

CONSTRUCT VALIDATION OF THE RORSCHACH REALITY–FANTASY SCALE IN ALEXITHYMIA

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The study applies Winnicott's conceptualization of potential space to the alexithymia construct by using a new Rorschach index, the Reality–Fantasy Scale (RFS). The scale uses variables derived from the Rorschach Comprehensive System (Exner, 2000, 2001) to detect different types of psychopathological manifestations conceptualized as forms of collapse of potential space. Following previous research, the present study further evaluates the construct validity of the RFS in a sample of 92 patients with inflammatory bowel disease, categorized on the basis of the Toronto Alexithymia Scale (TAS–20) as alexithymic, indeterminate alexithymia, and nonalexithymic groups. As hypothesized, the RFS significantly correlated with the TAS–20, discriminated among the 3 groups, and showed incremental validity in detecting alexithymia over isolated Rorschach markers. The study supports the exploration of psychoanalytic ideas by empirical, statistically based methods.

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Alexithymia is a multifaceted personality construct that encompasses a cluster of cognitive and affective characteristics associated with various psychiatric disorders (Taylor, 1987;

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Taylor, Bagby, & Parker, 1991, 1997, 2003). The construct was introduced by Nemiah and Sifneos (1970) and refers to a series of phenomena that have been extensively studied, particularly in relation to psychosomatic disorders. These phenomena include difficulties in describing, naming, recognizing, containing, or working through subjective feelings; problems in distinguishing between feelings and the bodily sensations of emotional arousal; impoverished and constricted imaginative capacities; and a concrete and reality-oriented cognitive style.

The construct emerged gradually from clinical observations of patients with psychosomatic diseases. As early as 1948, Ruesch defined what he called the “infantile personality” as the “core problem of psychosomatic medicine.” He observed that many patients with classical psychosomatic or other chronic diseases were poorly imaginative and showed marked difficulties with the verbal expression of emotions. In this respect, they were distinctly different from psychoneurotic patients, on whom the main theories of somatic symptom formation had been based. He attributed these clinical characteristics to an arrest in personality development. Rooted in the Freudian distinction between actual neurosis and psychoneurosis and consistent with other concepts such as *pensée opératoire* (operator thinking) from the French school (Marty & de M’Uzan, 1963), the alexithymia construct was further considered as highlighting the subject’s inability to use words for emotions as a consequence of an arrest in affect development during early childhood. Accordingly, infants express their affects through behavioral manifestations (crying, smiling, agitating), which are considered undifferentiated precursor states of contentment and distress (i.e., the somatic means by which the infants communicate their needs, desires, and satisfaction to the caregiver). Neurobiological maturation and psychological development involve a progressive desomatization and differentiation of these earlier undifferentiated precursors of emotional expression into symbolic representations of emotions and cognitive schemata that thereafter can be expressed and communicated through verbal language (Gaddini, 1974; Krystal, 1974; Lane & Schwartz, 1987). In the absence of inner experience, these patients are viewed as being preoccupied with physical symptoms and the details of external events, while showing an affectless mode of relating to others (Taylor, 2003).

In line with this conceptualization, yet from a different perspective, were the clinical observations of McDougall (1984, 1991) on “disaffected” or “normopath” patients in psychoanalysis. These patients appeared as totally unrelated to their own subjective world. McDougall, who uses the concepts of alexithymia and operator thinking to explain the incapacity of these patients to contain and elaborate subjective experience, argues that many alexithymic–psychosomatic patients talk of their body as though it were a foreign object belonging to the external world. She further traces this mode of relating to disturbances in the early mother–child relationships, where children do not experience the body as being truly their own. According to McDougall (1991), these children may also conceive of their emotions as not being truly their own and may even be considered as existing only to the extent that the mother acknowledges them, much as though the feelings in question were her experience. McDougall reports that in analysis, these patients may frequently remember their parents as paying considerable attention to physical pain but being totally uninterested in or even condemning of any expression of mental pain. The family discourse has often promulgated an ideal of ineffectivity as well as condemning imaginative experience.

Ogden (1982, 1985, 1989) further relates the “disaffected” states (McDougall, 1984) or what he calls states of “nonexperiencing” to Winnicott’s (1971) construct of potential space, a concept that describes the space between the self and the object and between

reality and fantasy. When reality is used predominantly as a defense against fantasy, the fantasy pole collapses into the reality one. These states represent one possible form of psychopathology that may occur in a collapse of potential space. Another form of collapse is represented in psychosis, in which the reality pole collapses into the fantasy one.

Mitchell (2000) stated that fantasy and reality are usually understood as incompatible. However, separating fantasy and reality is only one way to construct and organize experience. For experience to be meaningful, vital, and robust, fantasy and reality cannot be too distinguished from each other. Fantasy cut adrift from reality becomes threatening. Reality cut adrift from fantasy becomes vapid. Meaning in human experience is generated in the mutual, dialectical, enriching tension between reality and fantasy. An adaptive, healthy, and functional ability to preserve potential space would thus be demonstrated in individuals who manage to separate their own psychic reality from that of other people while adequately maintaining an intermediate, transitional area where reality and fantasy are perceived as separate yet interrelated.

It should be noted that a similar view on the relationship between reality and fantasy was already suggested by Rapaport (1957/1967c). He used the notions of both the *relative autonomy of the ego from the id* (one's even and solid relationship with the outside world) and the *relative autonomy of the ego from external reality* to demonstrate how reality can serve as a defense against fantasy and conversely how fantasy can serve as a defense against reality. Rapaport understood the literal and concrete thinking of patients with schizophrenia as a form of impairment in the ego's autonomy from the id, and the massive intrapsychic blocking of instinctual drives in other patients (e.g., patients with obsessive-compulsive disorder) as a form of impairment in the ego's autonomy from external reality.

If we apply the psychoanalytic conceptualization of the reality–fantasy continuum to alexithymia, where reality robs fantasy of its vitality and the capacity to imagine (the autonomy of the ego from external reality) is impaired, we might consider the alexithymic personality (frequently with psychosomatic symptoms) as demonstrating adaptation psychopathology (Sami-Ali, 1987), normopathy (McDougall, 1989), and normotic conditions (Bollas, 1989).

McDougall (1991) proposed that psychosomatics and psychosis reveal similar psychic structures. This similarity is not limited to the dynamic force of unconscious fears concerning contact with external objects coupled with fears of the damage that emotional states are thought to cause. In addition, psychic mechanisms such as alexithymia are employed to keep archaic terror at bay in both states.

This conceptualization views alexithymia and psychosis as being similar psychopathological forms of collapse of potential space. Both represent a severe impairment in the ability to preserve a dialectical tension between reality and fantasy. Although located at two opposite poles of the reality–fantasy continuum, both alexithymia and psychosis point to impairment in ego's autonomy (Rapaport, 1957/1967c) and to experiences of disintegration.

This comparison may seem incongruous, as few individuals appear more bizarre than those dominated by psychotic thought processes, and few seem so well adapted to external reality as those who demonstrate alexithymic and psychosomatic symptoms. Nonetheless, whereas in schizophrenia there is an attack on the psychological capacities by which meanings are created and thought about, in alexithymia and psychosomatics there is an attack on the psychological capacity to capture affect and use it for thought. External reality and object relationships are, thus, drained of their meaning. Whereas in psychosis, thought produces a delusional expression, in psychosomatics it is the body that does (McDougall, 1991; Ogden, 1980, 1986, 1988).

In one of his early works, Winnicott (1945/1958) describes the patient who proceeds to give every detail of the weekend, that is, all the “bits” of himself as a person, making the analyst feel that no analytic work has been done. With respect to this type of patient, although therapy is aimed to integrate these “bits,” conceptualizing alexithymia together with psychosis as related to both impairment in the ego’s autonomy and severe problems of integration seems more congruous (Bucci, 1997; McDougall, 1982, 1989, 1991; Sami-Ali, 1987; Taylor, 1987).

The present study explores alexithymia in relation to Winnicott’s (1971) construct of potential space by using a new Rorschach index, the Reality–Fantasy Scale (RFS), for assessing one’s ability to create, use, and preserve transitional space between reality and fantasy (Tibon, Handelzalts, & Weinberger, 2002, 2005).

Alexithymia and the Rorschach Thematic Imagery

The Rorschach task of responding to the 10 ink-blot provides us with a rare opportunity to observe the way in which a person succeeds (or fails) to preserve the dialectical tension between the two poles of external and internal realities, using the transitional space between them (Smith, 1990; Willock, 1992). The ambiguity of the blot and the nature of instructions (*What might this be?*) create a situation in which subjects are expected to both find and make something out of the blot, keeping an enriching tension between the given ink-blot and their fantasy world.

Schafer (1954) stated that from the point of view of thought organization, the fluctuating psychic levels in the Rorschach response process and the changes from the perceptual to the interpretive attitude or vice versa appear to involve shifts between reality and fantasy. We might thus assume that Rorschach percepts, like transitional objects, are simultaneously created (in the sense that the blot is given its meaning by the inner world of the subject) and found (in the sense that the final response has to be within the limits of the existing blot features), and might therefore be assumed to reveal one’s ability to preserve potential space.

Operationalizing the Concept of Transitional Space: The RFS

The RFS (Tibon et al., 2005) was designed to assess adaptive use, creation, and preservation of potential or transitional space. The scale was intended to differentiate between possible forms of psychopathology that may occur when one pole of the reality–fantasy continuum collapses into the other. With regard to this continuum, psychotic states are thought to be closer to the fantasy pole and alexithymic phenomena closer to the reality one.

The RFS includes a group of variables or combinations of variables based on Exner’s (2000, 2001) Comprehensive System (CS) and one additional special score of Reality Collapse (RC). This special score is given to responses in which the subject is observed or sounds as if he or she is totally losing distance from the blot (e.g., “I can smell it”), reacting as if the blot is the thing itself. The 11-point scale ranges from -5 (*reality collapse into fantasy*) to 5 (*fantasy collapse into reality*). A score of -5 represents the most extreme case of reliance on fantasy, with minimum contact with external reality, and a score of 5 represents a strong reliance on the real features of the blot, with minimal input of fantasy. It should be emphasized that an RFS score of -4 or -5 on a specific response (RFS–R) does not necessarily point to collapse of reality into fantasy. Rather, all the

responses in the protocol should be screened to provide the raw data for computing the mean RFS of a protocol (RFS-P).

Furthermore, because the RFS is bipolar, the use of the mean RFS solely may cloud the real results, particularly in dissociative cases, where reality and fantasy are experienced as parallel and equal conditions without the ability to create and preserve potential space. In these psychological states, one can hardly point to a true dialectic process because the situation has been constructed to a large extent in the service of denial. As a result, it involves a severe limitation of the way in which reality and fantasy may inform each other, and the subject looks to be failing to create and preserve potential space (Ogden, 1986). Rorschach responses at both extremes might thus be expected to cause a mean RFS of around zero. To avoid misinterpretation, another derivation defined as the RFS scatter (RFS-S) is calculated by computing the RFS standard deviation of the responses in the protocol. Because the present study conceptually focuses on the reality-oriented thinking in alexithymia, it uses the RFS mean rather than both the mean and the standard deviation, hypothesizing that patients with alexithymia would be located on the positive pole of the scale.

The selection of variables to be included in the RFS was done in three stages: First, general theoretical definitions of *reality* and *fantasy* were selected. It was decided to use the basic psychoanalytical conception of *reality* as being simply the material world “out there,” and that of *fantasy* as being a species of thought activity that is kept free from reality testing. Reality, according to this conception, is not a finding but a refinding of an object previously perceived, whereas fantasy is viewed as idiosyncratic, representing the specific compromise formations created in response to a subject’s internal conflicts (Arlow, 1995; Wallerstein, 1995).

Second, basic updated Rorschach literature (Exner, 2000; Kleiger, 1999; Leichtman, 1996; Lerner, 1998; Weiner, 2003) was substantially reviewed to search for Rorschach variables that might be considered as having face validity in operationalizing the two concepts. Finally, all the case studies presented in Meloy, Acklin, Gacono, and Peterson (1997) were scanned in search of the words *reality* or *fantasy* and their derivations (*thematic imagery*, *reality testing*, etc.). The context in which either or both of these words appeared was then explored to find out which Rorschach variables referred to them.

The guidelines for scoring the RFS suggest that in the course of entering Exner’s (2001) CS codes pertaining to other response features, each response should also be reviewed for the RFS-R score. The specific steps taken are presented in a flowchart (see Appendix). An RFS-R score of 5 should be given to responses with minimal input of fantasy, such as “this looks like a cloud because of its shape.” An RFS-R of -5, on the other hand, should be given to responses with minimum contact with external reality.

Following the scoring of each response on the RFS, the mean and the standard deviation of the RFS of the protocol (RFS-P and RFS-S, respectively) are computed. Previous research in both patient and nonpatient samples showed that the RFS mean score of a protocol was around zero in normative healthy samples and was significantly lower, within the negative range of the scale, in patients with psychotic proneness (Tibon et al., 2002, 2005).

Unlike other Rorschach indices that operationalize psychoanalytic constructs by using variables derived from different systems of Rorschach scoring and interpretation, such as Holt’s (1978) operational measure of primary process thinking and the Lerner Defense Scale (Lerner, 1990), the RFS uses the empirically based variables of the CS (Exner,

2003). In this respect the RFS is most similar to the Ego Impairment Index (Viglione, Perry, & Meyer, 2003), which uses Exner's CS for empirically examining the theoretical model of ego assessment.

Rorschach Studies and Alexithymia

Many of the studies investigating alexithymia with the Rorschach have had one or more of the following methodological shortcomings: failing to provide data on scoring reliability and/or to match comparison groups for major sociodemographic variables; poorly defining the samples as psychosomatic versus organic; failing to evaluate alexithymia with sound assessment instruments; and conducting inadequate comparisons between groups (e.g., Acklin & Alexander, 1988; Clerici, Albonetti, Papa, Penati, & Invernizzi, 1992). These shortcomings have resulted in inconsistent findings.

The study of Porcelli and Meyer (2002) noted these difficulties while investigating the construct validity of isolated Rorschach markers that were theoretically assumed to be linked to alexithymia. In a sample of 92 Italian outpatients with inflammatory bowel disease (IBD), traditionally regarded as a psychosomatic disorder, the authors selected six sets of Rorschach markers: fantasy, affect, adaptive resources, cognition, social adaptation, and projection. Most of the markers significantly correlated with the Toronto Alexithymia Scale (TAS-20; Bagby, Parker, & Taylor, 1994a, 1994b; Parker, Taylor, & Bagby, 2003).

The present study further develops the hypothesis concerning the lack of fantasy productivity in alexithymia and examines the RFS as a tool for investigating one's ability to use potential or transitional space between reality and fantasy. Herein the TAS-20 (Taylor et al., 1991, 1997) serves as a criterion. This study explores the positive range of the RFS, hypothesizing that subjects who are categorized by the TAS-20 as alexithymic would score within the positive range of the RFS and would achieve higher scores than subjects categorized in the indeterminate alexithymia or nonalexithymic groups. Furthermore, it was hypothesized that the RFS would be more predictive of alexithymia than isolated Rorschach markers. These hypotheses are rooted in the notion that alexithymia might be conceptually understood in terms of Winnicott's (1971) construct of transitional space.

Method

Participants

Participants were 92 outpatients with IBD recruited for a Rorschach study on alexithymia (Porcelli & Meyer, 2002). IBD is a chronic intestinal disease of unknown etiology with phases of acute relapses and symptom-free periods. The diagnosis encompasses mainly ulcerative colitis (UC) and Crohn's disease (CD). These subjects constituted 90% of a group of 102 patients originally included in a study designed to evaluate the prevalence and stability of alexithymia (Porcelli, Leoci, Guerra, Taylor, & Bagby, 1996). The original sample was homogeneous for disease, geographical area, and treatment setting. It included 59 men and 43 women, 77 with UC and 25 with CD. The study was approved by the local ethics committee where the participants were recruited.

Measures

The RFS. The RFS includes a group of Rorschach variables or combinations of variables interpreted as indicating various levels of reality contact and the capacity to make use of fantasy. Apart from the new variable of RC, all the variables are based on Exner's (2003) CS. For the specific variables included in the scale and their scoring, see the Appendix.

The variables were included in the scale following a theoretical-based selection and a comprehensive item-level analysis of the RFS. The psychometric evaluation was composed of obtaining item-total correlations, assessing reliability, and evaluating the additional contribution of each variable to the reliability coefficient. In the item analysis, the primary criterion for including a variable or combination of variables in the final version of the RFS was the item-total correlation. Inclusion of variables in the final version of the RFS followed, in general, the criterion of $r > .30$, as suggested by Nunnally and Bernstein (1994) for item-total correlation. The .75 standardized alpha coefficient of the scale further validated the inclusion of all the items in the scale.

Rorschach isolated markers. The present study examined two Rorschach isolated markers that were used in the study of Porcelli and Meyer (2002) as measuring fantasy: the total number of responses (R) and the percentage of human movement responses (M%). Lower scores on these variables, suggesting impoverished fantasy, were expected in subjects with alexithymia. Another isolated Rorschach marker, the percentage of responses based on shape only (F%), was selected in the present study as indicating reality-oriented thinking. This variable, considered to assess an avoidant or simplistic thinking style, had been included by Porcelli and Meyer in their cognition set of Rorschach markers of alexithymia.

TAS-20. The TAS-20 is a well-established, empirically validated self-report measure of alexithymia (Taylor et al., 1991). The scale, which is the most widely used alexithymia assessment instrument, has demonstrated significantly strong reliability and validity (Taylor et al., 1997, 2003). The TAS-20 has a three-factor solution: Difficulty Identifying Feelings (IDE); Difficulty Communicating Feelings (COM); and Externally Oriented Thinking (EOT). Confirmatory factor analyses have shown that the established TAS-20 three-factor model is replicable in different groups across various countries and that the three factors reflect separate yet conceptually related facets of the alexithymia construct (Joukamaa et al., 2001; Parker, Bagby, Taylor, Endler, & Schmitz, 1993).

In the present study we used an Italian translation of the TAS-20 (Porcelli et al., 1996), which was developed through the method of back translation and then cross-validated in a large heterogeneous sample collected in Italy. The scale showed good internal consistency (alphas of .75 and .82 for normative and clinical subjects, respectively) and high test-retest reliability over a 2-week period ($r = .86$). A confirmatory factor analysis revealed the same three-factor structure found for the English version of the scale.

Procedure

The patients were administered the Rorschach according to the CS administration guidelines (Exner, 2001). Following the Rorschach they were administered the Italian translation of the TAS-20. Before testing, written informed consent was obtained from all patients; none refused to participate. The Rorschach and the TAS-20 were administered before the patients' visit for gastrointestinal treatment at baseline. Ten patients gave

invalid Rorschach protocols of fewer than 14 responses, which were considered invalid according to the CS and therefore were eliminated from the sample. This left a sample of 92 patients (53 men and 39 women, 70 with UC and 22 with CD), with a mean age of 36.2 ± 8.9 years and mean education of 11.2 ± 3.0 years. The Rorschach protocols were scored according to the CS by Piero Porcelli.

Thirty Rorschach protocols were randomly selected for an evaluation of interrater agreement. The raters were trained in Exner's (2001) CS and had clinical experience with it. Because the Rorschach protocols were initially obtained and written in Italian, the 30 protocols were translated into English by Porcelli. They were rescored twice, in the English translation by one rater and in the original version by another rater. Scorings was done independently. The mean intraclass correlation coefficient (ICC) was $.87 \pm .11$ in the Italian-English interrater agreement examination (Porcelli & Meyer, 2002). The variables used in the study of Porcelli and Meyer obtained ICC values ranging from .72 to 1.00. The observed value of interrater agreement for the new special score of RC was .95.

In addition to Exner's (2001) CS variables, and the RC, each response of the 92 protocols was scored by Porcelli for the RFS. The 30 protocols that were translated into English were rescored for the RFS by Yifat Weinberger. Following the scoring of each response, the mean RFS of the protocol (RFS-P) and the RFS standard deviation (RFS-S) were calculated. These scores were not examined for interrater agreement as they were simply derived by computing across all the responses in a protocol.

Patients were administered the TAS-20 both on referral and 6 months after receiving routine medical follow up. By using established TAS-20 cutoff scores (Taylor et al., 1997) obtained at baseline and follow-up, patients were divided into three groups. Table 1 presents the demographic characteristics of the three groups of patients: those with alexithymia (TAS-20 score > 60 at both administrations); those for whom alexithymia was indeterminate (TAS-20 score between 51 and 60 at both administrations or in the range for a different alexithymia category across the two administrations), and those without alexithymia (TAS-20 score ≤ 50 at both administrations).

Statistical Analysis

Differences between the three groups were calculated by using analysis of variance (ANOVA). Statistically significant ANOVA results were followed by pairwise comparisons using the *t* test adjusted for Bonferroni correction. The significance level was set at $p < .01$ (one-tailed). Effect size (*r*) was calculated as the correlation between the patients'

Table 1
Means and Standard Deviations of Age and Education by Alexithymia Category

| Variable | Group A: Alexithymic (<i>n</i> = 32) | | Group B: Indeterminate alexithymia (<i>n</i> = 15) | | Group C: Nonalexithymic (<i>n</i> = 45) | | <i>F</i> (2, 89) |
|-----------|---|-----------|--|-----------|--|-----------|------------------|
| | <i>M</i> | <i>SD</i> | <i>M</i> | <i>SD</i> | <i>M</i> | <i>SD</i> | |
| Age | 36.8 | 9.7 | 38.4 | 9.8 | 35.1 | 8.1 | 0.89 |
| Education | 10.6 | 2.8 | 13.0 | 2.9 | 11.0 | 3.1 | 3.56* |

Note. *N* = 92. Alexithymic: 19 men and 13 women; 23 with ulcerative colitis (UC) and 9 with Crohn's disease (CD); indeterminate alexithymia: 8 men and 7 women; 13 with UC and 2 with CD; nonalexithymic: 26 men and 19 women; 34 with UC and 11 with CD. Education = years of schooling.

Rorschach scores and their classification group (i.e., alexithymic = 1, indeterminate alexithymia = 2, nonalexithymic = 3). Positive effect sizes indicate that the observed results were consistent with the hypotheses.

To test the hypothesis that the RFS could significantly predict alexithymia better than the isolated Rorschach markers, a hierarchical regression model was performed, with the TAS-20 as the dependent variable and three data entry blocks as predictor (independent) variables. The first block examined disease duration, which was the only non-Rorschach variable among the patient-related characteristics (gender, age, education, and disease duration) found to be significantly correlated to TAS-20 ($r = .22; p < .05$). The second block examined the total number of responses in a protocol (R), the percentage of human movement responses (M%), and the percentage of responses based on shape only (F%). These are the isolated markers that represent the core Rorschach features of the alexithymia construct. The third block included the mean RFS score of a protocol (RFS-P). Within each block, the regression model was built using a stepwise entry, with the p to enter set at .05 and the p for removal set at .10.

Results

Differences were not found for age, gender, and frequency of UC and CD across the three groups based on TAS-20 cutoff scores. Table 2 presents the correlation coefficients between RFS-P and the TAS-20 total score with each of the three TAS-20 factors. Results show that the RFS-P significantly correlated with the criterion scores of both the TAS-20 total score and each of the three TAS-20 factors.

Table 3 shows the results of the ANOVA and the comparison of the three groups of patients formed on the basis of the TAS-20 cutoff scores with regard to the RFS-P and the three isolated alexithymia markers: R, M%, and F%. The RFS-P scores of the alexithymic group (A) were significantly higher than the scores of the indeterminate alexithymia group (B), which in turn were significantly higher than the RFS scores of the nonalexithymic group (C), with RFS-Ps of 1.41 ± 0.67 , 0.61 ± 0.72 , and 0.11 ± 0.75 , respectively. Also, M% and F% were significantly different across the three groups in the expected direction (higher F% and lower M% in the alexithymic than in the indeterminate and the nonalexithymic groups). The differences were statistically significant only in the two contrasts (A vs. B and A vs. C). The largest effect size (r) was found for the F%, followed by the RFS-P. In producing significant pairwise comparisons in all the three

Table 2
Correlations of the Reality-Fantasy Scale Mean Score (RFS-P) With the Toronto Alexithymia Scale (TAS-20) Scores

| TAS-20 score | Correlation with RFS-P |
|--|------------------------|
| Total score | .599** |
| Factor 1 (Difficulty Identifying Feelings) | .638** |
| Factor 2 (Difficulty Communicating Feelings) | .432** |
| Factor 3 (Externally Oriented Thinking) | .515** |

Note. $N = 92$.

** $p < .001$.

Table 3
Means and Standard Deviations of the Reality-Fantasy Scale and Isolated Rorschach Markers by Alexithymia Category

| Variable | Group A: Alexithymic (n = 32) | | Group B: Indeterminate alexithymic (n = 15) | | Group C: Nonalexithymic (n = 45) | | F(2, 89) | Effect size (r) |
|----------|-------------------------------------|------|--|------|--|------|-------------------------|-----------------|
| | M | SD | M | SD | M | SD | | |
| RFS-P | 1.41 | 0.67 | 0.61 | 0.72 | 0.11 | 0.75 | 30.15** A > B > C | .63 |
| R | 16.9 | 3.2 | 17.9 | 3.6 | 18.3 | 3.7 | 1.46 | .18 |
| M% | 4.9 | 6.1 | 12.8 | 9.4 | 14.6 | 9.6 | 12.38** A < C; A < B | .45 |
| F% | 65.1 | 11.5 | 38.7 | 26.8 | 30.1 | 13.3 | 47.37** A > C; A > B | .70 |

Note. N = 92. RFS-P = Reality-Fantasy Scale mean score of a protocol; R = total number of Rorschach responses; M% = percentage of human movement responses; F% = percentage of responses based on shape only (pure form responses).
 **p < .001.

contrasts, it appears that the RFS was more sensitive to the degree of alexithymia than were either of the isolated Rorschach markers for reality and fantasy.

A hierarchical stepwise regression analysis was conducted to further examine the incremental validity of the RFS over the isolated Rorschach markers in predicting the criterion measure of TAS-20 (see Table 4). The independent variables were made available for stepwise entry in three hierarchical forced blocks: Block 1 = disease duration; Block 2 = the isolated alexithymia markers (R, M%, and F%); Block 3 = the RFS-P. The duration of the disease (Block 1) did not significantly add to the prediction of TAS-20. With regard to Block 2 of the isolated Rorschach markers, the percentage of responses based on shape only (F%) added significantly to the prediction of the criterion, whereas neither the total number of responses (R) nor the percentage of human movement responses (M%) entered into the equation. The RFS-P (Block 3) contributed significantly to the prediction of the criterion. The final multiple correlation was .70, accounting for 48% of the variance in TAS-20. Overall, these results show significant incremental

Table 4
Hierarchical Regression Final Model for the Toronto Alexithymia Scale Using Stepwise Entry Within Blocks

| Block | Variable entered | B | SE | β | t | p |
|----------------|------------------|-------|------|-----|-------|--------|
| 1 | (Constant) | 37.13 | 2.42 | | 15.37 | < .001 |
| | Duration | 0.002 | 0.02 | .08 | 0.98 | > .05 |
| 2 ^a | F% | 0.26 | 0.06 | .46 | 4.57 | < .001 |
| 3 | RFS-P | 3.83 | 1.41 | .28 | 2.72 | < .01 |

Note. N = 92. Duration = duration of disease in months; F% = percentage of responses based on shape only (pure form responses); RFS-P = Reality-Fantasy Scale mean score of a protocol.

^aVariables not entered in the equation in Block 2 were total number of responses and percentage of human movement responses.

validity of the RFS-P in the prediction of TAS-20 and thus offer support for the utility of the RFS as an empirical means for evaluating alexithymic proneness as compared with the isolated Rorschach markers.

Discussion

The aim of this article was to explore a new Rorschach index, the RFS. The scale was developed to operationalize Winnicott's (1971) concept of potential space, using alexithymia proneness as a validation criterion. The RFS was designed to assess adaptive use, creation, and preservation of potential or transitional space between reality and fantasy. The scale uses a combination of Rorschach variables based on Exner's (2003) CS plus one additional special score, RC, given to responses in which the subjects are observed or sound as if they are totally losing distance from the blot. The 11-point scale ranges from -5 (*reality collapse into fantasy*) to 5 (*fantasy collapse into reality*). A mean RFS score (RFS-P) of zero on a given protocol represents a balanced combination between reality and fantasy. Previous research in both nonpatient and patient samples showed that the RFS mean score of a protocol was around zero in normative healthy samples (Tibon et al., 2005) and was significantly lower, within the RFS negative range, in patients with psychotic proneness (Tibon et al., 2002).

The present study focused on the positive range of the scale and applied the RFS mean score as a single measure that indicates the severity of alexithymia as defined by the TAS-20 (Taylor et al., 1991). Using an Italian sample of 92 patients with IBD (Porcelli & Meyer, 2002), we found that the RFS-P significantly correlated with the TAS-20 total score. Unlike the findings of Porcelli and Meyer (2002), which focused on isolated Rorschach markers of the reality-fantasy continuum, the RFS significantly differentiated among the three groups defined according to the TAS-20 cutoff scores (alexithymic > indeterminate alexithymia > nonalexithymic). By producing significant pairwise comparisons in all the three contrasts, the RFS was more sensitive to the degree of alexithymia than either of the isolated Rorschach markers for reality and fantasy. Thus, the expected pattern of results was confirmed, and the RFS was shown to significantly contribute to the diagnostic task. A hierarchical stepwise regression analysis was conducted to further examine the incremental validity of the RFS over the isolated Rorschach markers in predicting the criterion measure of TAS-20. Overall, these results showed significant incremental validity of the RFS in the prediction of TAS-20 and thus offer support for the utility of the RFS as an empirical means for evaluating alexithymic proneness. These results concerning the positive (alexithymic) range of the RFS can be integrated with previous findings showing the incremental validity of the scale in predicting normality and psychotic proneness (Tibon et al., 2002, 2005).

One may wonder whether the complicated measure of the RFS is needed, given that the percentage of responses based on shape only (F%) provides almost the same information. It should be stressed that the main advantage of the new scale over isolated Rorschach variables is not only in significantly adding to the explained variance in the alexithymia measure but also in defining a specific psychopathological spectrum related to alexithymia. Furthermore, previous studies with the RFS (Tibon et al., 2002, 2005) explored both the normative range and the psychotic (fantasy) pole of the scale, pointing out its use in providing the clinician with a theoretically and empirically based diagnostic tool that captures a range of diagnostic entities in terms of one's ability to preserve transitional space. With regard to this perspective, the rationale of the RFS is theoretically

consistent with Rapaport's (1954/1967b) assumption that psychopathology is an exacerbation, that is, a decompensation, of personality patterns existing already in the adjusted personality, where transitional space between reality and fantasy is being adaptively preserved.

From the point of view of construct, Taylor et al. (1991) noted that studies that have adopted a measurement-based, validation methodology seem particularly pertinent to this construct in light of its theoretical and experimental ambiguity. Studies that used the TAS-20 provide evidence that alexithymia is a valid and quantifiable construct. Rorschach studies have further yielded data consistent with the construct's core dimensions. Nonetheless, the comparability of most of these findings was limited because investigators used different methods of administering, scoring, and interpreting the Rorschach. These methodological problems have been addressed by those studies that used relevant CS (Exner, 2000, 2001) variables and cross-validated a set of Rorschach response characteristics hypothesized a priori to be conceptually associated with alexithymia (Acklin & Alexander, 1988; Porcelli & Meyer, 2002). In line with these studies and consistent with their findings, our results support the main role played by lack of fantasy and a concrete, reality-oriented cognitive style in persons with alexithymia. The present study shows that the new RFS, which is theoretically consistent with the alexithymia construct, can differentiate subjects with and without established alexithymia characteristics.

We would caution against using the RFS while ignoring the influence of set on the Rorschach. The subjects in this study were patients with a severe, partially disabling, and chronic inflammatory disease. Although IBD patients have been shown to have stable alexithymic scores (Porcelli et al., 1996), suggesting a personality trait, these subjects had a long history of disease. Therefore, it is possible that the findings might be contaminated by other than reality-fantasy cognitive style. It would thus be helpful to look at contextual moderator variables that might influence the incremental validity of the RFS. However, as noted by Porcelli and Meyer (2002) the clinical validity of this study might be reduced by the fact that the subjects may not be representative of common clinical experience. Further studies of subjects with less extreme levels of alexithymia and with other disorders are needed. Such studies should also control for other diagnostic entities.

The study might particularly be valuable with regard to the psychoanalytic conception of alexithymia and its clinical implications. Although it is usually accepted that the Rorschach was not intended to be a diagnostic test (Weiner, 2000), the present study might be viewed as having potential utility in establishing diagnosis in terms of psychoanalytic thought. Furthermore, alexithymic individuals are not good candidates for traditional insight-oriented psychotherapy (Taylor et al., 1997); McDougall (1982) described them as anti-analysands. Using the RFS might help the clinician to understand these patients' difficulties from an experience-near perspective as demonstrated by their inability to "play" with the Rorschach cards.

The RFS might be considered as a Rorschach diagnostic tool that bridges the gap between Exner's (2003) empirical, atheoretical approach and the psychoanalytically oriented approach in Rorschach work. By successfully integrating Exner's CS and psychoanalytic thinking, this study strongly advocates the contemporary integrative approach to Rorschach interpretation (Meloy et al., 1997). Rapaport (1954/1967b) was the first to recognize the immense value of integrating the Rorschach with psychoanalytic theory. He thought that psychodiagnostics, both as a clinical method and as a tool of scientific investigation, needed a systematic rationale in terms of a general theory of psychodynamics. He saw the Rorschach as a tool researchers could use to operationalize psychoanalytic concepts that were often hazy and elusive, and then use these more

operational definitions to empirically validate core psychoanalytic formulations. This article represents an example of that side of Rapaport's vision.

To sum up, most of the psychoanalytically oriented Rorschach empirical measures employed by researchers have not been used to answer questions arising from daily clinical practice. From this perspective, the theoretical and empirically based RFS might be useful for the relatively few clinicians who use a quantitative empirical approach to operationalize psychoanalytic constructs and who are interested in applying these constructs in their clinical practice. This is in line with Rapaport's view (1947/1967a) that the clinical setting should introduce academically trained people to clinical problems. It is also consistent with the current view of a group of psychoanalytic psychologists (e.g., Masling, 2003) who are vigorously arguing that empirical studies with empirical data are needed in psychoanalysis. The RFS was aimed at operationalizing a difficult and elusive psychoanalytic construct that has subjective components. This might raise questions about many inferences necessary to be further explored regarding the scale; however, it strongly advocates the use of the empirically based CS (Exner, 2003) variables to operationalize psychoanalytic concepts by the Rorschach.

References

- Acklin, M. W., & Alexander, G. (1988). Alexithymia and somatization: A Rorschach study of four psychosomatic groups. *Journal of Nervous and Mental Disease, 176*, 343–350.
- Arlow, J. A. (1995). Unconscious fantasy. In E. Moore & B. D. Fine (Eds.), *Psychoanalysis: The major concepts* (pp. 155–162). New Haven, CT: Yale University Press.
- Bagby, R. M., Parker, J. D. A., & Taylor, G. J. (1994a). The twenty-item Toronto Alexithymia Scale: I. Item selection and cross-validation of the factor structure. *Journal of Psychosomatic Research, 38*, 23–32.
- Bagby, R. M., Parker, J. D. A., & Taylor, G. J. (1994b). The twenty-item Toronto Alexithymia Scale: II. Convergent, discriminant, and concurrent validity. *Journal of Psychosomatic Research, 38*, 33–40.
- Bollas, C. (1989). Normotic illness. In M. Fromm & B. Smith (Eds.), *The facilitating environment: Clinical applications of Winnicott's theory* (pp. 317–344). Madison, CT: International Universities Press.
- Bucci, W. (1997). Symptoms and symbols: A multiple code theory of somatization. *Psychoanalytic Inquiry, 17*, 151–172.
- Clerici, M., Albonetti, S., Papa, R., Penati, G., & Invernizzi, G. (1992). Alexithymia and obesity: Study of the impaired symbolic function by the Rorschach test. *Psychotherapy & Psychosomatics, 57*, 88–93.
- Exner, J. E. (2000). *A primer for Rorschach interpretation*. Asheville, NC: Rorschach Workshops.
- Exner, J. E. (2001). *Rorschach workbook for the comprehensive system*. (5th ed.) Asheville, NC: Rorschach Workshops.
- Exner, J. E. (2003). *The Rorschach: A comprehensive system: Vol. 1. Basic foundations and principles of interpretation* (4th ed.). Hoboken, NJ: Wiley.
- Gaddini, R. (1974). Early psychosomatic symptoms and the tendency towards integration. *Psychotherapy and Psychosomatics, 23*, 26–34.
- Holt, R. R. (1978). *Methods in clinical psychology: Projective assessment*. New York: Plenum Press.
- Joukamaa, M., Miettunen, J., Kokkonen, P., Koskien, M., Julkunen, J., & Kauhanen, J. (2001). Psychometric properties of the Finnish 20-item Toronto Alexithymia Scale. *Nordic Journal of Psychiatry, 55*, 123–127.
- Kleiger, J. H. (1999). *Disordered thinking and the Rorschach: Theory, research, and differential diagnosis*. Hillsdale, NJ: Analytic Press.

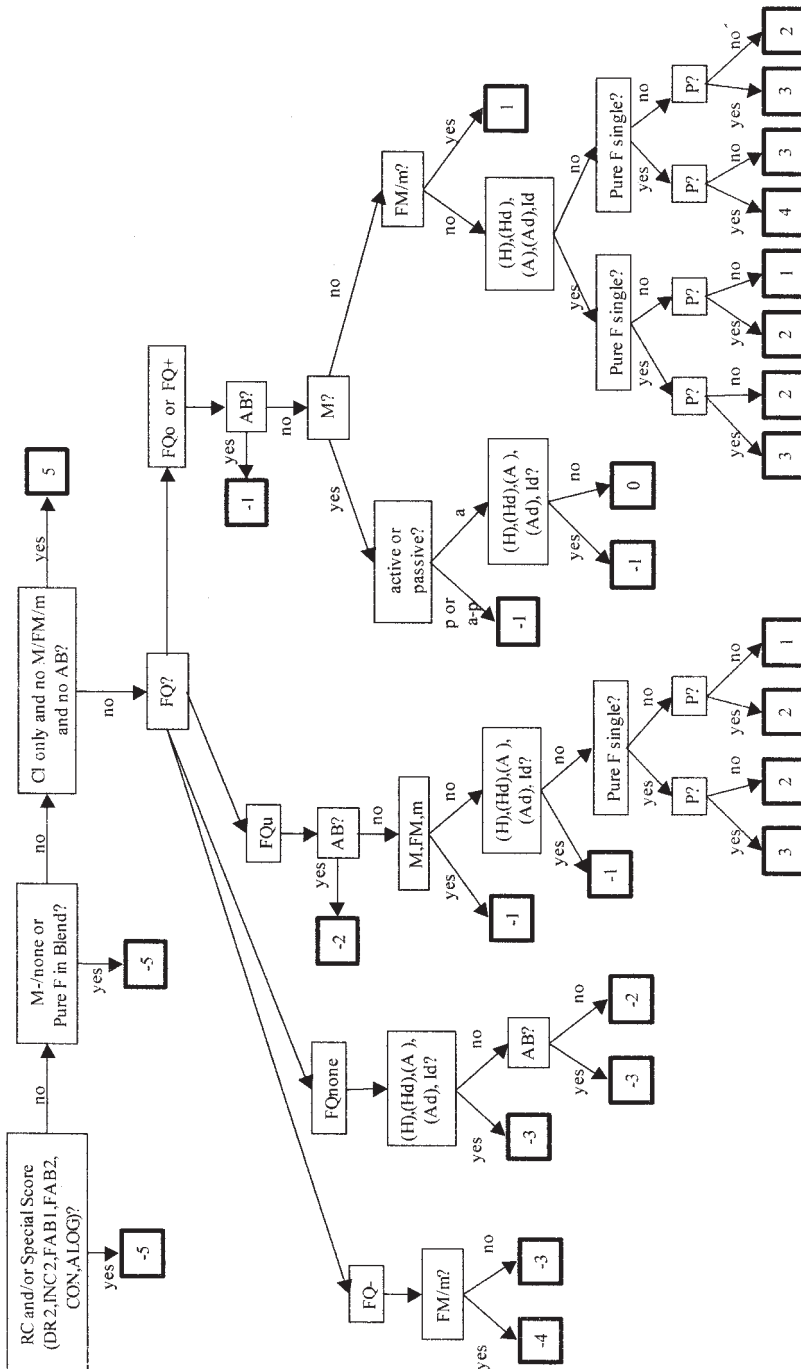
- Krystal, H. (1974). The genetic development of affect and affect regression. *Annual of Psychoanalysis*, 3, 179–219.
- Lane, R. D., & Schwartz, G. E. (1987). Levels of emotional awareness: A cognitive developmental theory and its application to psychopathology. *American Journal of Psychiatry*, 144, 133–143.
- Leichtman, M. B. (1996). *The Rorschach: A developmental perspective*. Hillsdale, NJ: Analytic Press.
- Lerner, P. M. (1990). Rorschach assessment of primitive defenses: A review. *Journal of Personality Assessment*, 54, 30–46.
- Lerner, P. M. (1998). *Psychoanalytic perspectives on the Rorschach*. Hillsdale, NJ: Analytic Press.
- Marty, P., & de M'Uzan, M. (1963). La pensée opératoire [Operatory thinking]. *Review of French Psychoanalysis*, 27, 1345–1356.
- Masling, J. (2003). Stephen A. Mitchell, relational psychoanalysis, and empirical data. *Psychoanalytic Psychology*, 20, 587–608.
- McDougall, J. (1982). Alexithymia: A psychoanalytic viewpoint. *Psychotherapy & Psychosomatics*, 38, 81–90.
- McDougall, J. (1984). The disaffected patient. *Psychoanalytic Quarterly*, 53, 386–409.
- McDougall, J. (1989). *Theatres of the body: A psychoanalytic approach to psychosomatic illness*. London: Free Association Books.
- McDougall, J. (1991). *Theaters of the mind*. New York: Brunner/Mazel.
- Meloy, J. R., Acklin, M. N., Gacono, C. B., & Peterson, C. A. (Eds.). (1997). *Contemporary Rorschach interpretation*. Mahwah, NJ: Erlbaum.
- Mitchell, S. (2000). *Relationality from attachment to intersubjectivity*. Hillsdale, NJ: Analytic Press.
- Nemiah, J. C., & Sifneos, P. E. (1970). Affect and fantasy in patients with psychosomatic disorders. In O. W. Hill (Ed.), *Modern trends in psychosomatic medicine* (Vol. 2, pp. 26–34). London: Butterworths.
- Nunnally, J. C., & Bernstein, I. H. (1994). *Psychometric theory* (3rd ed.). New York: McGraw-Hill.
- Ogden, T. H. (1980). On the nature of schizophrenic conflict. *International Journal of Psycho-Analysis*, 61, 513–533.
- Ogden, T. H. (1982). Treatment of the schizophrenic state of non-experience. In P. L. Giovacchini & L. B. Boyer (Eds.), *Technical factors in the treatment of the severely disturbed patient*. New York: Jason Aronson.
- Ogden, T. H. (1985). On potential space. *International Journal of Psycho-Analysis*, 65, 129–140.
- Ogden, T. H. (1986). *The matrix of the mind*. Northvale, NJ: Jason Aronson.
- Ogden, T. H. (1988). On the dialectical structure of experience: Some clinical and theoretical implications. *Contemporary Psychoanalysis*, 24, 17–45.
- Ogden, T. H. (1989). Playing, dreaming and interpreting experience: Comments on potential space. In M. Fromm & B. Smith (Eds.), *The facilitating environment: Clinical applications of Winnicott's theory* (pp. 255–278). Madison, CT: International Universities Press.
- Parker, J. D. A., Bagby, R. M., Taylor, G. J., Endler, N. S., & Schmitz, P. (1993). Factorial validity of the 20-item Toronto Alexithymia Scale. *European Journal of Personality*, 7, 221–232.
- Parker, J. D. A., Taylor, G. J., & Bagby, R. M. (2003). The 20-Item Toronto Alexithymia Scale: III. Reliability and factorial validity in a community population. *Journal of Psychosomatic Research*, 55, 269–275.
- Porcelli, P., Leoci, C., Guerra, V., Taylor, G. J., & Bagby, R. M. (1996). A longitudinal study of alexithymia and psychological distress in inflammatory bowel disease. *Journal of Psychosomatic Research*, 41, 569–573.
- Porcelli, P., & Meyer, G. J. (2002). Construct validity of Rorschach variables for alexithymia. *Psychosomatics*, 43, 360–369.
- Rapaport, D. (1967a). The future of research in clinical psychology and psychiatry. In M. Gill (Ed.), *Collected papers of David Rapaport* (pp. 237–250). New York: Basic Books. (Original work published 1947)
- Rapaport, D. (1967b). The theoretical implications of diagnostic testing procedures. In M. Gill (Ed.),

- Collected papers of David Rapaport* (pp. 334–356). New York: Basic Books. (Original work published 1954)
- Rapaport, D. (1967c). The theory of ego autonomy. In M. Gill (Ed.), *Collected papers of David Rapaport* (pp. 722–744). New York: Basic Books. (Original work published 1957)
- Ruesch, J. (1948). The infantile personality. *Psychosomatic Medicine*, *10*, 134–144.
- Sami-Ali, M. (1987). *Penser le somatique* [Thinking the somatic]. Paris: Duond.
- Schafer, R. (1954). *Psychoanalytic interpretation in Rorschach testing: Theory and application*. New York: Grune & Stratton.
- Smith, B. (1990). Potential space and the Rorschach: Application of object relations theory. *Journal of Personality Assessment*, *55*, 756–767.
- Taylor, G. J. (1987). *Psychosomatic medicine and contemporary psychoanalysis*. Madison, CT: International Universities Press.
- Taylor, G. J. (2003). Somatization and conversion: Distinct or overlapping constructs. *Journal of the American Academy of Psychoanalysis and Dynamic Psychiatry*, *31*, 487–508.
- Taylor, G. J., Bagby, R. M., & Parker, J. D. (1991). The alexithymia construct. A potential paradigm for psychosomatic medicine. *Psychosomatics*, *32*, 153–164.
- Taylor, G. J., Bagby, R. M., & Parker, J. D. A. (1997). *Disorders of affect regulation: Alexithymia in medical and psychiatric illness*. Cambridge, England: Cambridge University Press.
- Taylor, G. J., Bagby, R. M., & Parker, J. D. A. (2003). The 20-Item Toronto Alexithymia Scale: IV. Reliability and factorial validity in different languages and cultures. *Journal of Psychosomatic Research*, *55*, 277–283.
- Tibon, S., Handelzalts, J. E., & Weinberger, Y. (2002). *The effectiveness of the Reality–Fantasy Scale (RFS) in normative and clinical samples*. Paper presented at the 17th Congress of the International Rorschach Society, Rome.
- Tibon, S., Handelzalts, J. E., & Weinberger, Y. (2005). Using the Rorschach for exploring the concept of transitional space within the political context of the Middle East. *International Journal of Applied Psychoanalytic Studies*, *2*, 40–57.
- Viglione, D., Perry, W., & Meyer, G. J. (2003). Refinements in the Rorschach Ego Impairment Index incorporating the human representational variable. *Journal of Personality Assessment*, *81*, 149–156.
- Wallerstein, R. S. (1995). Reality. In E. Moore & B. D. Fine (Eds.), *Psychoanalysis: The major concepts* (pp. 293–305). New Haven, CT: Yale University Press.
- Weiner, I. B. (2000). Using the Rorschach properly in practice and research. *Journal of Clinical Psychology*, *56*, 435–438.
- Weiner, I. B. (2003). *Principles of Rorschach interpretation*. Mahwah, NJ: Erlbaum.
- Willock, B. (1992). Projection, transitional phenomena and the Rorschach. *Journal of Personality Assessment*, *59*, 99–115.
- Winnicott, D. W. (1958). Primitive emotional development. In *Through paediatrics to psychoanalysis* (pp. 145–156). New York: Basic Books. (Original work published 1945)
- Winnicott, D. W. (1971). *Playing and reality*. New York: Basic Books.

(Appendix follows)

Appendix

Flow Chart of Scoring the Response-Level Reality-Fantasy Scale



Note. RC = Reality Collapse; DR2 = Deviant Response Level 2; INC2 = Incongruous Combination Level 2; FAB1 = Fabulized Combination Level 1; FAB2 = Fabulized Combination Level 2; CON = Contamination; A LOG = Inappropriate Logic; M = Human Movement; F = Form; C1 = Clouds; m = Inanimate Movement; AB = Abstract Content; FQ = Form Quality; FQu = Form Quality Unusual; FQo = Form Quality Ordinary; (H) = Whole Human, Fictional or Mythological; (Hd) = Human Detail, Fictional or Mythological; (A) = Whole Animal, Fictional or Mythological; (Ad) = Animal Detail, Fictional or Mythological; Id = Idiographic Content; P = Popular.