Psychol. Inj. and Law (2012) 5:135–144
DOI 10.1007/s12207-012-9128-5

# Understanding and Using the Rorschach Inkblot Test to Assess Post-Traumatic Conditions

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Received: 2 April 2012 / Accepted: 7 May 2012 / Published online: 16 September 2012


**Abstract** Partially, in response to recent and current military conflicts, many forensic and clinical researchers and practitioners have devoted increasing interest to post-traumatic stress disorder (PTSD) and the individual variations in response to trauma. Such efforts have produced a considerable amount of research and opinion supporting the assessment of post-traumatic conditions with the Rorschach Inkblot Test. Based on PTSD and Rorschach research and an appreciation as the Rorschach as a performance test, five interpretive considerations are presented (1) cognitive constriction, (2) trauma-related imagery, (3) trauma-related cognitive disturbances, (4) stress response, and (5) dissociation. These five provide a conceptual starting point for the understanding and application of the test to post-traumatic conditions. Implications for the clinical and forensic evaluation of post-traumatic conditions and for research are presented.

**Keywords** Intrusion · Psychological injury · PTSD · Rorschach · Trauma

## Background

In the past 35 years, a combination of factors has substantially increased the focus on trauma and its impact, post-traumatic stress disorder (PTSD), and individual variation in response to trauma. This period is bracketed by the Vietnam War and our country's current involvement in multiple conflicts around the world. Hence, combat trauma is currently prevalent, and is a major societal concern. In addition, the increased focus on child maltreatment, violence against women, and crimes against humanity has fueled the commitment to understand trauma and to treat its variable outcomes. Accompanying these societal commitments has been an elaboration and specification in the previous, current, and future Diagnostic and Statistical Manuals (e.g., DSM-IV-TR; American Psychiatric Association [APA], 2000; and DSM-V proposals by Friedman, Resick, Bryant & Brewin, 2011), of PTSD and related phenomena, as well as a sharp increase in psychological injury torts. Consequently, post-traumatic reactions have become well-known in our society, and are a critical part of clinical and forensic assessment as well as the focus of a great deal of research.

PTSD is often a severe disorder that can affect every aspect of daily living for those who suffer from the more debilitating cases. In general, those with PTSD endure problem characterized in three DSM-IV-TR diagnostic criteria (APA, 2000) symptom clusters: (1) Re-experiencing—they relive the traumatic event through intrusive and distressing recollections, nightmares, flashbacks, hallucinations, illusions, and/or acting as the event were recurring; (2) Avoidance and Numbing—they avoid trauma-related stimuli and exhibit numbing of general responsiveness (e.g. avoidance of feelings and thoughts concerned with the event, avoidance of activities, people, or places that recall the event, inability to recall important features of the event, loss of interest in activities detachment and isolation from others, and restricted ability to feel love or feel other strong emotions); and (3) Hyperarousal—they experience physiological hyperarousal that was not present before the traumatic event such as insomnia, poor concentration, excessive vigilance, increased startle response, irritability, and even angry outbursts. Similarly, they also often feel guilt or personal responsibility for the traumatic event (APA, 2000). PTSD shares symptoms with many other disorders and encompasses both internalizing and externalizing components

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(Forbes, Elhai, Miller, & Creamer, 2010). Severe cases would suffer from all three components and would be notably impaired in terms of meeting the challenges of everyday living. Also, recent work complicates the picture somewhat and has suggested that a four factor solution might provide a more accurate picture of the disorder, with some suggestion that the fourth factor involves dysphoria and numbing (Friedman et al., 2011; Saul, Grant, & Carter, 2008).

Understanding of the disorder has been modified to include what is called "complex post traumatic disorder" and often classified under disorders of extreme distress to encompass the devastating effects of prolonged child maltreatment and prolonged trauma to adults including war and torture (Ford, 1999; Ford & Kidd, 1998; Herman, 1992). This revision in understanding has also recognized its overlap or confusion with borderline personality disorder and a tendency for psychotic episodes (Classen, Pain, Field, & Woods, 2006; Herman, Perry, & van der Kolk, 1989). The tremendous variability in individual reactions of trauma and the role of previous trauma increasing one's susceptibility to future trauma are considered significant factors in understanding the processes involved in the disorder (Breslau, Chilcoat, Kessler, & Davis, 1999; Breslau, Peterson, & Schultz, 2008; Briere & Elliott, 1997; Van der Kolk & Ducey, 1989). Accordingly, understanding psychological trauma through the narrow prism of PTSD might be misleading. Furthermore, the strength of the Rorschach is its responsiveness to individual variation and differences; hence, one might speculate that the test would be useful in explicating individualistic responses to trauma.[1]

As would be expected, a great deal of resources and time are being devoted to the assessment of PTSD and the varying reactions to trauma. In addition, there is a considerable amount of research and opinion supporting the assessment of post-traumatic conditions with the Rorschach Inkblot Test (Briere & Elliott, 1997; Kaser-Boyd, 1993; Kaser-Boyd & Evans, 2008; Levin, 1993; Sloan, Arsenault, & Hilsenroth, 2002; Van der Kolk & Ducey, 1989). For example, researchers have identified specific trauma-related Rorschach content and related to processing of traumatic memories (Armstrong, 1991; Hallett, 1996; Sloan, Arsenault, Hilsenroth, Handler, & Harvill, 1996; Levin, 1993; Van der Kolk & Ducey, 1984; 1989; Viglione, 1990). Thus, this paper presents a conceptual organization of research findings on post-traumatic reactions, including PTSD, as relevant to the Rorschach with recommendations about how best to understand and apply the Rorschach to research and assessment of post-traumatic reactions.

[1] Appreciation for such individual variability has led us to frequently use the terms "post-traumatic reactions" or "post-traumatic conditions," rather than PTSD.

## Central Psychological Dimensions of Post-Traumatic Reactions

Crucial to the understanding of the psychological issues related to post-traumatic reaction is an appreciation of the struggle between loss of control and over-control. For example, cognitive intrusions and loss of affective control are opposed by cognitive constriction, avoidance tactics, and emotional numbing. The opposing forces are manifest most directly as the psychological hallmarks of PTSD in terms of the first two symptom clusters, namely the repeated reliving of the event and the repeated avoidance and numbing. Behavioral means of control take the form of avoidance of trauma reminders and withdrawal from the world. On the psychological side, even rumination and preoccupation has been conceived of an avoidance strategy (Ehring, Fuchs, & Kiasener, 2009). Accordingly, individuals suffering from post-traumatic reactions actively organize their behavior but also their subjective experience to fight off and to suppress upsetting thoughts and feelings. Problems in adaptation result from both the loss of control and over-control, and the fact that so much activity and effort is caught up in the struggle and unavailable for adaptive pursuits.

In their model focusing on the role of imagery, Brett and Ostroff (1985) conceptualized a good deal of the post-traumatic phenomenology in terms of these two dimensions, "The first dimension is the repetition of the trauma in images, affective and somatic states and action. The second is defensive attempts to deny the trauma, including psychogenic amnesia, emotional numbing, and suppressive and avoidant behavior" (p.421). In some individuals, and probably most at one time or another, these opposing forces emerge as fluctuations between (a) flooding states where trauma-related imagery and associated painful feelings and fears are re-stimulated, even if this flooding is contained internally, and (b) constriction where memories, fears, and associated affects are warded off (Horowitz, 1973, 1976; Van der Kolk, 1987). To fully appreciate the vicissitudes and oscillations of these two dimensions, they must be understood systemically and dynamically as opposing intrusive imagery and cognitive constriction forces with inter-related affective and cognitive components.

## The Rorschach as a Measure of Post-Traumatic Reactions

As has been demonstrated in various summaries of the literature, the Rorschach, as a performance test, complements self-report measures and contributes to the prediction of important life events and behavioral interactions in the world (Kaser-Boyd & Evans, 2008; Hiller, Rosenthal, Bornstein, & Berry, 1999; Meyer & Archer, 2001; Meyer, Viglione, Mihura,

Erard, & Erdberg, 2011; Viglione & Meyer, 2008; Viglione, 1999). In particular, these research summaries demonstrate that the Rorschach has about as much validity as the Minnesota Multiphasic Personality Inventory, although they are typically not correlated so that the Rorschach typically adds incremental information to prediction. One might expect the same to be true with post-traumatic conditions. Similarly, Levin and Reis (1997) opine that the Rorschach assesses psychological variables that self-report measures do not tap and that the testing situation of the Rorschach allows the patient to indirectly communicate trauma images. Moreover, the idiosyncratic and personalized imagery on the Rorschach offers an excellent opportunity for the expression of post-traumatic imagery and demonstrations, as well as to capture the often repetitive cognitive avoidance strategies that suppress such imagery and horror.

As recently observed in the synthesis of the available research of the report from DSM-V PTSD work group (Friedman et al., 2011), research does not support emphasizing, "abstract thoughts and appraisals about the traumatic event" (p. 757). Rather, it supports that traumatic imagery consists of "spontaneous or triggered recurrent, involuntary, and intrusive distressing memories of the event that usually include sensory emotional, physiological, or behavioral components" (p. 757). Such implicit, distressing partial memories and recollections in multiple modalities are precisely the type of expression captured in Rorschach responses. It should also be added that the Rorschach through visual imagery and verbal description, provides avenues for emotional, tactile, sensory, kinesthetic, and interpersonal imagery and expressions. Thus, post-traumatic characteristics are revealed implicitly or tacitly within the cognitive behavioral solutions to the Rorschach task through verbalizations, imagery, behavior in the interaction with the examiner, and expressed attitudes and judgments about one's own responses.

To understand how the Rorschach might operate as a post-trauma assessment tool, it is important to characterize the components of the Rorschach response process. The Rorschach problem-solving behavior occurs within a unique task where the individual lacks familiar external supports, guidance, or conventions. The subject is merely shown the blot and asked, "What might this be?" (Exner, 1980). The Rorschach provides a view of an individual's internal world because the Rorschach environment, (the blots and the non-directive situation provided by the examiner) is almost completely malleable or flexible, and offers little resistance to the expression of the internal interests or traumatic intrusions (Ephraim, 2002; Viglione & Rivera, 2012). This testing situation contrasts to coping strategies regularly employed by the person suffering from a post-traumatic reaction. In everyday life this person actively uses stimuli and opportunities from their interaction with the world to suppress upsetting feelings and imagery. For example, children may abandon imaginary play and adopt a stereotypic, repetitive, non-spontaneous pattern. Adults might avoid open-ended social interactions, stay away from a large portion of their neighborhoods, or busy themselves with routine tasks during the great majority of their workdays. Without such opportunities and stimuli, the Rorschach does not help the post-traumatic individual to suppress upsetting imagery and affects. More extreme effort must be undertaken to suppress imagery, often in the form of constriction or repetitive imagery. With little to work with intrusive imagery is also likely to leak through.

Accordingly, it is not surprising that the Rorschach, according to Van der Kolk and Ducey (1989), had been billed as an ideal tool for assessment of PTSD. This is because the Rorschach can supposedly "trigger" trauma memories and feelings, which can be seen as similar to reliving the trauma (Van der Kolk & Ducey, 1989). The stimuli themselves, as fashioned and designed by Rorschach (Exner, 2003), include dark and obscured images along with animal and human forms and faces. These can be to some degree haunting and stimulating to those experiencing intrusive and troubling post-traumatic imagery. One might speculate that the darkness of the cards is easily associated with the black of night, obviously an evolutionary and biologically based marker of danger and threat for humans, or also to the gloom and dysphoria. Shading provokes images of hidden or obscured forms thus cueing the fear that is a central feature of many post-traumatic reactions. The bright and striking red on Cards II and III is frequently seen as blood, again certainly a likely symbol of danger and injury for the human species. Finally, the multi-colored fragmented forms on the last three cards serve as possible suggestions of injury or loss of bodily or psychological integrity for some. One would speculate that this is particularly likely for those who have witnessed loss of life in or suffered wounds in combat. This approach to understanding the Rorschach is inherent in Weiner's identification of the test as a "stimulus to fantasy" (Weiner, 2003) and the response process, information processing, or behavioral representation approach to the test (Meyer et al., 2011; Meyer & Viglione, 2008; Viglione & Rivera, 2012). Accordingly, the Rorschach might provide cues or triggers to personal and idiosyncratic traumatic recollections, reworking of that imagery, and the inevitable attempts to suppress or control the imagery and dysphoria. Of course, it would be inaccurate to suggest that the Rorschach would trigger full-fledged anxiety or fear reactions, yet contained demonstrations of the cognitive operations and impairment are often seen.

Although there has been a large amount of research on the Rorschach with trauma, as a rule these studies examined group differences among various Rorschach variables,

looking for signs of post-traumatic reactions. A number of these authors also studied information processing issues with the test. However, they did not emphasize (except possibly Van der Kolk & Ducey, 1984, 1989) the opposing forces of intrusive imagery and cognitive constriction as expressed by Rorschach content and problem-solving variables. To effectively utilize the Rorschach in the study and evaluation of post-traumatic states, it is crucial that one appreciates the impact of this mighty struggle on the Rorschach response process.

Another advantage of using the Rorschach to assess PTSD is that it links the persons' spontaneous imagery with problem-solving. The form and content of the test responses come directly from the individual. Thus, the content and structure of test responses are examples of the person's coping behaviors rather than being predetermined assertions by the test developers as in an item-based, self-report measure used to assess PTSD (Viglione, 1999). Levin (1993) noted that Rorschach trauma images are often juxtaposed against the coping defenses that a PTSD sufferer has developed. Confused thinking and personalized perception associated with the traumatic imagery are also noticeable in an individual's Rorschach responses and are linked to the automatic attempts at cognitive constriction and suppression of imagery. Along these lines, one might see expressions of traumatic imagery which are controlled through repetitive, suppressive, psychological avoidance tactics, or alternatively with breakdown of these organizing cognitive operations.

With these concepts in mind, we have selected five observations or considerations derived from synthesis of Rorschach research findings and response process characteristics, as well as implications of the PTSD-related symptoms and processes: (1) cognitive constriction, (2) trauma-related imagery, (3) trauma-related cognitive disturbances, (4) stress response; and (5) dissociation. These five provide a conceptual starting point for the understanding and application of the test to post-traumatic conditions. The great majority of the Rorschach research was accomplished with the comprehensive system (CS; Exner, 2003). In 2011, the Rorschach Performance Assessment System (R-PAS; Meyer et al., 2011) was introduced as a more psychometrically sound and research-based improvement on the available Rorschach systems. Variables from both systems will be presented.[2] In terms of their order, the five observations proceed from the more elaborate, expansive, and well-researched to the more limited and narrow.

[2] Should the R-PAS variable name be different from the CS variable, it is included in brackets.

## Cognitive Constriction

Suppression in the form of over-control, emotional numbing, withdrawal, dissociation, and cognitive constriction limit psychic life, problem-solving flexibility, affective expression, and engagement in the world. This avoidant reaction should be reflected in reduced externally directed cognitive activity, and in turn, simplistic, thematically impoverished, and shorter Rorschach records (Arnon, Maoz, Gazit, & Klein, 2011; Ephraim, 2002; Kaser-Boyd, 1993; Van der Kolk & Ducey, 1989). Such simplification and cognitive rigidity was identified as the most common expression of anxiety on the test and characterized as defensive stereotypy (Neuringer, 1962). Immobilization, helplessness, poor coping, and depression associated with post-traumatic conditions should also result in impoverished Rorschach protocols. Thus, one would expect fewer responses (*R*), more pure form responses (higher Lambda, [*F*%]), and more responses with animal content only (A, Ad, (A), (Ad)). Accordingly, unelaborated bird responses to the whole of Card I or smoke to the common D6 area of Card II, would be considered simple responses. Pure form responses represent simplification in that they emphasize the outlines of the blot and ignore all color, movement, shading, dimensionality, and reflection possibilities. Pure animal responses are considered the simplest response content; compared to other more sophisticated contents, it is given most frequently by children. In this sense, animal content is a method of avoiding these sophisticated and possibly troubling alternatives (Exner, 2003; Schafer, 1954), which serve as possible traumatic cues in PTSD. Other expectations related to simplicity include high scores or frequencies on Perseveration and card rejections as well as low scores on prompts in R-PAS, on Blends, organizational activity (*Z*), Developmental Quality [Synthesis], and the Complexity score in R-PAS.

Rorschach impoverishment, complexity, and record length also present important methodological consideration for Rorschach research. At the same time, the relationship between Rorschach impoverishment and other variables might shed light on the opposing forces of intrusive imagery and cognitive constriction. With impoverished simplistic Rorschach records, one is unlikely to see much of an individual's problems or liabilities. Indeed, such cognitive activity is an effort to suppress rather than express internal issues. In such records, repetitive or preserverated response elements or imagery may reflect preoccupations used to avoid traumatic intrusions and cues.

We expect fewer problematic responses in brief and impoverished records. If such problematic indications do occur in impoverished records, we consider them to be all the more revealing, as they escape the respondent's active efforts to suppress them. Green (1995) and Kates (1994) supported this notion when they found that Rorschach

indicators of impulse and behavior problems were better predictors in low-*R*–high-Lambda records. In statistical terms, we expect *R* and Lambda [*F*%], and R-PAS Complexity to act as moderator variables for the expression of other problems associated with post-traumatic conditions.

The notion of thematic richness or impoverishment deserves further comment. Increasingly, thematic richness has been understood as the amount of differentiation and integration encompassed by structural features of the scores in the form of R and proportion of form (Lambda) in the CS and the Complexity composite in R-PAS (Dean, Viglione, Perry, & Meyer, 2007; Meyer et al., 2011; Viglione, 1999; Viglione & Meyer, 2008). Such complexity is a marker for the first factor on the test, a measure of task engagement (Meyer et al., 2011). However, individual enhancement of the Rorschach or complexity can be expressed in thematic imagery that is not inherent in the blots. Such unconventional but structural simple responses would have low scores on the Complexity composite. For example, responses may remain structurally simple, i.e., a common area (*D*) only using form as a determinant and a simple content, yet can involve rich and personally relevant imagery (e.g., a beautiful scalloped and trimmed tree, the shape has a peaceful feel). We would also not expect a great deal of such individualized thematic richness, particularly pleasant and engaged imagery, in Rorschach's from people with notable PTSD because numbing, disengagement, and dysphoria typically preside.

## Trauma-Related Imagery

Persistent recollections or intrusive memories of a traumatic event appear in memories nightmares and are often discernible in Rorschach imagery (Ephraim, 2002; Gravenhorst, 2002; Goldfinger, Amdur, & Liberzon, 1998a; Holaday, 1998; Kamphuis, Kugeares, & Finn, 2000; Kamphuis, Tuin, Timmermans, & Punamäki, 2008; Schafer, 1954; Van der Kolk & Ducey, 1989; Viglione, 1990). Armstrong and Loewenstein (1990) identified what they called the Trauma Content Index (TCI) with a group of individuals with dissociative, multiple personality and post-traumatic stress disorders. The TCI includes blood (Bl), sexual (Sx), aggressive movement(AG [AGM]) and morbid contents (MOR). Other support for these contents as a marker for trauma is summarized by Luxenberg and Levin (2004). Sloan, Arsenault, Hilsenroth, Harvill, and Handler (1995) formulated a combat content score for Persian War veterans. Van der Kolk and Ducey (1984, 1989) demonstrated the interactions between cognitive intrusion and constriction on the Rorschach. Examples are prevalent with children who have suffered sexual abuse. These frequently include imagery with Sx, An, and Bl (Breedy, 1995; Gravenhorst, 2002). Children who have experienced severe burns include fire-related content or smoke (Fi), and Ex (Holaday & Whittenberg, 1994). In a similar way, anatomy content can be associated with physical disease (Exner, 1989). In another related example, Plana (1995) described the records of four patients, whose mothers committed suicide, and how these patients dealt with their anxiety by focusing on their bodies as demonstrated on bodily, sexual, and morbid imagery (An, Xy, Sx, MOR). In R-PAS, such trauma contents are included in a slightly broader index, Critical Contents (Perry & Viglione, 1991; Viglione, Perry, Giromini, & Meyer, 2011), which is highly correlated to the TCI, by adding explosion (Ex), fire (Fi), x-ray and imaging contents within the R-PAS anatomy (An) content. From a response process point of view, these Trauma and Critical Contents involve the breakthrough of intrusive traumatic imagery incorporating damage, aggression, blood, guts, sex, and mayhem.

One must take into consideration that trauma and traumatic imagery are often highly individualized and idiosyncratic, as our Rorschach responses. These traditional content categories included in Traumatic and Critical Contents may be too broad and encompass images related to other types of psychopathology or to other non-traumatic issues. Idiosyncratic intrusive imagery may very often escape the broad net cast by these pre-conceived content categories. As an example, Sloan et al. (1995) formulated a combat content score for Persian War veterans. Such combat-related imagery includes, for example, articles of war/weapons; military apparel; an object that has been shot, stabbed, or blown up; personalized experience of combat operations; and animals, vegetation, and/or geographical features associated with the Vietnam War theater of operations and are included with trauma-specific imagery (Goldfinger, Amdur, & Liberzon, 1998b). As a clinical example, a 14-year-old boy produced a very simplistic and short record included repetitive and unusual references to moustaches, beards, and facial hair. Months prior to completing the Rorschach, he had witnessed the murder of his mother at the hands of his father, a man with a beard and moustache. Most likely, such repetitive imagery, like rumination, served the goal of suppressing upsetting feelings even if it included content related to the trauma.

Taking all of this into consideration, there is good reason to believe that general indices such as the Trauma Contents Index or Critical Contents will miss unique aspects of an individual's trauma-related imagery and signal factors not essential to the post-traumatic reaction. One needs to consider the imagery and traumatic event of the individual to identify traumatic imagery on the Rorschach. Also, it is important to keep in mind that these contents are related to malingering and exaggerating (Sewell, 2008), for such obvious contents are easily manipulated by the respondent (Viglione, 1999).

## Specific Trauma-Related Cognitive Disturbances

A general and repeated finding is that individuals with PTSD look disturbed on the Rorschach as measured by form quality and cognitive codes (e.g., Holaday, 2000; Holaday & Whittenberg, 1994; Kleiger, 1999; Plana, 1995; Saunders, 1991; Smith, Chang, Kockinski, Pats, & Nowinski, 2010; Wood, Lilienfeld, Garb, & Nezworski, 2000). Form Quality is a measure of reality testing, judgment, maturity, and adaptation. In terms of scoring and response process it measures the conventionality and accuracy of the visualized objects. Disturbance here would be captured in distorted or FQ-responses, X− % [FQ− %], low WDA% [high WD− %], high X+ % [FQo%], and probably also using many unusual detail locations Dd. Cognitive codes, or Cognitive Special Scores as they are known in the CS, are actual verbal and visual demonstrations of confused or disturbed thinking processes, or at best immature or fanciful combinatory thinking. They are summarized in Level 2 or serious special scores [SevCog] and the weighted sum of the six cognitive codes (WSum6 [WSumCog]). These score combine to elevate the CS Schizophrenic Index and Perceptual and Thought Index, R-PAS Thought and Perceptual Composite, and Ego Impairment Index (Viglione et al., 2011). Elevations in these scores would suggest more severe disturbance accompanying PTSD, which may be arise from the impact of traumatic imagery and desperate yet unsuccessful attempts to suppress it as described elsewhere in this paper.

A fundamental tenet in the understanding of the post-traumatic condition is that psychological and behavioral dysfunction is associated with intrusive imagery and trauma sequelae. Post-traumatic deficits are thought to be content-specific, while in other pathological conditions, for example, Borderline Personality Disorder, deficits are generalized. Presumably, traumatic images disrupt thinking, judgment, concentration, and reality testing, but these functions remain intact when associated with non-trauma thoughts. As suggested by Ephraim (2002), the Rorschach allows one to assess whether trauma imagery and cognitive disruption occur simultaneously in the same response. One point of view is to expect evidence of disturbance in the problem-solving components of the test (Exner, 2003). In other words, evidence of poor perceptual accuracy and thinking disorganization may occur more frequently in test responses that also contain trauma references. (Viglione, 1990). Thus, one should expect perceptual or reality testing disturbance (distorted percepts, FQ−) and cognitive disorganization (Cognitive Special Scores [Cognitive Codes], WSUM6 [WSumCog]) would be concentrated in responses with trauma-related imagery.

## Stress Response

The most robust empirical relationship between environmental stress and individual Rorschach variables is characterized by elevations in inanimate movement (*m*) and diffuse shading (*Y*; Exner, 2003). Recent meta-analytic findings identify research support for the relationship between m and internal tension or stress and between *Y* and stress and distress in general (Mihura, Meyer, Dumitrascu, & Bombel, 2011). Van der Kolk and Ducey (1989) have linked m with PTSD. One might characterize the Rorschach (including non-PTSD) *m* and *Y* literature as a whole (e.g., Exner, 2003; McCowen, Fink, Galina, & Johnson, 1992; Shalit, 1965; Rosensky, Tovian, Stiles, Fridkin, & Holland, 1987; Sloan et al., 2002, 1995; Viglione & Exner, 1983) by concluding (a) that some of the variance in m elevation is associated with stress-generated cognitive perturbation, disrupted concentration, worry, and possibly active efforts to struggle with stressful images, and (b) that some of the variance in *Y* elevations is associated with a passive, distressful resignation to stress, that is, a more helpless reaction. Psychophysiological studies have found that those with PTSD have an increase in physiological arousal for *m* compared to non-*m* responses (Goldfinger et al., 1998a). In a schizophrenia analogue double-blind controlled study, small doses of amphetamine compared to placebo elevated *m* and *Y* responses, but not Rorschach indices of thought disorder. These findings can be interpreted as providing a neurobiological foundation to the association between *m* and *Y*, which are related to acute stress and anxiety.

In terms of the response process foundation, inanimate movement involves automatic, mechanical, or involuntary activity that is the perception of being under the influence of forces outside one's control (Exner, 2003; Meyer et al., 2011). Such an inexperience is the extreme if fundamental to the traumatizing incident and to the experience of intrusion in PTSD. In the diffuse shading or *Y* response, one is distracted by the inconsistencies and variation in the shading of the blots, usually in the black, gray, and white areas, features that to the extent one is involved with the gray and black shading features, it might be related to the "'dark' or gloomy side of life" (p. 342, Meyer et al.). Rather than glossing over and ignoring such subtleties inconsistencies, as would be the case in a simplifying and more distanced form only response, to some degree the individual, by analogy, is troubled by or sensitive to the conflicts and contrasts he or she finds in the world (Exner, 2003). Such "anxious sensitivity" and perturbation is often a central feature PTSD.

Extrapolating from this research and response process information to using the Rorschach in practice, one could conclude that elevations in *m* and *Y* would be associated with expectable stress reactions including post-traumatic

stress reactions. From this point of view, one might consider such elevations as expectable normal reactions to extreme stress, thus suggesting a more understandable and typical psychological state of helplessness and feeling controlled from the outside. Such a state was found in the Sloan et al. (1995, 1996) studies with the troubled, preoccupied, and perturbed but less severely disturbed first Gulf War veterans. In other cases, to speculate, the absence of *m* and *Y* in obvious or severe case of PTSD might suggest a less intact and serious reaction, where other variables might suggest constriction, disturbing and disorganizing intrusive imagery, confusing cognitions, failures to adapt, or dissociation.

### Dissociation

Armstrong (2002) has conceptualized dissociation as an avoidance maneuver and may appear in the flooding phase of PTSD (i.e., flashbacks). In regards to the Rorschach, it may be expressed in several ways by formal scoring criteria. These include emotional distancing associated with increased dimensional and distancing response as in Form Dimension responses; (Armstrong & Loewenstein, 1990) and affective numbing demonstrated by less responsiveness to colored cards in lowered Afr [8910 %] (Levin & Reis, 1997) and lowered color responses (Scroppo, Weinberger, Drob, & Eagle, 1998; Lovitt & Lefkof, 1985). In addition, there have also been attempts to identify Rorschach indicators that assess dissociation directly. The Trauma Contents Index, described above, has also shown a consistent relationship with dissociation (Armstrong & Loewenstein, 1990; Brand, Armstrong, Loewenstein, & McNary, 2009), and one can extend this to Critical Contents in R-PAS. However, in terms of the Rorschach response process, the connection between (a) "the damaged, aggressive, blood, guts, sex, and mayhem" imagery involved with Trauma Contents and (b) dissociation is unclear except to say that such traumatic imagery may either stimulate dissociation or reveal the failure of dissociation to suppress such disturbing content.

Other Rorschach analogues of dissociation have been gaining attention, with the best empirical support given to the Labott signs (Labott, Leavitt, Braun, & Sachs, 1992) which include:

1. The test taker refers to forms seen through obscuring media such as veils, fog, or mist so that people or objects look unclear, blurry, or unreal.
2. The test taker refers to unusual responses in which distance appears exaggerated such that objects or figures appear vague and far away from other specified objects.
3. The test taker refers to a sense of disorientation in which Rorschach stimuli are experienced as unstable, shifting, moving, or rapidly changing.

This imagery involves the uncertainty, distancing, and discontinuity embodied in perceptual experiences of derealization, depersonalization, and dissociation (Leavitt & Labott, 1998). The Labott signs have good criterion-related validity with greater number of Rorschach indicators corresponding with higher scores on the Dissociative Experiences Scale (Leavitt & Labott, 1997). A weakness is that they are relatively rare and have a low base rate, so that they rather insensitive to dissociation.

## Comment on Research and Practice

The five research-based considerations or guidelines, (1) cognitive constriction, (2) trauma-related imagery, (3) trauma-related cognitive disturbances, (4) stress response; and (5) dissociation, provide a frame work for researching and assessing PTSD and trauma-related features. Although research evidence and task behaviors support the five concepts, further work to elaborate and to replicate evidence with the R-PAS system would be helpful. Such research might provide further answers, for example, to the following questions: To what extent is constriction and thematic impoverishment on the Rorschach related to psychological and behavioral avoidance in PTSD? What are the characteristics of thematic impoverishment? Are complex, thematically enriched yet accurate and logical responses and records atypical of PTSD? Can we demonstrate personalized traumatic related imagery in qualitative studies that differs among individuals according to characteristics of the trauma, intrusive imagery, and avoidant cognitions? Among those with PTSD, are perceptual and thought disturbances closely associated with overall complexity and thematic richness? Similarly, but at the response level, are such disturbances associated with responses containing traumatic imagery rather than other non-traumatic responses? Are repeated, unconventional themes associated with traumatic intrusions or efforts to suppress them?

Obviously, the Rorschach has limitation when applied to torts and psychological injury cases. Like other psychological assessment, it is, for example, irrelevant to breach of duty issue. Its applicability to proximate cause issues and the causal relationship between the putative traumatic incident and the mental injury is limited. However, in some cases, it may have some applicability because the Rorschach imagery is sometimes related to re-worked traumatic experiences, emotions and memories. In this regard, part of the examiner's task is to evaluate and offer an opinion, largely from non-Rorschach data and history, to what extent and how the current condition is related to the psychological injury.

What the Rorschach does do is to sample the current psychological and cognitive status and processing of the

individual. The test protocol can be considered to be a sample of cognitive behavior or an expression of the personality, i.e. the current condition with implications for future adjustment (Viglione & Meyer, 2008). While the Rorschach is beneficial in elucidating the individual's reactions to and coping with trauma, diagnosticians are cautioned in using the Rorschach as a stand-alone measure of PTSD (Sloan et al., 2002; Wood et al., 2000). In addition, because of the wide variation in the expression of PTSD and post-traumatic reactions on the Rorschach, the test may function better as a description of the impact and possible forms that trauma may take in the respondent's life. Thus, the test will not consistently produce a definitive answer to the question of whether a PTSD diagnosis exists. Rather, with the above concepts as guides to how PTSD may affect the Rorschach along with duration of other Rorschach correlates of, for example, dysphoria, engagement in the world, and interpersonal relatedness, one can offer a description of the idiosyncratic and personal description of the particular person's disorder.

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