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Editorial:
Is Research on Assessment Measures Neglected in General Psychology Journals?: A Content Analysis of *PSYCHOLOGICAL BULLETIN* 61-64
Chris Piotrowski

***Journal of Behavioral Addictions*: A Bibliometric Analysis of Contemporary Research (2020-2025)** 65-69
Chris Piotrowski

Affective Intrapsychic Markers and Differential Diagnosis within the Psychotic Spectrum: A Rorschach Study 70-74
Cecile Prudent & Claude de Tychey

The Rorschach Experience Type, Experience Actual and Psychological Adjustment: Evidence for Experiential Repertoire and Response Style Effects 75-81
Marvin W. Acklin & Dianne DeSousa

A Study-Derived Rorschach Affect Modulation in Law Enforcement Personnel: A Cross-Sectional Comparison of State Police & Railway Protection Force 82-89
Kanishka & Pratibha Singh

Perceptual Accuracy and Cognitive Flexibility in OCD: Using Exner's Comprehensive System Comparative Analysis with Normal Controls 90-98
Bhavya Mishra, Satyadhar Dwivedi & Anand Dubey

Cultural Differences in the Comprehensive System for the Rorschach Inkblot Test: Lambda, M and X Percentages in the Indian Population 99-110
Rupa Kalahasthi, Sarah L Hedlund & James Sexton

Comparative Phenomenological Analysis of Sack's Sentence Completion Test: Indian Case Studies 111-114
Sukhsiddhi D. Pol, Anand Prakash & Rupesh Rajan

Reflections on the Sentence Completion Method: Sentence Completions and Sentence Completing 115-117
John T. Rucker

Exploring Unconscious Mind through Somatic Inkblot Test 118-120
B. L. Dubey & Anand Dubey

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SIS J. Proj. Psy. & Ment. Health (2026) 33: 2, 61-64

Editorial:

Is Research on Assessment Measures Neglected in General Psychology Journals? A Content Analysis of *PSYCHOLOGICAL BULLETIN*

Assessment measures in mental health, including projective techniques, have an integral presence in the extant psychological literature (B.L. Dubey & A. Dubey, 2025; Mihura, 2025; Piotrowski, 2015). Historically, research in this area appeared in both general and clinical periodicals in the emergent field of psychology. Over the past several decades, however, scholarly investigations on assessment measures/techniqu*es* frequently are published in specialty or clinical journals *(*e.g.*, Journal of Personality Assessment, Journal of Clinical Psychology; the APA* journal *Psychological Assessment*; and the journal *Assessment*). Thus, it would be of interest to examine the exposure and coverage that assessment techniques presently receive in 'general' psychology journals. The journal *Psychological Bulletin* (hereon, *PB*) has been rated as a rather prestigious and top-rated scholarly periodical in the discipline of Psychology (see Dennis & Girden, 1953; Koulack & Keselman, 1975; Mace & Warner, 1973; Sternberg, 1992). Based on the editorial scope of *PB*, this journal aims to publish syntheses of findings or prior research, including strengths/weaknesses of past studies, and emergent unresolved issues. Due to the controversial nature regarding the status of self-report methods and projective techniques, one would surmise that assessment measures would receive much research attention in *PB*. Hence, the aim of the current investigation was to a) conduct a bibliometric content analysis of recent studies in *PB*, and b) determine coverage of systematic reviews on topics related to historically critical issues on assessment, or individual measures/tests, emphasized in this scholarly outlet over the past 20 years.

Bibliometric research designs are a well-recognized approach in investigating and identifying the structure of scholarly output, and offers a methodology in determining a systematic description of research trends in the literature (Krippendorff, 2004). Indeed, over the past two decades this methodology has been applied across various sub-disciplines and investigatory subject domains in the behavioral and social sciences (e.g., Chen et al., 2022), as well as analyses of prominent psychology journals (Cascio & Aguinis, 2008; Hooper et al., 2017; Piotrowski, 2021, 2023; Piotrowski & Watt, 2025). In the current study, an online search identified 957 references for the journal *Psychological Bulletin* over the past 20 years (2006-2025). Of these, 179 were erratum/corrections, comment/replies, or editorials. Since the focus was on primary research studies, these 179 references were deleted from the analysis. Thus, the total dataset for the current analysis was 778 articles. Based on a review of each individual article, the author (C.P.) tagged the reference with a sole topical descriptor that best represented the main focus of each study. A frequency tally, across individual subject categories, was maintained and then summed for each topical descriptor.

A caveat is in order: Designation of topic was based on determination of the *main* aim and focus of each study; hence, some highly visible subject areas could serve as secondary or tertiary research topics of investigatory interest. Overall, the analysis indicated an extensive list of topical categories. As theoretical perspectives and conceptual models continue to be a central, ubiquitous investigatory focus and scope of *PB*, the issue of 'Theory' was not included as a separate topical area on the categorization template constructed for the current methodology.

Table 1 presents, in rank order, the most prominent investigatory areas, representing greater than 1% of the total dataset of articles. Based on the results of the analysis, the most dominant subject area of study encompassed various aspects of memory. These 44 articles represent 6% of primary research published in *PB* over the past 20 years. Next, neurophysiological factors (ranked 2nd; 3.5 % of the current dataset) reflect the

integral role of the central nervous system in psychological aspects on human behavior and mental state dynamics. A similar volume of research has a focus on personality issues, as well as both human and non-human emotional states (see Table 1). Indeed, investigatory efforts on emotion regulation and dynamics have been and continue to be a central focus of psychological research (see Dalgleish et al., 2009; Reitsema et al., 2022). Perhaps complimenting this subject area is the role of memory and encoding mechanisms related to the processing of emotion. Despite unsettled and controversial concerns, the study of both personality and emotions has been and continues to be prominent investigatory domains across the field of psychology (see Mihura, 2025; Piotrowski, 2021, 2023).

Visual and attentional processes (ranked 5th) confirm the central role that the subject matter of perception has historically attracted the attention of researchers. The topics of language acquisition and reading (2% of the dataset) attest to the important status that early childhood education has in maturation and child development. Interestingly, the current analysis indicated that the study of sex/gender differences, across a myriad of investigatory topics, has been a prominent area of study in the general field of psychology.

Surprisingly, the current analysis noted limited investigatory attention on assessment issues, particularly a lack of focus on individual psychological tests/measures. Perhaps this can be attributed to a) the availability of top-tier 'assessment-oriented' publication outlets, b) a lack of consensus in the field with regard to measurement (see Gasper, 2018; Gendron, 2010), or c) to editorial preference decisions. Table 1 lists copious research areas that represent from 1% - 2% of the current analysis.

Table 1. Rank Order of Major Investigatory Areas in *Psychological Bulletin* (2006-2025)

Major Topic	**# of Articles**	**%**
Memory (all types/issues)	44	6.0
Neurophysiology/Neuropsychology	34	4.5
Emotions	33	4.5
Personality (issues/traits)	32	4.0
Visual/Spatial (perception, attention, gaze)	28	3.5
Language acquisition/Reading	22	3.0
Gender differences	21	3.0
Psychiatric/Mental health disorders	20	2.5
Substance abuse (including nicotine)	18	2.5
Depression	17	2.0
Parenting issues	16	2.0
Autism spectrum disorders	16	2.0
Measurement issues	15	2.0
Eating disorders-behavior/Body image	15	2.0
Statistical analysis/procedures	14	2.0
Anxiety/Fear	13	2.0
Well-being	13	2.0
PTSD/Post-traumatic growth	12	1.5
I/O Psychology issues/Leadership	12	1.5
Student achievement (K-12)	12	1.5
Research design/Methods	11	1.5
Sleep/circadian factors	11	1.5
Racial discrimination/Prejudice	11	1.5
Cognitive performance/appraisal	11	1.5

Cognitive control	10	1.5
Motivation	10	1.5
Decision-making	10	1.5
Prosocial factors	10	1.5
Life stress/coping	10	1.5
Child development issues	10	1.5
LGBTQ+ issues/Human sexuality	10	1.5
Cultural factors/Diversity issues	10	1.5
Genetics	10	1.5

Note. Topics representing more than 1% of the Total Dataset (778 articles)

The current findings confirm that the rather prestigious journal *Psychological Bulletin* publishes research across copious topical domains. However, there appears to be extensive investigatory concentration on issues involving memory and neurophysiological factors. The study of personality and emotions continue as prominent areas of research attention, as well subject matter dealing with visual and perceptual attention. Interestingly, studies on gender/sex differences constitute about 2% of extant scholarship in *PB*, whereas measurement issues are less emphasized. There was a dearth of research on projective methods/techniques or on individual assessment measures. Whether this is a function of editorial preference or investigatory interest is a matter of speculation (see Beyer, 1978; Laband & Piette, 1994). Admittedly, the proliferation of 'specialty' journals (in both general and clinical psychology areas), over the past 50 years, has had a profound impact on target-journal selection by research scholars. To what extent this trend has had, and is having, on editorial preference and selection of research topics in 'general psychology' journals is a worthy issue for future study.

References:

Beyer, J.M. (1978). Editorial policies and practices among leading journals in four scientific fields. *Sociological Quarterly*, *19*, 68-88.

Cascio, W.F., & Aguinis, H. (2008). Research in industrial and organizational psychology from 1963 to 2007: Changes, choices, and trends. *Journal of Applied Psychology*, *93*(5), 1062-1081.

Chen, P., et al. (2022). Research on major depression in China: A perspective from bibliometric analysis. *Journal of Affective Disorders*, *315*, 174-181.

Dalgleish, T., et al. (2009). Affective neuroscience: Past, present, and future. *Emotion Review*, *1*(4), 355-368.

Dennis, W., & Girden, E. (1953). Do psychologists read? The case of the *Psychological Bulletin*. *Psychological Bulletin*, *8*(5), 197-199.

Dubey, B.L., & Dubey, A. (2025). Somatic Inkblot Test and its application. *Journal of Projective Psychology & Mental Health*, *32*(1), 50-52.

Hooper, M.N., et al. (2017). Information use in psychology research: A citation analysis of leading journals. *Serials Librarian*, *73*(4), 269-282.

Koulack, D., & Keselman, H.J. (1975). Ratings of psychology journals by members of the APA. *American Psychologist*, *30*(11), 1049-1053.

Krippendorff, K. (2004). *Content analysis: An introduction to its methodology* (2nd ed.). Sage.

Laband, D.N., & Piette, M.J. (1994). Favoritism versus search for good papers: Empirical evidence regarding the behavior of journal editors. *Journal of Political Economy*, *102*(1), 194-205.

Mace, K.C., & Warner, H.D. (1973). Ratings of psychology journals. *American Psychologist*, *28*(2), 184-186.

Mihura, J.L. (Ed.). (2025). *The oxford handbook of personality and psychopathology assessment* (2nd ed.). Oxford University Press.

Piotrowski, C. (2023). *Emotion*: An exploratory bibliometric analysis of contemporary psychological research. *North American Journal of Psychology*, *25*(4), 659-667.

Piotrowski, C. (2021). Personality psychology research: A bibliometric analysis of investigatory domain. *Journal of Projective Psychology & Mental Health*, *28*(1), 47-52.

Piotrowski, C. (2015). Projective techniques usage worldwide: A review of applied settings 1995-2015. *Journal of the Indian Academy of Applied Psychology*, *41*(3), 9-19.

Piotrowski, C., & Watt, J.D. (2025). *Applied Ergonomics*: Contemporary research trends and under-studied areas of scholarly investigation. *North American Journal of Psychology*, *27*(1), 185-195.

Reitsema, A.M., et al. (2022). Emotion dynamics in children and adolescents: A meta-analytic and descriptive review. *Emotion*, *22*(2), 374-396.

Sternberg, R.J. (1992). *Psychological Bulletin*'s top 10 'hit parade'. *Psychological Bulletin*, *112*(3), 387-388.

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SIS J. Proj. Psy. & Ment. Health (2026) 33: 2, 65-69

Journal of Behavioral Addictions: A Bibliometric Analysis of Contemporary Research (2020-2025)

Chris Piotrowski

Examination of research trends in select disciplinary areas sheds light on the nature and scope of extant scholarship in academic fields. The current study utilized a bibliometric approach to examine topical research coverage in the *Journal of Behavioral Addictions* in recent years (2020-2025). The content analysis, comprising 385 articles, showed that the most prominent areas of research focus were, in rank order: neurophysiology, gambling, gaming, treatment/intervention approaches, compulsive sexual behaviors, Internet addiction, problematic smartphone use, theory/models, pornography, assessment methods/techniques, sports addiction, and personality traits. A host of salient topics in the field, individually, represented from 1-2% of the current dataset of 385 studies. In addition, the analysis found a wide range of sparsely researched investigatory areas, such as motivation, taxonomy, social isolation, suicidal ideation, life stress, sleep, recovery/relapse, and governmental policy/regulations. Interestingly, psychometric credibility on 20 measures/scales was the sole focus of individual studies. These findings support the view that scholarship on behavioral addictions is an emergent area of study. The current investigation a) should be considered descriptive in nature; b) highlight popular and understudied areas in behavioral addictions research and c) provide a scaffold and catalyst in future research trends in this select scientific field.

Introduction:

Sociometric analysis of the extant scholarly literature enhances the understanding and intellectual structure of a scientific field. The scope of *Addictionology* research is rather voluminous and represents diverse areas of psychological dysfunction. Moreover, the breadth of scholarship spans a myriad of scientific disciplines, including the health field, psychology, and sociology. An integral aspect of most addictive disorders is the behavioral component of psychological dysfunction. While there is an extensive list of scholarly periodicals that reflect the addiction field (Gorman & Huber, 2022), the *Journal of Behavioral Addictions* (*JAB*) has a specific focus on a multidisciplinary perspective on non-substance addictions regarding problematic human behaviors on the impulsive-compulsive spectrum. Examining the intellectual structure of extant scholarship depicted in coverage of subject matter in individual journals can provide a descriptive perspective on the current scientific landscape of a select area of academic study. Indeed, in recent years, bibliometric analyses of individual journals in the field of Psychology have attracted considerable scholarly attention (Bittermann et al., 2021; Flis & van Eck, 2018; Piotrowski, 2024). While bibliometric studies in the general field of addictionology have been reported, a content analysis of the *Journal of Behavioral Addictions* has not appeared in the literature. Hence, the aim of the current study is to conduct a content analysis of contemporary scholarship indexed in *JBA* since 2020.

Bibliometric Studies in Addictionology

In a content analysis of the Spanish journal *Adicciones*, from 1996-2000, Ibarzabal (2002) reported that alcohol studies and research on opiates were the dominant themes. Tran et al. (2020), in a study of over 2,800 references on excessive use of electronic devices, found that Smartphone addiction was the main concern, whereas there was limited research on effective treatment/intervention. More recently, 2 bibliometric articles examined social media addiction. In an analysis of 712 papers, Arora and Mehta (2023) suggested that 'Dark-Triad' dynamics would greatly improve scholarship in this area, while depressive symptoms and emotion regulation were popular emerging themes. Karakus et al. (2024) reported a dearth of research on the issues of social anxiety and impulsivity in the context of social media usage. In a

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content analysis of extant scholarship on the modern phenomena of 'Chemsex', Muschialli et al. (2024) found a predominant focus on risk to public health, but less attention to consensual issues. Using citation and co-citation analysis on 528 articles discussing Internet gaming addiction, Gupta et al. (2024) highlighted the most influential studies in this area. Based on research trends in the emergent literature on esports, Kamu et al. (2025) identified the need for longitudinal studies, particularly on issues such as burnout, anxiety, and depression. Piotrowski (2025b), in a bibliometric analysis of contemporary gambling research, determined that treatment issues, theoretical issues, and sports gambling were the major investigatory areas, whereas a myriad of salient topics attracted sparse research attention (Piotrowski, 2025a).

With specific reference to behavioral addictions, Sixto-Costoya et al. (2021), using a bibliometric approach, found that gambling, technology addictions, gaming, and food addiction were the predominant topics garnering research attention. Since literature coverage of this investigation spanned 1995 to 2019, the current study examined scholarship from 2020-2025 in the *Journal of Behavioral Addictions*.

Method:

Bibliometric analysis offers a methodology in determining a systematic description of the scholarly productivity of a select field (Krippendorff, 2004), including the field of psychology (Piotrowski, 2024). The current study sought to obtain a content analysis of contemporary studies represented in the *Journal of Behavioral Addictions* (2020-2025). Based on an online search of *PsycINFO*, this review comprised 426 peer-reviewed studies for this time span. Of these, 41 were editorials, erratum, corrections, and book reviews, which were deleted from further consideration. Hence, the total dataset for the current analysis entailed 385 studies. The objective was to determine the *main* focus of each reference from the perspective of the study's investigator(s). Based on these parameters, all studies were reviewed and the author (C.P.) coded each reference with a sole descriptor that best represented the main focus of study. A frequency tally, across individual subject categories, was maintained and then summed for each topic.

Results:

A caveat is in order: Designation of topic was based on determination of the *main* aim and focus of each study; hence, some highly visible subject areas could serve as secondary or tertiary research topics of investigatory interest. Overall, the analysis indicated a rather extensive list of topical categories. Table 1 presents, in rank order, the most prominent investigatory subject areas, representing topics greater than 1% of the total dataset of articles.

Interestingly, neurophysiological factors, across a myriad of addiction disorders, was the most prominent area of research reported in *JBA* (11% of the dataset of 385 articles). Most of these studies reported the results of imaging methods. Prior research has noted the integral role of neurophysiology in the study of behavioral addictions (e.g., Choi et al., 2019; Fauth-Buhler et al., 2017). Perhaps due to the influence of modern technology, investigators are having an increasing focus on pathological aspects of both gambling and gaming (Czako et al., 2025; Piotrowski, 2025a; Stevens et al., 2026; Wang et al., 2017; Zumrode et al., 2025), representing 9% and 7.5%, respectively, of the current analysis (see Table 1). Both these psychological problem areas have been identified in recent bibliometric analyses of the scholarly literature (see Gupta et al., 2024; King et al., 2020; Piotrowski, 2025b).

With regard to the dominant trends on interventions, both traditional and novel treatment approaches continue to be studied across behavioral addiction domains (e.g., Boumparis et al., 2022). In the current analysis, cognitive behavioral therapy and mindfulness were most apparent (Kaneez et al., 2013; Li et al., 2017; Young, 2007), although there was sparse research on either relapse or efficacy in recovery in the context of behavioral addictions (see Mansueto et al., 2024). Perhaps reflecting easy-access to sexual material on the Internet, the analysis identified 35 studies (9%) which investigated either addiction to

pornography or compulsive sexual behaviors (see Bingham & Piotrowski, 1996; Goslar et al., 2020; Parsons et al., 2007). Not surprisingly, both Internet addiction and problematic smartphone use were major areas of research attention in *JBA* (Geng et al., 2023; Goslar et al., 2020; Kuss & Lopez-Fernandez, 2016; Liu et al., 2024; Zare-Bidoky et al., 2025). The analysis identified 14 studies (3.5% of the total dataset) on assessment issues (see King et al., 2020; Schluter et al., 2020; Sicilia et al., 2021 for a discussion). Interestingly, psychometric data on 20 individual measures were the sole focus of studies across a myriad of behavioral addictions. Emerging research may benefit from the application of projective methods in the study of behavioral addiction (e.g., Mishra et al., 2026). Furthermore, based on intense marketing strategies and easy access to electronic bet-wagering, sports gambling (particularly, *Esports*) has attracted extensive research attention in recent years (see Table 1; Zhai et al., 2025). Finally, research topics representing from 1.5%-2% of the current analysis are listed in the bottom-half of Table 1.

Table 1. Ranking of Prominent Research Topics in *JBA* (2020-2025)

Major Topic	***# of articles***	***%***
Neurophysiology	43	11.0
Gambling	35	9.0
Gaming	29	7.5
Treatment/Intervention (all types)	25	6.5
Compulsive sexual behaviors	21	5.5
Internet addiction	16	4.0
Problematic smartphone use	15	4.0
Theory/Model	14	3.5
Pornography	14	3.5
Assessment/Measurement issues	14	3.5
Sports addiction (including e-sports)	12	3.0
Personality traits	10	3.0
Diagnostic systems (DSM, ICD, WHO)	8	2.0
Exercise	8	2.0
Eating disorders/Food addiction	7	2.0
Social networking	7	2.0
Classical conditioning factors	7	2.0
Compulsive shopping	7	2.0
ADHD	7	2.0
Cross-National analyses	7	2.0
Taxonomy	6	1.5
Harm reduction	6	1.5
Gender differences	6	1.5

Note: Topics representing more than 1% of the Total Dataset (n = 385 studies).

Conclusion:

The findings of this bibliometric analysis confirm that there is wide scope and breadth of contemporary topical coverage in the *Journal of Behavioral Addictions*, although the areas of neurophysiology, gambling, gaming, and treatment approaches seem to be the predominant areas of research attention. While cognitive (CBT) interventions appear to be most promising in the treatment of behavioral addictions, combination CBT and medications has shown superiority over mono therapies (see Goslar et al., 2020). Noteworthy, the issue of 'Craving', as a diagnostic marker of addiction, has generated investigatory interest in recent years (Allache et al., 2026).

A major outcome of the current study was the identification of copious subject areas somewhat under-represented in this prominent journal, such as suicidal ideology (Harris et al., 2017), sleep (Park et

al., 2018), impulsivity (Zhang et al., 2015), social anxiety (Ding & Ma, 2025), psychiatric comorbidity/co-occurrence (Czako et al., 2025; Kotyuk et al., 2020), taxonomy issues (e.g., Dullur & Starcevic, 2018), and adverse childhood experiences (ACEs; Gannon et al., 2025). Whether this latter finding is a function of investigatory disinterest or editorial board preferences is a matter of conjecture. The ebb and flow of research popularity can result from a complex interplay of multiple factors (e.g., societal needs, scientific progress, funding dynamics, individual/institutional motivations, etc.), and research topics can fall out of favor for a myriad of reasons (e.g., saturation, methodological challenges, shifting paradigms). Overall, this study suggests that the field of behavioral addictions has diverse scholarly underpinnings and contemporary research appears to be emergent in scope. The current findings should a) be considered exploratory in nature, b) bring attention to under-studied areas of investigation, and c) provide a descriptive framework for further bibliometric examination on trends in scholarship in the field of behavioral addictions.

References:

Allache, A., et al. (2026). Craving as a transdiagnostic marker of addiction? A perspective for behavioral addictions. *Frontiers in Behavioral Neuroscience*, *20*, Article 1770895.

Arora, S., & Mehta, M. (2023). Love it or hate it, but can you ignore social media? A bibliometric analysis of social media addiction. *Computers in Human Behavior*, *147*, Article 107831.

Bingham, J.E., & Piotrowski, C. (1996). On-line sexual addiction: A contemporary enigma. *Psychological Reports*, *79*(1), 257-258.

Bittermann, A., et al. (2021). Mining Twitter to detect hotspots in psychology. *Zeitschriftfur Psychologie*, *229*(1), 3-14.

Boumparis, N., et al. (2022). Internet-based intervention for behavioral addictions: A systematic review. *Journal of Behavioral Addictions*, *11*(3), 620-642.

Choi, J., et al. (2019). Neurobiological perspectives in behavioral addiction. *Frontiers in Psychiatry*, *10*, Article 3.

Choi, M.R., et al. (2020). Increase in orexin A in the peripheral blood of adolescents with Internet gaming disorder. *Journal of Behavioral Addictions*, *9*(1), 93-104.

Czako, A., et al. (2025). Research priorities in gambling. *Journal of Behavioral Addictions*, *14*(3), 1222-1249.

Ding, L., & Ma, S. (2025). Social media addiction, sensation seeking, and social anxiety among college students: A latent profile analysis. *Social Behavior & Personality*, *53*(12), e15669.

Dullur, P., & Starcevic, V. (2018). Internet gaming disorder does not qualify as a mental disorder. *Australian and New Zealand Journal of Psychiatry*, *52*(2), 110-111.

Fauth-Buhler, M., et al. (2017). Pathological gambling: A review of the neurobiological evidence relevant for classification as an addictive disorder. *Addiction Biology*, *22*(4), 885-897.

Flis, I., & van Eck, N.J. (2018). Framing psychology as a discipline (1950-1999): A large-scale term co-occurrence analysis of scientific literature in psychology. *History of Psychology*, *21*(4), 334-362.

Gannon, J., et al. (2025). The use of linked administrative data to examine the impact of adverse childhood experiences: A scoping review of the literature. *Trauma, Violence, Abuse*, 1-18.

Geng, X., et al. (2023). Problematic use of the Internet among adolescents. *Journal of Behavioral Addictions*, *12*(2), 435-447.

Gorman, D.M., & Huber, C. (2022). Ranking of addiction journals in 8 widely used impact metrics. *Journal of Behavioral Addictions*, *11*(2), 348-360.

Goslar, M., et al. (2020). Treatments for Internet addiction, sex addiction, and compulsive buying: A meta-analysis. *Journal of Behavioral Addictions*, *9*(1), 14-43.

Gupta, K., et al. (2024). Internet gaming addiction: A bibliometric review. *Information Discovery and Delivery*, *52*(1), 62-72.

Harris, K.M., et al. (2017). Suicidality, psychopathology and the Internet. *Psychiatry Research*, *255*, 341-346.

Ibarzabal, F.A. (2002). A bibliometric analysis of the journal 'Adicciones' (1996-2000). *Adicciones*, *14*(2), 139-144.

Kamu, A., et al. (2025). Research trends in esports and mental health: A bibliometric approach. *Sports Psychiatry*, in press.

Kaneez, F.S., et al. (2013). Is cognitive behavioral therapy an intervention for possible Internet addiction disorder? *Journal of Drug and Alcohol Research*, *2*, Article 235819.

Karakus, M., et al. (2024). Examining the studies on 'social media addiction': A bibliometric analysis. *Kibris Turk Psikiyatri ve Psikoloji Dergisi*, *6*(1), 84-92.

King, D.L., et al. (2020). Face validity evaluation of screening tools for gaming disorder: Scope, language, and over-pathologizing issues. *Journal of Behavioral Addictions*, *9*(1), 1-13.

Kotyuk, E., et al. (2020). Co-occurrences of substance use and other potentially addictive behaviors. *Journal of Behavioral Addictions*, *9*(2), 272-288.

Krippendorff, K. (2004). *Content analysis: An introduction to its methodology* (2nd ed.). Sage.

Kuss, D.J., & Lopez-Fernandez, O. (2016). Internet addiction and problematic Internet use: A systematic review of clinical research. *World Journal of Psychiatry*, *6*(1), 143-176.

Li, W., et al. (2017). Mindfulness-oriented recovery enhancement for Internet gaming disorder in US adults. *Psychology of Addictive Behaviors*, *31*(4), 393-402.

Liu, L., et al. (2024). Compulsivity-related behavioral features of problematic usage of the Internet: A scoping review of paradigms, progress, and perspectives. *Journal of Behavioral Addictions*, *13*(2), 429-449.

Mansueto, A., et al. (2024). Definition and assessments of recovery from gambling disorder: A scoping review. *Journal of Behavioral Addictions*, *13*(2), 354-412.

Mishra, B., et al. (2026). Behavioral addiction in young adults: Blind analysis through Somatic Inkblot Test. *Journal of Projective Psychology & Mental Health*, *33*(1), 23-29.

Muschialli, L., et al. (2024). Sexualized drug use and 'Chemsex': A bibliometric and content analysis of published literature. *Journal of Psychoactive Drugs*, in press.

Park, M.H., et al. (2018). Moderating effects of depressive symptoms on the relationship between problematic use of the Internet and sleep problems in Korean adolescents. *BMC Psychiatry*, *18*(1), 280-287.

Parsons, J.T., et al. (2007). Accounting for the social triggers of sexual compulsivity. *Journal of Addictive Diseases*, *26*(3), 5-16.

Piotrowski, C. (2024). The essence of love: An exploratory bibliometric analysis of the psychological literature. *Journal of Projective Psychology & Mental Health*, *3*(1), 15-21.

Piotrowski, C. (2025a). Neglected areas of gambling research: Challenges and opportunities. *Journal of Gambling Issues*, *56*, 4-8.

Piotrowski, C. (2025b). Gambling research: Prominent topics of scholarly interest. *North American Journal of Psychology*, *27*(3), 638-647.

Schluter, M.G., et al. (2020). Predictive utility of the Brief Screener for substance and behavioral addictions for identifying self-attributed problems. *Journal of Behavioral Addictions*, *9*(3), 709-722.

Sicilia, A., et al. (2021). Theoretical conceptualizations of problematic exercise in psychometric assessment instruments: A systematic review. *Journal of Behavioral Addictions*, *10*(1), 4-20.

Sixto-Costoya, A., et al. (2021). Global scientific production regarding behavioral addictions: An analysis of the literature from 1995-2019. *Addictive Behaviors Reports*, *14*, Article 100371.

Stevens, M., et al. (2026). Red box, green box: Psychometric evaluation of a self-report behavioral frequency measurement approach for behavioral addictions research. *Addiction*, *121*, 429-439.

Tran, B.X., et al. (2020). How have excessive electronics devices and Internet uses been concerned? Implications for global research agenda from a bibliometric analysis. *Journal of Behavioral Addictions, 9*(2), 469-482.

Wang, C.Y., et al. (2017). Association between Internet gaming disorder and generalized anxiety disorder. *Journal of Behavioral Addictions*, *6*(4), 564-571.

Young, K.S. (2007). Cognitive behavior therapy with Internet addicts: Treatment outcomes and implications. *CyberPsychology and Behavior*, *10*(5), 671-679.

Zare-Bidoky, M., et al. (2025). Problematic usage of the Internet: Converging and diverging terminologies and constructs. *Journal of Behavioral Addictions*, in press.

Zhai, J. et al. (2025). Bidirectional relationships between desire thinking and gambling disorder tendency: Insights from a longitudinal study of Esports gamblers. *Journal of Behavioral Addictions*, *14*(3), 1281-1289.

Zhang, Y., et al. (2015). The relationship between impulsivity and Internet addiction in Chinese college students. *PLoS One*, *10*(7), e0131597.

Zumrode, L., et al. (2025). Comparing functional impairments related to social network use disorder and Internet gaming disorder. *Journal of Behavioral Addictions*, in press.

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Affective Intrapsychic Markers and Differential Diagnosis within the Psychotic Spectrum: A Rorschach Study

Cecile Prudent & Claude de Tychey

To use a psychodynamic frame of reference to test intrapsychic affective markers for the differential diagnosis of psychotic disorders. 81 subjects divided into 3 subgroups (25 subjects with delusional disorders of the persecution type, 26 with schizophrenia and 30 with schizophrenia with paranoid features) were assessed using several indicators from the Rorschach test codified and interpreted according to the School of Paris method. Statistical processing of the data revealed specific affective markers enabling differentiation of these three subgroups. These relate respectively to the difficulty of accessing identity and denial of the relationship, the extent of anal regression, hyper-vigilance and projection of the external threat, and the rich or poor nature of the imaginary space. Research avenues are suggested based on a non-reductive integrative approach to psychotic disorders to improve differential diagnosis and therapeutic management.

Introduction:

The differential diagnosis of psychotic spectrum disorders remains a major clinical challenge. Although schizophrenia, schizophrenia with paranoid features, and persecutory delusional disorder share core psychotic symptoms, they differ markedly in their intrapsychic organisation, prognostic trajectories, and therapeutic responses. Accurate differentiation between these conditions is therefore essential for both diagnostic clarification and treatment planning.

In Anglo-Saxon research, the Rorschach test has mainly been used within cognitive and perceptual frameworks to identify formal thought disorders as markers of psychosis (Meissner, 1981; Auslander, Perry, & Jeste, 2002; Kleiger, 2017; Biagiarelli et al., 2017). While these approaches have proven useful for distinguishing psychotic from non-psychotic functioning, they also reveal substantial overlaps between diagnostic categories, particularly between schizophrenia and mood disorders during acute phases, thereby limiting the specificity of purely cognitive indicators (Kleiger, 2017; Biagiarelli et al., 2017).

In response to these limitations, several authors have called for research perspectives capable of integrating the clinical heterogeneity of the psychotic spectrum (De Lisi & Nasrallah, 2008). Comparative studies have examined differences between schizophrenia and delusional disorder, but have largely relied on symptom-based or neurocognitive models (Muñoz-Negro, 2018; González-Rodríguez, 2022; Hui & Chiu, 2023; Barreira & Bevacqua, 2024). By contrast, in French-speaking clinical psychology, the Rorschach test has been extensively developed within the Paris School tradition, grounded in a psychodynamic model of intrapsychic functioning that prioritises affective dynamics, identity processes, and modes of object relation (Chabert, 1987; Rausch de Traubenberg, 2000; de Tychey, 2012; Azoulay & Louët, 2016).

The present exploratory study aims to articulate these perspectives by examining affective intrapsychic markers relevant to the differential diagnosis of psychotic disorders. Drawing on Bergeret's psychodynamic model (1974, 2008), we conducted a comparative study of three subgroups within the psychotic spectrum defined by DSM-5 criteria: schizophrenia, schizophrenia with paranoid features, and persecutory delusional disorder. From this perspective, schizophrenia is conceptualised as the most regressive psychotic organisation, delusional disorder as a less dissociated configuration organised around projection

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and hyper-vigilance, and schizophrenia with paranoid features as an intermediate form. Based on these premises, four hypotheses were formulated concerning denial of relational engagement, anal regression, hyper-vigilance, and internal imaginary richness, assessed through selected Rorschach indicators coded according to the Paris School method.

2. Method:

2.1. Participants

The sample consisted of 81 adult participants belonging to the psychotic spectrum according to DSM-5 criteria. Three subgroups were constituted: 26 patients diagnosed with schizophrenia, 30 patients with schizophrenia presenting paranoid features, and 25 patients diagnosed with persecutory delusional disorder. Diagnoses were established jointly by the psychiatrist in charge of the department and a clinical psychologist.

All participants were over 18 years of age. Mean age did not differ significantly between groups (schizophrenia: 40.1 years; delusional disorder: 39.9 years; schizophrenia with paranoid features: 43.0 years). The sample was predominantly male, in line with epidemiological data on psychotic disorders (Roy et al., 2001; Ochoa et al., 2012). All participants provided written informed consent, and the study was approved by the hospital ethics committee.

Regarding pharmacological treatment, all participants in the schizophrenia and schizophrenia with paranoid features groups were receiving antipsychotic medication, primarily risperidone, with clozapine prescribed in some cases for the latter group. In the delusional disorder group, 60% of participants accepted antipsychotic treatment, mainly aripiprazole, while 40% refused medication. Treatment heterogeneity between groups was statistically significant ($\chi^2 = 25.71$, $p < 0.001$). To control potential treatment effects, we compared treated and untreated participants within the delusional disorder group on total number of Rorschach responses and total kinesthetic responses. No significant differences were observed (Welch‘s t-tests, all ps > 0.38), suggesting a negligible influence of medication on the variables of interest, in line with previous findings (Biagiarelli et al., 2017).

2.2. Measures

All participants were administered the Rorschach test, coded and interpreted according to the Paris School system (Rausch de Traubenberg, 2000).

2.2.1. Access to identity and relational denial (Card III – K shock)

To assess disturbances in access to identity and relational engagement, we focused on responses to Card III. In normative protocols, this card typically elicits representations of two interacting human figures. Failure to produce such representations is considered indicative of impaired identification with the human object and denial of relational involvement, a phenomenon referred to as K shock in the Paris School tradition (Chabert, 1987). We hypothesized that K shock would be more frequent in schizophrenia than in the other two groups, and least frequent in delusional disorder (H1).

2.2.2. Anal regression

Anal regression was assessed using the Anal Perspective content scale initially described by Schafer (1954) and subsequently validated in both Anglo-Saxon and French clinical traditions (Azoulay & Louët, 2016; Kleiger, 2017). Responses were coded as Anal Perspective when they included explicit anal references, themes of posterior positioning or contact, dirt, or explosive imagery. Inter-rater reliability for this scale was high ($\alpha = 0.90$). We hypothesized that Anal Perspective content would be significantly more frequent in the delusional disorder group (H2).

2.2.3. Hyper-vigilance and projection of external threat (Eyes content)

Hyper-vigilance was operationalized through the frequency of responses referring to eyes across the ten Rorschach cards. This indicator was expected to reflect heightened sensitivity to external threat and persecutory ideation. We hypothesized that eyes content would differentiate delusional disorder from the other two groups (H3).

2.2.4. Internal imaginary space (Kinesthetic responses)

Internal imaginary richness was assessed through kinesthetic responses. Small kinesthesias (k) referred to movement attributed to animals, objects, or partial figures, while large kinesthesias (K) referred to movement of whole human figures. Total imaginary space was calculated as the sum of k and K responses. We hypothesised that delusional disorder would be associated with higher total kinesthetic production (H4).

2.3. Statistical analysis

All indicators were coded independently by trained raters. Group comparisons were conducted using chi-square tests for categorical variables and Wilcoxon or Welch‘s t-tests for continuous variables, depending on distributional assumptions. Descriptive statistics are presented as frequencies or means with standard deviations.

3. Results :

Table 1 presents descriptive statistics for all Rorschach indicators across the three diagnostic groups.

Appendix 1. Mean (SD) of Rorschach indicators by diagnostic group

Indicator	Delusional disorder (n = 25)	Schizophrenia (n = 26)	Paranoid schizophrenia (n = 30)
K	2.32 (2.01)	0.35 (0.69)	2.23 (2.65)
k	4.28 (4.31)	1.27 (1.71)	1.83 (2.28)
K + k	6.60 (5.41)	1.58 (2.00)	3.50 (4.37)
Anal perspective	1.64 (1.38)	0.23 (0.71)	0.33 (0.55)
K shock	0.16 (0.41)	0.65 (0.50)	0.36 (0.51)
Eyes content	2.28 (2.49)	0.65 (1.13)	0.60 (0.89)

Appendix 2 : Distribution of affective intra psychic markers by diagnostic group

Indicator	Group	Value
Access to identity and relational denial (Shock K)	Delusional disorder (n = 25)	Present: 4 (16%), Absent: 21 (84%)
	Schizophrenia (n = 26)	Present: 17 (66%), Absent: 9 (34%)
	Schizophrenia with paranoid features (n = 30)	Present: 11 (36%), Absent: 19 (64%)
Anal regression (Anal Perspective ≥ 2)	Delusional disorder (n = 25)	≥ 2: 13 (52%), < 2: 12 (48%)
	Schizophrenia (n = 26)	≥ 2: 3 (11.54%), < 2: 23 (88.46%)
	Schizophrenia with paranoid features (n = 30)	≥ 2: 1 (3.33%), < 2: 29 (96.67%)
Hyper-vigilance and projection of external threat (Eyes ≥ 2)	Delusional disorder (n = 25)	≥ 2: 13 (52%), < 2: 12 (48%)
	Schizophrenia (n = 26)	≥ 2: 2 (7.69%), < 2: 24 (92.31%)
	Schizophrenia with paranoid features (n = 30)	≥ 2: 4 (13.33%), < 2: 26 (86.67%)
Internal imaginary space (Kinesthetic responses)	Delusional disorder (n = 25)	K: 2.32 (2.01); k: 4.28 (4.31); K + k: 6.60 (5.41)
	Schizophrenia (n = 26)	K: 0.35 (0.69); k: 1.27 (1.71); K + k: 1.58 (2.00)
	Schizophrenia with paranoid features (n = 30)	K: 2.23 (2.65); k: 1.83 (2.28); K + k: 3.50 (4.37)

3.1. Access to identity and relational engagement (K shock)

Consistent with Hypothesis 1, the frequency of K shock differed significantly between groups. Patients with schizophrenia exhibited a significantly higher rate of K shock than patients with persecutory delusional disorder ($\chi^2 = 10.87$, $p < .001$) and than patients with schizophrenia with paranoid features (trend-level significance). K shock was observed in 66% of patients with schizophrenia, 36% of patients with schizophrenia with paranoid features, and 16% of patients with delusional disorder, indicating a graded distribution across the psychotic spectrum.

3.2. Anal regression (Anal Perspective)

Hypothesis 2 was strongly supported. Anal Perspective content was significantly more frequent in the delusional disorder group than in both schizophrenia ($\chi^2 = 10.01$, $p < .001$) and schizophrenia with paranoid features ($\chi^2 = 14.55$, $p < .0001$). No significant differences were observed between the two schizophrenia groups, suggesting specificity of this indicator for persecutory delusional disorder.

3.3. Hyper-vigilance and projection of threat (Eyes content)

In line with Hypothesis 3, eyes-related content occurred significantly more frequently in the delusional disorder group than in schizophrenia ($\chi^2 = 10.01$, $p < .01$) and schizophrenia with paranoid features ($\chi^2 = 7.82$, $p < .005$). This indicator did not differentiate the two schizophrenia groups.

3.4. Internal imaginary space (Kinesthetic responses)

Hypothesis 4 was also supported. Total kinesthetic responses (K + k) were significantly higher in the delusional disorder group than in the schizophrenia group ($p < .001$) and in the schizophrenia with paranoid features group ($p < .005$). Small kinesthesias (k) consistently differentiated delusional disorder from both schizophrenia groups. Large kinesthesias (K) differentiated delusional disorder from schizophrenia but not from schizophrenia with paranoid features. Overall, schizophrenia was associated with the lowest level of internal imaginary production.

4. Discussion :

This study demonstrates the relevance of affective intrapsychic markers for the differential diagnosis of psychotic spectrum disorders using the Rorschach test within the Paris School framework. The results reveal a graded alteration of access to identity and relational engagement across diagnostic groups, with schizophrenia showing the most severe impairment, followed by schizophrenia with paranoid features, and relative preservation in delusional disorder. This distribution supports psychodynamic models conceptualising schizophrenia as the most regressive psychotic organisation, marked by profound disturbances in identity formation and object relations (Bergeret, 1974, 2008).

Persecutory delusional disorder was specifically characterised by anal regression, hyper-vigilance, and a richer internal imaginary space, reflected in Anal Perspective, eyes-related content, and higher kinesthetic responses. These markers suggest a defensive organisation centred on projection and threat monitoring, consistent with psychoanalytic descriptions of paranoia, and contrast with the marked imaginative impoverishment observed in schizophrenia. Although sample size and treatment heterogeneity limit generalisability, comparison with Paris School normative data supports the clinical specificity of these affective markers. Future research should examine their articulation with cognitive and neurobiological dimensions to refine integrative approaches to psychotic spectrum disorders.

Conclusion:

Taken together, these findings support an integrative approach to psychotic spectrum disorders, combining pharmacological, cognitive, and psychodynamic perspectives. Affective intrapsychic markers

assessed through projective methods appear to offer valuable complementary information for differential diagnosis and clinical understanding. Rather than opposing cognitive and affective models, this study underscores their potential articulation within a multifocal framework.

References:

Auslander, L., Perry, W., & Jeste, D. V. (2002). Assessing disturbed thinking and cognition using the Ego Impairment Index in older schizophrenia patients: Paranoid vs non-paranoid patients. *Schizophrenia Research*, 53, 188–207

Azoulay, C., & Louët, E. (2016). *Schizophrenia and paranoia: Psychoanalytic study in projective clinical psychology*. Paris: Dunod.

Barreira, I., & Bevacqua, L. N. (2024). Révision sistematica sobre el diagnostico differential psicoanalitico entre esquizogrenia y paranoia. *Psicologia UNEMI,* 8(14), 116–129.

Bergeret, J. (1974). *La personnalite normale et pathologique*. Paris: Dunod.

Bergeret, J. (2008). *Abrégé de psychologie pathologique*. Paris: Masson.

Biagiarelli, M., Curto, I., Di Pomponio, A., Comparelli, A., Baldessarini, R. J., & Ferracuti, S. (2017). Anti psychotic treatment and the Rorschach Perceptual Thinking Index (PTI) in psychotic disorder patients: Effects of treatment. *Psychiatry Research*, 251, 294–297.

Chabert, C. (1987). *La psychopathologie à travers le Rorschach*. Paris: Dunod.

De Lisi, L. E., & Nasrallah, H. E. (2008). Editorial: Celebrating twenty years of Schizophrenia Research. *Schizophrenia Research*, 100, 1–3.

Goldstein, M. J. (1978). Further data concerning the relation between premorbid adjustment and paranoid symptomatology. *Schizophrenia Bulletin*, 4(2), 236.

González-Rodríguez, A., & Seeman, M. V. (2022). Differences between delusional disorder and schizophrenia: A mini narrative review. *World Journal of Psychiatry,* 12(5), 683.

Hui, C. L. M., Chiu, T. C., Chan, E. W. T., Hui, P. W. M., Tao, T. J., Suen, Y. N., … Chen, E. Y. H. (2023). Age-matched versus non-age-matched comparison of clinical and functional differences between delusional disorder and schizophrenia: A systematic review. *Frontiers in Psychiatry,* 14.

Kleiger, J. H. (2017). *Rorschach assessment of psychotic phenomena:Clinical, conceptual, and empirical developments*. New York: Taylor & Francis.

Meissner, W. W. (1981). The schizophrenic and paranoid process. *Schizophrenia Bulletin*, 12, 611–631.

Monville, F. (2019). Delusion, self, and antipsychotics: A phenomenological approach to antipsychotics' effect. *L'Évolution Psychiatrique*, 84, 1–15.

Muñoz-Negro, J. E., & Cervilla, J. A. (2016). A systematic review on the pharmacological treatment of delusional disorder. *Journal of Clinical Psychopharmacology,* 36(6), 684–690.

Muñoz-Negro, J. E., Ibáñez-Casas, I., de Portugal, E., Lozano-Gutiérrez, V., Martínez-Leal, R., & Cervilla, J. A. (2018). A psychopathological comparison between delusional disorder and schizophrenia. *The Canadian Journal of Psychiatry*, 63(1), 12–19.

Ochoa, S., Usall, J., Cobo, J., Labad, J., & Kulkarni, J. (2012). Gender differences in schizophrenia and first episode psychosis: A comprehensive literature review. *Schizophrenia Research and Treatment*, 1–15.

Rausch de Traubenberg, N. (2000). *La pratique du Rorschach* (10e éd.). Paris: PUF.

Ritzler, B. A. (1981). Paranoia: Prognosis and treatment. A review. *Schizophrenia Bulletin*, 7, 710–728.

Roy, M. A., Maziade, M., Labbé, A., & Mérette, C. (2001). Male gender is associated with deficit schizophrenia: A meta-analysis. *Schizophrenia Research*, 47, 141–147.

Schafer, R. (1954). *Psychoanalytic interpretation in Rorschach testing*. New York: Grune & Stratton.

Tychey (de), C. (2012). *The Rorschach test in adult clinical depression field*. Paris: Dunod.

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The Rorschach Experience Type, Experience Actual and Psychological Adjustment: Evidence for Experiential Repertoire and Response Style Effects

Marvin W. Acklin & Dianne DeSousa

The Rorschach Experience Type (Erlebnistypus; EB) and Experience Actual (EA) have historically been interpreted as indicators of psychological adjustment, with higher EA presumed to reflect greater psychological resources and better adaptive functioning. The present study examined relationships between EB, EA, and multiple indicators of psychological adjustment in a sample of college students administered a battery of psychological measures including the Rorschach Inkblot Method (Comprehensive System), the Minnesota Multiphasic Personality Inventory (MMPI), the Profile of Mood States (POMS), the Beck Depression Inventory (BDI), and selected WAIS–R measures. Contrary to prediction, individuals with higher EA demonstrated significantly higher levels of reported psychological distress on several MMPI, POMS, and BDI indicators. These results appear inconsistent with the traditional assumption that higher EA reflects better psychological adjustment. Post hoc analyses suggested an alternative explanation. EA was negatively associated with MMPI defensiveness indicators, particularly the L (Lie) scale, suggesting that individuals with higher EA may be more candid and experientially open in reporting psychological experience. This interpretation is consistent with Rorschach's original distinction between coarctated and dilated experiential styles and with Beck's formulation of EA as an index of psychological resources for processing ideational and affective stimuli. The findings suggest that higher EA may reflect a broader experiential repertoire and reduced defensiveness in the reporting of psychological experience rather than greater psychological maladjustment.

Introduction:

Rorschach's inkblots, as interpreted in systems such as the Comprehensive System and the Rorschach Performance Assessment System, continue to be widely used in personality assessment (Piotrowski, 2015). Within this tradition, experiential style occupies a central interpretive role. In his original formulation, Rorschach described individual differences in the manner in which persons respond to the affective and ideational demands of the inkblots, conceptualizing these differences as experience types (*Erlebnistypus*) that reflect characteristic modes of psychological engagement with internal and external experience. He also described variation in the breadth of such responsiveness: records with minimal movement and color responses and a predominance of form-determined perceptions were termed coarctated, indicating restricted experiential responsiveness, whereas records showing greater involvement of movement and color determinants were considered dilated, suggesting broader engagement with emotional and ideational stimuli.

Later developments in Rorschach interpretation sought to operationalize these ideas. Beck introduced the construct of Experience Actual (EA), defined as the sum of movement and chromatic color determinants (EA = M + Sum C). Within this framework, EA was interpreted as an index on the psychological resources available for processing emotional and ideational stimuli. More broadly, EA may also be understood as reflecting the breadth of an individual's experiential repertoire: movement responses are associated with ideational engagement and imaginative activity, whereas color responses reflect emotional responsiveness. From this perspective, higher EA suggests a broader experiential vocabulary and greater openness to psychological experience, whereas lower EA suggests a more constricted or defensive style.

Empirical studies of the relation between experiential style and psychological adjustment have yielded mixed results. Although some findings support the view that higher EA is associated with better

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adaptive functioning, other studies have not shown consistent relationships between EA and independent indicators of adjustment. The present study examined the association between Rorschach experiential style variables and psychological adjustment in a nonclinical sample of college students. Adjustment was assessed through multiple independent indicators, including MMPI clinical scales and derived indices, the Profile of Mood States (POMS), the Beck Depression Inventory (BDI), and selected cognitive measures from the WAIS–R. Based on the traditional interpretation of EA as an index of psychological resources, it was hypothesized that individuals with higher EA would show lower levels of psychological distress across these measures.

Method:

Participants were 195 undergraduate students enrolled in introductory psychology courses at Loyola University of Chicago who volunteered in exchange for course credit. The sample was a typical college-aged, nonclinical population. Since the study was intended to examine relations between Rorschach experiential variables and psychological adjustment in a normative sample, no participants were excluded on psychological screening grounds. Based on Rorschach Experience Type (EB) scoring, participants were classified as Introversive (n = 63), Extratensive (n = 68), or Ambiequal (n = 64).

The assessment battery included the Rorschach Inkblot Method, administered individually according to standard Comprehensive System procedures, with scoring of determinant categories including movement (M) and chromatic color (Sum C). Experience Actual (EA) was calculated as M + Sum C, following Beck's formulation, and interpreted as an index of psychological resources available for engaging ideational and affective stimuli. Experience Type (EB) classifications were derived from the relative balance of movement and color responses, and the Rorschach D Score was included as an additional indicator of perceived coping resources relative to situational stress. Participants also completed the Minnesota Multiphasic Personality Inventory (MMPI), with analyses focused on mean clinical scale T scores and validity indicators, especially Scale L; the Profile of Mood States (POMS), with emphasis on Total Mood Disturbance; the Beck Depression Inventory (BDI); and selected WAIS–R indices, including Full Scale IQ as a general estimate of intellectual functioning.

Testing was conducted during scheduled research sessions. The Rorschach was administered individually by trained examiners under standard conditions, whereas the MMPI, POMS, BDI, and WAIS–R measures were completed in small-group sessions under standardized procedures. All protocols were scored according to established guidelines, including derivation of Rorschach structural variables used in the analyses. Data analysis focused on relations between Rorschach experiential variables and adjustment indicators. Participants were classified by EB and by EA, with EA treated as a dichotomous grouping variable (higher vs. lower) for factorial analyses. A series of two-way ANOVAs tested main effects of EB, main effects of EA, and EB × EA interaction effects on MMPI mean clinical scale T scores, POMS Total Mood Disturbance, BDI scores, WAIS–R Full Scale IQ, and the Rorschach D Score; effect sizes were reported as partial eta squared (η^2). Post hoc analyses examined associations between EA and MMPI validity indicators, particularly Scale L, to evaluate whether response style contributed to the observed relations between EA and distress measures.

Results:

The results of the analyses examining relations between Rorschach experiential variables and indicators of psychological adjustment are presented below. Descriptive statistics for psychological adjustment measures across Experience Type (EB) groups are presented in Table 1, and the results of factorial analyses of variance examining the effects of Experience Type (EB), Experience Actual (EA), and their interaction are summarized in Table 2.

Experience Type (EB) Effects

Across EB groups, significant differences emerged on several indices of emotional distress. EB was significantly related to POMS Total Mood Disturbance, $F(2, 192) = 5.02$, $p = .008$, $\eta^2 = .049$, and Beck Depression Inventory (BDI) scores, $F(2, 192) = 4.31$, $p = .015$, $\eta^2 = .043$. EB also showed a significant effect on MMPI Mean Clinical T, $F(2, 192) = 3.21$, $p = .042$, $\eta^2 = .032$, and on the Rorschach D Score, $F(2, 192) = 3.08$, $p = .048$, $\eta^2 = .030$. EB was not significantly associated with WAIS–R Full Scale IQ, $p = .116$.

Although statistically significant differences were observed for several measures, the magnitude of EB effects was modest, suggesting relatively limited differentiation in psychological adjustment across experiential style groups.

Experience Actual (EA) Effects

Experience Actual demonstrated significant main effects on several self-report indices of psychological distress. Specifically, EA was significantly related to **MMPI Mean Clinical T**, $F(1, 192) = 4.87$, $p = .028$, $\eta^2 = .025$; POMS Total Mood Disturbance, $F(1, 192) = 6.11$, $p = .014$, $\eta^2 = .031$; and BDI scores, $F(1, 192) = 5.23$, $p = .023$, $\eta^2 = .027$.EA was not significantly associated with WAIS–R Full Scale IQ, $p = .326$, or with the Rorschach D Score, $p = .122$.

Contrary to the original hypothesis, participants with higher EA reported higher levels of psychological distress on several self-report measures. However, mean scores remained within nonclinical ranges, indicating that these differences reflect variation in reported distress rather than clinically significant disturbance.

EB × EA Interaction Effects

A significant EB × EA interaction was observed for POMS Total Mood Disturbance, $F(2, 192) = 3.74$, $p = .026$, $\eta^2 = .037$. A significant interaction was also found for the Rorschach D Score, $F(2, 192) = 3.56$, $p = .031$, $\eta^2 = .034$. The interaction was not significant for MMPI Mean Clinical T, BDI, or WAIS–R Full Scale IQ.

The interaction pattern for self-reported distress is illustrated in Figures 1 and 2, which show that higher EA was associated with greater reported distress across EB groups.

Post Hoc Analyses: EA and Defensive Response Style

To evaluate whether response style contributed to the EA findings, post hoc analyses examined relations between EA and MMPI validity indicators, particularly Scale L (Lie). EA was negatively associated with L scores, indicating lower defensiveness among higher-EA participants.

In addition, MMPI Scale L was negatively correlated with several distress indicators, including MMPI clinical scales, POMS mood scales, and the Beck Depression Inventory (rs = −.14 to −.25, ps < .05). These findings suggest that individuals with higher defensiveness reported lower levels of psychological distress.

Taking together, these results indicate that the observed association between higher EA and higher distress scores may partly reflect differences in defensiveness and response style, with individuals higher in EA appearing more willing to acknowledge psychological distress on self-report measures.

Table 1. Descriptive Statistics for Psychological Adjustment Measures by Experience Type (EB)

Measure	Introversive (n = 63) M(SD)	Extratensive (n = 68) M(SD)	Ambiequal (n = 64) M(SD)
MMPI Mean Clinical T	54.21 (07.45)	55.78 (08.12)	58.64 (08.57)
MMPI Scale 3 (Hy)	52.14 (09.33)	57.89 (10.12)	55.71 (09.66)
POMS Total Mood Disturbance	31.44 (19.12)	35.66 (20.84)	44.87 (22.51)

Beck Depression Inventory	6.12	(05.02)	7.48	(05.63)	9.21	(06.15)
WAIS-R Full Scale IQ	111.42	(08.31)	108.66	(09.02)	109.15	(08.76)
Rorschach D Score	1.32	(01.41)	1.05	(01.56)	0.64	(01.73)

Note. EB = Experience Type. Higher POMS and BDI scores indicate greater emotional distress. Higher MMPI T scores reflect greater psychological disturbance.

Table 2. Factorial ANOVA Results for Psychological Adjustment Measures

Measure	Source	df	F	p	η^2
MMPI Mean Clinical T	EB	2, 192	3.21	.042	.032
	EA	1, 192	4.87	.028	.025
	EB × EA	2, 192	1.12	.329	.012
POMS Total Mood Disturbance	EB	2, 192	5.02	.008	.049
	EA	1, 192	6.11	.014	.031
	EB × EA	2, 192	3.74	.026	.037
Beck Depression Inventory	EB	2, 192	4.31	.015	.043
	EA	1, 192	5.23	.023	.027
	EB × EA	2, 192	1.84	.162	.018
WAIS-R Full Scale IQ	EB	2, 192	2.18	.116	.022
	EA	1, 192	0.97	.326	.010
	EB × EA	2, 192	0.61	.543	.006
Rorschach D Score	EB	2, 192	3.08	.048	.030
	EA	1, 192	2.41	.122	.012
	EB × EA	2, 192	3.56	.031	.034

Note. EB = Experience Type; EA = Experience Actual. Effect size is reported as partial eta squared (η^2). Higher POMS and BDI scores indicate greater emotional distress.

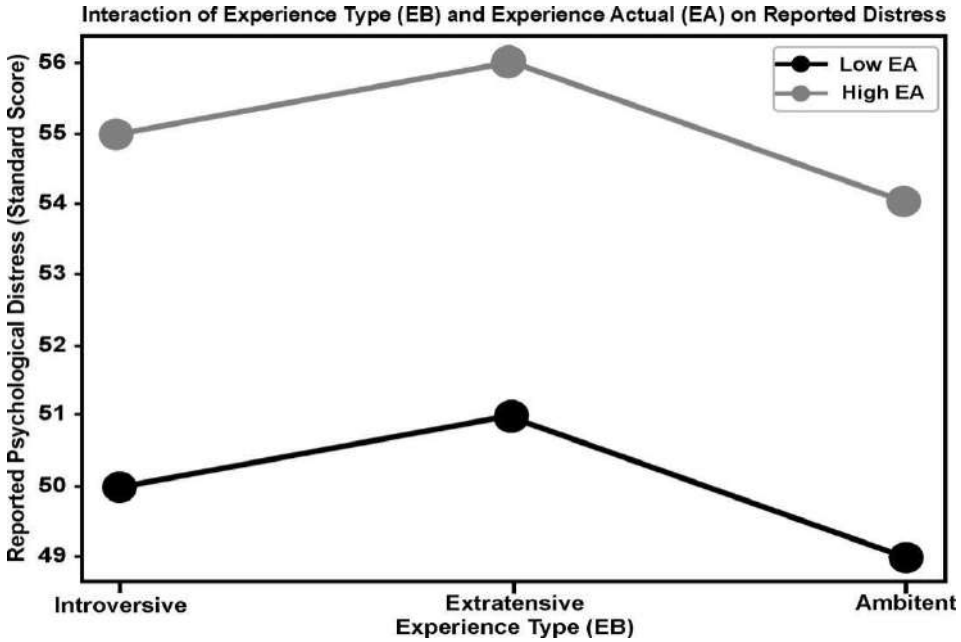


Figure 1.*Interaction of Experience Type (EB) and Experience Actual (EA) on reported psychological distress.*

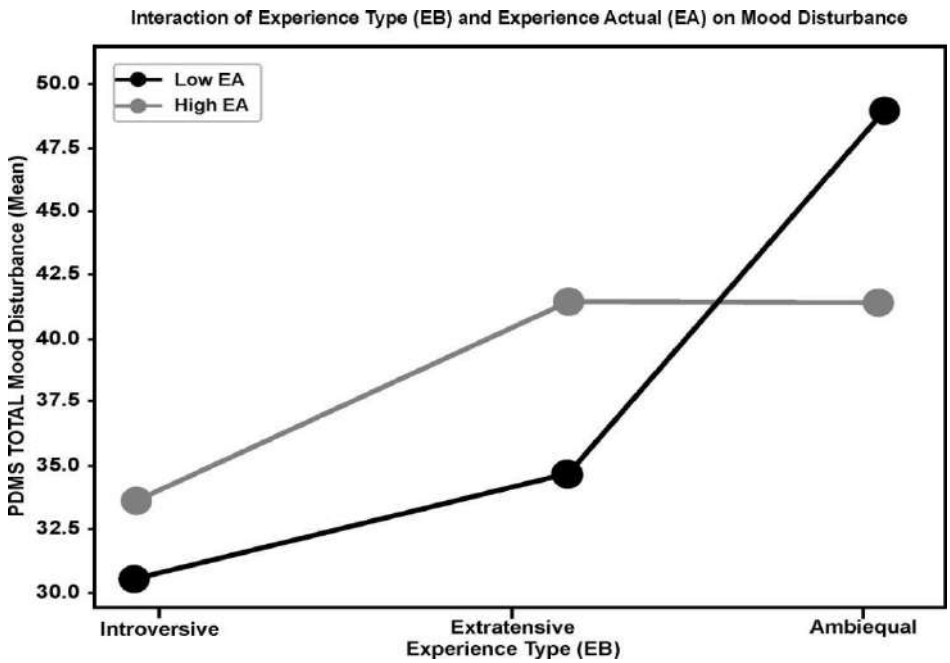


Figure 2.*Interaction of Experience Type (EB) and Experience Actual (EA) on POMS Total Mood Disturbance.* The EB × EA interaction indicates that differences in mood disturbance between high- and low-EA participants vary across EB groups (Introversive, Extratensive, Ambiequal), such that higher EA is associated with greater reported mood disturbance.

Discussion:

The present study examined whether Rorschach experiential style variables—Experience Type (EB) and Experience Actual (EA)—are associated with psychological adjustment in a nonclinical college sample. Overall, the findings provide limited support for the view that EB is strongly or consistently related to adjustment. In contrast, EA showed clearer relations with several adjustment indicators, but in a direction opposite to the traditional expectation that higher EA reflects better functioning. Across multiple self-report measures, higher EA was associated with higher reported distress, while most mean scores remained within nonclinical ranges. Taken together, these results suggest that the psychological meaning of EA in nonclinical samples may be better understood in terms of experiential openness and reporting style than as a simple index of "adjustment."

This interpretation is also compatible with classical Rorschach theory. Rorschach's description of coarctation emphasized restricted responsiveness—records dominated by form with reduced movement and color involvement—implying constricted engagement with ideational and affective experience. Beck's later formulation of EA (M + Sum C) can be read not only as a measure of available "resources" but also as an index of the breadth of experiential engagement across ideational (movement) and affective (chromatic color) channels. From this viewpoint, higher EA reflects a broader experiential repertoire and greater receptivity to emotionally salient material. Such individuals may be more aware of distress and more willing to report it; conversely, lower EA may reflect affective constriction and a tendency toward defensive minimization. The negative association between EA and MMPI L observed in the present study is consistent with this interpretation, suggesting that broader experiential engagement may also be associated with reduced defensiveness in the acknowledgment of psychological distress. The fact that the strongest EA effects occurred on self-report measures (rather than on cognitive indices) aligns with this conceptualization.

A central interpretive issue concerns the nature of the adjustment measures used. The principal outcomes in this study were self-report inventories (MMPI, POMS, and BDI). These measures are influenced not only by the presence of distress but also by an individual's readiness to acknowledge distress. Accordingly, elevated scores cannot be assumed to reflect poorer psychosocial functioning in a straightforward manner, particularly in nonclinical samples where scores often vary within normal limits. From this perspective, the observed association between higher EA and higher distress scores may reflect differences in candor or self-disclosure rather than differences in actual impairment.

Post hoc analyses support this interpretation. EA was negatively associated with MMPI defensiveness indicators, particularly the L (Lie) scale, and L was inversely related to several distress measures. This pattern is consistent with the possibility that individuals with higher EA are less inclined to minimize weaknesses and more willing to endorse negative affect and psychological symptoms, whereas individuals with lower EA may present themselves in a more favorable light and underreport distress. In other words, the EA–distress association may be partly mediated by response style: higher EA may index greater openness to acknowledging emotional difficulties rather than greater maladjustment.

Findings involving EB and the EB × EA interaction further underscore the complexity of experiential style as a predictor of adjustment. EB group differences were statistically detectable for some outcomes, but effects were modest, and the overall pattern did not indicate robust or clinically meaningful differentiation among EB groups. Interactions between EB and EA were limited; however, where significant, they suggest that the relationship between experiential resources and reported distress is not uniform across experiential styles. The interaction pattern depicted in Figure 1 is consistent with the broader conclusion that EA contributes more to variation in reported distress than EB, while also indicating that EB may condition how experiential openness translates into self-reported distress.

Several limitations should be considered when interpreting these findings. First, the sample was nonclinical, restricting the range of psychopathology and limiting conclusions about clinical adjustment. Second, the outcomes relied heavily on self-report, increasing the likelihood that response style contributes to observed associations; future studies would benefit from including behavioral or informant-based indices and clinician-rated measures. Third, the design was cross-sectional, so causal interpretations (e.g., whether openness leads to greater awareness/reporting of distress or whether distress increases emotional engagement) cannot be made. Finally, although the present results highlight defensiveness as a plausible explanatory factor, additional validity indices and multimethod assessments of response style would strengthen the interpretation.

In the Beck and Exner tradition, experiential style was organized through the EB/EA system, which treated Movement and Color determinants as the core coordinates of a unified experiential economy: EA (M + Sum C) was construed as the total experiential "load" a person brought to the task, while EB (M:C) was taken to represent a characteristic mode of engaging experience, yielding the familiar introversive–extratensive–ambitent typology. This model assumed that ideational and affective determinants could be meaningfully combined into a single additive index and a single stylistic ratio, despite their divergent psychometric properties and interpretive functions. R-PAS, however, abandoned this typological architecture and reconceptualizes experiential style as a multidimensional pattern of experiential engagement, not a bipolar ratio. Central to this reconceptualization is MC (Mental Complexity), which functions not as a "resource" variable in the Comprehensive System sense but as the modern analogue to EB—a global indicator of how individuals engage, elaborate, and organize their experiential world. MC integrates Movement, Color, Form Quality, and integrative features into a latent construct that reflects the stylistic complexity with which experience is processed, symbolized, and articulated. The affective dimension formerly embedded in Sum C and EB is redistributed across color modulation variables that differentiate modulated from unmodulated affective expression, while the ideational dimension formerly indexed by M is situated within a broader network of Movement

determinants, cognitive codes, and perceptual organizational indicators. In place of the Comprehensive System's elegant but fragile EB/EA typology, R-PAS offers a more differentiated and empirically grounded account of experiential style in which MC occupies the structural position once held by EB, but without reinstating the introversive–extratensive categories that depended on the ratio form. In this sense, MC is best understood not as a rebranded EA but as the contemporary successor to EB, capturing the stylistic complexity of experiential engagement rather than the magnitude of experiential "resources."

In summary, the findings indicate that Experience Actual (EA) is related to psychological adjustment indicators in a way that challenges the traditional assumption that higher EA necessarily reflects better adjustment. In a nonclinical context, higher EA may be most parsimoniously interpreted as reflecting a broader experiential repertoire and reduced defensiveness—conditions that increase the likelihood of acknowledging psychological distress on self-report measures rather than indicating greater psychological maladjustment.

Author Note:

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References:

Beck, A. T., Ward, C. H., Mendelson, M., Mock, J., & Erbaugh, J. (1961). An inventory for measuring depression. *Archives of General Psychiatry, 4*, 561–571. https://doi.org/10.1001/archpsyc.1961.01710120031004

Beck, S. J. (1960). *Rorschach's test: Basic processes* (Vol. 1). Grune & Stratton.

Beck, S. J. (1965). *Rorschach's test: Advanced interpretation* (Vol. 2). Grune & Stratton.

Butcher, J. N., Dahlstrom, W. G., Graham, J. R., Tellegen, A., & Kaemmer, B. (1989). *Minnesota Multiphasic Personality Inventory–2 (MMPI–2): Manual for administration and scoring*. University of Minnesota Press.

Exner, J. E. (1969). *The Rorschach systems.* Grune & Stratton.

Exner, J. E. (1974). *The Rorschach: A comprehensive system. Volume 1: Basic foundations.* Wiley.

Exner, J. E. (1978). *The Rorschach: A comprehensive system. Volume 2: Interpretation*. Wiley.(Second edition 1986; third edition 1991.)

Exner, J. E. (1986). *The Rorschach: A comprehensive system. Volume 3: Assessment of children and adolescents.* Wiley.

Exner, J. E. (1991). *The Rorschach: A comprehensive system. Volume 4: Case studies*. Wiley.

Exner, J. E. (1993). *The Rorschach: A comprehensive system. Volume 5: Advanced interpretation*. Wiley.

Goldberg, L. R. (1965). Diagnosticians versus diagnostic signs: The diagnosis of psychosis versus neurosis from the MMPI. *Psychological Bulletin, 63*, 199–208. https://doi.org/10.1037/h0021880

Kleinmuntz, B. (1960). The College Maladjustment Scale. *Educational and Psychological Measurement, 20*, 381–387.

Kleinmuntz, B. (1961). Further validation of the College Maladjustment Scale. *Educational and Psychological Measurement, 21*, 1049–1051.

McNair, D. M., Lorr, M., & Droppleman, L. F. (1971). *Manual for the Profile of Mood States*. Educational and Industrial Testing Service.

Meyer, G. J., Viglione, D. J., Mihura, J. L., Erard, R. E., & Erdberg, P. (2011). Rorschach Performance Assessment System (R-PAS): Administration, coding, interpretation, and technical manual. RPAS.

Piotrowski, C. (2015). Projective techniques usage worldwide: A review of applied settings 1995–2015. *Journal of the Indian Academy of Applied Psychology*, 41(3), 9–19.

Rorschach, H. (1942). *Psychodiagnostics* (P. Lemkau & B. Kronenberg, Trans.). Grune & Stratton. (Original work published 1921).

Wechsler, D. (1981). *WAIS–R manual: Wechsler Adult Intelligence Scale—Revised*. Psychological Corporation.

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A Study-Derived Rorschach Affect Modulation in Law Enforcement Personnel: A Cross-Sectional Comparison of State Police & Railway Protection Force

Kanishka & Pratibha Singh

Performance-based measures such as the Rorschach Comprehensive System (CS) may complement self-report assessments in high-stress occupational settings. The present study introduces a study-derived composite index, the Pleasurable Modulation Impediment Index (PMI) to capture affect-modulation difficulties and compares its distribution across two law-enforcement groups. In a cross-sectional design, 40 personnel (State Police n = 20; Railway Protection Force [RPF] n = 20) were assessed using the Occupational Stress Index (OSI) and the Rorschach Inkblot Test (CS scoring). PMI (range 0–4) was computed as a sum of four binary indicators: Sum C′ > 2, presence of color-shading blends, presence of shading blends, and Space responses (S) > 2. Non-parametric analyses were applied. The results indicated that the State Police personnel demonstrated significantly higher PMI scores than RPF personnel (Mann–Whitney U = 84, p = .001, r ≈ .52). Elevated PMI (≥2) was more frequent among Police (60%) compared to RPF (10%), with a significant association between unit and PMI category (χ^2 = 10.99, p = .001). PMI was not significantly correlated with OSI total scores (ρ = .23, p = .154). The study-derived PMI appears sensitive to unit-level differences in affect-modulation patterns, with higher impediment scores observed in State Police personnel. Findings support the potential utility of performance-based composite indices in occupational mental health assessment, while highlighting the need for further validation.

Introduction:

State Police and Railway Protection Force (RPF) personnel operate within highly demanding occupational environments in which chronic organizational stressors such as excessive workload, staffing limitations, administrative burden, and role ambiguity interact with acute operational exposures, including threat, conflict, trauma-related stimuli, and high-stakes public encounters. Accumulating evidence across policing contexts indicates a substantial prevalence of stress-related mental health difficulties, shaped by both individual vulnerabilities and organizational determinants (Syed et al., 2020). Among these, organizational stressors are particularly salient due to their persistent nature, cross-hierarchical impact, and relative amenability to systemic intervention compared to episodic operational exposures (Purba & Demou, 2019). Consistent with this perspective, thematic reviews highlight that organizational climate, leadership practices, and resource constraints are frequently experienced as psychologically taxing and are associated with diminished well-being (Acquadro Maran et al., 2022). Within such environments, effective emotion regulation and behavioural control emerge as critical competencies for sustained occupational functioning.

A defining feature of policing is that stress management extends beyond managing external demands to encompass the continuous regulation of emotional experience within interpersonal and evaluative contexts. Personnel are required to maintain composure, authority, and decisiveness despite experiencing intense internal emotional states such as fear, anger, helplessness, or disgust. This regulatory demand is commonly conceptualized as emotional labor, referring to the sustained effort to align outward emotional expressions with organizational expectations while suppressing or modifying internal experiences (Hopkins et al., 2023). Empirical findings consistently demonstrate that emotional labor, particularly in the form of surface acting and expressive suppression is associated with adverse outcomes, including burnout and emotional exhaustion (Hopkins et al., 2023). Moreover, diary-based studies indicate that suppression entails immediate energetic costs; for instance, the suppression of anger during duty has

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been linked to elevated end-of-shift exhaustion (vanGelderen et al., 2011). Collectively, these findings suggest that repeated reliance on suppression does not attenuate emotional load but instead reallocates regulatory effort internally, thereby increasing subjective strain and susceptibility to dysphoric affect.

Research on emotion-regulation strategies among police personnel further underscores the differential impact of regulatory styles on psychological functioning. Expressive suppression has been consistently associated with poorer well-being, whereas strategies such as cognitive reappraisal are linked to more adaptive outcomes (Thompson & Morton, 2024). Although suppression may be reinforced by occupational norms emphasizing emotional restraint and toughness, its chronic use may incur cumulative psychological costs, particularly under conditions of prolonged exposure, organizational strain, and limited opportunities for recovery (Hopkins et al., 2023; vanGelderen et al., 2011). Furthermore, a rigid emphasis on emotional control may constrain access to positive affect. Positive emotional experiences play a crucial role in facilitating recovery processes and broadening cognitive and behavioral coping repertoires. Emerging evidence within policing populations supports this view, including the identification of an anhedonic depressive subgroup (Kang & Bang, 2023) and intervention studies demonstrating that the positive affect contributes to improved resilience outcomes (Brouzos et al., 2022). Together, these findings highlight the importance of examining not only distress-related affective processes but also potential impairments in positive emotional engagement and recovery.

Measurement challenges further complicate the assessment of these processes. The predominant reliance on self-report instruments in policing research, while valuable, is subject to limitations such as impression management and adherence to occupational display norms. For example, studies of police applicants have documented elevated levels of socially desirable responding, potentially constraining the validity of self-reported data (Ceschi et al., 2022). Additionally, stigma and concerns regarding professional repercussions often reduce openness about psychological distress and impede help-seeking behaviors among police personnel (Grupe, 2023; Newell et al., 2022). These considerations underscore the importance of incorporating performance-based assessment methods, which infer psychological functioning from task-based behavior rather than explicit self-report (Mihura et al., 2013). Meta-analytic evidence indicates that Rorschach Comprehensive System (CS) variables often demonstrate stronger validity when evaluated against external criteria, such as observer ratings and clinical diagnoses, than against introspective self-report measures. This supports their utility as complementary tools, particularly for assessing implicit or behaviorally expressed psychological processes (Mihura et al., 2013). In law-enforcement-related populations, Rorschach indicators have also shown sensitivity to trauma exposure and stress-related cognitive-affective processing patterns (Pavsic Mrevlje, 2018).

Within this performance-based framework, Rorschach-derived variables have long been employed to assess affect modulation, affective discomfort, and the dynamic balance between emotional activation and control (Exner, 2003; Weiner, 2003). Converging evidence suggests that specific response characteristics may function as behavioral indicators of emotion-response regulation (Steinert et al., 2021). However, from a methodological perspective, analyzing multiple affect-modulation variables independently may increase the risk of Type I error and yield unstable estimates, particularly in small samples or when variables exhibit skewed distributions or low base rates (Tibon Czopp & Zeligman, 2016). A composite approach addresses these limitations by integrating theoretically related indicators into a single summary index, thereby enhancing interpretability and statistical efficiency.

In line with this approach, the present study introduces a parsimonious marker-count composite termed the Pleasurable Modulation Impediment Index (PMI). The PMI is not intended as a direct measure of pleasurable experience; rather, it reflects the accumulation of affect-modulation impediments that may constrain the flexible utilization of affect including positive affect as a regulatory resource under chronic occupational demands (Exner, 2003; Weiner, 2003). In occupational contexts characterized by sustained emotional suppression and rigid control, affective experience may become dominated by dysphoric states

such as tension, irritability, and mixed emotional discomfort. Such patterns may, in turn, limit access to pleasurable engagement and impede recovery processes (Hopkins et al., 2023; vanGelderen et al., 2011). The PMI therefore provides an empirically tractable index of affect-modulation configuration while reducing fragmentation associated with the interpretation of individual markers.

Occupational stress was concurrently assessed using the Occupational Stress Index (OSI) total score (Srivastava & Singh, 1981), enabling examination of PMI within a broader organizational stress framework. The primary objective of this study was to compare PMI scores between State Police and RPF personnel. Secondary objectives included (a) describing the distribution of PMI within the pooled sample and (b) examining the association between PMI and OSI total scores using nonparametric statistical methods appropriate for count-based variables and non-normal distributions.

Method:

Participants

This cross-sectional comparative study included 40 serving male personnel, comprising State Police (n = 20) and Railway Protection Force (RPF; n = 20). Participants were recruited through purposive sampling from active-duty units within the defined eligibility age range of 18–60 years. Written informed consent was obtained from all participants prior to participation.

Measures

Socio-Demographic Schedule
General Health Questionnaire-12 (GHQ-12; Hindi)
Occupational Stress Index (OSI)
Rorschach Inkblot Test (Comprehensive System)

Study-Derived Composite: Pleasurable Modulation Impediment Index (PMI)

The Pleasurable Modulation Impediment Index (PMI) was developed as a study-specific, marker-count composite to capture the co-occurrence of selected affect-modulation indicators (Weiner, 2003). PMI is not a standard index within the Comprehensive System but represents an analytic composite derived from established CS variables (Exner, 2003).
PMI was computed by recoding four component variables into binary indicators and summing them to yield a total score ranging from 0 to 4:
(a) Sum C′ > 2,
(b) presence of color-shading blends (> 0),
(c) presence of shading blends (≥ 1), and
(d) Space responses (S) > 2.

PMI scores were calculated only when all component variables were available; cases with missing data on any component were excluded. For categorical analyses, PMI was further dichotomized into **Low (0–1)** and **Elevated (≥ 2)** categories.

Procedure

Data collection was conducted in person at participants' duty locations using a standardized protocol across both groups. Eligible personnel were approached through their respective units and provided with a detailed explanation of the study objectives, voluntary nature of participation, and confidentiality safeguards. Written informed consent was obtained prior to assessment.

Participants completed the socio-demographic schedule, followed by the GHQ-12 (Hindi) and the Occupational Stress Index. The Rorschach Inkblot Test was subsequently administered individually in a

private setting to ensure confidentiality and optimal engagement. All protocols were scored according to standard Comprehensive System procedures (Exner, 2003).

Data Analysis

Statistical analyses were conducted using IBM SPSS Statistics (Version 27). Non-parametric tests were selected a priori due to the ordinal nature of the data, the inclusion of count-based indicators, and the relatively small sample size.Associations between Occupational Stress Index (OSI) scores and Rorschach variables, including PMI, were examined using Spearman's rank-order correlation (ρ; two-tailed). Group differences between State Police and RPF personnel on continuous or ordinal variables were analyzed using the Mann–Whitney U test, with effect sizes reported as $r = Z/\sqrt{N}$. Categorical associations (e.g., Unit × PMI category) were examined using Pearson's chi-square (χ^2) test when assumptions were met; otherwise, Fisher's exact test (two-tailed) was used. Effect sizes for 2 × 2 tables were reported using the phi coefficient ($\varphi = \sqrt{[\chi^2/N]}$). Statistical significance was set at $\alpha = 0.05$, and exact p-values were reported.

Table1: Comparison between RPF and Police groups on socio-demographic and servicevariables

Variable		RPF Mean ± SD, Number (%)	PoliceMean ± SD, Number (%)	t / χ^2
Sex	Male	18 (90.0%)	20 (100.0%)	02.11
	Female	2 (10.0%)	0 (0.0%)	
Education	Secondary	6 (30.0%)	2 (10.0%)	03.81
	Graduate	13 (65.0%)	18 (90.0%)	
	Other/Special Course	1 (5.0%)	0 (0.0%)	
Marital Status	Married	18 (90.0%)	17 (85.0%)	00.23
	Single	2 (10.0%)	3 (15.0%)	
Socio-Economic Status	Low	1 (5.0%)	1 (5.0%)	00.00
	Middle	19 (95.0%)	19 (95.0%)	
Combative Operations	Not Involved	19 (95.0%)	7 (35.0%)	15.82**
	Involved	1 (5.0%)	13 (65.0%)	
Age		43.55±11.10	33.95±8.06	03.13**
Length of Service		17.80 ±9.26	14.60±9.49	01.08
Dependents		4.25±2.27	4.85±1.66	00.95
Number of Children		2.45±1.39	1.75±1.16	01.72
Monthly Salary		59070.00±17792.17	50538.05±10308.33	01.86
Distance from Workplace		7.50±7.00	15.15±9.66	2.87**

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

Table 2: Comparisons of PMI scores in RPF and Police personnel

PMI Scores	RPF Number (%)	Police Number (%)	χ^2
0	12 (60.0%)	4 (20.0%)	12.00**
1	06 (30.0%)	4 (20.0%)	
2	02 (10.0%)	8 (40.0%)	
3	00 (00.0%)	4 (20.0%)	

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

Table 3: Comparison of low and elevated PMI bands across RPF and Police personnel

Variable	Category	RPF Number (%)	Police Number (%)	χ^2
PMI Binary Band	Low (0–1)	18 (90.0%)	8 (40.0%)	10.989**
	Elevated (≥ 2)	2 (10.0%)	12 (60.0%)	

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

Table4: **Comparison of OSI Total across PMI Bands**

Variable	PMI Band	Median [IQR]	Z
OSI Total	Low (0–1)	136.5 [33.3]	0.880
	Elevated (≥2)	141.0 [22.0]	

Discussion:

The present study examined whether the study-derived Pleasurable Modulation Impediment (PMI) pattern varied across occupational groups and whether OSI Total differed across PMI bands. The findings showed a clear group-wise difference in the distribution of PMI scores. Police personnel were more frequently represented in the higher PMI categories and were also more likely to fall in the elevated PMI band, whereas the comparison of OSI Total across low and elevated PMI bands was not statistically significant. Importantly, when OSI Total was interpreted using severity bands, the median scores for both PMI bands fell within the moderate occupational stress range, with the Low PMI group showing a median score of 136.5 and the Elevated PMI group showing a median score of 141.0. Thus, elevated PMI was not accompanied by a shift into the high occupational stress category. This suggests that PMI may reflect a performance-based affect-modulation configuration rather than simply mirroring the severity of self-reported occupational stress. In addition, the Police group reported greater involvement in combative operations and greater distance from the workplace, whereas the RPF group was older on average. Taken together, these findings suggest that the PMI configuration may be more closely related to occupationally shaped differences in affective style or emotional processing than to overall self-reported occupational stress as measured by the OSI Total score.

This interpretation should remain cautious because PMI is an exploratory composite rather than an established standard index. Even so, the four component indicators have conceptual relevance to emotional regulation and affective burden. Within Rorschach literature, achromatic color has often been discussed in relation to constrained or internalized affect, although Frank (1993) cautioned against treating C′ as a simple or direct marker of depression. Similarly, Space responses have been linked with anger-related or oppositional processes, but their meaning depends heavily on context and subtype rather than supporting any single fixed interpretation (Rosso et al., 2015; Rosso & Camoirano, 2019). More broadly, Mihura et al. (2013) emphasized that Rorschach variables vary in the strength of their empirical support and are best interpreted conservatively, especially when they are grouped into clinically meaningful but nonstandard configurations. Viewed in that light, the present PMI findings are better understood as suggesting a clustered pattern of distress-toned affective processing rather than indicating any specific syndrome or diagnosis.

From an emotion-regulation perspective, the present pattern is more consistent with costly modulation of affect than with a straightforward increase in consciously reported stress. Gross and John (2003) distinguished cognitive reappraisal from expressive suppression and showed that these strategies have different implications for well-being, affective experience, and interpersonal functioning. Meta-analytic work has similarly shown that emotion-regulation strategies such as suppression, avoidance, and rumination tend to be associated with poorer psychological outcomes, whereas reappraisal tends to show more adaptive associations (Aldao et al., 2010). Applied cautiously to the current findings, the greater concentration of elevated PMI scores among Police personnel may reflect a more effortful, internalized, or conflict-laden way of handling emotionally charged experience, rather than simply “more stress” in a global sense. That interpretation is consistent with the absence of a significant OSI Total difference across PMI bands: the PMI pattern may be indexing something about the mode of affective management rather than the level of perceived occupational burden alone.

Police-specific literature strengthens this reading. Diary and occupational studies have shown that emotional labor and suppression of feeling states are meaningful parts of police work. vanGelderen et al.

(2007) found that emotional dissonance was implicated in officers' work-shift strain. Another study by vanGelderen et al. (2011) reported that suppression of anger during police work was positively associated with end-of-shift exhaustion. Schaible and Six (2016) likewise showed that emotional strategies in police work have differing implications for burnout. These findings are relevant because the present results do not show that elevated PMI is merely a proxy for OSI Total; instead, they leave open the possibility that the PMI configuration may be more sensitive to strain in emotional management than to broaden self-reported occupational stress. In the current sample, this interpretation is also plausible considering the significantly greater involvement of Police personnel in combative operations and their greater distance from the workplace, both of which may contribute to cumulative emotional burden without necessarily producing a direct linear effect on overall OSI Total.

The broader police stress literature also supports a contextual interpretation of the group difference. Reviews indicate that police well-being is shaped not only by operational exposure but also by organizational demands such as workload, bureaucratic pressure, leadership problems, insufficient support, and other stress-inducing work conditions (Purba & Demou, 2019; Acquadro Maran et al., 2022). Indian studies have similarly identified occupational strain in police personnel in relation to role demands, workload, long or irregular duty schedules, and related service pressures (Singh & Kar, 2015; Parsekar et al., 2015). Accordingly, the present difference between RPF and Police personnel should not be interpreted as a fixed dispositional distinction between the two groups. A more defensible conclusion is that the observed PMI distribution may reflect differences in occupational ecology, including exposure profile, emotional labor, and service conditions.

The non-significant comparison of OSI Total across PMI bands is also important theoretically. It suggests that the PMI configuration should not be treated as interchangeable with a global self-report measure of occupational stress. This is not unexpected in multimethod assessment research. Performance-based measures and self-report instruments often capture different levels of psychological functioning: self-report reflects conscious appraisal and endorsement, whereas performance-based indicators may be more sensitive to style, regulation, or implicit modes of processing under ambiguous conditions. Weiner (2000) argued that the Rorschach is most appropriately evaluated in relation to conceptually relevant behavioral and personality criteria rather than narrow diagnostic or self-report equivalence, and Mihura et al. (2013) similarly highlighted the importance of matching criterion in judging validity. In the present study, OSI Total may have been too broad an aggregate outcome to correspond closely with an exploratory affective-processing configuration such as PMI.

Limitations

Several limitations should be acknowledged. First, PMI is a study-derived composite and has not been psychometrically validated as a standard Rorschach variable. Second, because the analysis relied on a composite score and its binary classification, the present findings do not show which specific component contributed most strongly to the occupational-group difference. Third, the cross-sectional design does not allow causal inference; the findings cannot determine whether occupational conditions shaped the PMI pattern, whether pre-existing individual differences played a role, or whether both were influenced by unmeasured third variables. Fourth, the sample was small, which limits power and generalizability. Finally, Rorschach findings are sensitive to administration, inquiry, and scoring quality. Prior work has shown that administration and inquiry affect protocol characteristics, and strong interrater reliability depends on careful training and quality control (Lis et al., 2007; Meyer et al., 2002). These issues make replication essential before any strong conclusion is drawn about the applied significance of PMI.

References:

Acquadro Maran, D., Magnavita, N., & Garbarino, S. (2022). Identifying organizational stressors that could be a source of discomfort in police officers: A thematic review. *International Journal of Environmental Research and Public Health*, 19(6), Article 3720. https://doi.org/10.3390/ijerph19063720

Aldao, A., Nolen-Hoeksema, S., & Schweizer, S. (2010). Emotion-regulation strategies across psychopathology: A meta-analytic review. *Clinical Psychology Review*, 30(2), 217–237. https://doi.org/10.1016/j.cpr.2009.11.004

Brouzos, A., Vassilopoulos, S. P., Romosiou, V., Stavrou, V., Tassi, C., Baourda, V. C., & Brouzou, K. O. (2022). "Stay safe-feel positive" on the frontline: An online positive psychology intervention for police officers during the COVID-19 pandemic. *The Journal of Positive Psychology*, 17(6), 898–908. https://doi.org/10.1080/17439760.2021.1975161

Ceschi, G., Meylan, S., Rowe, C., & Boudoukha, A. H. (2022). Psychological profile, emotion regulation, and aggression in police applicants: A Swiss cross-sectional study. *Journal of Police and Criminal Psychology*, 37(4), 962–971. https://doi.org/10.1007/s11896-022-09548-0

Exner, J. E., Jr. (2003). *The Rorschach: A comprehensive system:* Vol. 1. Basic foundations and principles of interpretation (4th ed.). Wiley.

Frank, G. (1993). C' and depression. *Psychological Reports*, 72(3, Pt. 2), 1184–1186. https://doi.org/10.2466/pr0.1993.72.3c.1184

Gautam, S., Nijhawan, M., & Kamal, P. (1987). Standardisation of Hindi version of Goldberg's General Health Questionnaire. *Indian Journal of Psychiatry,* 29(1), 63–66.

Gross, J. J., & John, O. P. (2003). Individual differences in two emotion regulation processes: Implications for affect, relationships, and well-being. *Journal of Personality and Social Psychology*, 85(2), 348–362. https://doi.org/10.1037/0022-3514.85.2.348

Grupe, D. W. (2023). Mental health stigma and help-seeking intentions in police employees. *Journal of Community Safety & Well-Being*, 8(Suppl. 1), S32–S39. https://doi.org/10.35502/jcswb.290

Hopkins, B., Dowell, D., & Flitton, J. (2023). Emotional labour and burnout among police officers. Policing: *An International Journal*, 46(3), 477–489. https://doi.org/10.1108/PIJPSM-12-2022-0154

Kang, K., & Bang, H. L. (2023). Subgroups of depressive symptoms in Korean police officers: A latent class analysis. *Preventive Medicine Reports*, 35, Article 102350. https://doi.org/10.1016/j.pmedr.2023.102350

Lis, A., Parolin, L., Calvo, V., Zennaro, A., & Meyer, G. J. (2007). The impact of administration and inquiry on Rorschach Comprehensive System protocols in a national reference sample. *Journal of Personality Assessment*, 89(Suppl. 1), S193–S200. https://doi.org/10.1080/00223890701583614

Meyer, G. J., Hilsenroth, M. J., Baxter, D., Exner, J. E., Jr., Fowler, J. C., Piers, C. C., & Resnick, J. (2002). An examination of interrater reliability for scoring the Rorschach Comprehensive System in eight data sets. *Journal of Personality Assessment*, 78(2), 219–274. https://doi.org/10.1207/S15327752JPA7802_03

Mihura, J. L., Meyer, G. J., Dumitrascu, N., & Bombel, G. (2013). The validity of individual Rorschach variables: Systematic reviews and meta-analyses of the Comprehensive System. *Psychological Bulletin*, 139(3), 548–605. https://doi.org/10.1037/a0029406

Newell, C. J., Ricciardelli, R., Czarnuch, S. M., & Martin, K. (2022). Police staff and mental health: Barriers and recommendations for improving help-seeking. *Police Practice and Research,* 23(1), 111–124. https://doi.org/10.1080/15614263.2021.1979398

Parsekar, S. S., Singh, M. M., & Bhumika, T. V. (2015). Occupation-related psychological distress among police constables of Udupi taluk, Karnataka: A cross-sectional study. *Indian journal of occupational and environmental medicine*, *19*(2), 80–83. https://doi.org/10.4103/0019-5278.165329

Pavšič Mrevlje, T. (2018). Police trauma and Rorschach indicators: An exploratory study. *Rorschachiana,* 39(1), 1–19. https://doi.org/10.1027/1192-5604/a000097

Purba, A., & Demou, E. (2019). The relationship between organisational stressors and mental wellbeing within police officers: A systematic review. BMC Public Health, 19, Article 1286. https://doi.org/10.1186/s12889-019-7609-0

Rosso, A. M., & Camoirano, A. (2019). Construct validity of Rorschach Space responses. *The Open Psychology Journal*, 12, 116–125. https://doi.org/10.2174/1874350101912010116

Rosso, A. M., Chiorri, C., & Denevi, S. (2015). Rorschach Space responses and anger. *Psychological Reports*, 117(1), 117–132. https://doi.org/10.2466/03.02.PR0.117c10z4

Schaible, L. M., & Six, M. (2016). Emotional strategies of police and their varying consequences for burnout. *Police Quarterly*, 19(1), 3–31. https://doi.org/10.1177/1098611115604448

Singh, S., & Kar, S. K. (2015). Sources of occupational stress in the police personnel of North India: An exploratory study. *Indian Journal of Occupational and Environmental Medicine*, 19(1), 56–60. https://doi.org/10.4103/0019-5278.157012

Srivastava, A. K., & Singh, A. P. (1981). *Occupational Stress Index manual*. Manovaigyanik Parikshan Sansthan.

Steinert, S. W., Daugherty, A. M., Shankar, S., Schwarb, H., Cerjanic, A., Sutton, B. P., & Arble, E. P. (2021). A performance-based measure of emotion response control: A preliminary MRI study. *Scandinavian Journal of Psychology*, 62(3), 321–327. https://doi.org/10.1111/sjop.12705

Syed, S., Ashwick, R., Schlosser, M., Jones, R., Rowe, S., & Billings, J. (2020). Global prevalence and risk factors for mental health problems in police personnel: A systematic review and meta-analysis. *Occupational and Environmental Medicine*, 77(11), 737–747. https://doi.org/10.1136/oemed-2020-106498

Thompson, T. J., & Morton, L. C. (2024). Feelings of the Five-O: Emotion regulation and quality of life in American police. *Journal of Police and Criminal Psychology*, 39(1), 170–183. https://doi.org/10.1007/s11896-023-09636-9

Tibon Czopp, S., & Zeligman, R. (2016). The Rorschach Comprehensive System (CS) psychometric validity of individual variables. *Journal of Personality Assessment,* 98(4), 335–342. https://doi.org/10.1080/00223891.2015.1131162

vanGelderen, B., Heuven, E., van Veldhoven, M. J. P. M., Zeelenberg, M., & Croon, M. A. (2007). Psychological strain and emotional labor among police-officers: A diary study. *Journal of Vocational Behavior*, 71(3), 446–459. https://doi.org/10.1016/j.jvb.2007.09.001

vanGelderen, B. R., Bakker, A. B., Konijn, E. A., & Demerouti, E. (2011). Daily suppression of discrete emotions during the work of police service workers and criminal investigation officers. *Anxiety, Stress, & Coping*, 24(5), 515–537. https://doi.org/10.1080/10615806.2011.560665

Weiner, I. B. (2000). Using the Rorschach properly in practice and research. *Journal of Clinical Psychology*, 56(3), 435–438. https://doi.org/10.1002/(SICI)1097-4679(200003)56:3<435::AID-JCLP17>3.0.CO;2-L

Weiner, I. B. (2003). *Principles of Rorschach interpretation* (2nd ed.). Lawrence Erlbaum Associates.

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Perceptual Accuracy and Cognitive Flexibility in OCD: Using Exner's Comprehensive System Comparative Analysis with Normal Controls

Bhavya Mishra, Satyadhar Dwivedi & Anand Dubey

Obsessive-compulsive disorder (OCD) is a relentless psychiatric condition characterized by obsessions, compulsions, and associated cognitive and emotional disturbances. While previous research has extensively examined the symptomatic and cognitive features of OCD, relatively fewer studies have explored its underlying perceptual accuracy and cognitive flexibility, particularly using projective methods. The present study aimed to compare the perceptual accuracy and cognitive flexibility of OCD and healthy controls using the Rorschach Inkblot Test scored according to Exner's Comprehensive System. A cross-sectional comparative design was employed. The sample comprised 60 participants, including 30 OCD and 30 healthy controls, selected through purposive sampling and convenient sampling, respectively. Socio-demographic details were collected using a semi-structured data sheet, OCD severity was assessed using the Yale–Brown Obsessive–Compulsive Scale (Y-BOCS), and the Rorschach Inkblot Test was assessed to find out perceptual accuracy and cognitive flexibility. Data were analyzed using descriptive statistics and a chi-square test of independence. The findings revealed statistically significant group differences on selected Rorschach variables, including Dd, $\chi^2 = 8.17$, $p = .017$, (H), $\chi^2 = 4.32$, $p = .038$, SC, $\chi^2 = 7.94$, $p = .005$, and the Obsessive Style Index (OBS), $\chi^2 = 6.65$, $p = .010$. Most other Rorschach variables did not significantly differentiate the OCD group from healthy controls. The findings suggest that OCD may be associated with a disabling psychiatric condition, but their perceptual accuracy, cognitive flexibility and dealing with external situation is the same as others.

Introduction:

Obsessive-compulsive disorder (OCD) is a puzzling psychiatric condition with 1.9-3.5% lifetime prevalence (Fawcett et. al, 2020). OCD has been identified as one of the serious causes of disability, specifically among individuals aged 18 to 44 years (Sawant et. al , 2025), indicating its substantial impact on daily functioning and overall quality of life. Personality traits have long been implicated in the etiology and maintenance of obsessive–compulsive disorder (OCD). Freud (1913) suggested that people with anal-retentive traits such as obstinacy, orderliness, and frugality are more prone to obsessive-compulsive symptoms. Personality is an enduring pattern of behavior, thought, and emotion—both conscious and unconscious—that develops through individual development, social experiences, and structural characteristics.

Research reveals that individuals with OCD show distinct temperament and character profiles compared to healthy controls. Particularly, OCD patients have been found to demonstrate higher levels of harm avoidance, indicating increased anxiety and behavioural inhibition. In contrast, they tend to show lower levels of self-directedness, cooperativeness, and novelty seeking, indicating difficulties in self-regulation, interpersonal functioning, and behavioural flexibility (Kardes & Sarach, 2024). Empirical research has further shown that individuals with OCD demonstrate higher levels of neuroticism and perfectionism, along with lower levels of extraversion and conscientiousness (Samuels et al., 2000; Tackett et al., 2008). They also exhibit high harm avoidance and low self-directedness, reward dependence, and cooperativeness (Kim et al., 2009). These personality characteristics contribute to heightened sensitivity to perceived threats and difficulties in emotional regulation, thereby reinforcing compulsive behaviours and cognitive rigidity in individuals with OCD.

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In the assessment of personality, projective techniques such as the Rorschach Inkblot Test present a comprehensive approach to understanding both conscious and unconscious aspects of functioning of personality. The Exner Comprehensive System offers a standardized and empirically supported method for the administration, scoring, and interpretation of the Rorschach, thereby enhancing its reliability and clinical utility (Exner, 2003). Despite its significance, studies utilizing the Rorschach Comprehensive System in OCD populations remain limited, particularly in the Indian context, where research employing projective techniques is relatively scarce.

Sharma et al. (2017) examined the utility of the Rorschach Obsessive Style Index (OBS) in patients with obsessive–compulsive disorder (OCD) and healthy controls. The study found no significant differences between the groups on the overall OBS index or its individual components, including Dd, Zf, Zd, P, and FQ+. Additionally, the OBS index was not significantly related to OCD severity as measured by the Y-BOCS. These findings suggest that traditional Rorschach indicators of obsessive style may have limited utility in identifying OCD-specific personality characteristics, particularly within the Indian context, where cultural factors may influence response patterns.

Antúnez et al. (2006) investigated affectivity in individuals with OCD using the Rorschach Comprehensive System. The findings indicated that, although no significant differences were observed between OCD patients and controls on selected Rorschach variables, qualitative analysis of color responses suggested that patients tended to associate affect with unpleasant emotional states. Additionally, a predominance of thought disorder was observed in the OCD group. The results further indicated that individuals with OCD demonstrated an average affective ratio with a tendency toward labile affectivity, reflecting difficulties in effectively managing and experiencing emotions, which were often described or rationalized rather than directly felt.

Parvez and Dwivedi (2023) indicated that compulsive behaviors were driven by pathological doubt and cognitive self-consciousness, resulting in excessive focus on minor errors and heightened anxiety. The study emphasized the importance of addressing emotional regulation and maladaptive cognitive patterns in OCD. Nestadt et al. (2000), as part of the Johns Hopkins OCD Family Study, explored the relationship between personality characteristics and OCD in probands and their relatives. The results indicated a higher prevalence of obsessive-compulsive personality disorder (OCPD) in both OCD patients and their relatives compared to controls. Additionally, OCD patients demonstrated higher levels of neuroticism and lower levels of extraversion and conscientiousness, suggesting that these personality traits may form part of a familial spectrum associated with OCD.

Samochowiec et al. (2005) examined personality dimensions in patients with anxiety disorders using the 16 Personality Factors Questionnaire and the Temperament and Character Inventory (TCI). The findings revealed increased harm avoidance, decreased novelty seeking, and lower self-directedness and cooperativeness, reflecting emotional vulnerability and reduced adaptability. These personality characteristics are consistent with patterns observed in OCD and may contribute to the development and maintenance of symptoms. Janet (1903) emphasized psychasthenic tendencies as precursors to OCD symptomatology. Overall, the reviewed studies consistently indicate that individuals with OCD exhibit distinct personality characteristics, including heightened neuroticism, harm avoidance, and emotional vulnerability, along with reduced self-directedness, cooperativeness, and behavioral flexibility. These traits are associated with maladaptive cognitive patterns, increased anxiety, and difficulties in emotional regulation, thereby contributing to the persistence of obsessive–compulsive symptoms. However, findings from Rorschach-based studies suggest inconsistencies in the ability of certain personality indices to reliably differentiate OCD from normal populations, highlighting the need for further research using culturally sensitive and multidimensional assessment approaches.

Although obsessive–compulsive disorder (OCD) has been widely studied, limited research has examined how the personality structure of individuals with OCD differs from that of healthy controls. The

Rorschach Inkblot Test, interpreted through Exner's Comprehensive System (CS), provides a comprehensive means of assessing underlying personality organization, yet it remains underutilized in OCD research (Exner, 2003). While indicators such as the Obsessive Style Index (OSI) have been proposed to reflect obsessive traits such as rigidity and perfectionism (Viglione & Hilsenroth, 2001), comparative findings have been inconsistent and insufficient. Moreover, such evidence is especially scarce in the Indian context. Therefore, the present study seeks to compare the personality structure of patients with OCD and healthy controls using the Rorschach Inkblot Test.

Method:

Participants

The Present study included a total of 60 participants, comprising 30 patients diagnosed with obsessive-compulsive disorder (OCD) and 30 healthy controls. Participants were within the age range of 20 to 45 years. The OCD group was recruited from individuals attending the outpatient and inpatient services at the institute of Mental Health and Hospital (IMHH), Agra, and were diagnosed according to ICD-10 criteria. The healthy control group was selected from the general population and screened using the General health Questionnaire (GHQ), with a cutoff score of ≤ 3 to ensure the absence of psychological distress. Participants in OCD groups were selected using purposive sampling, whereas participants in healthy controls were selected using convenience sampling. Individuals with organic conditions, intellectual disability, comorbid psychiatric disorders, or serious physical illness were excluded. Written informed consent was obtained from all participants before data collection.

Design

The study employed a cross-sectional comparative research design to examine differences in personality structure between patients with OCD and healthy controls.

Measures

Socio-Demographic and Clinical Data Sheet
Yale–Brown Obsessive–Compulsive Scale (Y-BOCS)
Rorschach Inkblot Test (Exner's Comprehensive System)

Procedure

The study was conducted after obtaining approval from the Ethical and Scientific Committee of the Institute of Mental Health and Hospital (IMHH), Agra. Participants meeting the inclusion criteria were approached, and informed consent was obtained. Socio-demographic and clinical details were first recorded. The Y-BOCS was administered to participants in the OCD group to assess symptom severity. Subsequently, the Rorschach Inkblot Test was administered individually in a standardized and controlled setting. All responses were recorded verbatim and scored according to Exner's Comprehensive System. Relevant variables reflecting personality structure were extracted for statistical analysis.

Data Analysis

Data were analysed using the IBM - Statistical Package for the Social Sciences (SPSS 20). Descriptive statistics, including frequencies and percentages, were computed for all categorical variables. Rorschach variables were categorized into interpretive ranges. Group differences between patients with OCD and healthy controls were examined using the chi-square test of independence, as the majority of variables were analyzed in categorical form. The level of statistical significance was set at $p < .05$.

Ethical Considerations

Approval was obtained from the institutional authorities before data collection. Participants were informed about the purpose of the study, and written informed consent was obtained. Confidentiality and anonymity were maintained, and participants were informed of their right to withdraw at any stage without any consequences.

Results:

Table 1: **Comparison of W, D, Dd, and S Scores among OCD Patients and Healthy Controls**

Variable	Category	OCD Patients n (%)	Healthy Controls n (%)	χ^2
W	0–5	23 (76.7)	15 (50.0)	5.35
	06–10	6 (20.0)	10 (33.3)	
	Above 10	1 (03.3)	5 (16.7)	
D	0–7	3 (10.0)	3 (10.0)	1.23
	08–15	18 (60.0)	14 (46.7)	
	Above 15	9 (30.0)	13 (43.3)	
Dd	0–3	24 (80.0)	14 (46.7)	8.17
	4–7	3 (10.0)	12 (40.0)	
	Above 7	3 (10.0)	4 (13.3)	
S	0–3	28 (93.3)	26 (86.7)	2.87
	4–7	1 (03.3)	4 (13.3)	
	Above 7	1 (03.3)	0 (0.0)	

$p < .05$*, $p < .01$**

Table 2: Comparison of Developmental Quality Responses in OCD and Healthy Controls

Variable	Category	OCD Patients n (%)	Healthy Controls n (%)	χ^2
DQ+	0–3	12 (40.0)	14 (46.7)	0.66
	4–7	12 (40.0)	9 (30.0)	
	Above 7	6 (20.0)	7 (23.3)	
DQo	0–7	1 (3.3)	0 (0.0)	2.38
	8–15	14 (46.7)	10 (33.3)	
	Above 15	15 (50.0)	20 (66.7)	
DQv/+	0–2	29 (96.7)	30 (100.0)	1.02
	>2	1 (3.3)	0 (0.0)	
DQv	0–1	28 (93.3)	23 (76.7)	3.27
	>1	2 (6.7)	7 (23.3)	

$p < .05$*, $p < .01$**

Table 3: Comparison of Determinant responses in OCD and Healthy Controls

Variable	Category	OCD Patients n (%)	Healthy Controls n (%)	χ^2
M	0–2	25 (83.3)	23 (76.7)	0.42
	Above 2	5 (16.7)	7 (23.3)	
FM	0–4	26 (86.7)	25 (83.3)	0.13
	Above 4	4 (13.3)	5 (16.7)	
m	0–1	27 (90.0)	28 (93.3)	0.22
	Above 1	3 (10.0)	2 (6.7)	
FC	0–2	27 (90.0)	25 (83.3)	0.58
	Above 2	3 (10.0)	5 (16.7)	
CF	0–4	28 (93.3)	27 (90.0)	0.22
	>4	2 (6.7)	3 (10.0)	
C	0–1	30 (100.0)	29 (96.7)	1.02
	>1	0 (0.0)	1 (3.3)	
Cn	0–1	30 (100.0)	29 (96.7)	1.02
	>1	0 (0.0)	1 (3.3)	
FC′	0–1	26 (86.7)	24 (80.0)	0.48
	>1	4 (13.3)	6 (20.0)	
C′	0–1	29 (96.7)	30 (100.0)	1.02
	>1	1 (3.3)	0 (0.0)	
FT	0–1	23 (76.7)	22 (73.3)	0.09
	>1	7 (23.3)	8 (26.7)	
FV	0–1	26 (86.7)	29 (96.7)	1.96
	>1	4 (13.3)	1 (3.3)	
FY	0–1	27 (90.0)	21 (70.0)	3.75
	>1	3 (10.0)	9 (30.0)	
YF	0–1	30 (100.0)	28 (93.3)	2.07
	>1	0 (0.0)	2 (6.7)	
Fr	0–1	29 (96.7)	29 (96.7)	0
	>1	1 (3.3)	1 (3.3)	
FD	0–4	29 (96.7)	28 (93.3)	0.35
	>4	1 (3.3)	2 (6.7)	
F	0–7	7 (23.3)	4 (13.3)	1.85
	8–15	17 (56.7)	16 (53.3)	
	>15	6 (20.0)	10 (33.3)	
Pair	0–7	11 (36.7)	10 (33.3)	1.08
	8–15	18 (60.0)	17 (56.7)	
	>15	1 (3.3)	3 (10.0)	

$p < .05$*, $p < .01$**

Table 4: Comparison of Content Responses in Patients with OCD and Healthy Controls

Variable	Category	OCD Patients n (%)	Healthy Controls n (%)	χ^2
H	0–1	28 (93.3)	26 (86.7)	0.74
	>1	2 (6.7)	4 (13.3)	
(H)	0–1	28 (93.3)	22 (73.3)	4.32
	>1	2 (6.7)	8 (26.7)	
Hd	0–1	28 (93.3)	28 (93.3)	0
	>1	2 (6.7)	2 (6.7)	
(Hd)	0–1	30 (100.0)	29 (96.7)	1.02
	>1	0 (0.0)	1 (3.3)	
Hx	0–1	29 (96.7)	27 (90.0)	1.07
	>1	1 (3.3)	3 (10.0)	
A	0–7	6 (20.0)	7 (23.3)	0.1
	8–15	21 (70.0)	20 (66.7)	
	>15	3 (10.0)	3 (10.0)	
(A)	0–1	28 (93.3)	27 (90.0)	0.22
	>1	2 (6.7)	3 (10.0)	
Ad	0–2	28 (93.3)	25 (83.3)	1.46
	>2	2 (6.7)	5 (16.7)	
An	0–4	28 (93.3)	23 (76.7)	3.27
	>4	2 (6.7)	7 (23.3)	
ART	0–2	29 (96.7)	30 (100.0)	1.02
	>2	1 (3.3)	0 (0.0)	
BL	0–1	29 (96.7)	30 (100.0)	1.02
	>1	1 (3.3)	0 (0.0)	
BT	0–2	22 (73.3)	24 (80.0)	0.37
	>2	8 (26.7)	6 (20.0)	
CG	0–2	28 (93.3)	29 (96.7)	0.35
	>2	2 (6.7)	1 (3.3)	
CL	0–2	28 (93.3)	30 (100.0)	2.07
	>2	2 (6.7)	0 (0.0)	
FOOD	0–1	30 (100.0)	29 (96.7)	1.02
	>1	0 (0.0)	1 (3.3)	
FI	0–1	29 (96.7)	29 (96.7)	0
	>1	1 (3.3)	1 (3.3)	
GE	0–1	29 (96.7)	29 (96.7)	0
	>1	1 (3.3)	1 (3.3)	
Hh	0–1	29 (96.7)	26 (86.7)	1.96
	>1	1 (3.3)	4 (13.3)	
NA	0–1	27 (90.0)	25 (83.3)	0.58
	>1	3 (10.0)	5 (16.7)	
LS	0–1	30 (100.0)	27 (90.0)	3.16
	>1	0 (0.0)	3 (10.0)	
SC	0–1	26 (86.7)	16 (53.3)	**7.94****

ID	>1	4 (13.3)	14 (46.7)	0.22
	0–1	27 (90.0)	28 (93.3)	
	>1	3 (10.0)	2 (6.7)	

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

Table 5: Comparison of Rorschach Indices between OCD and Healthy Controls

Variable	Category	Normal (n=30)	OCD (n=30)	χ^2
DEPI	Absent	30 (100%)	29 (96.7%)	1.02
	Present	0 (0%)	1 (3.3%)	
CDI	Absent	30 (100%)	30 (100%)	0.00
S-CON	Absent	30 (100%)	30 (100%)	0.00
HVI	Absent	30 (100%)	30 (100%)	0.00
OBS	Absent	26 (86.7%)	17 (56.7%)	6.65**
	Present	4 (13.3%)	13 (43.3%)	
PTI	Absent	28 (93.3%)	30 (100%)	2.07
	Present	2 (6.7%)	0 (0%)	

Discussion:

The present study was conducted to comprehensively examine Perceptual Accuracy and Cognitive Flexibility in individuals with Obsessive–Compulsive Disorder (OCD) using Rorschach variables across multiple domains, including location and perceptual accuracy (W, D, Dd, S), developmental quality (DQ indices), movement and color determinants, content responses, and summary indices (DEPI, CDI, S-CON, HVI, OBS, PTI) were taken together. The findings provide a strong and theoretically meaningful understanding of OCD**,** characterized not by fundamental deficits in psychological functioning, but by rigidity, over control, and restricted flexibility in affective functioning in day-to-day life**.** Across most variables, no statistically significant differences were observed between OCD and healthy controls, indicating that basic perceptual organization, reality testing, emotional modulation, and thematic processing remain largely intact in OCD**.** However, selective significant findings and consistent trends across domains highlight qualitative differences in the style and regulation of psychological processes**,** rather than their structural impairment.

In the domain of perceptual accuracy and location variables**,** a significant difference emerged in Dd responses**,** suggesting that individuals with OCD demonstrate a restricted and less flexible engagement with unusual or fine details**.** While OCD is often associated with heightened attention to detail, the present findings indicate that such attention may be rigid and over controlled rather than adaptive or exploratory**.** In contrast, variables such as W, D, and S did not differ significantly, suggesting intact global processing, common detail perception, and oppositional tendencies**.** This finding, however, is in contradiction to the study by Sharma et al. (2017), who reported no significant difference between OCD patients and controls on Dd. (Table 1)

The analysis of developmental quality (DQ) variables further supports this interpretation. The absence of significant differences across DQ+, DQo, DQv/+, and DQv indicates that perceptual integration, maturity, and structural organization are preserved in OCD**.** Individuals with OCD appear capable of producing well-integrated and developmentally appropriate percepts**,** comparable to healthy controls. However, a subtle tendency toward fewer vague responses suggests a preference for clarity, precision, and structured interpretation, reflecting intolerance of ambiguity, a core feature of OCD. As noted by Exner (2005), developmental quality reflects the level of cognitive-perceptual integration, and its preservation indicates intact structural functioning. Similarly, findings from movement and chromatic color determinants

indicate that ideational activity and affective modulation are largely intact in OCD (Table 2). The absence of differences in variables such as M, FM, and m suggests comparable levels of imaginative involvement and internal ideation**.** The predominance of form-dominant color responses (FC) in both groups indicates that emotional expression is generally regulated and cognitively mediated**,** rather than impulsive. This is consistent with clinical descriptions of OCD, which emphasize over control of affect rather than emotional dysregulation (Weiner, 2003). Although non-significant, trends in shading variables (e.g., FY, FV) suggest that individuals with OCD may experience internal distress in a more controlled and structured manner**,** consistent with anxiety-driven cognitive regulation (Foa et al., 2012) (Table 3)

The analysis of content responses revealed that most thematic categories, including human, animal, and environmental content, did not differ significantly between groups, indicating preserved thematic engagement and symbolic representation**.** However, a significant difference was observed in sexual content (SC), with OCD patients showing markedly lower frequencies compared to healthy controls. This finding suggests inhibition or suppression of conflict-laden themes**,** particularly those associated with taboo or distressing thoughts. Such a pattern is consistent with cognitive-behavioural models of OCD, which highlight the role of intrusive thoughts and maladaptive attempts to suppress or neutralize them (Foa et al., 2012; Wilhelm & Steketee, 2006). The reduced expression of such content may reflect defensive over control and avoidance**,** rather than absence of underlying conflict (Table 4)

At the level of summary indices**,** the most notable finding was the significant elevation of the Obsessive Style Index (OBS) in OCD patients. This result strongly supports the construct validity of the OBS index in capturing the defining features of OCD, including perfectionism, rigidity, over control, and excessive concern with order and accuracy (Exner, 2005). In contrast, other indices such as DEPI, CDI, S-CON, HVI, and PTI were largely absent and did not differ between groups, suggesting that depression, coping deficits, suicidality, hypervigilance, and perceptual-thinking disturbances are not prominent features in this sample (Table 5). This reinforces the distinction between OCD and other forms of psychopathology, particularly mood and psychotic disorders, and highlights the specificity of obsessive cognitive style in OCD. Importantly, the findings across all domains converge on a central theme: OCD is best understood as a disorder of maladaptive regulation rather than structural impairment**.**

Contemporary frameworks, including the Rorschach Performance Assessment System, emphasize the importance of dimensional interpretations of psychological functioning**,** focusing on patterns of control, flexibility, and integration (Meyer et al., 2011). The present study supports this perspective by demonstrating that individuals with OCD possess intact cognitive and emotional capacities**,** but exhibit rigid, over controlled, and restricted patterns of responding**.** From a clinical standpoint, these findings have important implications. Since core perceptual and affective processes are preserved, treatment should focus on reducing cognitive rigidity, increasing tolerance of uncertainty, and promoting flexible engagement with internal experiences**.** Evidence-based interventions such as Exposure and Response Prevention (ERP) directly target compulsive control strategies, while cognitive therapy addresses maladaptive beliefs related to responsibility and certainty (Foa et al., 2012). Additionally, Mindfulness-Based Cognitive Therapy (MBCT) may help individuals shift from over-controlled, detail-focused processing to a more open and accepting mode of awareness (Segal et al., 2018).

Conclusion:

The present study provides a comprehensive and integrated profile of Rorschach performance in OCD**,** demonstrating that while structural aspects of perception, cognition, and affect remain intact**,** the disorder is characterized by rigidity, over control, and selective inhibition of psychologically salient content**.** These findings contribute to a more refined and clinically relevant understanding of OCD, emphasizing the importance of targeting maladaptive cognitive style and regulatory processes in both assessment and intervention

References:

Antúnez, A., Yazigi, L., & Del Porto, J. (2006). Estudiodelafectivid adenpacientes con trastornoobsesivo-compulsivopor medio del método de Rorschach. *Interamerican Journal of Psychology, 40*, 177–184.

Exner Jr, J. E., & Erdberg, P. (2005). *The Rorschach, advanced interpretation*. John Wiley & Sons.

Exner, J. E. (2003). *The Rorschach: A comprehensive system* (4th ed.). Wiley.

Fawcett, E. J., Power, H., & Fawcett, J. M. (2020). Women Are at Greater Risk of OCD Than Men: A Meta-Analytic Review of OCD Prevalence Worldwide. *The Journal of Clinical Psychiatry*, *81*(4), 19r13085. https://doi.org/10.4088/JCP.19r13085

Foa, E. B., Yadin, E., & Lichner, T. K. (2012). *Exposure and response (ritual) prevention for obsessive-compulsive disorder: Therapist guide*. Oxford University Press.

Freud, S. (1913). The disposition to obsessional neurosis: A contribution to the problem of choice of neurosis. *The Standard Edition of the Complete Psychological Works of Sigmund Freud, 12*, 311–326.

Janet, P. (1903). Obsessions and psychasthenia. *Journal de Psychologie Normale et Pathologique, 1*(3), 1–65.

Kardeş, Ç., Saraçlı, Ö., Atasoy, N., & Atik, L. (2024). Temperament and character traits in patients with obsessive-compulsive disorder. *PsychiatriaDanubina, 36*(1), 58–67.https://doi.org/10.24869/psyd.2024.58

Kim, J. Y., Kwon, J. S., Kim, S. H., & Lee, D. S. (2009). Personality dimensions in OCD: Cloninger's Temperament and Character Inventory profiles. *Psychiatry Research, 168*(2), 87–93.

Meyer, K. E., Mudambi, R., & Narula, R. (2011). Multinational enterprises and local contexts: The opportunities and challenges of multiple embeddedness. *Journal of management studies*, *48*(2), 235-252.

Nestadt, G., Samuels, J., Riddle, M., Liang, K. Y., Bienvenu, O. J., Hoehn-Saric, R., Grados, M., & Cullen, B. (2000). The relationship between obsessive-compulsive disorder and obsessive-compulsive personality disorder. *American Journal of Psychiatry, 157*(5), 875–884.

Parvez, Z., & Dwivedi, S. (2023). MMPI and Rorschach Inkblot Test profile of a young OCD patient: A case study. *SIS Journal of Projective Psychology & Mental Health, 30*(2), 103–109.

Samochowiec, J., Samochowiec, A., Wyszynska, A., & Czerwinski, M. (2005). Personality dimensions in anxiety disorders: Results from 16PF and TCI. *European Psychiatry, 20*(7), 539–543.

Samuels, J., Nestadt, G., Bienvenu, O. J., Costa, P. T., Riddle, M. A., Liang, K. Y., Hoehn-Saric, R., & Cullen, B. A. (2000). Personality disorders and traits in relatives of obsessive-compulsive probands and control subjects: Results from the Johns Hopkins OCD Family Study. *American Journal of Psychiatry, 157*(5), 887–893.

Sawant, M., Waghachavare, V. B., Kadam, J. H., Gore, A. D., & Quraishi, S. R. (2025). Addressing Mental Health Challenges: A Community-Based Survey on Depression, OCD, Eating Disorders, and Psychosis Risk Among 18-44-year-olds in India. *IIUM Medical Journal Malaysia*, *24*(02). https://doi.org/10.31436/imjm.v24i02.2677

Segal, Z. V., Dimidjian, S., Beck, A., Boggs, J. M., Vanderkruik, R., Metcalf, C. A., ... & Levy, J. (2020). Outcomes of online mindfulness-based cognitive therapy for patients with residual depressive symptoms: a randomized clinical trial. *JAMA Psychiatry*, *77*(6), 563-573.

Sharma, A., & Darekar, D. J. (2017). Significance of Rorschach obsessive style index in obsessive. *Indian Journal of Health and Wellbeing*, *8*(7), 642-647.

Tackett, J. L., Quilty, L. C., Sellbom, M., Rector, N. A., & Bagby, R. M. (2008). The structural dimensions of personality and obsessive-compulsive symptoms. *Journal of Personality Disorders, 22*(5), 474–488.

Viglione, D. J., & Hilsenroth, M. J. (2001). The Rorschach: Facts, fictions, and future. *Psychological assessment*, *13*(4), 452.

Weiner, I. B. (2003). *Principles of Rorschach interpretation*. Routledge.

Wilhelm, S., & Steketee, G. S. (2006). *Cognitive therapy for obsessive-compulsive disorder: A guide for professionals*. New Harbinger Publications.

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Cultural Differences in the Comprehensive System for the Rorschach Inkblot Test: Lambda, M and X percentages in the Indian Population

Rupa Kalahasthi, Sarah L Hedlund & James Sexton

The Rorschach Inkblot test has been widely used across the globe, and the Exner Comprehensive System is one of the popular scoring systems of the test. Over the years, researchers have examined the applicability of the Exner Comprehensive System in different countries and cultures (Meyer et al, 2007). In the current study, the researcher aims to identify the applicability of the Comprehensive System with the Indian population. The data was collected from an outpatient clinic in India (N = 41, f=19, mean age = 34.2)) and re-scored using the Exner Comprehensive System by two independent raters. In this study, the variables of Lambda, Human Movement (M) and the X percentages were analyzed. Results indicated that in the Indian sample, Lambda was higher, M was lower, XA and X+ percentages were lower and the X- and Xu percentages were higher than the Comprehensive System norms. These findings indicate that there is a high likelihood of over-pathologizing in the Indian sample if the Comprehensive System norms are used.

Introduction:

The Rorschach Inkblot test has been a widely used test in clinical psychology since its advent in 1921 by Hermann Rorschach (Exner, 2003). The test was developed from Rorschach's experiment, where he discovered that his inkblots could elicit the patterns and flaws in an individual's thinking (Kleiger, 2017). Rorschach viewed his test as a test of perception, thus revealing perceptual disturbances in the responses of individuals having cognitive, emotional and behavioral difficulties (Exner, 2003). Researchers following his path continued to elaborate on the various aspects that were outlined in Rorschach's work, like identifying the popular responses, perceptual differences, using aspects like form and determinants for scoring purposes (Meyer et al, 2007). As Exner (2003) noted, there were multiple scoring systems that developed over a period to understand the way a respondent's responses elicited information about level of functioning, perception of self and others, quality of thinking, affect regulation, stress tolerance, and help with diagnosis. There was a lot of criticism in terms of scoring the Rorschach, with one of the aspects being the subjectivity of the test along with test bias and its applicability to be used across cultures (Wood & Lilienfield, 1999; Meyer, 2002).

The Exner Comprehensive System:

Prior to the 1980's, none of the several scoring systems of the Rorschach were universally accepted, and when the Comprehensive System was published by Exner in 1974, it gradually became a widely accepted scoring system (Mihura et al, 2013). Mihura et al (2013) also reported that 96% of clinicians that took an international survey by Meyer et al (2007) used the Comprehensive System as their primary scoring system for the Rorschach. Exner attempted to integrate the best variables from the scoring systems, especially those that were most relevant for clinicians in practice (Mihura et al, 2013). Di Nuovo and Castellano (2016) stated that Exner strived to retain the indices that had the best empirical validation and high inter-rater reliability from the various scoring systems. Exner furthered that with structured instructions for administration and coding (Exner, 2012), which countered the criticism of the Rorschach being a very subjective test.

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The Comprehensive System's normative sample for both adult non-patient and outpatient lacked diversity in terms of being representative of different races and ethnicity. In the normative non-patient sample (N=600), which was collected over a period of 10 years, although effort was made to have an equal gender ratio and the sample was stratified for SES (Exner, 2003), there was a lack of effort to include a diverse sample. This sample was 82% White, with 10% being African American, 6% Hispanic and 11% Asian (Exner, 2003). Similarly, with the adult outpatient normative sample, which is used for comparison in this study, 85% were White, just 8% African American, 5% Hispanic and 2% Asian (Exner, 2001). This sample is unrepresentative of the general population, which raises questions about the external validity of the test, which researchers have identified over the years (Frank, 1992; Wood and Lilienfield, 1999; Meyer et al, 2007)

Wood and Lilienfield (1999) concluded that the Comprehensive System was highly sensitive to cultural differences and hence should not be used with minority groups. They stated that the system was not culturally sensitive due to the lack of a representative normative sample and had problems with its psychometric properties including reliability. It has also been outlined by other researchers that some of the variables of the Rorschach such as Animal Movement (FM), Pure color (C), Space (S), Egocentricity Index, Form Dimension (FD), food (fd) and a few more are more sensitive to cultural differences than others (Czopp and Zeligman, 2016); however, many of these studies lack replication. For example, fewer responses by African Americans than the majority was previously attributed to lower intelligence or greater depression (Meyer et al, 2007). However, Frank (1992) concluded that it was not due to intrinsic psychological factors like intelligence but the fact that African Americans were less likely to self-disclose, especially in an assessment context with a stranger.

In the studies of cultural differences in the Comprehensive System, there has been a lack of consistency in the findings. For instance, Frank's (1992) findings were not consistent with Exner's (1986) findings where there was a minor difference between the R of European Americans and African Americans. Frank (1992) concluded that there were significant differences between R, with African Americans having lower R than European Americans. In a robust study with 432 participants from different ethnic groups, Meyer (2002) examined the difference between the groups on the slope or intercept of their scores on the variables of the Comprehensive System, which reflects if the test is more applicable and valid for certain groups than others. However, he did not find any statistically significant difference between the groups.

Meyer et al (2007) tried to integrate normative research from 17 countries on the Comprehensive System. They found that the Comprehensive system norms were higher for X+%, FC, PureH, WSumC, P, and Afr than the comparative samples from the different countries and lower for Fr+rF, X-% and Y. Their results, however, also concluded that, in the broad range, the scores were consistent across cultures, languages, examiners, exclusion criteria and sample recruitment strategies, especially for the adult samples (Mihura et al, 2013). Meyer et al (2007) concluded that the norms for the Comprehensive System were consistent and valid for reference across cultures. This further led to the debate of whether clinicians should use the Comprehensive System norms or the Composite International Reference Values (CIRV) that was developed by Meyer et al (2007) using a composite, international, non-patient sample. However, the CIRV was also criticized for the method of data collection, the inclusion and exclusion criteria etc, which led Meyer et al (2011) to continue their research and develop the Rorschach Performance Assessment System's (R-PAS) reference values (Viglione & Giromini, 2016).

Thus, the applicability of the Comprehensive System for various ethnic groups raises questions about the applicability of the test and the Comprehensive System for different cultures. Therefore, this study aims to identify the applicability of the Comprehensive System in the Indian population with respect to some of the variables like Lambda, M, and the X percentages. As the Rorschach is being widely used for diagnostic purposes, it is essential to make sure that minority groups are not over-diagnosed or misdiagnosed due to the ethnic biases in the Comprehensive System.

The Rorschach in India

The Rorschach Inkblot Test has been widely used in India since the 1960s (Dubey,1979, Dubey et al, 2005, 2019, Manickam & Dubey, 2005). Clinical psychology, as an applied field in India, was established in 1951 at the Banaras Hindu University, and took impetus in 1956 in Bangalore (Verma, 1996). By the onset of the 1960s the number of institutions training students in clinical psychology increased. In 1983 psychological testing and vocational counseling were introduced as courses at Calcutta University, and the emphasis on the Rorschach grew (Prasada Rao and Sudhir, 2001). Barnette (1955), while reviewing the use of psychological tests in India, found that clinical psychologists were "preoccupied" with the Rorschach and TAT, however due to the lack of training in the projective tests, they did not have the opportunity to engage with the projective tests. In this review, it was reported that the Rorschach was administered by clinical psychologists who lacked training and since most psychologists were influenced by British psychological principles, there was a larger focus on intelligence testing and "g" (Barnette, 1955). Although efforts were made to create versions of intelligence tests for the Indian diaspora and even the TAT was adapted for the pictures to look more relatable, there were fewer attempts to develop Indian norms for the Rorschach (Barnette, 1955).

Manickam and Dubey (2005) attempted to trace the history of the use of the Rorschach in India. They reported that although the test was being used in the pre-independence period (before 1947), research related to the Rorschach came into the mainstream only after independence. Many researchers attempted to develop Indian norms for the test, with pioneering work being done by Asthana spanning two decades from 1950s to 1970s. Manickam and Dubey (2005) report that although there were several research publications related to the Rorschach in the 1980's, in the 1990s the interest in research on the test waned, yet the test remained popular with clinicians. They also stressed that the Caste and Religion wise, Culturally, Ethnically, and Linguistically Diverse (CARCEALD) population in India made it difficult to establish norms for the Rorschach (Dubey, 1982, Manickam & Dubey, 2005). They also stated that no attempt was made to create a scoring system in India and there was no consensus about which system to use across the country. Interestingly, the Rorschach was used with students in the educational setting in its early time in India, following which it was used with the clinical population (Barnette, 1955).

In terms of the scoring systems, prior to the 1970s, five systems existed of which the Beck and Klopfer systems were more popular (Singh et al, 2016). In India these systems are widely used presently, along with the Rapaport-Schafer System and the Exner Comprehensive System has been used in some states more consistently than others (Singh et al, 2016). Important prerequisites of the Exner Comprehensive System are standardized administration and rigor in scoring and interpretation, however, there is a lack of training centers fulfilling these basic prerequisites (Exner, 2001). Another factor that plays a role is that the computerized version of the scoring system has not been widely adopted in India, with most clinicians still hand-scoring the test. Due to the high volume of patients and the lack of computerized scoring, the test reports may lack reference to the full interpretative potential which the comprehensive system provides.

To establish Indian norms for the Rorschach, Chaudhury et al (2006), used the Klopfer administration and scoring system. The authors were military personnel and aimed to form Indian norms for the test with samples from the military, as well as civilians and patients who had diagnoses of schizophrenia, neurosis, and organic brain conditions like TBI and epilepsy. Their findings indicated that there were statistically significant differences in several variables including M and F percentages between the civilian and military samples, as well as the difference between the Indian and Western samples (Chaudhury et al, 2006). It was interesting to note that in this study, the average number of responses ranged from 10.9 (army personnel with neurosis) to 17.9 (non-patient civilians). As the Klopfer system allows card rejections, the percentage of cards rejected by the sample was also significantly different between the groups. Similarly, Singh et al (2007) and Bajpai et al (2010) attempted at creating Indian

norms for the Beck scoring system. They stated that the Indian norms were significantly different than the Beck system, because it was difficult to score responses that were not listed in the Beck form level rating system.

Literature Review:

Lambda and Form% in relation to Number of Responses

Lambda in the Comprehensive System is defined as "the simplicity of the responses, based on description of movement, color, shading, depth, and symmetry" (Exner, 2012). It is included in the Controls and Situational Stress Cluster of the Structural Summary. The interpretation looks at aspects of avoidance versus attentiveness to complexity, subtlety, or nuance (Mihura et al, 2016).

In analyzing if ethnic differences existed in the Comprehensive System, Meyer (2002) examined a few variables to ascertain if there were statistically significant differences between minority and majority groups, especially with respect to R. One of the variables he examined was Lambda. Meyer's (2002) findings reiterated that the minority group of African American participants were less engaged with the test which was manifested by lesser number of responses but higher form %. Nuovo and Castellano (2016) also stated that high Lambda with a low R is an indicator that the examinee is economizing their resources and performing below their actual capacity.

An interesting observation that Meyer (2007) made in their meta-analyses was that children in the samples from different countries, especially from Japan, had a higher Lambda value than the normative sample of the Comprehensive System. In the Japanese sample, many protocols were discarded due to the number of responses being less than 14. However, Lambda was significantly elevated indicating that the children found it very difficult to engage in the task (Meyer, 2007). The conclusion drawn was that the lack of elaboration of responses was due to cultural factors associated with being evaluated by an unfamiliar examiner, modesty, and simplification as a coping mechanism to unstructured stimuli (Meyer et al, 2007). This was also found to be true of children and adolescents across cultures different from the American one used to norm the Comprehensive System. Complimenting this finding, Meyer et al (2007) found that higher Lambda and Form% was also associated with lower frequencies of other variables in the scoring system which were related to richness in verbalizations and visual perception such as M. In Chaudhury et al's (2006) findings, it was observed that in the Indian sample, the percentage of F responses were higher than the other determinants, ranging from 36% for army personnel without any diagnosis to 52% for those diagnosed with schizophrenia or organic conditions. There was a significant difference in the F% between the army personnel and civilians.

Meyer et al (2001) outlined criticisms about Lambda, which led them to conclude that Form% was a better variable to use in research related to Rorschach. They stated that Lambda is affected by the number of pure form responses in the protocol. For example, if all the responses in a protocol are pure form responses, it would make Lambda undefined. This is an important criticism to keep in mind for this study as Lambda will be skewed for the protocols due to the large number of pure form responses. Given Chaudhury's (2006) findings with the Indian samples, pure F responses are higher than other determinants like movement or color. In the Beck and Klopfer scoring systems as well, pure form responses were seen as indicative of 'delay of affect' (Nuovo and Castellano, 2016), as the examinee chooses to ignore other complex aspects of the blot. These systems were seen as using pure form before Exner introduced Lambda.

Lambda is seen as being indicative of the simplicity (high Lambda) or complexity (low Lambda) of the responses (Exner, 2012). Nuovo and Castellano (2016) found that it is a valid measure to detect defensiveness, as well as social desirability, in clinical and non-clinical populations. Konishi (2003) also found that in Japan, protocols with low lambda values had higher values on variables like M than protocols with high Lambda values. With the Indian sample, one hypothesis is that Indians are less engaged with the

Rorschach than are Americans due to its unstructured nature and uncertainty associated with the results, which could lead to high lambda values, along with fewer responses. Culturally, it could be assumed that the Indian population is guarded against unstructured tasks, especially those developed outside the country. The Indian society is used to norms and structure since the British era, which is also in-built in the day to day living situation, as is seen by the complicated history of psychoanalysis in India which was overhauled by concrete medical sciences (Akhtar, 2005) Thus, this study would focus on Lambda keeping in mind the influence large pure form responses have on it, which could lead to a skewed distribution on Lambda.

Based on the findings by cross-cultural research regarding the sensitivity of Lambda to different cultures, the first hypothesis was derived (H1) that the mean Lambda of the Indian sample in this study would be significantly higher than the mean Lambda of the Exner norming sample.

Human Movement (M)

In the Comprehensive System, M is coded for responses which include human movement. The interpretation of M reflects mental abilities like planning, as well as empathy (Mihura et al, 2016). It is included in the Controls and Situational Stress Cluster. It can be coded as active or passive movement, which is reflected in the Interpersonal Perception Cluster and Ideation Cluster. Hermann Rorschach had conceived M responses to reflect kinesthetic aspects of the responses. He used the term *'kinesthetic engrams'* (Malmgren, 1998) which helped include the intervening processes in responding to be seen as determinants. Rorschach theorized that these responses evoked bodily sensations, memory traces and a sense of motility. He also suggested that individuals who had a larger number of M responses were imaginative, creative, intelligent, and empathic (McElFresh, 2010). The Comprehensive System similarly interprets M responses (Exner, 2012). Pineda et al (2011) also found evidence of neurological correlates for M responses, where they noted that in electroencephalographs (EEGs) of individuals responding to the Rorschach, there was suppression in specific electrical activity (Mu), which usually takes place in response to actual, imagined, or observed movement.

Porcelli and Kleiger (2016) highlighted that M reflects internal experience. Although some aspects of the blot lend themselves to movement responses, the assumption of movement is very implicit, adding an imaginative feature to the blot. As it reflects internal experience, one can state that M responses will be affected strongly by cultural influences, as cultural experiences play an important role in shaping one's internal world.

In terms of their findings with Indian subjects, Chaudhury et al (2006) found that the percentage of M responses were lower in the sample as compared to FM responses. The army personnel had lower M responses than the general population. This was attributed to their training and discipline, with the conclusion that the military culture may play a role in shaping the sample's internal experience as well as their ability to relate to others (Chaudhury et al, 2016). This study also found that individuals with a diagnosis of Schizophrenia had fewer M responses as compared to individuals without a diagnosis, although the general population also had a lower mean M (1.9) than the Exner sample (3.85). The overall low M in the general population, the psychiatric population, and the army personnel could also be attributed to collectivism in the culture, which could possibly lead to an emphasis on communally based fantasies and inner experiences, which could result in a lack of M.

As there is a lack of research with respect to what lower M in the Indian sample could mean, assumptions could be made in terms of the lack of empathy, inability to focus on internal experience, as well as difficulties with mentalizing. However, a variety of cultural factors contribute to the internal experience of individuals, and therefore research needs to be done in the area of cultural factors associated with M responses. This led to the development of the second hypothesis (H2) stating the average number of M responses will be significantly lower in the Indian sample as compared to Exner's norming sample.

X percentages (XA, X+, X- and Xu)

The X+%, X-%, and Xu% denote form quality in the Comprehensive System. Form quality refers to "the degree to which the reported objects are commonly seen and fit the blot area" (Exner, 2012). Form quality is determined by reference to the form quality tables of responses gathered from a large number of examinees in the Comprehensive System. Form Quality helps interpret if the examinee tends to perceive the world as others do, has uncommon or creative views, or distorted perceptions (Mihura et al, 2016).

In the meta-analyses by Meyer et al (2007), they found that Japanese children and adolescents' samples had extreme values on X+% and X-%. They also had a very low Xu%. One of the reasons Meyer et al (2007) reported for these extreme values was that the scorers coded responses that were not found on the FQ tables as X- rather than coding them with respect to responses with similar shapes. Thus, Xu% was found to be very low in this sample.

To help clinicians decide which set of norms should be used, Viglione and Giromini (2016) compared the Comprehensive System's norms (Exner, 2003) with the R-PAS norms by Meyer et al (2007). The hypothesis was that the Comprehensive System led to higher diagnosis of pathology, even with non-patient samples. Of the eleven variables that were strikingly different in the two systems, X+% and X-% were listed, with the Comprehensive System finding pathological values to these variables (Viglione and Giromini, 2016). They further found that average children and adolescents in the international samples were misattributed by the Comprehensive system regarding their perception and thinking, based on their X+%, X-%, WDA%, FQXo, FQx-, and Popular responses.

As there is a lack of research with respect to the X percentages with an Indian sample, as well as the variability of the X percentages in the Exner and R-PAS systems, this study focuses on identifying if the X percentages are extreme for the Indian sample as well. As X percentages can lead to over-diagnosing of pathology, especially if the norms are not culturally sensitive, hypothesis 3 was developed (H3) stating that the XA% and X+% will be lower while the X- and Xu% will be significantly higher in the Indian sample as compared to the Exner norming sample.

Method:

Participants

The data in this study was obtained from a private clinic in Mumbai, India. The Rorschach Inkblot test was administered at this clinic as a routine in the treatment process. The test was administered after the intake process for diagnostic clarification. The protocols obtained were administered between 2014 and 2016. The sample of individuals whose protocols were used for this study were looking to seek therapy or psychiatric consultation at the clinic. The mean age of the sample is 34.2 and the sample includes 19 females (N=41), and the gender of two participants was not recorded.

Measures and Procedure

The de-identified Rorschach protocols were collected from a private clinic in Mumbai, India. This private clinic caters to a large and diverse population of India, with patients travelling across the country to seek mental health services. The Rorschach test was administered at two different locations of the clinic. The tests were administered by three different clinical psychologists, all three having completed their master's in clinical psychology from reputed institutions in India. Each of them had more than one year of experience at the time when they administered the tests. They had all been trained in the Klopfer and Beck scoring systems of the Rorschach during their master's program. Due to the lack of time to administer the test in a standardized manner at this clinic because of the high volume of clients, most protocols did not include a detailed inquiry and all of them did include verbatim inquiries. The author gained permission

from the owner of the clinic and the psychologists to access these protocols, with almost half of the protocols being administered by the author herself.

In this study 60 protocols were analyzed, out of which 19 were discarded. The reasons for discarding included less than 14 responses, multiple card rejections, difficulty translating the responses from Hindi, and difficulties deciphering the written responses. The average number of responses in the 41 protocols that were retained was 23.6. The protocols were coded and scored according to the Exner Comprehensive system by two independent raters at the George Washington University Professional Psychology Program. As the protocols did not include detailed verbatim inquiries, it was difficult to score some of the determinants. The scorers agreed to retain the determinants used by the original scorers using the Klopfer system, which has similar codes for determinants as does the Exner system.

Results:

The protocols from the Indian sample were re-coded using the Exner Comprehensive system. The mean and standard deviation were obtained for each of the variables using Excel. The norms for comparison were drawn from the Adult Outpatient normative table in the Exner manual.

Table 1: Descriptive Statistics

	Exner (N=535)		Indian Sample (N=41)	
Variables	**Mean**	**SD**	**Mean**	**SD**
L	1.14	1.26	3.70	3.55
M	3.85	2.53	2.15	1.98
XA	0.82	0.11	0.71	0.12
X+	0.64	0.14	0.47	0.12
X-	0.16	0.10	0.24	0.12
Xu	0.18	0.09	0.23	0.10

To explore the validity of parametric comparisons of the means, the normality of the Indian sample was tested. The values for skewness and kurtosis between -2 and +2 are considered in order to prove normal univariate distribution(Demir, 2022). Thus, it was observed that the sample was not normal with respect to 4 (R, Lambda, M and Mp) out of 10 variables (see Table 2). The X percentages, age and Ma were within the range and therefore normally distributed.

Table 2: Skewness and Kurtosis of the Indian Sample

	N	Min.	Max.	Mean	Std. Dev	Skewness		Kurtosis	
	Statistic	**Statistic**	**Statistic**	**Statistic**	**Statistic**	**Statistic**	**Std. Error**	**Statistic**	**Std. Error**
Age	38	15.00	59.00	35.1053	12.38087	0.350	0.383	-0.758	0.750
R	41	14.00	67.00	23.6585	9.47262	2.587	0.369	9.982	0.724
Lambda	41	0.12	17.00	3.6979	3.55279	2.430	0.369	6.688	0.724
M	41	0.00	9.00	2.1463	1.98193	1.691	0.369	3.653	0.724
Ma	41	0.00	4.00	0.9512	1.16084	1.208	0.369	0.716	0.724
Mp	41	0.00	6.00	1.0732	1.42110	2.173	0.369	5.543	0.724
XA	41	0.48	0.94	0.7089	0.11702	0.134	0.369	-0.236	0.724
X+	41	0.25	0.72	0.4743	0.11648	0.071	0.369	-0.336	0.724
X-	41	0.05	0.50	0.2422	0.11556	0.192	0.369	-0.679	0.724
Xu	41	0.06	0.50	0.2346	0.10391	0.613	0.369	0.250	0.724

Considering that the data was not normally distributed, a two-tailed T test was conducted along with a confidence interval analysis that uses the standard deviations from the larger Exner sample to

determine the significance of the difference between the mean of the Exner normative sample and the Indian sample.

The method suggested by Meyer et al (2007) while establishing the International Reference norms of the Rorschach was used to compute the T score not between the two samples, but rather by converting the sample mean to a T score and comparing it to the reference mean of T = 50. In support of this method, they argued that rather than the significance of the difference, the magnitude of the effect is the most important consideration. As Table 3 demonstrates (like Meyer 2007), many of the differences are dramatically significant, the question is whether these differences are large enough to be meaningful. Clinical significance with respect to the magnitude of the effect is obtained when the T score is above 65 or below 35. Meyer (2007) suggested that a T score deviation of either 10 or 15 would meet the criteria of being concerned. Even using these more liberal criteria, Lambda, XA and X+ percentages are concerned with over-pathologizing.

Table 3: T Scores according to Meyer's (2007) suggested method

Variable	T test	P Value	T score of Sample
Lambda	4.59	5.5E-06	70.30
M	-5.20	2.92E-07	43.27
XA	-5.88	6.81E-09	39.90
X+	-8.64	5.31E-17	38.16
X-	4.43	1.13E-05	58.22
Xu	3.27	0.001	56.07

The non-normality of the data leads to difficulties interpreting the T score in that it is unclear whether a mean difference is due to a few extreme scores or the bulk of the scores being past the cut off. This led to an extension of the confidence interval analysis that clarifies the percent of the sample that was beyond the cutoff in order to obtain a more precise estimate of the potential over-pathologizing. This is a logical extension of Meyer's (2007) concern over considering the size of the effect instead of significance and helps address the issue without assumptions of normality in the sample. For T-scores, we would expect 7% to be above 65 and 7% to be below 35.

Table 4: Percentage of sample above and below the confidence interval

Variable	% people in the low end (<35)	% people in the high end (>65)
Lambda	0.00	41.46
M	14.63	4.87
XA	29.27	0.00
X+	34.15	0.00
X-	0.00	26.83
Xu	0.00	17.07

Based on the confidence interval analysis, it can be observed that with Lambda, a much higher percentage of the Indian sample lies above the high level of the confidence interval (41.46 versus the expected 7%). This supports the first hypothesis (H1) which states that lambda for the Indian sample will be significantly higher than the Exner norms. With respect to the M responses, 14.6% of the Indian sample falls below the low end of the confidence interval, suggesting that there are twice as many lower numbers of M responses compared to the normative sample, thus supporting the second hypothesis (H2). In terms of the XA and X+ percentages, it can be seen that a large percentage (4-5 times more than expected) of the sample lies in the low end of the confidence interval, while for X- and Xu percentages, 2-3 more than expected, fall on the high end. This lends support to the third hypothesis which states that in the Indian sample, XA% and X+% will be lower while X-% and Xu% will be higher than the Exner norms. These

results suggest that with respect to these four variables, there would be a significant risk of over-pathologizing in the Indian sample with respect to these variables.

Discussion:

The Rorschach Inkblot test is a widely used test across the world. With the lack of consistency and agreement between the various scoring systems that existed, Exner (1974) developed the Comprehensive System which incorporated the important elements from the other scoring systems. The Exner scoring system gained global popularity; however, critiques outlined that the system was not culturally sensitive, and the norms were not reliable when used with minority groups. Research with minority groups and research in other countries yield inconsistent findings. Although the Rorschach is taught and used in India, there is a lack of consistent and ongoing research with it, and especially with the Exner system. Studies have tried to identify the applicability of the Exner norms to different types of samples (eg, individuals with diagnoses of alcohol abuse, and depression), but there have not been attempts to identify if the norms of the Comprehensive System are applicable to the Indian population.

In this study, the variables Lambda, Movement (M) and the X percentages were analyzed to identify if there were any cultural differences in the presence of these variables in the Indian sample, as compared to the Exner normative sample. The protocols analyzed were obtained from an outpatient clinic in Mumbai, the financial capital of India. The protocols were re-scored according to the Exner system, and the average was calculated for the variables and compared to the Exner averages. As the Indian sample did not follow a normal distribution, a T test, confidence interval analysis was conducted. Along with that, Meyer's (2007) recommended comparison of T values was also conducted. The results indicated that there was a likelihood of over-pathologizing the Indian sample.

With respect to Lambda, it was hypothesized that it would be higher in the Indian protocols as compared to the Exner normative sample. This hypothesis was supported by the results. Based on the definition of Lambda from the Exner system, it would be concluded that the responses by the Indian sample were more simplistic rather than complex and rich in nature. As outlined by Di Nuovo and Castellano (2016), Lambda can be seen as a measure for defensiveness, which could then also conclude that the Indian sample is inhibited in responding to the unstructured stimuli of the Rorschach. With Form% being seen as a better indicator of simplicity of responses, the results from the analysis align with the findings of Choudhury et al (2006) that the Indian sample, with or without a psychiatric diagnosis, has a higher percentage of Form% and Lambda.

In considering the reasons for this finding, it would be important to pay close attention to the Indian culture and values, as well as their approach towards psychology in general and assessment in particular. As the Rorschach was administered to the sample as soon as they completed their intake interview, the sample is still fresh with the stigma of requiring psychological or psychiatric treatment. The clinician conducting the assessment was the one who also conducted the intake; as a result, the familiarity should have helped negate the defensiveness and avoidance. However, as indicated by Meyer (2007) Lambda was one of the variables that was strikingly different in the International referenced norms as compared to the Comprehensive system, as minority groups tended to have higher Lambda. Studies in the Japanese culture also indicated higher Lambda, thus suggesting that Lambda is affected by cultural norms (Konishi, 2007). Being a collectivistic culture, individuals in India are trained to filter their thoughts while growing up to ensure they are not saying anything that could be inappropriate or absurd. This cultural norm could play a role in the inhibition of the sample to respond with more nuanced, open, and forthright responses to the cards, which could be misinterpreted as being defensive or guarded while using the Comprehensive System.

As indicated by Konishi (2007) and Di Nuovo and Castellano (2016) high lambda goes in tandem with some other variables being lower than expected, especially as the richness in the protocols are reduced.

The determinant of human movement is one such variable which denotes complexity and reflects internal experiences. Rorschach viewed M as reflecting the kinesthetic aspect of the blot, which could reflect an individual's creativity, intelligence, and empathy. There have been different understandings of M and also arguments with respect to considering M as a determinant (Malmgren, 2000). As determinants are based on the features of the card, M is not intrinsic to the cards, which raises questions about its inclusion as a determinant. However, it helps capture the internal process that individuals experience when they see the card. M is also interpreted as reflecting abilities like planning and empathy (Mihura et al, 2013) and interpersonal relatedness. As all of these aspects that M aims to measure can be influenced by cultural norms and values, it would be important to understand the over-pathologizing related to M.

In this study, results indicated that M responses were lower in the Indian sample than the Exner normative sample, supporting the hypothesis. This should be interpreted with caution, as in collectivistic cultures, internal experiences are predominantly governed by collectivistic experiences. However, that is not to say that individuals in collectivistic cultures do not have rich internal experiences, rather they find it difficult to project that to unstructured stimuli. It could also be indicative of the fact that individuals in collectivistic cultures hold more communally based fantasies as compared to individual fantasies. As Choudhury et al (2006) found, in the Military sample M was lower than FM, which could be attributed to the culture and discipline of the armed forces. As M has been found to have neurological correlates, it is important to consider cultural factors while interpreting low M, especially when individuals from collectivistic cultures are assessed in individualistic cultures.

In India, many practitioners interpret the individual's level of functioning and diagnosis based on the X percentages. Although it captures a part of the individual's functioning, it is an indicator of whether an individual views aspect of the blots like others do or has a creative and idiosyncratic manner of interpreting the blot. In research with Japanese children and adolescents, it was found that the X percentages were in the extremes. This was found to be true with the Indian sample in this study as well. The values for X+, and XA percentages were lower than the normative sample, while the X- and Xu percentages were higher. This indicates that while assessing for reality testing and perceptual processes, it is important to keep in mind that cultural factors impact the X percentages.

It is essential to note that X percentages are derived mainly from the form-level tables outlined in the Comprehensive System manual. These tables have responses derived from the normative sample which is not representative of all countries, nationalities, ethnicities, and linguistic groups. This could majorly impact what is viewed as a +/-/u response. As stated by Meyer et al (2007), it is highly likely that responses that are not included in the tables are coded as - responses, which would skew the X percentages to the effect of over-pathologizing in these groups. X percentages are often used in the diagnosis of thought disorders and impaired reality testing (Exner, 2003), which could lead to over-diagnosing of thought disorders in the Indian population. In developing the R-PAS system, this was one of the important factors that were criticized about the Comprehensive system. Therefore, the extreme X percentages cannot be interpreted to say that the minority groups or individuals from different nationalities do not view the blots the same as the normative sample, but rather that the differences stem from cultural and ethnic differences. For example, in the Indian sample of this study, Lord Ganesha (a religious deity) was a common response to Card IX, however, it is not a response in the form-level tables and would be scored as a - or u by most clinicians adhering to the Comprehensive system. Thus, the third hypothesis was also supported by the findings.

Critique and future directions:

Based on the results, it could be concluded that while scoring and interpreting the Rorschach protocols of individuals from different groups that are not widely represented in the normative sample, clinicians have to be cautious about over diagnosing and should take into account multiple sources of

information and pay close attention to cultural factors. However, it is also important to consider some of the factors of data collection and scoring of the Indian protocol which should be taken into consideration for future research.

The protocols that were included in this study were administered in India and were not administered using the standardized Exner administration protocol. This would interfere with the scoring as the test lends itself to biases from both examinee and examiner. For future research, it would be important to analyze if the results are replicated after following the Exner standardized protocol. Another aspect to be considered is that many protocols had responses in regional languages which had to be translated to be scored in the Exner system. This also highlights the lack of norms and administrative protocols in regional Indian language, which is an important future direction for Rorschach research in India.

With respect to re-scoring the protocols using the Exner system, due to the lack of verbatim inquiry responses, the determinants were scored using the determinants assigned by the original administrators using the Klopfer and Beck systems. M is a common determinant across these scoring systems and is defined similarly. There was a high consistency in the similarity between the determinants assigned by the original scorers and new scorers; however, for further research in the area of determinants, it would be important to keep in mind the differences between the determinant codes in the different scoring systems.

It would also be beneficial to elaborate further on this research with different variables as well as comparing the Indian sample means with the R-PAS system, which draws from a multinational sample. In conclusion, although these results raise questions about the cross-cultural applicability of the Exner Comprehensive system, it has been an important milestone in projectives, and further research would surely help refine its use in countries that are not included in the normative sample.

References:

Akhtar, S. (ed.) (2005) *Freud Along the Ganges: Psychoanalytic Reflections on the People and Culture of India.* New York: Other Press.

Allen, J., & Dana, R. H. (2004). Methodological Issues in Cross-Cultural and Multicultural Rorschach Research. *Journal of Personality Assessment,82*(2), 189-208. Retrieved from https://doi.org/10.1207/s15327752jpa8202_7.

Bajpai, S., Singh, R. S., & Bajpai, R. (2010). Rorschach Profile of Indian Adults.*SIS Journal of Projective Psychology and Mental Health,17(2),* 180-186.

Barnette, W. L. (1955). Survey of research with psychological tests in India. *Psychological Bulletin, 52*(2), 105–121. https://doi.org/10.1037/h0039718

Chaudhury, S., Augustine, M., Saldanha, D., Srivastava, K., Kundeyawala, S.M., Pawar, A.A, & Ryali, V. (2006). Norms of the Rorschach Test for Indian Subjects. *MJAFI,62*(2), 153-160.

Czopp, S. T., & Zeligman, R. (2016). The Rorschach Comprehensive System (CS) Psychometric Validity of Individual Variables. *Journal of Personality Assessment,98*(4), 335-342. doi:10.1080/00223891.2015.1131162

Demir, S. (2022). Comparison of Normality Tests in Terms of Sample Sizes under Different Skewness and Kurtosis Coefficients. *International Journal of Assessment Tools in Education*, *9*(2), 397-409.https://doi.org/10.21449/ijate.1101295

Di Nuovo, S. F., & Castellano, S. (2016). Validity indices of the Rorschach test and Personality Assessment Inventory: A comparison in pathological and healthy subjects. *Mediterranean Journal of Clinical Psychology,4*(2), 1-21.

Dubey, B.L. (1979). 'Rorschach Indices of Psychiatric Patients in Army'. *Indian Journal of Clinical Psychology* 6: 175–179.

Dubey, B.L. (1982). *A Pragmatic View of Rorschach Inkblot Technique*. Agra: National Psychological Corporation.

Dubey, B.L., Banerjee, P. & Dubey Anand (2019). *Inkblot Personality Test - Understanding the Unconscious Mind,* Sage Pub Inc. New Delhi.

Dubey, B.L., Cassell, W.A. & Dubey. Anand (2005). Impact of Number of Responses on the Interpretation of Rorschach Indices. *SIS Journal of Projective Psychology & Mental. Health*, 2005, 12:27-48.

Exner, J. E., Jr. (1974). *The Rorschach: A comprehensive system* (Vol. 1). John Wiley & Sons.

Exner, J. E. (1986). Some Rorschach data comparing schizophrenics with borderline and schizotypal personality disorders. *Journal of Personality Assessment*, *50*(3), 455-471.

Exner, J. E. (2012).*A Rorschach Workbook for the Comprehensive System.* Asheville (NC): Rorschach Workshops.

Exner, J. E. (2003). *Basic foundations and principles of interpretation*. Hoboken, NJ: Wiley.

Frank, G. (1992). The response of African Americans to the Rorschach: A review of the research. *Journal of Personality Assessment*, *59*(2), 317-325.

Kleiger, J. H. (2017). *Rorschach assessment of psychotic phenomena: Clinical, conceptual, and empirical developments.* New York: Routledge.

Konishi, H. (2003). The Lambda in the Rorschach Comprehensive system. *The Japanese Journal of Psychology,73*(6), 502-505.

Malmgren, H. (2000). Rorschach's idea of a "movement" response in the light of recent philosophy and psychology of perception. *Rorschachiana*, *24*(1), 1-27.

Manickam, LSS & Dubey, B.L.(2005).Rorschach Inkblot Test in India: Historical Review and Perspectives for future Action. *SIS Journal of Projective Psychology & Mental. Health*, 2005, 12:61-78.

McElfresh, P. (2010) Active and Passive Rorschach Movement Responses: Toward a historically and Experientially Grounded Revision of Scoring Criteria (Doctoral dissertation, Duquesne University). Retrieved from https://dsc.duq.edu/etd/906

Meyer, G. J., Viglione, D. J., & Exner, J. E. (2001). Superiority of Form% Over Lambda for Research on the Rorschach Comprehensive System. *Journal of Personality Assessment,76*(1), 68-75. doi:10.1207/s15327752jpa7601_4

Meyer, G. J. (2002). Exploring Possible Ethnic Differences and Bias in the Rorschach Comprehensive System. *Journal of Personality Assessment,78*(1), 104-129. doi:10.1207/s15327752jpa7801_07

Meyer, G. J., Erdberg, P., & Shaffer, T. W. (2007). Toward International Normative Reference Data for the Comprehensive System. *Journal of Personality Assessment,89*(Sup1). doi:10.1080/00223890701629342

Mihura, J. L., Meyer, G. J., Dumitrascu, N., & Bombel, G. (2013). The validity of individual Rorschach variables: Systematic reviews and meta-analyses of the comprehensive system. *Psychological Bulletin,139*(3), 548-605. doi:10.1037/a0029406

Mihura, J. L., Meyer, G. J., Dumitrascu, N., & Bombel, G. (2016). On conducting construct validity meta-analyses for the Rorschach: A reply to Tibon Czopp and Zeligman (2016). *Journal of Personality Assessment*, *98*(4), 343-350.

Pineda, J. A., Giromini, L., Porcelli, P., Parolin, L., & Viglione, D. J. (2011). Mu suppression and human movement responses to the Rorschach test. *NeuroReport,22*(5), 223-226. doi:10.1097/wnr.0b013e328344f45c

Porcelli, P., & Kleiger, J. H. (2016). The "feeling of movement": Notes on the Rorschach human movement response. *Journal of Personality Assessment*, *98*(2), 124-134.

Singh, D. K., Majhi, G., & Singh, A. R. (2007). Projective indices of creativity: A pilot study. *SIS Journal of Projective Psychology & Mental Health*, *14*(2), 117A.

Singh, T. K., Raju, M., Choudhri, N., Devi, T. S., Patel, O., & Das, S. (2016). Protocols of Alcohol Dependents on Rorschach. *The International Journal of Indian Psychology,4*(1), 80-90.

Smith, J. M., Gacono, C. B., Fontan, P., Taylor, E. E., Cunliffe, T. B., & Andronikof, A. (2018). A Scientific Critique of Rorschach Research. *Rorschachiana,39*(2), 180-203. Retrieved from https://doi.org/10.1027/1192-5604/a000102.

Viglione, D. J., & Hilsenroth, M. J. (2001). The Rorschach: Facts, fictions, and future. *Psychological Assessment,13*(4), 452-471. doi:10.1037/1040-3590.13.4.452

Viglione, D. J., & Giromini, L. (2016). The Effects of Using the International Versus Comprehensive System Rorschach Norms For Children, Adolescents, and Adults. *Journal of Personality Assessment,98*(4), 391-397. doi:10.1080/00223891.2015.1136313

Wood, J. M., & Lilienfeld, S. O. (1999). The Rorschach Inkblot Test: A Case of Overstatement? *Assessment*, *6*(4), 341–351. doi.org/10.1177/107319119900600405

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Comparative Phenomenological Analysis of Sack's Sentence Completion Test: Indian Case Studies

Sukhsiddhi D. Pol, Anand Prakash & Rupesh Rajan

There are no previous qualitative comparative studies that investigate the Sacks Sentence Completion Test (SSCT) profiles in the severity of generalized anxiety disorder (GAD). This is a purposive case series of Indian (N=3) that employed GAD-7 to determine the level of its severity (mild=7, moderate=12, severe=20) and SSCT through phenomenological content analysis. There were significant increases in self-concept distress and sex-domain distress in all cases. Moderate progression was noticed in the Family and Interpersonal areas. The SSCT identified that relational therapy was proven to be an instrument that found the attachment-related conflicts of personality not seen by GAD-7. Such findings solidify the usefulness of projective assessment and GAD phenotyping, and the need for further studies on a larger sample.

Introduction:

Generalized Anxiety Disorder (GAD) is a common and frequently underdiagnosed illness characterized by uncontrollable worry and various physical and mental manifestations. (Munir & Takav, 2022, Weishberg, 2009). Although the GAD-7 and other structured scales are used to determine the severity of symptoms, they do not shed light on the personality structure, interpersonal conflict, and problems with self-concept that perpetuate anxiety. These dimensions are uniquely measured by the Sacks Sentence Completion Test (SSCT) (Sacks & Levy, 1950), a projective test of 60 statements on four scales, Family, Sex, Interpersonal functioning, and Self-concept, and has been used in psychiatric populations across different levels of GAD severity. Although GAD epidemiology provides evidence of female predominance throughout the lifespan (Hantsoo & Epperson, 2017), the SSCT is one of the few measures that study underlying personality conflicts, not the counts of symptoms on the surface, and is a useful supplement to structured measures. The current case series fills this methodological gap. The research study is designed to provide a comparison of SSCT profiles by severity of GAD using phenomenological analysis. It was hypothesized that self-concept distress and stable sex-domain elevation would escalate and be stable at certain levels.

Method:

Three urban Indian outpatients (21-34 years; 2females and 1male) who had DSM-5 GAD criteria (stratified by GAD-7: mild (n=1), moderate (n=1), severe (n=1) were administered Sacks' Sentence Completion test (Sacks & Levy, 1950). The severity was measured with GAD-7 (Spitzer et al., 2006). Written consent was obtained from each client, and case histories were taken. The identities of the participants were kept secret. The qualitative data analysis based on a phenomenological approach and content analysis was done. The primary coding was done by the first author; the second author coded about 20 percent of the responses, with 92 percent agreement on domain-level distress ratings. Differences were addressed by consensus discussion. An audit trail on reflexivity was kept.

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Case profiles:

Case 1 - Mild GAD (GAD-7 score: 7)

Ms. M, 34 years, B.Tech, upper socioeconomic status, presented complaints of increased anxiety, excessive future-oriented worry, and difficulty relaxing for the last 7 months. She had an interpersonal conflict with her father. She is married and has emotional distance from her husband.

Case 2 - Moderate GAD (GAD-7 score: 12)

Mr. H, 26 years, Chartered Accountant, presented complaints of restlessness, pre-sleep fearfulness, future-oriented preoccupation, and occasional palpitations at work for one year. He has a conflict with his mother and has been separated from his wife for 4 months.

Case 3 - Severe GAD (GAD-7 score: 20)

Ms. T, 21 years, a student at the undergraduate level, presented complaints of constant academic worry, irritability, restlessness, and fleeting passive death wishes from 18 months. She has frequent conflicts with her parents and has discontinued her studies for the last 6 months.

Results:

Table 1: Comparative SSCT Domain Totals Across GAD Severity

SSCT Domain	Mild GAD (Ms. M)	Moderate GAD (Mr. H)	Severe GAD (Ms. T)	Max Possible
Family	4	7	9	16
Sex	8	8	11	16
Interpersonal Functioning	3	4	5	16
Self-Concept	8	9	14	16
TOTAL	**23**	**28**	**39**	**64**

Note. Examples of actual responses from Sacks Sentence Completion Test (SSCT) in four domains, grouped by phenomenological content. Responses show escalation of distress from mild to severe GAD. Scores for individual items (0 = distress absent, 1 = mild, 2 = severe) add to domain scores in Table 1. N = 3 Indian outpatients

Table 2. Representative SSCT Responses by Theme and GAD Severity

Personality & SSCT areas	Mild GAD	Moderate GAD	Severe GAD
Self-Concept **To me future looks**	bleak… ughh... hopeful a bit ...can't really tell.	Full of struggles.	I wish I could lose the fear of the future.
Emotionality **My fears sometimes force me to**	fear more… feel more and overthink more.	sometimes force me to- think and act irrationally.	sometimes force me to-think about attempting suicide.
Adjustment Coping: **The worst thing I ever did**	I was trying to protect myself by moderately lying to an extent to save a romantic relationship.	To trust the wrong guy.	I had premarital sexual relationship, till now I am guilty for it.
Interpersonal Functioning **When I see the boss coming -**	I pretend to work more seriously.	I sometimes panic.	I feel anxious.
Family **I feel my father seldom**	was happy himself.	Appreciated me	expresses, he is always worried and troubled.
Sex **My feeling about married feeling is**	blahhhh… human beings aren't supposed to be married	Normally, I don't know what I would do.	I don't feel like getting married now

Note. Clinical significance: A score in any domain that is greater than 6 indicates moderate-severe relational distress, which is in line with avoidance patterns in GAD. The self-concept and sex domains were the only domains that were always above this threshold in all the levels of severity.

Discussion:

In all three cases, SSCT scoring profiles across the four domains were clinically meaningful in supporting the psychopathology of GAD. There was also progressive progression in self-concept distress (mild: 8; moderate: 9; severe: 14) with patterns consistent with previous reports on SSCT-based research of somatoform disorders (Bandyopadhyay & Mahto, 2021; Korotkova et al.,2021), indicating that self-concept impairment may be a transdiagnostic vulnerability factor across anxiety-spectrum presentations and not GAD-specific.

Across all three cases, there was poor self-concept. Hopelessness regarding the future was getting intensely aggravated: Ms. M conveyed the future with ambivalence; Ms. T desired to lose fear of the future. This is in line with the current study, which revealed that future-oriented thinking and anticipation are central clinical indicators of GAD (Du et al.,2022; Wu et al.,2015). Additionally, Sex-domain distress was elevated in all cases, which is indicative of approach-avoidance conflict in intimate relationships (Stein et al.,2009; Gannon et al.,2011), as is consistent with Cassidy et al. (2009), who showed that insecure attachment with parental figures was strongly related to GAD symptomatology. The domain-gradient (self-concept>sex>family>interpersonal) indicates that persons with GAD might have occupational-social role functioning extended beyond what their inner personality structure would predict, which applies to early diagnosis.

The emotion-oriented coping and high death anxiety were also observed, which aligns with the evidence showing that GAD individuals experience less sense of meaning and higher death anxiety levels (Dursun et al.,2022; Marr et al.,2022). The momentary suicidal ideation observed in the severe case is to be addressed in practice, and its safety should be urgently evaluated. From an attachment stance, lack of parental relational quality in childhood was manifested in SSCT family-domain responses and in the problems in establishing interpersonal relations with others. This lends credence to attachment theory as an explanatory model of GAD maintenance. The findings of other studies indicate that therapeutic interventions affecting self-concept (e.g., schema therapy, compassion-focused therapy) may specifically be recommended within this group. (Abbasi et al.,2025; Fraser & Gregory,2024).

Conclusion:

The SSCT is a good measure of personality conflicts in GAD, and progressive impairment of self-concept (8→9→14) and insecure parental attachment are identified as the critical phenomenological indicators of all levels of severity, which confirms the validity of the usage of the SSCT as a clinical supplement to structured scales such as GAD-7. Clinically, SSCT domain profiles lead to specific self-concept interventions of individuals with insecure attachment; studies need to establish the gradient in large, multi-rater Indian/cross-cultural cohorts; policy combination of SSCT+GAD-7 in primary care improves diagnostics when verbal expression of apprehension is still socially constrained.

References:

Abbasi, A., Farokhzadian, J., Torkaman, M., et al. (2025). Schema therapy in partially sighted individuals with a focus on social isolation and self-esteem: An interventional study. *BMC Psychiatry, 25*, 289. https://doi.org/10.1186/s12888-025-06732-4

Bandyopadhyay, C., & Mahato, A. K. (2021). Exploring alexithymia in somatization using Rorschach psychodiagnostics. *Psychological Thought, 14*(2), 402–426. https://doi.org/10.37708/psyct.v14i2.589

Du, J. Y., Hallford, D. J., & Grant, J. B. (2022). Characteristics of episodic future thinking in anxiety: A systematic review and meta-analysis. *Clinical Psychology Review, 95*, 102162. https://doi.org/10.1016/j.cpr.2022.102162

Cassidy, J., Lichtenstein-Phelps, J., Sibrava, N. J., Thomas, C. L., Jr., & Borkovec, T. D. (2009). Generalized anxiety disorder: Connections with self-reported attachment. *Behavior Therapy, 40*(1), 23–38. https://doi.org/10.1016/j.beth.2007.12.004

Dursun, P., Alyagut, P., & Yılmaz, I. (2022). Meaning in life, psychological hardiness and death anxiety: individuals with or without generalized anxiety disorder (GAD). *Current psychology (New Brunswick, N.J.)*, *41*(6), 3299–3317. https://doi.org/10.1007/s12144-021-02695-3

Fraser, M. I., & Gregory, K. (2024). Applying a process-based therapy approach to compassion focused therapy: A synergetic alliance. *Journal of Contextual Behavioral Science, 32*, Article 100754. https://doi.org/10.1016/j.jcbs.2024.100754

Gannon, S., Roche, B., Kanter, J. W., & Hayes, S. C. (2011). A derived relations analysis of approach–avoidance conflict: Implications for the behavioral analysis of human anxiety. *The Psychological Record, 61*(2), 227–252. https://doi.org/10.1007/BF03395758

Hantsoo, L., & Epperson, C. N. (2017). Anxiety disorders among women: A female lifespan approach. *Focus, 15*(2), 162–172. https://doi.org/10.1176/appi.focus.20160042

Korotkova, I. S., Klibson, S. K., Gulordava, M. J., & Trąbczyński, P. K. (2021). Clinical and psychological characteristics and targets for psychotherapy at atopic dermatitis patients. *Archives of Psychiatry and Psychotherapy, 23*(3), 17–24. https://doi.org/10.12740/APP/132537

Munir, S., & Takov, V. (2022). Generalized Anxiety Disorder. In *Stat Pearls*. Stat Pearls Publishing.

Marr, N. S., Zainal, N. H., & Newman, M. G. (2022). Focus on and venting of negative emotion mediates the 18-year bi-directional relations between major depressive disorder and generalized anxiety disorder diagnoses. *Journal of affective disorders*, *303*, 10–17. https://doi.org/10.1016/j.jad.2022.01.079

Sacks, J. M., & Levy, S. (1950). The Sentence Completion Test. In L. E. Abt & L. Bellak (Eds.), *Projective psychology: Clinical approaches to the total personality* (pp. 357–402). Alfred A. Knopf. https://doi.org/10.1037/11452-011

Spitzer, R. L., Kroenke, K., Williams, J. B. W., & Löwe, B. (2006). A brief measure for assessing generalized anxiety disorder: The GAD-7. *Archives of Internal Medicine, 166*(10), 1092–1097. https://doi.org/10.1001/archinte.166.10.1092

Stein, M. B., & Paulus, M. P. (2009). Imbalance of approach and avoidance: The yin and yang of anxiety disorders. *Biological Psychiatry, 66*(12), 1072–1074. https://doi.org/10.1016/j.biopsych.2009.09.023

Wu, J. Q., Szpunar, K. K., Godovich, S. A., Daniel L. Schacter, & Stefan G. Hofmann (2015). Episodic future thinking in generalized anxiety disorder. *Journal of Anxiety Disorders, 36*, 1–8. https://doi.org/10.1016/j.janxdis.2015.09.005

Weisberg R. B. (2009). Overview of generalized anxiety disorder: epidemiology, presentation, and course. *The Journal of clinical psychiatry*, *70 Suppl 2*, 4–9.

SIS J. Proj. Psy. & Ment. Health (2026) 33: 2, 115-117

Reflections on the Sentence Completion Method: Sentence Completions and Sentence Completing

John T. Rucker

The sentence completion method has been and continues to be a popular component of personality assessment. To date, the method is most often used in research and clinical contexts by analyzing, scoring, and interpreting the various *content* presenting in sentence completion responses. One undervalued source of assessment responses within the method is the process-based data emerging from the task of completing sentences. This brief commentary provides a distinction between sentence completions (i.e., outcome) and sentence completing (i.e., process) with implications for utilizing both aspects in the context of personality assessment.

Introduction:

The sentence completion method (SCM) has been represented in a host of sentence completion tests with various directions, stems, scoring rubrics, and yielded constructs. The rich utility of the SCM has historically been in the content manifested in sentence completions, which reflect the respondent's attempts to translate inner psychic material into written statements across several diverse opportunities. Indeed, the illuminating and idiographic content elicited by this task has contributed to the popular use of sentence completion tests across training and clinical programs (Piotrowski, 2018).

The SCM has historically been referred to as a semi projective task given it's similarities with self-report inventories and performance-based personality tests. Similar to self-reports, the SCM tasks the examinee to selectively disclose information about themselves. Different than self-reports, the SCM hinges on the highly personalized use of words, phrases, styles, and engagements in the free response writing task, which differs from the standardized diction in forced choice, self-report questionnaires. And yet, the SCM is outside \ performance-based personality tests such that examinees exert a more direct influence over self-disclosure in a face-valid context. These considerations have contributed, in part, to the SCM being considered a hybrid semi projective task in personality assessment (Watson, 1978). To date, what is underemphasized in the SCM literature is the task of sentence completing, and more specifically, the idiosyncratic and indirect processes a respondent utilizes and/or demonstrates while authoring their personal responses. In this brief commentary I propose a myriad of differences between sentence completions (*content*) and sentence completing (*process*) elicited by instruments within the SCM family of tests.

Sentence Completions:

The autobiographical content elicited by and across sentence completions harbors a rich source of data yielded by respondents using their own words and expressions. These statements signify the examinees' final product after corralling their mental states into societally sanctioned language with a sentence structure that is comprehendible and legible. In the context of personality assessment, these expressions are viewed as direct disclosures, which are synthesized by a trained examiner to address assessment issues. Indeed, sentence completions often reveal evocative and concise data points that can support diagnostic differentials primarily driven by data from well-established traditional instruments (Rucker & Sharp, 2024; Rucker et al., 2024). As Rotter et al. (1992) emphasized, "the responses reflect the individual's wishes, desires, fears, attitudes and so

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forth in the sentences he or she produces (p. 2).” Traditionally, such responses have been utilized informally to great effect. Nevertheless, formal scoring rubrics exist that evaluate sentence completions based on their content and situate this data on various continuums including, for example, psychological adjustment (Rotter et al., 1992) and/or ego development (Loevinger, 1998). Recent studies have indicated the manner in which sentence completion ‘content’ can change throughout psychotherapy aligns with potential shifts in psychological functioning (Rucker & Sharp, 2024), and furthermore, that word choice aligns with personality pathology (Rucker & Ruffalo, 2025). As such, sentence completions reflect the independent and aggregate outcomes (i.e., content) of the sentence completion task undertaken in the context of direct, deliberative, and self-selected disclosure. Examples of clinically useful content from sentence completions include word choice, passive or active orientation of the response, content themes, valence of word choice, punctuation marks, and syntax.

Sentence Completing:

The process of sentence completing stands apart from the content emerging from sentence completions. The free response writing situation allows examinees to exercise greater curation (i.e., power) over their disclosures than is granted in other assessment methods that rely on verbalizations that are transcribed and coded regardless of examinee preference (e.g., Thematic Apperception Test; Rorschach Inkblot Method; interviews). Sentence completing, on the other hand, levies indirect methods of disclosure as examinees discern how to “spell out” their responses and immerse themselves in the response process. As such, sentence completing is a distinct form of performance-based data anchored in a unique situation that recruits the following sequence of psychological activity to complete the task at hand: 1) encountering a stimulus, 2) accessing associations to the stimulus, 3) organizing said associations to fit within a predetermined line(s), and 4) conveying said associations in handwriting. This sequence produces a range of idiosyncratic, process-based psychological data.

Some examples of this process-based data are as follows. For example, the affective progression of responses an examinee conveys as they progress through diverse stems may signify how emotions are sequentially metabolized. In addition, as the response process is elicited by a particular stem, the examiner should recognize if and when the examinee pauses the task by asking the examiner a question, lamenting about the exercise, or dissociating. Furthermore, the use of all caps or underlining particular words may reflect the examinee’s attempt to flag an effect, or a bid to draw the examiner’s attention toward specific material. A style of writing (i.e., devaluation, idealization) used exclusively with self-oriented stems may convey important aspects of self-functioning. Writing short responses (i.e., 2-3 words) may suggest guardedness, shyness, resistance to self-disclosure, or a striving to not take up too much space. Using small handwriting may represent a wish to pull the examiner closer as they must squint or move towards the page to read each response carefully; whereas using messy handwriting may reflect a tendency to disregard the others wish for fluid interpretation, a demonstration of dysregulated attending to experience, and/or signify the examinees vulnerability to being misunderstood/misread. In continuation, rigidity may occur via recurring words/phrases that manifest in a time where the examinee is permitted to write a vast array of words/phrases. At the same time, recurring words/phrases may reflect the examinee’s wish for specific content to not be overlooked. Skipping around the various stems during administration instead of proceeding in order may suggest eccentricity, clipped motivation, truncated responsively, playfulness, distractibility, or exercising control over the task. Lengthier or shorter completions across stems may suggest meaningful patterns of (non) engagement that hinges on stem content (otherwise referred to as stem pull). Omissions may reflect psychological blocks, resistance, or inattentiveness. Obsessionality, tangentiality, or the loss of psychological coherence may be reflected in overwhelming the line provided and/or veering into the margins of the page or the spaces provided for other responses (Rotter et al., 1992). Altering the standardized stems by inserting, adjusting, or crossing out words may reflect creativity, sensitivity or defensiveness regarding a psychic conflict or a struggle to complete the task unless on one’s own terms. A high frequency of cross-outs may suggest a motion to cover up oneself after initial self-disclosure as well as lapses in the flow of cognition represented by spelling/phrasing errors that

are crossed out. Degrees of psychological complexity (e.g., emotional granularity, simplistic characterizations, verbosity) may manifest in responses that are stem-dependent whereby, for example, an examinee writes with simplicity when describing others but writes with complexity when describing the self. Each of these indirect data points are further supported by the fact that examinees can be relatively unaware of how their responses compare with other examinees. Indeed, these data points are adjacent to Schafer's (1954) understanding of Rorschach analysis, whereby an examinee's personal stamp is revealed in the stylistic manner with which they accomplish the task.

Implications for Assessment:

When administering a sentence completion test the examiner may maximize the utility of the assessment instrument by remembering that examinees have complete freedom to write or express whatever they wish, and thus, the examiner is free to ask, "why write this, and why in this manner?" This level of attuned curiosity facilitates potential hypotheses about content-based and process-based data. Such curiosity authorizes the examiner and examinee to collaboratively explore a wider range of data anchored in how the examinee conveyed themselves during the task. In my clinical experience, indirect data points (i.e., sentence completing processes) intrigue patients during feedback meetings since: a) it conveys the examiner is interested in looking beyond the surface content, and b) examinees consider their process anew as they consider prior unrecognized channels of communication that presented within, between, and around their written expressions.

References:

Loevinger, J. (1998). *Technical foundations for measuring ego development: The Washington University sentence completion test.* Psychology Press.

Piotrowski, C. (2018). Sentence completion methods: A summary review of 70 survey-based

studies of training and professional settings. *Journal of Projective Psychology and Mental Health, 25*(1), 60–75.

Rotter, J. B., Lah, M. I., & Rafferty, J. E. (1992). *Rotter Incomplete Sentences Blank*. Psychological Corporation.

Rucker, J., Berry, B., & Sharp, C. (2024). Assessing Criterion A of the Alternative Model for Personality Disorders: The potential of performance-based personality measures. *Journal of Personality Disorders*, *38*, 171-194.https://doi.org/10.1521/pedi.2024.38.2.171

Rucker, J., & Ruffalo, M. (2025). Relationships between language use, working alliance, and personality pathology in an inpatient psychiatric sample. *Journal of Contemporary Psychotherapy*. https://doi.org/10.1007/s10879-025-09694-6

Rucker, J., & Sharp, C. (2024). *Mentalization-based approaches to comorbid personality pathology and treatment-resistant depression*. Advance online publication. https://doi.org/10.1037/pap0000524

Schafer, R. (1954). *Psychoanalytic interpretation in Rorschach testing*. Grune & Stratton.

Watson, R. I. (1978). The sentence completion method. In B.B. Wolman (Ed.), *Clinical diagnosis of mental disorders: A handbook* (pp. 255-279). Plenum Press.

SIS J. Proj. Psy. & Ment. Health (2026) 33: 2, 118-120

Exploring Unconscious Mind through Somatic Inkblot Test

B. L. Dubey & Anand Dubey

Welcome to this internet domain provided by the **Somatic Inkblot Society**! This is a nonprofit international organization based in India composed of mental health professionals and behavioral scientists internationally. These are dedicated to developing techniques for exploring the hidden world of the unconscious mind (inner space), and for releasing a suffering person's "Inner cry". They have published their work in the **SIS Journal of Projective Psychology & Mental Health** since 1974. This publication is abstracted in "APA's Psychological Abstract" It has also been listed in academic research database ProQuest Psychology Journals™- a leading company in Michigan, United States, provider of electronic databases for 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.

The unique contribution of our research is the development of **Somatic Inkblot test (SIT**), an online web version, available on www.somaticinkblottest.com and www.dubayhealingcenter.com. This section of the web page is open to visitors above eighteen years of age. We extend a warm welcome to any members of the lay public, who might like to contribute their support and energy to our goals. It takes about 30 minutes to complete the test (Dubey & Dubey, 2021).

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, 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 (Cassell and Dubey, 2003, 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. The help of "Artificial Intelligence" in the assimilation and interpretation of data has worked in a big way. The mental health professionals using SIT will have the advantage of AI and Symbolic Interpretation while scoring and interpreting the responses given by the client. Inkblot-evoked images can highlight otherwise hidden aspects of the inner emotional world of the clients. These may reveal to the professional past traumatic events and unexpressed distressing emotions, which might otherwise only surface in disguised symbolic dreams. 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 & Dubey, 2003).

The Test was administered to different clinical groups – Anxiety, Depression, PTSD, Schizophrenia, Sex perpetuators, Criminals, Neurotics, Marital maladjustment, and the findings were very

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encouraging. The images take the client back in time and help to verbalize the repressed material lying down in the storage of the unconscious mind. Such verbalization is very useful during therapy sessions. The Test was also administered to business executives in different situations and as expected, the data revealed several higher mental functions such as productivity, imaginative ability, controlled emotionality, good adjustment, and group conformity (Dubey, 2012).

Application of SIT in different Field:

Application in Industry and Business Organizations:

The SIT application empowers the selection processes by more rapidly screening a person with desirable traits such as an individual who is mature, confident, is a visionary, a good team-maker etc. It also brings to the surface information which the individual failed to report in a standard interview. Moreover, once the candidate is initially selected in an industry, owing to the opportunity of having a follow-up with the SIT being a relatively objective computerized instrument, can prevent economic losses that may occur later if the person is found to be a mismatch regarding the demands of the job. The SIT is also administered to executives in various private and public sector organizations in India for personality assessment during selection and promotion interviews. The findings have been very encouraging. The SIT was found to be a dependable test in assessing certain important traits such as "Interpersonal Relationship, Healthy Mind-Body Imagery, Team Building, Creativity, Imaginative ability, Controlled hostility and aggression, Erotic disturbances, and Ego strength", which are much required among successful business executives.

Application in Clinics:

The SIT images can highlight otherwise hidden aspects of the inner emotional world of individuals taking the test. These may reveal to the professional certain past traumatic events and unexpressed distressing emotions which might, otherwise, only surface in disguised symbolic dreams. During clinical interviews, a lot of unprocessed unconscious materials are brought out to the surface. Such material is very useful during therapeutic intervention and many clients commented that the "test is particularly designed for me". The purpose of psychotherapy is "to make the client conscious of the underpinnings of exhibited mental states" and the SIT responses are found to be an effective intervention procedure. Many clinical cases are reported in SAGE publication (Dubey et al, 2019 and in 65 issues of the SIS Journal of Projective Psychology and Mental Health (www.somaticinkblots.com).

Somatic Inkblot images have also been used in a variety of clinical cases to detect early symptoms with positive results. The SIT responses were able to discriminate among the major diagnostic groups such as Anxiety disorder, Psychosomatic disorder, Affective disorder, PTSD, Sexual disorder, Alcohol, Drug and Substance abuse, Depression, Suicidal ideation, Schizophrenia and Criminals (Cassell, 1980, Cassell & Dubey, 2003; Dubey et al, 2019).

Application in Schools to have safe employees:

It is a documented fact that victims of child sexual abuse are at a much higher risk. In several cases, it leads to long-term psychological and physical disorders including depression, guilt, and anxiety. The lingering memories of sexual abuse in schools are often difficult to suppress. The schools must be safe for children. Parents should be able to trust teachers and other employees such as bus drivers, cleaners, security guards, and other staff in the proximity of the children. Keeping the above facts in view, the school system must hire employees who are safe for children. They should be mature, have smooth interpersonal relationships and adjustment, be reality-oriented and have awareness of surroundings, with a non-hostile attitude and have no erotic conflict. People with such positive traits are expected to be a good fit in the school system. The SIT images are found helpful in detecting people having undesirable personality traits.

Application in Forensic Laboratories to detect Criminals:

The analysis of inkblot response suggests the possible indicators leading to the detection of criminals, such as High number of aggression and hostility, (HAS), preponderance of murder, blood, attacks, conviction, homicide/suicide, high erotic responses (perceiving more sexual anatomy, and sexual body parts such as genitalia, breasts, bust, preponderance of sex responses (more than 5) even on images not depicting erotic imagery, immaturity (low Human and high Animal responses), low "Most Typical (MT) responses, (Evading reality and social norms).

Application in Matchmaking:

Parity among couples is the most important factor, which must be ascertained before marriage. Most couples say that they like each other, she/he looks presentable and is a very caring person. However, even after staying together for years, they are not aware of the inner motivating unconscious forces of their partners. Knowing about their family, education, income, and social status is not enough. The Somatic images help in understanding the total personality profile (level of self, interpersonal relationship with different sets of people, awareness of surroundings and contact with reality, level of erotic desire, expression of hostility and aggression, level of team-making and expression of feelings). These traits must be matched to ensure compatibility among the couple.

Please visit our website: http://www.dubayhealingcenter.com and 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. & Dubey Anand (2019) Sage Publications Inc.

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References:

Cassell, W. A. (1980) Body *Symbolism and the Somatic Inkblot Series*. Anchorage, Alaska. Aurora Publishing.

Cassell, W, A. & Dubey, B. L. (2003). *Interpreting Inner World through Somatic Imagery: Manual of Somatic Inkblot Series.* SIS Center, Anchorage, (USA) (www.somaticinkblots.com),

Dubey B. L., Banerjee P. & Dubey Anand (2019). *Inkblot Personality Test: Understanding the Unconscious Mind*, SAGE Pub Delhi

Dubey, B.L & Dubey, Anand. (2012) Application of SIS in Business Organization, *SIS J. of Proj. Psy. & Mental. Health, 19: 43-47.*

Dubey, B.L.& Dubey, Anand. (2021). Manual of Somatic Inkblot Test, *SIS J. of Projective Psy. & Mental. Health*, 28: 2, 83-112.

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SIS JOURNAL OF PROJECTIVE PSYCHOLOGY AND MENTAL HEALTH: ACHIEVEMENTS

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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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