

Rorschach Correlates of Sexual Abuse: Trauma Content and Aggression Indexes

Jan H. Kamphuis

*Department of Clinical Psychology
University of Amsterdam*

Susana L. Kugeares

*Department of Psychology
University of Texas*

Stephen E. Finn

*Center for Therapeutic Assessment
Austin, Texas*

This study compared Rorschach records of nondissociative outpatients with histories of (a) definite sexual abuse ($n = 22$), (b) suspected but unconfirmed sexual abuse ($n = 13$), or (c) no sexual abuse ($n = 43$) on selected variables hypothesized to be associated with sexual abuse. As predicted, clients with definite sexual abuse scored significantly higher than clients known not to be sexually abused on Armstrong and Loewenstein's (1990) Trauma Content index (*TC/R*), with an effect size greater than 1 *SD*. Contrary to prediction, there was no significant difference in the frequency of their Aggressive Past (*AgPast*; Gacono & Meloy, 1994) scores. *AgPast* scores, however, did positively correlate with sexual abuse that was violent or sadistic. As a test of discriminant validity, we hypothesized that 2 Rorschach variables (*PER* and *Sc*) would be unrelated to sexual abuse. This was supported by our data. Although *TC/R* was strongly associated with the presence and severity of sexual abuse, it could not discriminate sexually abused from nonsexually abused clients with great accuracy. The *TC/R* score is 1 factor among many that can be used to assess the validity of clients' claims of past sexual abuse.

Trauma survivors with diagnoses of posttraumatic stress disorder (PTSD) or dissociative disorders (DDs) show distinct content in their responses to the Rorschach. Van der Kolk and Ducey (1989) reported that Vietnam combat veterans

with PTSD had higher frequencies of blood and anatomy responses. Morbid responses were elevated in a study of sexually abused African American girls (Shapiro, Leifer, Martone, & Kassem, 1990). In Levin's (1997) review of studies of Rorschach characteristics of PTSD patients, combat veterans and traumatized civilian victims showed elevations of blood and sex percepts (Levin, 1993), anatomy responses (Nichols & Czirr, 1986; Salley & Teiling, 1984), and numerous aggressive responses (Cerney, 1990).

In 1990, Armstrong and Loewenstein observed a similarly high frequency of percepts involving aggression, violence, anatomy, sex, and blood in 14 hospitalized patients with *Diagnostic and Statistical Manual of Mental Disorders* (3rd ed., rev. [DSM-III-R]; American Psychiatric Association, 1987) multiple personality disorder (MPD)¹ or DD not otherwise specified (DDNOS). To capture this pattern, the Trauma Content index (*TC/R*) was developed, a ratio of the sum of all blood, anatomy, sex, morbid, and aggressive movement responses to the total number of responses. Armstrong and Loewenstein found that the mean *TC/R* for the MPD-DDNOS inpatients was .50, with scores ranging from .30 to .80. They concluded that the distinct Rorschach profiles produced by these patients (including the *TC/R* scores)—often interpreted by previous researchers as a tendency toward psychotic regression—actually indicated “dissociative and self-hypnotic attempts to defend against intrusion of traumatic memories into full conscious awareness” (p. 453).

This study was motivated by a clinical observation that the *TC/R* was often elevated in the Rorschach protocols of nondissociative patients with histories of sexual abuse. We wondered whether this observation would prove reliable and valid when studied in a large sample and, if so, whether the association between the *TC/R* and past sexual trauma would be strong enough to aid in individual classification of patients with and without histories of sexual abuse. A Rorschach indicator of past sexual trauma would be quite useful in clinical and forensic settings because many patients with documented histories of sexual abuse fail to recall these incidents years later (Widom & Morris, 1997; Williams, 1994). Also, if *TC/R* were consistently elevated in individuals without DDs, it would bear on Armstrong and Loewenstein's (1990) hypothesis that *TC/R* reflects dissociative defenses.

To our knowledge, only one other study has explicitly investigated the association of *TC/R* with sexual abuse. Nordström and Carlsson (1997) examined *TC/R* scores in a sample of Swedish women receiving outpatient psychotherapy. Women without a history of sexual abuse ($n = 23$) had a mean *TC/R* score of .35; those with a suspected but not definitive history of sexual abuse ($n = 14$) had a mean *TC/R* score of .41. Women with documented histories of childhood sexual abuse ($n = 22$) had a mean *TC/R* of .51, whereas the mean *TC/R* of women

¹In the *DSM-IV* (4th ed.; American Psychiatric Association, 1994), MPD is now called *dissociative identity disorder*.

who had been sexually abused as adults ($n=8$) was .77. Thus, this study suggests that *TC/R* may be elevated when a woman has been sexually abused. One limitation of the Nordström and Carlsson study is that participants were not screened for the presence of a DD. Thus, it is possible that Nordström and Carlsson's results are simply a replication of those of Armstrong and Loewenstein (1990), which would help explain the extremely elevated *TC/R* scores in their outpatient sample.

A final justification for our study was our desire to take advantage of recent advances in the study of aggression with the Rorschach. As noted earlier, themes of aggression are seen more frequently in the Rorschachs of trauma victims. Gacono and Meloy (1994) proposed a number of new aggression indexes beyond that of Exner's (1995) Aggressive Movement (*AG*) score. One of these, the Aggressive Past (*AgPast*) score, is given for responses in which the percept has been the object of an aggressive act that has already occurred, for example, (Card X) "Looks like a bug here, someone used a drill press on him, blood here" (Gacono & Meloy, 1994, p. 266). Responses that are scored *AgPast* are thought to be produced in higher numbers by individuals who identify with the role of the victim, perhaps as a result of past trauma. Because of this and because of its close association with the morbid (*MOR*) score (Baity & Hilsenroth, 1999), we expected that *AgPast* would be more frequent in the Rorschach protocols of patients with histories of sexual abuse.

This study compared Rorschach records of outpatients with nondissociative diagnoses and histories of (a) definite sexual abuse (DSA), (b) suspected but unconfirmed sexual abuse (SSA), or (c) no sexual abuse (NSA). Our primary hypothesis was that *TC/R* and *AgPast* would be associated with a history of sexual abuse and would be higher in the DSA group than in the NSA group. In keeping with the recommendations of Campbell and Fiske (1959) that researchers address discriminant as well as convergent validity, we also examined two Rorschach variables on which we predicted no association with past sexual trauma: the science content score (*Sc*) and the special score for personalized responses (*PER*).

METHOD

Participant Selection

Participants were drawn from assessment and therapy case files collected at the Center for Therapeutic Assessment in Austin, Texas, from 1992 through December 1996. Many of these individuals were outpatients referred by other mental health professionals for psychological assessment to aid in psychotherapy and treatment planning. Some were clients who self-referred to the Center for assessment or ther-

apy. None of the clients were assessed for the purpose of assisting with a personal injury suit or a disability evaluation. The nine staff members of the Center were asked to submit information on clients (a) who did not meet criteria for any *DSM-IV* DD, (b) for whom they had valid Rorschach records, and (c) for whom they had extensive information on the absence or presence of prior sexual abuse. Clients were divided into three groups: those who had definitive histories of sexual abuse according to therapist judgment (i.e., highly credible or verifiable abuse histories; DSA group); those with NSA in their histories (NSA group); those who had no clear sexual abuse in their pasts but for whom either the client or the clinician strongly suspected sexual abuse (SSA group). For the NSA group, raters selected only clients with whom they had had extensive clinical contact and who they felt certain had not been sexually abused. However, a number of these clients had experienced other forms of nonsexual trauma in the past (e.g., physical abuse, medical trauma, exposure to natural disasters). Typically, clients in the SSA group had no clear memories of sexual abuse but suspected that they had been abused because of dreams depicting sexual abuse or because siblings or other family members had been sexually abused.

Participants

Seventy-nine clients met criteria for the study. Table 1 lists relevant client characteristics. As may be expected, the sex ratio in the three samples was significantly different, with women overrepresented among those clients who had definitely been sexually abused and among those for whom sexual abuse was suspected.

Procedure

The 79 Rorschach records were scored by Susana L. Kugeares for nine variables: the components of *TC/R* (*R*, *Bl*, *An*, *Sx*, *MOR*, *AG*), the Gacono and Meloy (1994) aggression variable *AgPast*, and the Exner (1995) scores *PER* and *Sc*. To assess interrater reliability, 28 of the Rorschachs (35%) were also scored by a second rater, Stephen E. Finn. The percentage of agreement of the scores ranged from .94 (for *An* and *PER*) to .99, indicating excellent interrater agreement.

For the clients in the DSA group, clinicians were also asked to rate a number of characteristics of the clients' abuse, such as age at first abuse incident; age at last abuse incident; total number of abuse incidents; whether the perpetrator was a family member, trusted friend, or stranger; whether the abuse involved genital penetration; and whether the abuse was violent or sadistic (see Table 1).

TABLE 1
 Characteristics of Study Participants

<i>Characteristic</i>	<i>DSA^a</i>	<i>SSA^b</i>	<i>NSA^c</i>
Sex			
Male			
<i>n</i>	6	4	13
%	26.1	30.8	69.8
Female			
<i>n</i>	17	9	30
%	73.9	69.2	30.2
Age (years)			
<i>M</i>	35.2	53.6	33.9
<i>SD</i>	7.9	7.4	8.5
Presenting complaint			
Depression			
<i>n</i>	10	7	13
%	43.5	53.8	30.2
Relationship concerns			
<i>n</i>	6	4	15
%	26.1	30.8	34.9
Anxiety			
<i>n</i>	3	1	5
%	13.0	7.7	11.6
Other			
<i>n</i>	4	1	10
%	17.4	7.7	23.3
Age (years) at first sexual abuse			
<i>M</i>	11.6		
<i>SD</i>	7.6		
Age (years) at last sexual abuse			
<i>M</i>	17.4		
<i>SD</i>	8.3		
Abuse episodes			
1			
No.	7		
%	30.4		
2–12			
No.	11		
%	47.8		
> 12			
No.	5		
%	21.7		
Abuse perpetrator			
Family member			
<i>n</i>	10		
%	43.5		

(Continued)

TABLE 1 (Continued)

<i>Characteristic</i>	<i>DSA^a</i>	<i>SSA^b</i>	<i>NSA^c</i>
Trusted friend or neighbor			
<i>n</i>	9		
%	39.1		
Unfamiliar person			
<i>n</i>	3		
%	13.0		

Note. DSA = definite sexual abuse; SSA = suspected but unconfirmed sexual abuse; NSA = no sexual abuse.

^a*n* = 23. ^b*n* = 13. ^c*n* = 43.

RESULTS

We first examined the distribution of *TC/R* and found that with the exception of one outlier in the DSA group ($TC/R = .94$; $3 SD > M$), the distribution was normal. On further examination, we discovered that this individual was the only one in the sample with a psychotic diagnosis. Given these considerations, this client was eliminated from all further analyses.

As the first analysis, a multivariate analysis of covariance was performed comparing the three groups of clients across the two dependent variables (*TC/R* and *AgPast*), adjusting for sex; this was statistically significant, $F(4, 146) = 3.73$, $p < .01$. Next, follow-up univariate tests were conducted. Consistent with our hypothesis, DSA clients scored significantly higher on *TC/R* than did NSA control clients, $F(2, 74) = 7.0$, $p < .01$, and the associated effect size (1.01) was in the large range (Cohen, 1977). Contrary to hypothesis, *AgPast* showed no reliable difference between the groups, and the NSA group mean score was greater than that of the SSA group (see Table 2.) A second multivariate analysis of variance compared the three groups on the Rorschach variables (*PER* and *Sc*) we predicted would not be associated with sexual abuse. As hypothesized, there were no statistically significant differences on these variables.

Figure 1 depicts the mean *TC/R* scores of different groups of clients and nonpatient adults and suggests a near linear relation between *TC/R* and presence or severity of abuse. Inpatients with diagnosed DD (Armstrong & Loewenstein, 1990)—all with histories of severe sexual abuse—had the highest *TC/R* mean score. Our outpatients with less severe sexual abuse came next, followed by those clients with SSA. Our nonsexually abused psychotherapy outpatients—some of whom had been exposed to nonsexual traumas—had *TC/R* scores that were slightly elevated over the nonpatient adults in Exner's (1995) normative sample.

We next did exploratory analyses within the DSA group of the relation between *TC/R* and *AgPast* with various characteristics of the sexual abuse experienced by

TABLE 2
Means, Ranges, and Standard Deviations for DSA, SSA, and NSA Clients

<i>Index and Group</i>	<i>N</i>	<i>M</i>	<i>SD</i>	<i>Range</i>	<i>t(64)</i>	<i>Effect Size</i>
<i>TC/R</i>						
DSA	22	.32	.16	.04–.69	3.87 ^{a,*}	1.01
SSA	13	.26	.16	.05–.48		
NSA	43	.18	.13	.00–.55		
<i>AgPast</i>						
DSA	22	.55	.86	0–3	0.93	0.24
SSA	13	.23	.83	0–3		
NSA	43	.35	.78	0		

Note. DSA = definite sexual abuse; SSA = suspected but unconfirmed sexual abuse; NSA = no sexual abuse.

^aFollow-up contrasts of DSA versus NSA.

* $p < .02$.

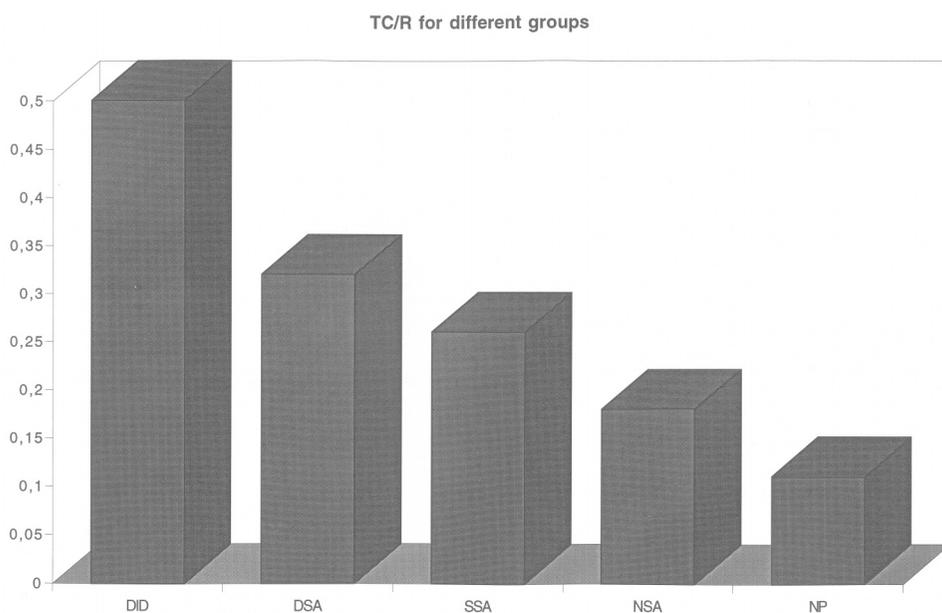


FIGURE 1 Rorschach *TC/R* mean scores for different groups. DID = inpatients with multiple personality disorder or dissociative disorders not otherwise specified ($n = 14$; Armstrong & Loewenstein, 1990); DSA = sexually abused outpatients ($n = 22$); SSA = outpatients with suspected sexual abuse ($n = 13$); NSA = outpatients known not to be sexually abused ($n = 43$); NP = normals ($n = 700$), calculated from Table 10 in Exner (1995).

TABLE 3
Intercorrelations of *TC/R* and *AgPast* With Selected Characteristics of SA

	<i>SA f</i> ^a	<i>SA Onset</i> ^b	<i>Sadism</i> ^c	<i>Sexual Contact</i> ^d	<i>Family</i> ^e
<i>TC/R</i>	.49*	-.25	-.09	.09	-.19
<i>AgPast</i>	-.11	.31	.51*	.35	.16

Note. SA = sexual abuse.

^aLifetime number of SA experiences. ^bAge at first SA experience. ^cSA was violent or sadistic (*yes* or *no*). ^dSA involved intercourse or genital penetration (*yes* or *no*). ^eSA perpetrator was a family member (*yes* or *no*).

* $p < .05$.

these clients (see Table 3). There were no significant correlations between the *TC/R* index and age of onset of sexual abuse, intensity of violence or sadism involved, degree of sexual involvement of the abuse (e.g., penetration vs. fondling), and whether the perpetrator was a family member. A statistically significant association was found between the frequency (i.e., number of lifetime incidents) of the sexual abuse and the *TC/R* index ($r = .49$; $p < .05$), with *TC/R* scores increasing with the number of times a client had been sexually abused. Also, there was a significant positive correlation between the number of *AgPast* scores on clients' Rorschachs and therapists' ratings of the intensity of the violence or sadism associated with the sexual abuse ($r = .51$; $p < .05$).

Finally, we explored differences within the NSA group between those clients who had never experienced significant trauma of any kind ($n = 31$) and those clients who, although they had not been sexually abused, had been physically abused, traumatized in medical procedures, or traumatized in a natural disaster ($n = 12$). Although we did not feel justified doing significance testing because of the post hoc nature of these analyses, we calculated means and standard deviations on the two major dependent variables, and these fell as may be expected. For *TC/R*, the respective means and standard deviations were: no trauma subgroup $M = .16$ and $SD = .12$ and other trauma subgroup $M = .21$ and $SD = .14$; for *AgPast*: no trauma subgroup $M = .26$ and $SD = .58$ and other trauma subgroup $M = .58$ and $SD = 1.16$.

DISCUSSION

This study found that sexually abused clients without discrete DDs gave Rorschach responses with elevated traumatic content when compared with outpatients known not to have been sexually abused. This finding is similar to that of Armstrong and Loewenstein (1990), who found that the ratio of *Bl*, *An*, *Sx*, *MOR*, and *AG* scores to *R* were elevated among inpatients with MPD or DDNOS. As may be expected, the mean *TC/R* score in our outpatient nondissociative sample was lower than that found by Armstrong and Loewenstein (.32 vs. 50). However, the overlapping ranges of

TC/R in the two studies supports the idea that PTSD and MPD or DDNOS are on a continuum and that nondissociative clients who have been sexually abused also face intrusive traumatic images and memories when confronted with the Rorschach cards. Among our sexually abused clients, *TC/R* scores were positively correlated with the total number of abuse incidents they had experienced; this suggests that as the frequency of sexual abuse increases, clients' Rorschachs—and perhaps their symptomatology—become more like that of inpatients diagnosed with severe DD. This dose–response relation is consistent with findings from various authors who noted the effects of repeated exposure to feared events or abuse experiences (e.g., Carlson, Armstrong, Loewenstein, & Roth, 1998; Foa, Steketee, & Rothbaum, 1989; Hartman, Finn, & Leon, 1987; Kamphuis & Emmelkamp, 1998).

Gacono and Meloy's (1994) *AgPast* score was not specifically associated with a history of past sexual trauma in our sample. However, among clients with known histories of sexual abuse, the *AgPast* score was positively associated with clinicians' assessments of the severity of violence or sadism of the sexual abuse. This finding lends some support to Gacono and Meloy's interpretation of *AgPast* as indicating possible self-defeating or masochistic features, as sadistic abuse most often leads to the severe inhibition of aggression associated with that type of personality adaptation. If this finding is confirmed in other studies, one may predict that those sexually abused clients with significant numbers of *AgPast* scores in their Rorschachs will have the greatest difficulties overcoming the negative effects of their abuse. The construct validity of the *AgPast* score as a nonspecific marker of past trauma was supported by post hoc analyses we performed. The mean *AgPast* score of clients with histories of sexual abuse was approximately equal to that of nonsexually abused clients who had experienced other types of trauma in the past, whereas clients with no past trauma had many fewer *AgPast* responses. Again, this finding needs independent replication.

Because of recent controversies over whether it is possible to repress memories of past sexual abuse, it is particularly interesting to consider the 13 clients in our sample without actual sexual abuse memories but who suspected that they had been abused. Their mean *TC/R* scores fell in between that of clients with known sexual abuse and that of clients who our raters were quite sure had not been sexually abused. This finding supports the construct validity of *TC/R* as an index of past sexual abuse; it also suggests that client or therapist suspicions of sexual abuse—without a client having discrete memories or external confirmation of the abuse—should be taken seriously, as these clients do show some evidence of trauma on the Rorschach.

As we did, some clinicians may wonder whether *TC/R* scores may be used to reliably discriminate between clients with and without sexual abuse. The classification tables for our sample are presented in Table 4, with two different cutoff scores. As can be seen, a classification rule of $TC/R \geq .25$ produces reasonable sensitivity and specificity in our sample, with 77% of those clients who were sexually abused being identified as such and only 30% of the nonabused participants being falsely classified as abused. A rule of $TC/R \geq .30$ has even better specificity but worse sen-

TABLE 4
Accuracy of Trauma Content Index at Two Cutoff Scores in
Predicting SA in Study Sample (Prevalence = 33.8%)

<i>Diagnostic Rule</i>	<i>SA Present</i>	<i>No SA Present</i>
SA if $TC/R > .25^a$		
SA predicted	17	13
No SA predicted	5	30
SA if $TC/R > .30^b$		
SA predicted	12	7
No SA predicted	10	36

Note. SA = sexual abuse.

^aSensitivity = .77, positive predictive power = .57, specificity = .70, negative predictive power = .86, overall diagnostic power = .72. ^bSensitivity = .55, positive predictive power = .63, specificity = .84, negative predictive power = .78, overall diagnostic power = .74.

sitivity (yielding only 16% false positives but also only 45% true positives). We also found it illuminating to examine the false-positive cases in each classification scenario. When using the lower cutoff score, 4 (31%) of the 13 clients erroneously classified as sexually abused had experienced some other form of trauma (e.g., physical abuse, medical trauma, a natural disaster). With the rule of $TC/R \geq .30$, there were 7 false-positive cases; 2 (29%) of these had experienced nonsexual trauma. All these figures should be cross-validated in other samples before they are applied in clinical or forensic work. Nevertheless, our data suggest that TC/R should not be used as a sole indicator of past sexual abuse. Rather, it is one variable among many that clinicians may use to assess the likelihood that an individual has been sexually abused. It also appears that TC/R has some sensitivity to other forms of trauma, which is not surprising in that some of its contents (i.e., *An*, *Bl*, *AG*, *MOR*) are not specifically sexual in nature.

One limit to the generalizability of our findings relates to the nature of our sample: None of the clients whose Rorschachs we studied were assessed in situations in which there was obvious gain for exaggerating their pathology (e.g., a personal injury suit). Ganellen, Wasyliw, Haywood, and Grossman (1996) found that clients with a high incentive to malingering psychopathology produced elevated numbers of blood, sex, fire, explosion, morbid, and aggressive responses. Given that four of the five components in the TC/R numerator appear in this list, our optimal cutoffs would probably lead to an even greater number of false positives among such clients.

As an additional caution, the classification rates in Table 4 only apply to settings in which the base rate of sexual abuse is the same as in our sample (33.8%). Such rates can vary greatly (e.g., Finn, Hartman, Leon, & Lawson, 1986, found a 70% prevalence of sexual abuse among clients in women's psychotherapy groups they studied). As noted by Baldessarini, Finklestein, and Arana (1983) and illustrated in Table 5, different cutting scores may be appropriate for populations with higher or lower base rates of sexual abuse. The higher the prevalence of sexual

TABLE 5
Accuracy of Predicting SA From the Trauma Content Index as
Affected by Cutoff Score and Prevalence of SA

<i>Base Rate of SA (%) and Measure</i>	<i>TC/R ≥ .25</i>	<i>TC/R ≥ .30</i>
33.8		
Sensitivity	.77	.55
Specificity	.70	.84
Positive predictive power	.57	.63
Negative predictive power	.86	.78
Overall diagnostic power	.72	.74
10		
Sensitivity	.77	.55
Specificity	.70	.84
Positive predictive power	.22	.27
Negative predictive power	.97	.94
Overall diagnostic power	.70	.81
80		
Sensitivity	.77	.55
Specificity	.70	.84
Positive predictive power	.91	.93
Negative predictive power	.43	.32
Overall diagnostic power	.76	.60

Note. SA = sexual abuse.

abuse, the greater is the positive predictive power and the lower is the negative predictive power of *TC/R*. As recommended by Finn and Kamphuis (1995), clinicians wishing to apply our findings to their own setting first must estimate the frequency of sexual abuse among their particular clients.

Last, our findings regarding *TC/R* have implications not only for the use of this index but also for content interpretation of the Rorschach. It is our impression that some practicing clinicians are greatly influenced by morbid sexual content in a client's Rorschach and treat such content as nearly pathognomonic of past sexual abuse. As an example, consider the following response to Card X:

I think these are the ovaries and reproductive organs of a woman, the vagina and ovaries. They are deformed somehow, as if they've been damaged. *Inquiry:* Ovaries because that's where they are, on both sides of the vagina. A vagina because of the red color, the opening at the bottom and then it comes together in the back. They're damaged because they're not supposed to be shaped like that.

Although such responses are certainly noteworthy and deserve further exploration with the client, this particular one was given by a client whose therapist had no suspi-

cion that she had been sexually abused. (Some may argue that the therapist could be wrong, but in this case it seems unlikely given that the therapist's ratings took place after over 300 hr of contact with the client.) Our point here is that Rorschach content is multiply determined and there are no foolproof indicators of past sexual abuse.

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REFERENCES

- American Psychiatric Association. (1987). *Diagnostic and statistical manual of mental disorders* (3rd ed., rev.). Washington, DC: Author.
- American Psychiatric Association. (1994). *Diagnostic and statistical manual of mental disorders* (4th ed.). Washington, DC: Author.
- Armstrong, J. G., & Loewenstein, R. J. (1990). Characteristics of patients with multiple personality and dissociative disorders on psychological testing. *Journal of Nervous and Mental Disorders*, *178*, 448–454.
- Baity, M. R., & Hilsenroth, M. J. (1999). Rorschach aggression variables: A study of reliability and validity. *Journal of Personality Assessment*, *72*, 93–110.
- Baldessarini, R. J., Finklestein, S., & Arana, G. W. (1983). The predictive power of diagnostic tests and the effect of prevalence of illness. *Archives of General Psychiatry*, *40*, 569–573.
- Campbell, D. T., & Fiske, D. W. (1959). Convergent and discriminant validation by the multi-trait-multimethod matrix. *Psychological Bulletin*, *56*, 81–105.
- Carlson, E. B., Armstrong, J., Loewenstein, R., & Roth, D. (1998). Relationships between traumatic experiences and symptoms of posttraumatic stress, dissociation, and amnesia. In J. D. Bremner & C. R. Marmar (Eds.), *Progress in psychiatry: Vol. 54. Trauma, memory, and dissociation* (pp. 205–277). Washington, DC: American Psychiatric Association.
- Cerney, M. (1990). The Rorschach and traumatic loss: Can the presence of traumatic loss be detected from the Rorschach? *Journal of Personality Assessment*, *55*, 781–789.
- Cohen, J. (1977). *Statistical power analysis for the social sciences*. New York: Academic.
- Exner, J. E., Jr. (1995). *A Rorschach workbook for the Comprehensive System* (4th ed.). Ashville, NC: Rorschach Workshops.
- Finn, S. E., Hartman, M., Leon, G. R., & Lawson, L. (1986). Eating disorders and sexual abuse: Lack of confirmation for a clinical hypothesis. *International Journal of Eating Disorders*, *5*, 1051–1060.
- Finn, S. E., & Kamphuis, J. H. (1995). What a clinician needs to know about base rates. In J. N. Butcher (Ed.), *Clinical personality assessment: Practical approaches* (pp. 224–235). New York: Oxford University Press.
- Foa, E. B., Steketee, G., & Rothbaum, B. O. (1989). Behavioral/cognitive conceptualizations of post-traumatic stress disorder. *Behavior therapy*, *20*, 155–176.

- Gacono, C. B., & Meloy, J. R. (1994). *The Rorschach assessment of aggressive and psychopathic personalities*. Hillsdale, NJ: Lawrence Erlbaum Associates, Inc.
- Ganellen, R. J., Wasyliw, O. E., Haywood, T. W., & Grossman, L. S. (1996). Can psychosis be malingered on the Rorschach? An empirical study. *Journal of Personality Assessment*, *66*, 65–80.
- Hartman, M., Finn, S. E., & Leon, G. R. (1987). Sexual abuse experiences in a clinical population: Comparisons of familial and nonfamilial abuse. *Psychotherapy*, *24*, 154–159.
- Kamphuis, J. H., & Emmelkamp, P. M. G. (1998). Crime-related trauma: Psychological distress in victims of bankrobbery. *Journal of Anxiety Disorders*, *12*, 199–208.
- Kamphuis, J. H., Kugeares, S. L., & Finn, S. E. (1997, March). *Rorschach correlates of sexual abuse: Trauma-content and aggression indices*. Paper presented at the annual meeting of the Society for Personality Assessment, San Diego, CA.
- Levin, P. (1993). Assessing post traumatic stress disorder with the Rorschach projective technique. In J. P. Wilson & B. Raphael (Eds.), *International handbook of traumatic stress syndrome* (pp. 189–200). New York: Plenum.
- Levin, P. (1997). Use of the Rorschach in assessing trauma. In J. P. Wilson & T. M. Keane (Eds.), *Assessing psychological trauma and PTSD: A practitioner's handbook* (pp. 529–543). New York: Guilford.
- Nichols, B., & Czirr, R. (1986). Post traumatic stress disorder: Hidden syndrome in elders. *Clinical Gerontologist*, *5*, 417–433.
- Nordström, K., & Carlsson, A. M. (1997, March). *Rorschach comparison of borderline patients with and without a history of childhood sexual abuse*. Paper presented at the annual meeting of the Society for Personality Assessment, San Diego, CA.
- Salley, R., & Teiling, P. (1984). Dissociated rage attacks in a Vietnam veteran: A Rorschach study. *Journal of Personality Assessment*, *48*, 98–104.
- Shapiro, J. P., Leifer, M., Martone, M. W., & Kassem, L. (1990). Multimethod assessment of depression in sexually abused girls. *Journal of Personality Assessment*, *55*, 234–248.
- Van der Kolk, B. A., & Ducey, C. (1989). The psychological processing of traumatic experience: Rorschach patterns in post-traumatic stress disorder. *Journal of Traumatic Stress*, *2*, 259–274.
- Widom, C. S., & Morris, S. (1997). Accuracy of adult recollections of childhood victimization: Part 2. Childhood sexual abuse. *Psychological Assessment*, *9*, 34–46.
- Williams, L. M. (1994). Recall of childhood trauma: A prospective study of women's memories of child sexual abuse. *Journal of Consulting and Clinical Psychology*, *62*, 1167–1176.

Jan H. Kamphuis

Department of Clinical Psychology

University of Amsterdam

Roetersstraat 15

1018 WB Amsterdam

The Netherlands

E-mail: kp_kamphuis@macmail.psy.uva.nl

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