathological indecisiveness. Rassin (2007) described doubt as resulting in overt choice-related behaviours like delays and post-decision rumination. According to appraisal/feeling, "an action wasn't done well or completely, that it lacked something, or that it didn't produce the sought-for satisfaction, although to an observer all may appear perfectly well done" (Pitman, 1987).Dar, Lazarov, & Liberman (2016) proposed that patients with OCD have reduced access to their internal states, leading to self-doubt and compensatory reliance on external proxies for decision making, like compulsive rituals.

Measures:

The Minnesota Multiphasic Personality Inventory (MMPI-2) is a standardized psychological test of

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adult personality and psychopathology consisting of 567 items. The purpose of the test is to understand the overall profile configuration of the 10 clinical scales along with three validity scales. The clinical scales in MMPI-2 include hypochondria, depression, hysteria, psychopathic deviate, masculine-feminine interests, paranoia, psychasthenia, schizophrenia, mania and social introversion/extroversion. The main validity scales are as follows: L (lie scale), F (infrequency), and K (correction scale). The MMPI (Hathaway & McKinley 1943) is one of the most frequently used clinical tests (Butcher 1979). Numerous studies have reported the test-retest reliability of MMPI (Dahlstrom et al. 1972, Parker et al. 1988, Vacha-Hasse et al. 2001).

Rorschach Inkblot Test: Rorschach Inkblot Test (Rorschach, 1921) is one psychological assessment instrument, which measures functioning across a wide range of indices - perceptual, cognitive, affective, and interpersonal and others. It is a very popular instrument among clinicians as well as other researchers. It is useful for the exploration of the structure and dynamics of personality. Weiner (2000) reports studies that show that raters have established substantial inter rater agreement on all variables coded by Exner's CS. Moreover, the reliability of data in the Rorschach Structural Summary has been documented in many test-retest studies with children and adults, with test-retest intervals ranging from 7 days to 3 years. Primary Rorschach variables reached stability coefficients between 0.70 and 0.80 according to Weiner.

The Yale-Brown Obsessive Compulsive Scale (Y-BOCS): Y-BOCS is considered the “golden standard” for measuring OC symptoms (Goodman et al. 1989a, Steketee 1994). It is the most widely used method (Steketee & Barlow, 2004) developed to assess obsessions and compulsions (Y-BOCS; Goodman et al., 1989). The Y-BOCS was designed to provide quantitative measurement of symptoms’ severity in obsessive-compulsive disorder. This tool is clinician-rated, envisaging 10-item scale – each item rated from 0 to 4, with separate subtotals for severity of obsessions and compulsions (Goodman et al. 1989a, 1989b). It is are liable and valid instrument for assessing OC symptom severity (Taylor et al. 1995, Moritz et al. 2002). The particularity of the Y-BOCS severity index is that it is independent from symptoms’ content or specificity.

Prelude to Admission:

Mr. DD, a 20 yrs. old male, unmarried, currently pursuing B.Com. and lives with his parents in a nuclear setup is the youngest sibling and has two sisters. Before hospitalization, around 1.5 years ago his results for class 12^{th} arrived and even after successfully passing the examination, he would sit in his room with each question paper crosschecking every answer and calculating his marks again and again, especially the ones in which he had scored low. The family started to worry when this checking continued till many days of revelation of the result and still, he would sit for 1.5-2 hours every day calculating his marks. He would report that it would be better if he made sure that every word was cross-checked to make sure there are no mistakes. After being enrolled in his college, he would check his documents, forms several times correcting the spelling mistakes, the way in which an alphabet was written. He would stay quietly in his room doing this over and over till 2 hours. He used to contact government offices for correction for minute details in the document like the curve of letter in his signature. After several assurances given by the officials, he would get satisfaction. His interaction with his family members reduced and he would lie in bed for most of the day using phone which started affecting his academic performance. Upon intrusion by his parents for his behavior, he would become irritable.

Gradually, he started feeling that something might have fallen and this used to happen very frequently. He would check his surroundings very often in the doubt and would get satisfaction only after he had scanned the environment properly. He was irritable most of the time and would become angry whenever his parents, especially his father used to comment on his behvaior, would become over involved in his decisions and actions. Now, the patient would also re-check the door’s lock at night when it was locked by anyone besides him, he would also check his documents like Aadhar card and marksheets for any

error like the way signature was made or in spellings. With disturbances in his behavior and disturbed academic performance, his parents brought him to the hospital for treatment.

Family and Social History:

Mr DD has his parents and two elder sisters that live with him in a nuclear set-up. His father has been impulsive and would have conflicts with the mother since the patient was young. He has an authoritarian style of parenting and the children have never felt comfortable opening up to him. The patient's mother has been experiencing restlessness and dizziness few months after the patient developed symptoms. The home environment has been filled with conflicts for the past 3-4 years as the eldest sister of the patient wants to marry a boy who is lower in caste and the family does not support this decision.

The patient has been of reserved nature and has had only few close friends. He was well-adjusted and had a positive attitude towards himself and had good interpersonal relationship with friends and family.

Psychological Assessment:

In order to adopt an integrated assessment procedure, different methods of investigation beyond the Clinical interview were done including Rorschach Inkblot Test, Minnesota Multiphasic Personality Inventory (MMPI-2) and Y-BOCS.

Behavioral Observations:

Mr DD was admitted against his will in the hospital, so he was initially not fully cooperative for assessment. As the rapport was gradually formed, he became cooperative. He was able to comprehend the test instructions and respond efficiently. Patient would feel tired at times and therefore requested the examiner to give breaks in between the sessions. However, he had to be persuaded multiple times, only then, he would comply to the examiner and worked accordingly, as he was preoccupied with the idea of being discharged and the discomforts that he had been facing there. The assessments were completed in 9 sessions.

Test Findings:

The findings from Rorschach are depicted in the Table 1 in the following section.

Table 1: Depicting findings from Rorschach Inkblot Test

Domain	***Findings***
Ideation	• Relies heavily on conceptual thinking and inclined to think things through and delay behaviors until considered various options. • Prone to trust internal evaluations than external feedback, avoids being overly influenced by emotions. • Cautious, strives for precise logic when making decisions, and prefers not to become involved in trial-and-error behavior. • Ideational sets and valuesare reasonably well-fixed and would be somewhat difficult to alter.
Information Processing	• Presence of a more conservative or possibly careless processing approach. • Cautious, overly conservative, or possibly even lack lackadaisical when defining objectives for achievement. • Quality of processing is probably adequate but more conservative and economical than is typical.
Cognitive Mediation	• Expected or acceptable responses are likely to occur when the cues for those responses are obvious. • Tends to make more mediation decisions that disregard social demands or expectations.

	This is a product of a conflict with the environment or a product that values considerably from those usually endorsed by the environment. • There is a likelihood that there will be more frequent patterns of less conventional behaviors, reflecting a stronger emphasis on individualism than is typical for most people.
Controls and Stress Tolerance	• Capacity for control and stress tolerance is similar to that of most others. • Experiences some distress and there is limited available resources. • Chronically more vulnerable to becoming disorganized by many of the natural everyday stresses of living in a complex society. • Likely to function more effectively in environments that are well structured and reasonably free of ambiguity
Affect	• Introversive style of coping with demands of everyday living. • Prefers to keep emotions aside during and tends to delay initiating behaviors until has had time to consider various options. • Keeps feelings at a more peripheral level during problem-solving as well as decision making. • Avoids trial-and-error behaviors whenever possible and relies more on internal evaluations rather than external feedbacks in formulating judgments. • Prone to be less tolerant of problem-solving errors than non-intrusive individuals and hence, exercises more caution in decision-making than do others. • Willing to display feelings openly, likely to be more concerned about modulating or controlling those displays. • More intrusive trial-and-error approaches would be avoided by him, even though such an approach might be much more effective. • Likely to inhibit the release of emotions more frequently than others and it results in him being more burdened by irritating feelings. Tends to be less involved with the emotional stimuli and is quite uncomfortable when dealing with emotion, making him more socially constrained or even isolated. • Everyday exchanges are either being avoided by him or approached by him with excessive caution. • Likely to manifest behavioral difficulties when confronted with complex emotional situations.
Self-Perception	• Often less mature and frequently has very distorted notions of himself. • This limited self-awareness could serve negatively in decision making and problem solving and might create a potential for difficulties in relating to others. But he is no more or less self-involved than others.
Interpersonal Relationships	• Less socially mature than might be expected. There is a strong interest in others but he does not understand people very well. • This interest could be a positive sign but, in some cases, it may represent unhealthy preoccupation which is found in guarded or mistrusting individuals. • This lack of understanding can often lead to unrealistic expectations concerning relationships or social blunders which could lead to alienation. • Generally, he engages in interpersonal behaviors that are likely to be less adaptive for the situation than might be desirable. Usually he anticipates positive interactions among people and is interested in participating in them.

The findings from MMPI indicate that he tends to be rather self-centred and infantile in his expectations of other people, demanding of attention and may become resentful and hostile when his demands are not met. Because he fears emotional involvement, he avoids close relationships and tends to be socially withdrawn and isolated. He is hyperactive and emotionally labile. He is unrealistic in self-appraisal, and tends to impress others as grandiose, boastful and fickle. He has a high need to achieve and may feel pressured to do so, his actual performance tends to be mediocre. His feelings of inferiority and

inadequacy and low self-esteem limit the extent to which he involves himself in competitive or achievement-oriented situations.

Table 2: Depicting findings from Minnesota Multiphasic Personality Inventory (MMPI-2)

Clinical Scales		**Harris Lingoes Subscale**		**Content Scales**	
Scales	**Score**	**Subscales**	**Score**	**Scales**	**Score**
Hypochondriasis	59	**Persecutory Ideas**	**94**	Anxiety	65
Depression	47	Poignancy	69	**Obsessiveness**	**73**
Hysteria	45	Naivete	41	Anger	67
Psychopathic Deviate	71	Amorality	58	Antisocial	65
Masculinity-Femininity (Male)	50	Psychomotor Acceleration	63	Social Discomfort	49
Paranoia	**86**	Imperturbability	47	**Family Problems**	**74**
Psychasthenia	**76**	**Ego Inflation**	**82**	TRT- Negative Treatment Indicators	71
Schizophrenia	74				
Hypomania	**82**				
Social Introversion	59				

In the interpersonal realm, the results from the Rorschach and MMPI-2 are convergent in many regards. He does not understand others very well making him guarded and paranoid. This lack of understanding leads to problems in his interpersonal relationships. These problems in relation to others can also be understood by him as having difficulties in dealing with complex emotional situations and this further leads to behavioral difficulties. This could provide an explanation for him scoring high on family problems subscale on MMPI. He has distorted notions of self which is often unrealistic leading to a high score on ego inflation.

On Y-BOCS, he scored moderate symptom severity (score- 17). Research evidence suggests that the severity of doubt was inversely related to the age at onset of OCD symptoms and doubt was strongly related to the number of checking symptoms and, to a lesser extent, to the number of contamination/cleaning and hoarding symptoms (Samuels et al, 2017).His pathological doubt can be seen through the lens of parenting style. As a result of authoritarian parenting, the patient's home environment was filled with excessive control and overinvolvement and this could have led to the development of various cognitive errors such as responsibility, perfectionism, and control of thoughts, which serves as a possible risk factor for developing OC symptoms (Kumar, Wesley & Kishor, 2022).

Discussion:

The patient is a 20-year-old young adult with a diagnosis of OCD. He suffers from pathological doubt, checking rituals, avoidance, paranoia, coping deficiencies and disturbed home environment with respect to over involvement of his parents in his decisions and daily activities. Hagen et al. (2017) found that there is a considerable overlap between paranoid ideation and OCD, as it is paranoia about a negative consequence or a dire event that leads to pathological doubting. The index case is doubtful of others and

has unrealistic expectations in relationships. He is less tolerant of problem-solving errors and is cautious in taking decisions, making him more prone to having pathological doubt which is a significant part of OCD. He restricts the expression of emotions leading him to be more burdened by irritating feelings. This could account for his irritable behavior towards his family members. As a result, he displays behavioral difficulties in situations with emotional complexity.

In pathological doubt, the individual questions his own actions and thoughts, to the point where it causes severe anxiety and distress. This doubt is usually based on irrational fears and doubts about his own abilities, which can lead to a feeling of inadequacy and insecurity (Gallick, 2023). He is likely to function more effectively in environments that are well-structured and reasonably free of ambiguity. This indicates that he is less tolerant of uncertainty. So, one explanation for his doubts could be that as the uncertainty itself is highly distressing, as a result he engages in compulsive rituals to restore certainty (Carr, 1974).

Interrelated with overestimation of threat is an uncertainty, patients with OCD have been found to exhibit elevated cognitive self-consciousness and this tendency to reflect upon one's own thoughts is believed to increase the potential for negative appraisal of intrusive thoughts and increase the likelihood of obsessional symptoms. Moreover, it has been found that excessive focus on one's thoughts may encourage the development of various dysfunctional cognitions (Janeck et al, 2003). An unnecessary active self-consciousness may result in exaggerated indecisiveness, uncertainty, and doubt in individuals with OCD. The patients with OCD are likely to exhibit indecisiveness characterized by meticulousness, prolonged decision making and attentiveness to detail (Summerfeldt et al, 1998). As a result of this, the patient requests repetition of information and takes more time in making decisions and paradoxically doubts the decision made by him. This also makes him believe that there is a perfect solution to every problem, that doing something perfectly is possible and necessary, and that minor mistakes have serious consequences (OCCWG, 1997).

Conclusion:

Our case report with psychological testing has illuminated some of the underlying dynamics of pathological doubt. Obsessive Compulsive Disorder is a recognized aspect of mental illness; it is important to understand pathological doubt and its underlying personality factors for designing preventive strategies and better planning for its treatment, which is targeted towards the genesis of the symptoms.

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Somatic Inkblot Test in a Case of Marital Conflict and Mild Depression

Renu Sachdeva, Anand Dubey & B. L. Dubey

The somatic Inkblot Test (SIT online version) was administered to a 32 years divorced female who was referred for psychological assessment and psychotherapy. The responses on SIT indicated her preoccupation with bodily process and health issues (HPV and cervical cancer risk), which is confirmed by her case history. Slightly high sex responses on SIT have indicated sexual trauma/conflict. This is validated through clinical findings and her dissatisfied physical/intimate relationship for 10 years with her husband. As she narrated, her sexual relationship with her husband was unfulfilling and she has been a victim of sexual abuse on two separate occasions involving two different men. She has sexual trauma and unmet sexual desires which she is now trying to explore with other men after her divorce. The SIT responses helped her to release unprocessed material and the client is feeling better after two sessions of psychotherapy.

Introduction:

Marriage, as a basic institution, exists in every society. It is a culturally, religiously and socially recognized union, between a man and a woman. This union establishes rights and obligations between spouses, their children and between their family (Olugbenga, 2018). The relationship between couples gets better as time goes by, incrementally day after day.

Conflict in a marriage is inevitable. Whenever two people get together and interact, their belief system and personal habits may be a cause of difference between them. They have to develop liking and understanding for each other. Normally, in healthy relationships couples tend to accept and resolve conflict. However, a little thing, if not tackled properly, can slip into the relationship, can cause friction and separation between the couples. Marital conflict may lead to various personal, familial, physical, and psychological consequences, resulting in anxiety, depression, eating disorders, psychosomatic problems and many more issues (Manickam & Suhani, 2014, Singh & Dubey,2020,2021).

The present paper is a case study of a 32 years divorced female who was referred for psychological assessment and psychotherapy. She took Somatic Inkblot Test online (SIT) and the responses were interpreted using content analysis and psychoanalytic interpretation (Gilbert, 1977, Cassell & Dubey,2003, 2014, Dubey et al, 2019, Shafer, 1954).

The Case:

The client, a 32 year old, female, undergraduate, recently divorced from her husband of 10 year. She has had troubled relationships with her past boyfriends. She was also having a tense relationship with her father. She has consulted a psychiatrist who diagnosed her with a case of anxiety with mild depression. She has been to two therapists for psychotherapy with no improvement. The Somatic Imagery Test was administered online to understand her personality and deep rooted psychological issues.

Results & Interpretation:

After initial responses on Somatic Inkblot Test, further probing was done in a one on one session. Her

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Keyword: SIT in Marital Conflict, SIT Projection in Depression.

responses to 16 of the 30 images were explored due to atypical responses and because they suggested relationship conflict and issues related to sexual abuse and trauma.

On the basis of the one on one session, her responses have been clustered into 3 broad areas given below:
1. Childhood & relationship with parents
2. Relationship with men / Sexuality / relationships / Sexual trauma
3. Reproductive issues / abortion / miscarriage

1. Childhood & relationship with parents:

Image 1:

Client: "sinister (black colour)", "distorted figures", "falling and in disarray", "disintegration", "awkward limbs", "discomfort/ pain"

Therapist: On probing, client stated that it triggered a memory from her adolescence when she was extremely distressed when her family "lost trust" in her because of an online relationship she had with a man much older to her.

Image 4.

Client: **"**a grumpy teddy bear" being "cheered up" by a boy

Therapist: On probing, client said it reminded her of her childhood when she was unhappy because of relocation abroad and her "cousins / friends broke close bonds with her" – she often felt "depressed" and needed others to cheer her up.

Image 8.

Client: "creepy and sad…. like the hand of someone who is dying and trying to reach out…"

Therapist: Further exploration revealed that this reminded client of her unhappiness in childhood and marriage – fighting alone without support from family.

Image 28.

Client: "a baby holding on to mother - both looking sad….. Mother has helpless look on face".

Therapist: This image reminded client of the times when she felt unsupported by family members, other than her mother, who was quite powerless. The response indicates her loving relationship with mother, being uncomfortable with father whom she perceived to be very domineering, critical and indifferent to her.

Image 30.

Client: "a hairy" family…"The parents were kissing, and the kids holding hands".

Therapist - Client felt pained that she and her brother never had this feeling because their father was very tough on them and never expressed his love. Perception of "a hairy" (T) may also indicates painful affective experience which is usually related to infantile needs particularly the erotic needs of the infantile period (Beck,1949)

2. Relationship with Men / Sexuality:

Image 6.

Client: client saw "two fat female calligraphy letters falling in love…".

Therapist: This is a kind of rejection of male & female figures and may indicate conflicting relationships with males. Further interrogation revealed that all her personal relationships with men have been troubled – father, boyfriends, ex-husband and brother.

Image 7.

Client: **"**someone's ear…gross….. Weird penis coming out of ear….disgusting".

Therapist: Digging deeper about her sexual relationships indicated that she has not felt sexually pleasured by her husband and wants to experience sexual pleasure. Also, that she has experienced sexual abuse on two occasions - was forcibly kissed as a teenager and recently she had sex with a man without fully consenting.

Image 14.

Client: "a morbid insect….mutation…sinister"

Therapist: Not perceiving "spine" (common response) in this image may indicate that the perceiver has deep rooted sexual conflict or sexual trauma. A morbid insect, may further symbolise sexual abuse. Which was validated (as mentioned earlier).

Image 15:

Client: "a grey, spongy, sad vagina".

Therapist: On interrogating on why the vagina is sad, she said her sex life had not been great and that she had not been prioritizing her own sexual pleasure….but that she wants to do so now.

Image 10.

Client: "Two seahorses - angry and hostile but have red hearts that seem to be meeting….This image is a little anxious".

Therapist: Probing indicated her troubled relationship with husband - reminded client of herself & her husband – *can't do with each other, can't do without each other.*

Image 18.

Client: "Two people fighting. Their brains are red – from anger. The left one looks like a woman, the right one a younger man. Not evoking positive emotions".

Therapist: Reminded client of constant fights / arguments with my ex-husband. It made her feel sad.

Image 23.

Client: "Fish trying to go up in the sea & Image 25 looks like a watering can. The water is coming out in a thick stream and splashing.

Therapist: Both these responsesindicate client's erotic desires for an intimate relationship.

The response **"**looks like a watering can – indicate Freudian symbol of male genitalia. "The water is coming out in a thick stream and splashing" may further symbolize female genitalia in active involvement" (Gilbert, 1977). The response indicates hererotic desire to have an intimate relationship. Client confirmed that she has recently started dating after her divorce.

3. Reproductive issues / abortion / miscarriage

Image12.

Client: "An ultrasound….babyless uterus"

Therapist: This response may indicate reproductive issues or abortion in the client. On probing, she said, she had recently been diagnosed with HPV and has cervical cancer risk that is being investigated. Doctor said the prognosis was good, so having a baby would not be an issue. Also, that the image made her anxious because she was worried about HPV.

Image 16.

Client: **"**looks like Mother Teresa kind of a woman".

Therapist: Not seeing a fetus (common response) is a kind of rejection that could indicate past abortion. Probing indicated that there had been three abortions in her close family / friends circles.

Image 27.

Client: **"**Two babies/foetuses looking at each other. One alive – one a shadow. May be he couldn't make it to the world".

Therapist: The theme of image 12 and 16 is brought back again on this image. This also indicates the pain and sufferings of abortion which she has observed in family and close friends.

Conclusion:

SIT analysis suggests that the client is a creative, intelligent person with good interpersonal relationships. She has contact with reality and has interactions with the external world. She has high human responses coupled with high on Most Typical responses and high human movement which may indicate that the person is keeping a smooth interpersonal relationship with other people. It is also an indicator of high self-esteem and good interpersonal skills. However, a slightly high anatomical score may indicate her preoccupation with bodily processes and health issues (such as HPV and cervical cancer risk), which is confirmed. The latter also suggests poor self-image which is clinically validated in the discussion with the client.

Slightly high sex responses on Somatic Inkblots have indicated sexual trauma/conflict. This is validated through clinical findings. As she narrated, her sexual relationship with her husband was unfulfilling and she has been a victim of sexual abuse on two separate occasions with other men. She has sexual trauma and unmet sexual desires which she is now trying to explore with other men after her divorce.

She is currently suffering from anxiety and moderate depression (DS count is high as is Other response count). Her previous psychiatrist and therapist had diagnosed her with depression, but the client has not taken medication as she does not believe she has depression.

Some of the responses on Somatic Inkblot images brought several core issues such as domineering father, traumatic interpersonal relationship with her husband, erotic conflict, issues related to abortion and miscarriage, needs to be addressed during psychotherapy sessions. This may help in releasing the stress laden issues and painful memories. The role of her mother has been very positive and supporting. She has a cold and conflicted relationship with her father. This has also brought on the surface which must be addressed and resolved. She needs counselling for her traumatic intimate relationship with her husband and some affairs before and after the marriage. She has been in love several times, but all relationships have ended with unpleasant notes. Client needs to explore and understand what she has been seeking through these romantic relationships and why they failed. And, also to explore the kind of marriage and partnership she has in her mind. Her conflicting relationship with her father might be an additional reason leading to her dislike towards her husband. All such issues must be addressed during several therapy sessions. The client felt better after discussion and exploration of various issues.

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Book Review

The book entitled "Personality Psychology: Concept, Theories & Assessment, by two authors Dr. Mahesh Bhargava and Dr. Aradhana, is a handbook describing all important theories of Personality. The book has 14 Chapters running into 244 pages. It is published by National Psychological Corporation, Agra. The Executive Editor Dr. Vivek Bhargava has added valuable inputs and made the book easy, simple, and more informative.

The reading of the book seems to be a pleasant journey to the fundamentals of psychological concepts, developed by thinkers of psychology in various theoretical bases- Structural, Functional, Gestalt, Behavioral and Psychoanalysis. Starting from the meaning, definition and influencing sources of personality (heredity, environment, and culture) have been explained in Chapter 1 and 2. Detailed work of Sigmund Freud (Structure, Dynamics, Psychosocial Development, defense mechanism, Treatment procedure- Free association, Dream analysis, Freudian slips, transference, and symbolic interpretation) have been highlighted in Chapter 3. This Chapter has detailed work of Alfred Adler and Carl Jung. Adler's theory is simpler than Freud and explains basic concepts such as Inferiority complex and its compensation, striving for superiority, Style of life, and Creative self. The authors have taken care of Jung's concepts such as: personal conscious, Collective Unconscious, Archetype, Persona, Anima and Animus and the Shadow.

The authors have also explained the contributions of Neo-Freudian theorists such as Erich Fromm, Harry Stack Sullivan, Karen Horney, Erik Erikson's Psychological theory, and Otto Rank. Contributions of Sheldon's Constitutional theory, Maslow's Need hierarchy, Carl Rogers theory of Self, Kurt Lewin's Field theory, Henry Murray's Personology, Eysenck's biological traits, Gordon Allport's trait theory, R.B. Castell's trait theory, Big Five factors, social learning of Albert Bandura and Jean Piaget's theory of development of children have been explained very well in Chapter 4-7.

Chapter 8 has highlighted the procedure of personality assessment through various personality inventories (MMPI, MPI). Chapter 9 has highlighted on the Projective tests - TAT, CAT, DAP, CAT-H, and Inkblots procedure such as Rorschach Inkblot test, Holtzman Inkblot Test and Somatic Inkblot test (Cassell and Dubey). The Somatic Inkblot test (SIT) is a semi-structured, projective, diagnostic instrument and an adjunct to psychotherapy. The **SIT** is available at ***www.dubayhealingcenter.com***, with 30 images, was released for quick assessment, after 30 years of intense data collection on clinical, organizational, and normal groups. Researchers have reported **high reliability and validity** of the test (Dubey et al, 2019) The papers published in the international journal, "SIS Journal of Projective Psychology and Mental Health" (www.somatic inkblots.com) clearly show the advantages of the Somatic Inkblot Test, both in the "individual" as well as "group administration" settings. The **SIT** has taken care of existing lacuna of other inkblot tests and included 11 common indices of Rorschach and Holtzman tests such as Total number of responses (R), Human (H), Animal (A), Anatomical (At), Sex, Others, Most Typical, (MT), Typical (T), Movement, Rejection, and Pathological Responses (Pathological Anatomy, Hostility Aggression, Depression and Paranoia) more emphasis on content analysis, symbolism, and psychoanalytic interpretation.

I personally feel that this book will help psychology students, researchers and practicing psychologists.

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Statement Showing Ownership and Other Particulars About Somatic Inkblot Society's Journal of Projective Psychology & Mental Health

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I, Dr. Naveen Gupta, hereby declare that the particulars given above are true to the best of my knowledge and belief.

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Dr. Naveen Gupta, Editor-in-Chief
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What is the Somatic Inkblot Test (online version)?

The Somatic Inkblot test (SIT) is a semi-structured, projective, diagnostic instrument and an adjunct to psychotherapy. The **SIT** is available at *www.dubayhealingcenter.com*, with 30 images, was released for quick assessment, after 30 years of intense data collection on clinical, organizational, and normal groups. Researchers have reported **high reliability and validity** of the test (Dubey et al, 2019) The papers published in the international journal, "SIS Journal of Projective Psychology and Mental Health"(www.somaticinkblots.com) clearly show the advantages of the SIT both in the "individual" as well as "group administration" settings.

The SIT automates the entire "psychological test life-cycle" including administration, scoring, interpretation, reporting and diagnostic collaboration. In addition to quantitative analysis, the SIT facilitates and emphasizes content analysis, psychoanalytic interpretation, and symbolic interpretation via a database of research made available as "hints", "Artificial Intelligence" and case studies. It takes about 30 minutes to complete the test.

The technique is based on spontaneous, individually generated responses to semi-ambiguous figures, which elicit intrapsychic associations specific to the person presented with them. The SIT images evoke symbolism and meanings unique to the responding individual. The test responses (Total R, Human, Animal, Anatomical, Sex, Most Typical, Movement, Rejection and Pathological responses) can be differentiated from peer norms and clinical indices and can be analyzed according to internationally recognized psycho-diagnostic criteria. The procedure is an adjunct to psychotherapy because responses can be further explored to create a more effective treatment plan, and can be re-addressed in later discussions, providing opportunities to elicit deeply defended material. During the administration of the SIT procedure, clients may abreact emotional conflict raised to consciousness by the images, which can be a therapeutic experience (Cassell and Dubey, 2003).

The SIT has an amazingly simple 11 scoring indices common to Rorschach, such as R, H, A, At, Sex, MT/P, Movement, Rejection and Pathological responses (PAS, HAS, Depression and Paranoia). It is less complicated than existing inkblot tests since it emphasizes content analysis.

The Test was administered to different clinical groups – Anxiety, Depression, PTSD, Schizophrenia, Sex perpetuators, Criminals, Neurotics, Marital maladjustment, and the findings were very encouraging. The images take the client back in time and helps to verbalize the repressed material lying down in the storage of unconscious mind. Such verbalization is very useful during therapy session.

The Test was administered to business executives in different situations and as expected, the data revealed several higher mental functions. These were as follows: productivity, imaginative ability, controlled emotionality, good adjustment, and group conformity.

Please visit our website: http://www.dubayhealingcenter.comand take the test to see its simple administration, scoring and interpretation (Quantitative and Content analysis). Please see the Manual of the Test and book "Inkblot Personality Test -Understanding the Unconscious Mind, Dubey, B.L., Banerjee, P. and Dubey Anand (2019) Sage Publications Inc.
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SIS JOURNAL OF PROJECTIVE PSYCHOLOGY AND MENTAL HEALTH: ACHIEVEMENTS

Journal in WHO's Listing

Members of Somatic Inkblot Society will be glad to know that SIS Journal of Projective Psychology and Mental Health has been listed by World Health Organization (Global Forum for Health Research) among 25 indexed journals that have published the highest number of articles on mental health from LMICs in Latin America, Africa and Asia (Medline and PsycINFO). Extract from table-6 of "Research Capacity for Mental Health in Low - and Middle - Income Countries: Results of a Mapping Project "(www.globalforumhealth.org) is given below:

Rank	Journal	Country	Language
1	Revista de Psicoanalisis	Argentina	Spanish
2	Revista de Neurologia	Spain	Spanish
3	Revista Brasileria de Psiquiatria	Brazil	Eng.,Spani.,Portuguese
4	Arquivos de Neuro-psiquiatria	Brazil	Portuguese
5	Acta Psiquiatrica y psicologica de Amercia Laina	Argentina	Spanish
6	Journal of the Medical Association of Thailand	Thailand	English, Thai
7	British Journal of Psychiatry	UK	English
8	Acta Psychiatrica Scandinavica	Denmark	English
9	Salud Mentale	Mexico	Spanish
10	Vertex	Argentina	Spanish
11	Journal of Personality and Clinical Studies	India	English
12	Social Psychiatry and Psychiatric Epidemiology	Germany	English
13	Revista Medica de Chile	Chile	Spanish
14	South African Journal of Psychology	South Africa	Afrikaans, English
15	Psychological Reports	USA	English
16	South African Medical Journal	South Africa	Afrikaans, English
17	The Australian & New Zealand Jr. of Psychiatry	Australia	English
18	International Journal of Social Psychiatry	U. K.	English
19	Psychiatry Research	Ireland	English
20	Social Science & Medicine	U. K.	English
21	Revista De Saude Publica	Brazil	Portuguese
22	International Journal of Geriatric Psychiatry	U. K.	English
23	**SIS Journal of Projective Psychology and Mental Health**	**India**	**English**
24	Journal Brasilerio de Psiquiatria	Brazil	Portuguese
25	Psychiatry and Clinical Neurosciences	Australia	English

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We are glad to inform you that SIS Journal of Projective Psychology & Mental Health has been listed in academic research database ProQuest Psychology Journals™. ProQuest is a company in Michigan, United States. It is a leading provider of electronic databases for academic libraries. Databases are used in over 20,000 academic libraries around the country and around the world including some of the most prestigious higher education institutions such as Harvard, Yale, Princeton, Oxford etc. ProQuest provides abstracts and indexing for more than 640 titles, with over 540 titles available in full text. Users get access to charts, diagrams, graphs, tables, photos, and other graphical elements essential to psychological research.

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