

# The Rorschach Rating Scale: Item Adequacy, Scale Development, and Relations With the Big Five Model of Personality

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This study first explored the adequacy of items on the Rorschach Rating Scale (RRS), which measures Rorschach constructs from a variety of scoring systems. Analyses determined that all items had an adequate capacity to differentiate people and none were clearly redundant. At the same time, the current version of the RRS requires good reading comprehension skills for accurate completion (13th grade level). Next, we developed two sets of RRS scales. Factor analysis of observer ratings ( $N = 234$ ) indicated the RRS contained six broad, empirically derived factors. In addition, 19 conceptually derived scales were developed from the RRS item pool. Both sets of scales were evaluated for reliability and then compared to the Big Five model (B5M) of personality through a series of factor and regression analyses. Results indicated that RRS scales do not provide adequate definition of all B5M dimensions and B5M scales do not provide adequate definition of all RRS dimensions. We discuss the place of psychotic processes within a comprehensive model of personality and other implications from these findings.

The Rorschach Rating Scale (RRS) was recently developed as a criterion instrument for assessing the validity of a wide range of Rorschach scores (Meyer et al.,



of personality structure. With respect to the first issue, we consider how RRS item constructs can be organized into conceptually broader scales. To the extent that meaningful RRS scales can be constructed on either rational or empirical grounds, the results provide a strategy for combining actual Rorschach scores in a manner that may maximize validity coefficients in applied research (Meyer, 1996a).

The second conceptual issue we explore is whether RRS constructs are distinct from the constructs contained within other models of personality. In many respects, the item content of the RRS reflects a Rorschach-based "model" of personality. This is because the RRS draws on constructs from most of the scoring systems in current use and because each RRS item is tied to a Rorschach score that, over the years, has been inductively or deductively linked to some seemingly important manifestation of personality and psychopathology. The resulting "model" of personality has well-defined roots in the clinical observation of psychiatric patients and in psychodynamic theories of personality. Furthermore, because the Rorschach has been one of the most frequently used instruments in applied clinical practice (Camara, Nathan, & Puente, 1998; Piotrowski & Keller, 1992; Watkins, Campbell, Nieberding, & Hallmark, 1995), the constructs derived from the Rorschach represent some of the most consistently employed constructs in applied clinical psychology.

Emerging from a very different tradition of factor analytic research on normal personality and the trait-descriptive words encoded in lay language, the five-factor model (Costa & McCrae, 1992a, 1992b, 1995; McCrae & Costa, 1997) and the closely related Big Five model (B5M; Goldberg, 1990, 1992) have produced a dominant framework for understanding personality. Although slight disagreements exist between these two models, because of their scope, cross-cultural replication, and consistent validation, their framework is the closest psychology has come to developing a research-based paradigmatic understanding of personality.

Because the Rorschach-based assessment of patients and the factor analytic study of normal personality reflect two very different but popular approaches to understanding personality, we sought to determine whether the RRS measured constructs that were similar to those that have emerged from the factor analytic tradition. In particular, we were interested in whether the RRS defined clinical constructs (e.g., psychosis) that may not have been incorporated into a model with roots in the study of normal personality characteristics.

## METHOD

### Participants

We solicited raters for this study from two settings. The first was a forensic treatment center in which seven master's-level social workers generated ratings on a final sample of 89 patients (see text following for exclusion criteria). The target

patients were all men and they were predominately Caucasian (46.1%) or Hispanic (37.1%), although African Americans (14.6%) were also represented. The patients had an average age of 37.3 years (range = 22–63). Diagnostic, offense, and history information were not recorded for each patient. However, all were in a low-security setting and had been referred for treatment due to a substance abuse disorder.

Four of the raters for this sample were male; five were Caucasian and two were Hispanic. They had a mean age of 30.9 (range = 24–47). Overall, the raters had known their target patients for an average of 6.2 months ( $Mdn = 4.0$ ). Approximately 40% of the raters had contact with their target patients for 0 to 3 hr per week, another 40% had contact for 4 to 8 hr per week, and the final 20% had contact for 9 to 16 hr per week. Using a Likert scale, 65% of the ratings were from raters who said they knew the target patient “a little,” 24% who knew the patient “pretty well,” and 3% who knew him “very well.” In 8% of the ratings, this item was omitted.

After excluding invalid data (see the following), the second subsample of raters consisted of 157 students from the University of Alaska Anchorage. The raters were predominately female (80%) and Caucasian (77.1%; 6.4% were African American, 4.5% Hispanic, 4.5% Alaskan Native or North American Indian, 2.5% Asian, and 4.5% other). They had an average age of 28.4 years (range = 18–58). These raters were instructed to select a target person they knew well and, given the clinical focus of the RRS, they were encouraged to rate someone who had psychological difficulties. Of the target participants, 52% were male and the mean age was 29.2 (range = 14–63). In relation to the rater, the targets were friends (49.1%), spouses or live-in partners (23.3%), classmates (11.3%), siblings (10.7%), co-workers (8.9%), or children (3.1%). Raters had known the targets for an average of 8.8 years ( $Mdn = 6.0$ ; range = 2 months–54.6 years). Most raters (55.9%) spent 30 or more hours per week with the target person and most raters (56.7%) felt they had an “excellent” knowledge of the person they rated.<sup>1</sup>

<sup>1</sup>This study was designed to obtain a large and heterogeneous sample of target participants. Our intent was to combine both subsamples into one large data set, even though they were obtained from very different sources. However, on the advice of a reviewer, we examined differences between these two subsamples. Without the need for statistical tests, the samples obviously differed on several variables, including sex, criminal status, rater–target relationship, race, and age. The reviewer hypothesized that sample differences may have created an artificially large first factor in our RRS data. Specifically, if the student raters examined “agreeable, conscientious, relaxed friends and intimates,” whereas the clinicians rated “disagreeable/hostile, careless/sloppy, neurotic forensic patients,” this would artificially force the first RRS principal component to be unusually large. The most direct way to evaluate whether this sampling phenomenon affected the data was to compare the first principle component after it had been generated in three ways: from the full sample, from the student-rater sample, and from the clinician-rater sample. This analysis was complicated because the number of participants in the last two analyses were less than the number of RRS items, which forced all eigenvalues to be zero when the root surpassed the number of participants. Despite this complication, the first unrotated principal component from the full sample correlated at .9998 with its counterpart in the student-rater sample ( $n = 149$ ) and at .9445 with its counterpart in the clinician-rater sample ( $n$

## Materials

The RRS contains 262 items,<sup>2</sup> which are divided into two sections. The second section contains 77 items that address the Comprehensive System indexes developed to assess suicide, depression, coping deficits, psychosis, hypervigilance, and obsessiveness (see Meyer, 1996a, for a detailed description). The first section of the RRS contains 185 items that assess constructs derived from a variety of Rorschach scoring systems. These items are the focus of this article. A complete list of these 185 items can be found in Appendix A, along with an indication of the Rorschach score(s) each item was designed to measure. Nine of the first 185 items are validity indicators for assessing random or inconsistent responding. Four items ask about extremely high or low frequency behaviors (e.g., “This person is able to breathe on a regular basis.”), and five are repeated items. Thus, out of the first 185 RRS items that are the focus of this study, only 176 are legitimate, nonduplicated items.

To assess the five-factor analytic dimensions of personality, we created a 50-item inventory, with each dimension defined by 10 items. The 10 markers for each dimension were selected from Goldberg’s (1990, 1992) and Saucier’s (1994) extensive research on the B5M. Using the data from Table 3 in Goldberg (1992) and Table 2 in Saucier, two interrelated criteria were employed to select marker terms for each factor. First, we selected terms that had a maximal loading on one of the five primary dimensions and small loadings on the other four. Second, to avoid artificially defining dimensions by using semantic polarities, we tried to avoid sim-

ponent did not vary much from subsample to subsample. Nonetheless, mean differences existed on the first unrotated principal component in these two subsamples (student rater  $M = -0.160$ ,  $SD = 1.13$ ; clinician rater  $M = 0.318$ ,  $SD = 0.54$ ;  $t[221.38] = -4.28$ ,  $p < .001$ ). To make the latter meaningful, the result can be considered in terms of the familiar  $T$ -score metric, as used on the MMPI. Employing this terminology, the student raters produced a mean score on the first factor equivalent to a  $T$  score of 48.4; the clinician raters produced a mean equivalent to a  $T$  score of 53.2. Thus, although the difference is statistically significant, it is rather negligible. The fact that we asked the student raters to describe someone with psychological difficulties may partially account for the lack of dramatic differences on this variable. A second set of analyses were conducted to explore subsample differences on the B5M scales. We examined both unit-weighted item scales and factor scores. The samples did not differ on  $N$ . However, statistically significant differences were evident for I/O, E, A, and C, with the students being higher on all constructs. Averaged across the analyses for factor scores and item scales, the differences expressed in terms of Cohen’s  $d$  were .97, .68, .42, and .39, respectively. The  $T$ -score equivalents, centering the

ple antonyms (e.g., “creative” to define one pole and “uncreative” to define the opposite pole). The items for neuroticism<sup>3</sup> (N) were anxious, emotional, fearful, irritable, jealous, moody, nervous, temperamental, touchy, and (–) relaxed. Extraversion (E) was defined by assertive, energetic, extraverted, talkative, verbal, (–) introverted, (–) quiet, (–) reserved, (–) shy, and (–) withdrawn. Items for intellect/openness<sup>4</sup> (I/O) consisted of artistic, bright, complex, creative, deep, innovative, intellectual, philosophical, (–) simple, and (–) unimaginative. The items for conscientiousness (C) were efficient, neat, organized, systematic, thorough, (–) careless, (–) haphazard, (–) inconsistent, (–) inefficient, and (–) sloppy. Agreeableness (A) items were agreeable, cooperative, helpful, kind, sympathetic, trustful, warm, (–) cold, (–) harsh, and (–) rude.

## Procedures

Raters in both settings were given identical core instructions for completing the RRS and B5M items. For the RRS, raters were instructed to compare the target person to an “average person” and to make ratings based on what they believed was true of the target, regardless of whether the target would agree with this characterization. Raters were also told that judgments are frequently biased by global impressions. To counter this, they were encouraged to think about each item and recall as much relevant information as possible, taking into account their impressions and feelings, knowledge from all potential sources of information, and observations of behavior across different settings. Finally, raters were informed that the scale contained items to evaluate rating consistency and they were encouraged to be conscientious when completing the task. All items were rated on a 5-point scale ranging from 1 (*very uncharacteristic or definitely false*) to 5 (*very characteristic or definitely true*). The format for the B5M ratings followed Goldberg’s example (1992, Appendix A), although items were rated on a 5-point rather than 9-point scale. The options ranged from 1 (*very inaccurate*) to 5 (*very accurate*).

## Data Integrity

*Inconsistency.* Four RRS items can identify highly deviant responses (e.g., a neutral or “true” response to: “This person has not slept at all for the past three months.”). Intermediate or deviant scores on any of these items indicated carelessness, and we eliminated these ratings. Out of an initial pool of 311 target ratings from

<sup>3</sup>In the B5M tradition, neuroticism is usually labeled by its opposite pole, emotional stability.

<sup>4</sup>This factor is viewed as “intellect” in the B5M and as “openness to experience” in the five-factor model. Although one of our marker terms (*bright*) more clearly falls in the B5M tradition, the remaining nine terms are consistent with the constructs assessed in both models (cf. Costa & McCrae, 1992b). Thus, for this study we use the hybrid terminology *intellect/openness* to refer to this factor.



## Factor Analytic Procedures

Research has indicated the absolute number of participants in a factor analysis is more critical than a specific participant-to-variable ratio (Gorsuch, 1997; Guadagnoli & Velicer, 1988) because the statistical stability of the correlation matrix is more important than the number of variables being intercorrelated. For instance, simulation studies have shown that samples as small as 100 can be sufficient for the analysis of up to 72 variables, whereas samples as small as 150 can be sufficient for the analysis of 144 variables, provided that each analysis contains a sufficient number of high loading (i.e.,  $> .60$ ) variables to define each factor (Guadagnoli & Velicer, 1988). As detailed in the following text, one of our analyses (of the RRS items) contained 176 variables and 234 participants, whereas another (of the RRS items and 5 B5M scales) contained 181 variables and 224 participants. Although the number of variables in these matrices are larger than has yet been tested in a simulation study, we analyzed the matrices keeping in mind identifying factors would be difficult if they were defined by item loadings less than approximately  $.40$  (Gorsuch, 1997). More specifically, Guadagnoli and Velicer recommend retaining factors or components if they are defined by four or more variables with loadings higher than  $.60$ , regardless of sample size, and retaining components defined by 10 to 12 variables with loadings higher than  $.40$  if the sample contains more than 150 participants.

To identify the proper number of factors to extract, we relied on a modified form of Horn's parallel analysis, which is uniformly the most accurate criteria for identifying factors in a matrix (Zwick & Velicer, 1986). Parallel analysis retains all factors with eigenvalues larger than the average of parallel eigenvalues generated from random data matrices containing the same number of "subjects" and "variables" as the target analysis. For each of our data sets, we generated 25 paral-



root, etc.). Finally, across the 25 random data sets, we averaged the values observed for the first root, then the values for the second root, and so on. In the standard approach to parallel analysis, any eigenvalue from the genuine data set that exceeds the average of the corresponding eigenvalue from the random data sets is considered a genuine (i.e., nonrandom) factor and it is retained. Thus, if the genuine data set produces an eigenvalue for the third root that exceeds the average third root eigenvalue from the random data matrices, the third factor in the genuine data set is retained.

Although parallel analysis provides the most accurate criteria for identifying factors, it tends to overextract factors when the matrix contains complex variables (i.e., those with loadings on more than one factor), and it also tends to retain poorly defined factors (Glorfeld, 1995; Zwick & Velicer, 1986). These issues were evident in this study. For instance, when the 50 B5M items were factored, the traditional parallel analysis criteria indicated seven factors should be retained, rather than the five that would be expected on theoretical grounds. However, two of 49.3(two)-22(o2

ria, resulted in factors that did not meet the retention criteria Guadagnoli and

## Development of RRS Scales

We took two distinct approaches to producing scales from the RRS item pool. The first was empirically driven and used exploratory factor analysis. The second was conceptually driven with subsequent refinement by item analysis.

*Factor-derived scales.* A principal components analysis was conducted with the 176 RRS variables. Both varimax and oblimin rotations were explored. For the oblimin rotation, we set the delta parameter at zero to allow maximal correlations among the factors. To identify the proper number of factors to extract, we generated 25 random matrices containing 234 “subjects” and 176 “variables.” The average largest eigenvalue from each random data set was 3.37, so we extracted all factors in the actual data set that had larger eigenvalues. This resulted in the extrac-

Vulnerability, and Inferiority factor. The fourth factor was bipolar. The more strongly defined pole had loadings greater than .40 from items 1, 13, 55, 61, 14, 166, 111, 32, 112, 56, 43, 165, 41, and 12, whereas the other pole had loadings greater than .40 from items 28, 22, 50, 24, and 29. This factor contrasted Emotional Health and Coping Effectiveness with Emotional Control Problems. The fifth factor was also bipolar. The more strongly defined pole had loadings greater than .40 from items 20, 154, 164, 19, 113, 130, 60, and 54, whereas the other pole had loadings greater than .40 from items 119, 118, 172, 126, 16, and 15. Item content suggested this was a factor of Social and Emotional Engagement versus Constriction. The final factor was unipolar. It contained loadings greater than .40 from items 62, 64, 63, 65, 66, 49, 44, 120, 17, 18, and 34. This appeared to be a factor of Intellectual Defenses and Obsessive Character.

Next, scales were generated for each factor by selecting items that had a pattern of strong convergence with one factor (i.e., loadings > .40) and smaller associations with the remaining factors (i.e., loadings < .30). Table 1 provides the item composition, coefficient alpha values, mean, and *SD* for these six scales. None of the scales had skewness greater than |.22|. The table indicates that several shorter scales have internal consistency estimates less than .80. Higher reliability values could have been obtained by using all the items previously listed. However, doing so would have produced scales that were less representative of the underlying factor because items with larger secondary loadings on other scales would have been included.-

*Conceptually derived scales.* To identify items that would form cohesive constructs, the first author systematically reviewed the RRS content. An initial set of five scales was deliberately created to measure the B5M dimensions.<sup>6</sup> Due to limitations in RRS item content, the resulting scales often emphasized a particular facet of the overall dimension rather than complete coverage of the construct. To re-

TABLE 2  
Item Composition, Internal Consistency, Means, and Standard  
Deviations of Conceptually Derived RRS Scales

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derpinnings of the RRS and B5M. Using several sets of variables, we examined how the factor structure changed as a function of initial conditions. Finally, a series of regression analyses examined the maximal extent to which one set of personality variables could predict the other. The results explored both the extent to which B5M scales predicted RRS scales and also the extent to which RRS scales predicted B5M scales. Because all these results were ultimately a function of the correlation among B5M and RRS scales, Appendix B presents a full matrix of intercorrelations with the relevant scales.

## RESULTS

### Readability of the RRS Items

To evaluate the reading level required for the RRS, we entered items into a word processing file, treating each item as a separate paragraph. Using the Grammatik program contained in WordPerfect for Windows 6.1 (Novell, 1994), several readability statistics were generated and compared to data for the California Child Q-Set (CCQ; Caspi et al., 1992) and the Minnesota Multiphasic Personality Inventory-2 (MMPI-2), Millon Clinical Multiaxial Inventory-II, Basic Personality Inventory, and Personality Assessment Inventory (Schinka & Borum, 1993).

The average number of syllables per word in the RRS is 1.89 and, on average, the RRS contains 16.19 words per sentence. Using the Flesch-Kincaid formula, the RRS was found to have a reading difficulty at the 13th grade level.<sup>7</sup> These statistics show that the RRS is linguistically more complex than common self-report inventories. Schinka and Borum (1993) reported average syllables between 1.34 and 1.42, average words per sentence between 8.20 and 12.20, and average reading levels between the third and fifth grades. However, the readability of the RRS was quite comparable to the original CCQ, another scale often used with professional and lay raters. The original CCQ had a readability level that was well above the 11th grade, which was the upper limit of the scale used by Caspi et al. (1992).

### RRS Factor-Derived Scales in the Context of B5M Items

To explore overlap between the RRS and B5M, we first conducted a principal components analysis of the 50 B5M items and the six RRS factor-derived scales

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<sup>7</sup>For an intuitive comparison, the text in this article has 1.9 syllables per word, 23.42 words per sentence, and a Flesch-Kincaid grade level of 16. The Flesch-Kincaid formula to compute grade level is  $(0.39 \times \text{words per sentence}) + (11.8 \times \text{syllables per word}) - 15.59$ .

(using the unit-weighted sum of items listed in Table 1, not factor scores). The eigenvalues (and percent of total variance explained) for the first 10 components in the initial solution were as follows: 11.25 (20.1), 6.45 (11.5), 4.07 (7.3), 3.22 (5.8), 2.56 (4.6), 2.10 (3.8), 1.83 (3.3), 1.41 (2.5), 1.29 (2.3), and 1.24 (2.2). A parallel analysis using 25 random data sets ( $N = 224$ ,  $k = 56$ ) with our modified criteria indicated eigenvalues greater than 2.13 should be extracted, so five factors were extracted and rotated to a varimax solution (see Table 3). These five factors were virtually identical to the factors that emerged when the B5M items had been factored in isolation (data not presented) with all factor score correla



TABLE 3  
 Factor Solution for the RRS Factor-Derived Scales in the Context of B5M Items

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<i>Variable</i>	<i>h<sup>2</sup></i>	<i>Factor Loadings</i>				
		<i>F1 (A)</i>	<i>F2 (I/O)</i>	<i>F3 (N)</i>	<i>F4 (E)</i>	<i>F5 (C)</i>
A-cooperative <sup>a</sup>	.61	.76 <sup>b</sup>				

TABLE 3 (Continued)

Variable	$h^2$	Factor Loadings				
		F1 (A)	F2 (I/O)	F3 (N)	F4 (E)	F5 (C)
E-talkative <sup>a</sup>	.50	.15	.20	.18	.64 <sup>b</sup>	-.01
E-introverted <sup>a</sup>	.45	-.05	.11	.16	-.63 <sup>b</sup>	.09
E-withdrawn <sup>a</sup>	.58	-.30	-.16	.29	-.61 <sup>b</sup>	-.06
E-verbal <sup>a</sup>	.56	.13	.38	.11	.60 <sup>b</sup>	.17
E-energetic <sup>a</sup>	.42	.23	.16	-.14	.48 <sup>b</sup>	.30
C-organized <sup>a</sup>	.68	.14	.04	.02	.05	.81 <sup>b</sup>
C-neat <sup>a</sup>	.54	.02	-.06	.07	.11	.72 <sup>b</sup>
C-efficient <sup>a</sup>	.59	.28	.25	-.03	.00	.67 <sup>b</sup> -.0374.3(.60)]TJ3]TJ9.3(.07)

### RRS Conceptually Derived Scales in the Context of B5M Items

The next analysis examined the 50 B5M items and the 19 conceptually derived RRS scales. In the initial solution the first 10 components had the following eigenvalues (and percent of variance explained): 17.97 (26.0), 6.91 (10.0), 4.04 (5.9), 3.44 (5.0), 2.91 (4.2), 2.17 (3.1), 2.10 (3.0), 1.83 (2.6), 1.37 (2.0), and 1.31 (1.9). Using 25 random data sets ( $N = 224$ ,  $k = 69$ ) our parallel analysis criteria indicated that eigenvalues greater than 2.34 should be extracted, so we extracted five factors and rotated to a varimax solution (see Table 4).

Four of the dimensions reported in Table 4 were essentially the same as those reported in Table 3, having factor score correlations greater than .95. However, the correlation between N in Table 4 and N in Table 3 was lower ( $r = .90$ ). This alteration in neuroticism was even more evident when factor scores from the solution reported in Table 4 were correlated with factor scores obtained when the B5M items had been factored in isolation. Although the A, C, and E dimensions were virtually synonymous ( $r > .95$ ) and the I/O dimensions were similar ( $r = .91$ ), the N dimensions were different, having a correlation of only .79 across solutions. Thus,

TABLE 4

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TABLE 4 (Continued)

Variable	Factor Loadings					
	$h^2$	F1 (N)	F2 (A)	F3 (I/O)	F4 (C)	F5 (E)
I/O–philosophical <sup>a</sup>	.29	-.09	.08	.50 <sup>b</sup>	.12	-.10
I/O–intellectual <sup>a</sup>	.51	-.08	.24	.49 <sup>b</sup>	.45	.09
I/O–artistic <sup>a</sup>	.25	-.04	.15	.47 <sup>b</sup>	-.01	-.02
E–assertive	.45	-.24	-.04	.47	.20	.37 <sup>b</sup>
N–moody	.47	.41 <sup>b</sup>	-.29	.45	-.08	.07
I/O–bright <sup>a</sup>	.50	-.16	.19	.44 <sup>b</sup>	.42	.26
N–emotional	.50	.35 <sup>b</sup>	.36	.37	-.12	.31
Emotional spontaneity	.36	.20	.34	.35	-.07	.29
I/O–simple <sup>a</sup>	.23	.12	.25	-.34 <sup>b</sup>	-.11	-.18
C–organized <sup>a</sup>	.61	-.03	.12	.05	.77 <sup>b</sup>	.02
C–efficient <sup>a</sup>	.59	-.09	.26	.20	.69 <sup>b</sup>	-.02
C–neat <sup>a</sup>	.45	.04	.01	-.03	.66 <sup>b</sup>	.08
C–thorough <sup>a</sup>	.58	-.10	.26	.28	.65 <sup>b</sup>	.03
C–systematic <sup>a</sup>	.54	.07	.22	.27	.64 <sup>b</sup>	-.04
C–haphazard <sup>a</sup>	.44	.37	-.08	.05	-.54 <sup>b</sup>	.07
RRS C–Thoroughness <sup>a</sup>	.52	-.40	.25	.16	.52 <sup>b</sup>	-.02
C–inefficient <sup>a</sup>	.35	.26	-.11	-.08	-.51 <sup>b</sup>	-.06
C–sloppy <sup>a</sup>						

although N in Table 4 shared many core elements with N as it is traditionally defined in the B5M, adding the 19 RRS scales to the 50 B5M items shifted the definition of this dimension in the combined analysis.

As indicated in Table 4, N was now the largest factor in the data set. This was because most of the conceptually derived RRS scales defined this dimension. In fact, 12 out of the 15 largest loadings (i.e., > .50) on this factor were from RRS scales, suggesting that these scales generally quantify more “intense” neurotic



enough variables share construct overlap and empirical redundancy. As the preceding analysis demonstrated, the extent to which certain content is emphasized in the selection of variables is pivotal for determining the presence and size of the factors that are eventually extracted. So far we have examined a relatively



TABLE 5  
Prediction of RRS Scales From Forced Entry of All B5M Scales

<i>Criterion Scale</i>	<i>R</i> <sup>2</sup>	<i>R</i>
RRS Factor-Derived Scales		
1. Narcissism, Aggression, and Dominance	.53	.73
2. Perceptual Distortions and Thought Disorder	.30	.55
3. Passive Dependence, Vulnerability, and Inferiority	.34	.58
4. Emotional Health and Coping Effectiveness	.41	.64
5. Social and Emotional Engagement	.37	.61
6. Intellectual Defenses and Obsessive Character	.11	.33
<i>M</i>	.34	.57
RRS Factor Scores		
1. Narcissism, Aggression, and Dominance	.41	.64
2. Perceptual Distortions and Thought Disorder	.14	.37
3. Passive Dependence, Vulnerability, and Inferiority	.36	.60
4. Emotional Health and Coping Effectiveness	.25	.50
5. Social and Emotional Engagement	.49	.70
6. Intellectual Defenses and Obsessive Character	.11	.33
<i>M</i>	.29	.52
RRS Conceptually Derived Scales		
RRS Neuroticism	.58	.76
RRS Extraversion–Sociability	.58	.76
RRS Openness–Emotional Sensitivity	.46	.68
RRS Agreeableness Versus Hostility	.65	.81
RRS Conscientiousness–Thoroughness	.43	.65
Defensive Avoidance of Negative Affect	.12	.35
Perceptual Distortions	.41	.64
Diffuse Psychological Boundaries	.50	.71
Polarized Self- and Object-Representations	.50	.71
Narcissism	.57	.76
Effective Coping	.48	.69
Global, Vague, and Impressionistic Thinking	.39	.62
Formal Thought Disorder	.26	.51
Gaps in Memory or Experience	.19	.43
Emotional Spontaneity	.22	.47
Dependent Needs for Others	.31	.55
Projection and Projective Identification	.51	.71
Sexual Preoccupations	.12	.35
Attention to Small/Unusual Details	.30	.54
<i>M</i>	.40	.62

*Note.*  $N = 224$ . RRS = Rorschach Rating Scale; B5M = Big Five model. The final  $R$  and  $R^2$  values were quite similar when B5M factor scores were used rather than B5M scales derived from the sum of raw scores. Consequently, results for the B5M factor scores were not presented.



TABLE 6  
Prediction of B5M Scales From Forced Entry of RRS Scales

Type of Criterion and Predictors	Criterion Scale					M
	N	E	I/O	A	C	
<i>R</i> <sup>2</sup> values						
B5M factor scores						
RRS factor-derived scales	.39	.18	.23	.46	.11	.27
RRS factor scores	.45	.28	.32	.57	.12	.35
RRS conceptually derived scales	.53	.36	.29	.60	.27	.41
B5M scales						
RRS factor-derived scales	.53	.22	.30	.57	.32	.39
RRS factor scores	.58	.34	.39	.67	.35	.47
RRS conceptually derived scales	.62	.40	.37	.69	.45	.51
<i>R</i> values						
B5M factor scores						
RRS factor-derived scales	.63	.43	.48	.68	.33	.51
RRS factor scores	.67	.53	.57	.75	.35	.57
RRS conceptually derived scales	.73	.60	.53	.78	.52	.63
B5M scales						
RRS factor-derived scales	.73	.47	.55	.76	.57	.62
RRS factor scores	.76	.58	.62	.82	.59	.67
RRS conceptually derived scales	.79	.63	.61	.83	.67	.71

*Note.* *N* = 224. B5M = Big Five model; RRS = Rorschach Rating Scale. N = Neuroticism; E = Extraversion; I/O = Intellect/Openness; A = Agreeableness; C = Conscientiousness.

tics showed that accurate completion of the RRS requires a good vocabulary and 13th-grade reading comprehension skills. Although these requirements are higher than those for common self-report inventories (Schinka & Borum, 1993), they are similar to requirements for other observer-rating instruments such as the original CCQ (Caspi et al., 1992). The readability findings are also consistent with our initial intention to have the RRS completed by skilled clinicians (Meyer, 1996a), and clinicians with graduate education should be able to complete it without difficulty. However, one should exercise caution when obtaining RRS ratings from poorly educated lay raters.

College students generated about two thirds of the ratings used in this study, and we do not know what level of reading comprehension they possessed. Furthermore, the RRS asks about constructs that people without training in psychopathology may find difficult to evaluate in a differentiated and exact manner. Consequently, our sample may have produced somewhat unsophisticated ratings that may have led to a more diffuse pattern of relations among variables and, ultimately, to less differentiated factor structures. Surprisingly, the extent to which the factor structures for clinical constructs may vary as a function of rater skill and clinical acumen has not yet been the focus of systematic research (Block, 1995; Westen, 1995). Instead, virtu-





emotional states (e.g., Scale 8 of the MMPI), whereas others measure more focused psychotic characteristics (e.g., the RRS Formal Thought Disorder scale). Second, even though several researchers have attempted to integrate models of normal personality with clinical models of psychopathology (e.g., Clark et al., 1996; Watson, Clark, & Harkness, 1994), most factor analytic studies have relied on self-ratings from nonpatients to generate data. We are not aware of any studies that have used expert clinician ratings as the factor analytic input to determine how more disturbed symptomatology fits within the B5M. Given this gap in the literature, some studies may have found strong associations between N and psychotic characteristics because the raters who generated scores did not have a sufficiently sophisticated understanding of the characteristics under consideration. To the extent that lay raters have an undifferentiated or skewed understanding of certain aspects of personality, this should influence the correlation among traits and subsequent factor analytic solutions.

Finally, for factor analytic studies, the prevalence of psychotic items (or scales) in the variable matrix may largely determine whether psychotic processes define a unique dimension of personality. This is because the content emphasized in an

data from experienced clinicians who are quite familiar with the full range of psychopathology, but also they will need to determine the appropriate ratio of psychotic symptoms to include in the matrix of primary variables under consideration. As our analyses demonstrated, altering the mix of variables has a dramatic impact on the factor analytic output.

Overall, the analyses conducted in this study further the utility of the RRS as an instrument to measure Rorschach constructs. To use the RRS with less educated lay raters, future efforts could explore the possibility of simplified language that retains the intended meaning of each item (cf. Caspi et al., 1992). Another fruitful direction would be to explore how scoring systems within the RRS (e.g., the Comprehensive System) may produce different factor solutions or conceptually derived scales. Alternatively, the scales generated in this study could be used as a guide for scoring Rorschachs in a manner that maximizes the coverage of a construct. For instance, if a researcher wished to measure narcissism, the scale listed in Table 2 suggests that combining scores from the Comprehensive System, Lerner Defense Scales, Rorschach Defense Scales, and Kwawer's primitive relationship scheme may be useful. Finally, and most important, undertaking studies that attempt to validate actual Rorschach scores using the RRS as a criterion measure in one of the optimal designs that have been proposed for cross-method validation would be valuable (Meyer, 1996a).

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## APPENDIX A

First 185 Items From the Rorschach Rating Scale and the  
Rorschach Score(s) Each Item Was Designed to Measure



8. Imagined or fantasized characteristics are central to this person's self-concept. These characteristics may be either positive or negative, although they cause him/her to think s/he has idealized, superhuman attributes or devalued, subhuman qualities. [ $H:(H)+Hd+(Hd)$  ratio; Object Relations–Animation–Quasi-human: *PRP*]

same thing and is unable to resolve this ambivalence. [Color-Shading Blends]

24. This person is bothered by distress or irritation that comes from internaliz

40. This person uses a “trial-and-error” approach to solving problems, such that different solutions or strategies are spontaneously employed and then altered. [*EB* (extratensive)]
41. This person copes with problems by thinking about circumstances and mentally evaluating possibilities before making decisions or judgments. [*EB* (introversive)]
42. This person has frequently traveled to the antarctic over the last year. [Random responding]
43. When problem solving, this person tends to make a judgment or take action only after thoroughly processing all relevant information. [*Zd*]
44. In general, this person is actively attuned to the environment and makes consistent efforts to organize and synthesize relevant information. [*Zf*]
45. When confronted with a task, this person becomes motivated and makes considerable efforts to organize and synthesize relevant information. [*Zf*]
46. This person’s coping resources are chronically overwhelmed (i.e., not simply because of a current crisis or acute stress). [*EA*; Adjusted *D* score]
47. This person cannot function effectively because s/he is temporarily overwhelmed by life stressors or emotional discomfort. [*D* score]

### Cognitive Style

48. This person frequently focuses his/her attention on minor or unusual details. [*Dd*]
49. This person processes information in a careful, detailed, and meticulous fashion. [*Zd*]
50. This person quickly jumps to conclusions and sizes up situations without sufficient information. [*Zd*]
51. This person thinks about, perceives, and recalls events in a diffuse, vague, or impressionistic manner. [*DQv+DQv/+*]
52. This person’s style of thinking is holistic, impressionistic, and lacking in specific detail. [Impressionistic Response: Gacono; Factor 3]
53. This person readily becomes absorbed or “wrapped-up” in experiences. This includes internal experiences, such as feelings, ideas, and mental images, as well as external events and activities. [Lambda; Blends]
54. This person allows feelings and logical thought to be integrated into his/her decisions and actions. [Total Impulse: PRP; *EB* (ambitent/nonpervasive)]
55. This person does not typically let his/her feelings have an impact on decisions and judgments. [*EB* (Introversive)]
56. This person’s understanding of him/herself and of the environment is uncomplicated and based primarily on what is most obvious. [Lambda]

57. This person has difficulty shifting attention, thinking flexibly, or understanding events from more than one perspective at a time. [*a:p* ratio (imbalanced); *PSV*]
58. This person thinks about and understands events in a rigid, inflexible manner. [*a:p* ratio (imbalanced)]
59. This person is driven to identify and describe the different aspects of his/her

71. In order to maintain a cheerful, optimistic, and untroubled perception of life, this person selectively perceives events, dismisses conflict, or uses fantasy to reverse his/her feelings. [Pollyanish Denial: *RDS*]
72. This person relies on internal fantasies or daydreams to comfort him/herself or to avoid unpleasant realities in life. [*Ma:Mp* ratio]
73. This person minimizes emotional conflict or stress by transforming unacceptable behaviors, impulses, thoughts, or feelings into their polar opposites. [Reaction Formation: *RDS*]
74. This person has specific experiences s/he does not want to think about or discuss. [Denial: *LDS*]
75. In recounting experiences, this person omits significant details or portions of an event without realizing it. [Denial: *LDS*]
76. This person's history, as s/he relates it to others, has significant gaps be-

## Reality Testing

86. This person sees things from an unconventional, unique, or idiosyncratic perspective. [*Xu%*]
87. When this person becomes angry or oppositional, s/he begins to perceive other people or external events in a less accurate fashion. [*S - %*]
88. When this person experiences any strong feelings, s/he begins to perceive other people or external events in a less accurate fashion. [*X - %* to Chromatic Cards]
89. This person develops mistaken beliefs or significantly distorted perceptions the more s/he thinks about events or reflects on experiences. [*M-*]
90. This person does not perceive even relatively obvious events in a socially conventional way. [Popular]
91. This person has many occasions when his/her perceptions of external events are clearly distorted. [*X - %*]
92. This person has an inaccurate understanding of people or interpersonal behaviors. [*M-*]

## Thought Process

93. Without clear external structure, this person's thinking becomes confused and s/he is unable to maintain appropriate distinctions between different events, ideas, and experiences. In other words, his/her thoughts become illogically joined or mixed together. [*FAB + INC*]
94. Without clear external structure, or under the press of strong feelings, this person's thinking is loose, tangential, rambling or flighty. [*DR*]
95. This person has frequent and easily recognized disruptions in formal thought processes. These may be evident in a variety of ways, such as through loose associations, illogical reasoning, using words in odd ways, or

100. This person frequently thinks about food. [Object Relations–Animation–Food: *PRP*]
101. This person is often absorbed by strong longings for care and nurturing attention. [Impulses–Oral Receptive: *PRP*]
102. This person’s physical functioning and the well-being of his/her body is never far from mind. [*An+Xy*]
103. This person often thinks about issues of elimination, bowel function, or bathroom experience. [Impulses–Anal: *PRP*]
104. Sexual matters are frequently on this person’s mind. [Sex content]
105. This person constantly thinks about sexual issues and either expresses this directly by making frequent sexual comments or fearfully avoids discussing any sexual topic. [Impulses–Phallic: *PRP*]
106. This person frequently becomes focused on small details related to other people’s appearance or behavior. [Object Relations–Animation–Human Detail: *PRP*]
107. This person’s personal needs and experiences are always on his/her mind. [Egocentricity Index]
108. This person frequently thinks about or expresses graphic and “primitive” ideas (e.g., ideas with very aggressive, sexual, dependent, morbid, or somatic themes). [*EII* Derepressed Content]
109. This person does not keep disturbing internal experiences out of awareness. Instead, s/he is provoked by emotionally intense and compelling ideas related to aggression, sexuality, pain, decay, physical integrity, or hungry neediness. [*EII* Derepressed Content]

### Interpersonal Behaviors

110. This person has a sturdy ability to relate to others. S/he feels autonomous, supports the autonomy of others, and recognizes other people may have different interests and needs than s/he. [*MOA*]
111. This person understands people well and has meaningful, stable relationships. [*EII* Human Experience Variable]
112. This person enjoys social interactions and believes they can be harmonious and supportive. [*COP*; *COP:AG* ratio]
113. This person is interested in and very aware of other people. [All H content]
114. This person passively relies on others to provide him/her with direction and security. [a:p ratio]
115. This person yields easily to interpersonal pressure and tends to comply readily with the wishes of others or to what s/he believes others want. [*ROD*; *R*; Factor 1]
116. This person’s self-esteem is dependent on receiving positive regard from others. Therefore, his/her relationships are characterized by a pattern where

- one person consistently admires and reflects the importance of the other. [Object Relations–Mutuality: *PRP*; *Fr+rF*]
117. This person is constantly searching for an ideal friend or partner but ultimately ends up disappointed with all his/her relationships. [Idealization: *LDS*; Primitive Idealization: *RDS*]
118. This person is guarded and withholds personal feelings, thoughts, and reactions. [*R* with Lambda; Factor 1]
119. This person does not seek out emotionally close or affectionate interactions. [*SumT*]
120. This person is very concerned about maintaining independence, defining personal boundaries, and protecting his/her interpersonal space. [*S*]
121. This person has difficulty making compromises in interpersonal interactions. [*S*; *Fr+rF*]
122. This person has underlying oppositional tendencies and expresses anger by being contrary or resistive. [*S*]
123. This person feels aggressive or combative impulses in his/her interactions. [Item 30, repeated]
124. This person expresses veiled aggression through sarcasm, gossip, or by using common verbal expressions that have an aggressive literal meaning. An example of the latter would be to use a quasi-humorous expression when angry such as “I wanted to bite his head off.” [Impulses–Oral Aggressive: *PRP*]
125. This person holds other people responsible for the way s/he feels. [Projection: *RDS*]
126. This person’s behavior toward other people is frequently the opposite of his/her actual feelings (e.g., kindness when feeling anger, etc.). [Reaction Formation: *RDS*]
127. This person has not slept at all during the past three months. [Random responding]
128. This person’s relationships are very inconsistent, quickly fluctuating between clinging dependency and alienating hostility. [Splitting: *LDS* or *RDS*]
129. This person establishes relationships that have a merged quality. S/he seems to lose touch with other people’s individual distinctiveness, identity, and personal motivations. [Object Relations–Differentiation: *PRP*; *POR*]

#### Interpersonal Beliefs, Representations, and Expectations

130. This person expects his/her intimate relationships to be satisfying and enjoyable. [*SumT*; *COP:AG* ratio]
131. This person anticipates that relationships will be mutually satisfying and believes that each person’s needs will be met in a reciprocal fashion. [Object Relations–Mutuality: *PRP*; *COP*; *COP:AG* ratio]



132. This person sees him/herself as powerless and ineffectual. S/he believes others are stronger and have more control of how situations turn out. [*ROD*]
133. This person regards him/herself as inferior to others. [Item 4, repeated]
134. This person needs to think of other people in an idealized fashion, either as special, important, or powerful. [Idealization: *LDS*; Primitive Idealization: *RDS*]
135. This person ignores negative features in other people, exaggerates their positive qualities, and places them on an undeserved pedestal. [Idealization: *LDS*; Primitive Idealization: *RDS*]
136. This person is self-absorbed and primarily relates to other people as sources of supportive attention or consistent admiration. [*POR*]
137. This person expects to be treated as special or privileged. [Omnipotence: *RDS*; *Fr+rF*]
138. This person experiences relationships as needy and dependent, and believes both parties lack the ability to stand on their own two feet. [*MOA*]
139. This person experiences the environment as dangerous and believes that interactions are fraught with conflict. [*AG*]
140. At least unconsciously, this person sees engulfment or destructiveness as the inevitable consequence of relating to others. [*POR*; *MOA*]
141. Significant malevolence, cruelty, and destructiveness characterize this person's understanding of relationships. [*POR*; *MOA*]
142. This person has a tilted or one-sided view of other people, such that only negative qualities are noticed with no recognition of positive characteristics. [Depreciation: *LDS*; Devaluation: *RDS*]
143. This person views other people with contempt and disdain. [Depreciation: *LDS*; Devaluation: *RDS*]
144. This person thinks of other people in terms of the functions they provide to him/her. [Object Relations–Animation–Human Detail: *PRP*]
145. This person tends to perceive other people in unrealistic ways, such that his/her understanding is based primarily on imaginative or fantasized qualities, rather than on a complex understanding of their actual characteristics. [*H:(H)+Hd+(Hd)* ratio]
146. This person sees other people in an exaggerated and emotionally polarized manner as either all “good” or all “bad.” His/her perceptions alternate between opposites that range from seeing others as loving, powerful, important, worthy, nurturing, or kind, to hateful, weak, worthless, destructive, or rejecting. [Splitting: *LDS* or *RDS*]
147. This person relates to other people on the basis of how well they can meet his/her needs and experiences them as either totally satisfying or totally frustrating. [Splitting: *LDS* or *RDS*]
148. In important relationships this person assumes one party will have most of the power and control. [Object Relations–Mutuality; *PRP*]

## Interpersonal Experiences and Feelings

165. This person feels resilient and knows that even when upset s/he will regain emotional equilibrium. [Ego Structure–Stability: *PRP*]
166. This person has an “observing ego,” which allows him/her to step back from events and take a detached perspective on his/her experience. [*FD*]
167. This person is introspective. [*FD*]
168. This person is concerned with how others perceive him/her and so consistently evaluates his/her behavior. [*FD*]
169. This person tends to become anxious and fearful when s/he has to function independently, especially when s/he will also be evaluated by others. [*ROD*]
170. This person has never felt anger at any time in his/her life. [random responding]
171. This person thinks or behaves in a very conventional fashion. [Popular]
172. This person has trouble articulating personal feelings, thoughts, and reactions because s/he has limited psychological resources or limited awareness. [*R* with Lambda; Factor 1]
173. This person has a style of relating to other people or to work that is characterized by energetic but superficial engagement (as opposed to less frequent but more intense engagements). [Factor 2]
174. S/he is the type of person who has a global, diffuse, and impressionistic style of thinking, is very affected by emotions, and often behaves in a spontaneous or dramatic way. [Factor 3]
175. This person’s emotions are strong and directly color how s/he thinks about events, perceives him/herself, and perceives the world. [*EB* (Extratensive)]
176. This person relies on logic, knowledge, and objectivity in order to avoid feelings. [Item 64, repeated]
177. This person has the sense that s/he is “falling apart” when s/he feels emotionally distressed. [Ego Structure–Stability: *PRP*]
178. This person frequently makes spur-of-the-moment decisions based on his/her feelings without much concern for logical reasoning. In other words, s/he has highly charged emotional reactions that allow wishes or feeling states to immediately determine action. [Total Impulse: *PRP*]
179. This person is compelled by internal pressure and stress to act impulsively or rashly. [*D* score]
180. This person responds hastily to any sense of irritation or to any internal need state. [*FM*]
181. This person is concerned with issues of nurturance or consumption. This may be evident by strong interests in food or eating-related pleasures, an involvement with toys or other childhood objects, or preference for a passive and dependent position in relationships. [Impulses–Oral Receptive; *PRP*]
182. This person has many long-standing personality and behavior problems. [*EII*]

183. This person is significantly threatened by disorder, “messiness,” or uncleanliness. [Impulses–Anal: *PRP*]
184. This person’s interest in sexual matters is expressed in an indirect manner, through a keen awareness of physical attractiveness, a need to be admired, or exhibitionistic tendencies. [Impulses–Phallic: *PRP*]
185. This person relies on internal fantasies or daydreams to comfort him/herself or to avoid unpleasant realities in life. [Item 72, repeated]

*Note.* From “The Rorschach Rating Scale: Observer-Rating (Mixed-Gender, Female, & Male Formats) and Self-Rating Forms” by G. J. Meyer, D. J. Viglione, Jr., B. Ritzler, N. Kaser-Boyd, C. Adrian, C. Gacono, W. Burke, G. Friedman, P. Gorlitz, P. M. Lerner, S. B. Tuber, & R. F. Bornstein, 1996, unpublished scales and tables, University of Alaska Anchorage. Copyright © 1993, 1995, 1996 by Meyer, Viglione, Ritzler, Kaser-Boyd, Adrian, Gacono, Burke, Friedman, Gorlitz, Lerner, Tuber, & Bornstein. Individuals wishing to use RRS items for noncommercial research or educational purposes are free to do so. Contact the first author for copies of complete RRS forms and for a full description of the RRS items (i.e., those that are experimental, the expected direction of relationships with Rorschach scores, and recommended cut-offs for CS scores).

RRS variables listed previously are from the Comprehensive System unless otherwise noted. *GM–AG* = Gacono and Meloy’s Aggressive Responses; *LDS* = Lerner and Lerner’s Defense Scales; *MOA* = Urist’s Mutuality of Autonomy Scale; *POR* = Kwawer’s Primitive Object Relations Scale; *PRP*

APPENDIX B  
Intercorrelations Among the B5M Scales and RRS Scales

Scale	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1. B5M-N														
2. B5M-E	-.01													
3. B5M-O	.05	.31												
4. B5M-A	-.42	.19	.32											
5. B5M-C	-.27	.15	.37	.47										
6. NAD	.50	-.03	-.27	-.66	-.42									
7. PDTD	.39	-.09	-.25	-.47	-.38	.52								
8. PDVI	.47	-.20	-.22	-.19	-.31	.38	.42							
9. EHCE	-.54	.19	.21	.49	.35	-.35	-.44	-.36						
10. SEE	.14	.39	.45	.36	.28	-.20	-.23	-.03	.21					
11. IDOC	-.05	-.06	.17	-.07	.18	.20	-.01	-.09	.15	-.02				
12. RRS-N	.68	-.20	-.24	-.47	-.44	.51	.66	.72	-.69	-.13	-.05			
13. RRS-E	-.43	.37	.38	.68	.43	-.54	-.64	-.33	.64	.53	-.02	-.65		
14. RRS-O	-.18	.37	.54	.52	.37	-.47	-.48	-.24	.45	.62	-.09	-.45	.64	
15. RRS-A	-.51	.14	.27	.78	.41	-.83	-.58	-.32	.53	.37	-.14	-.63	.70	.59
16. RRS-C	-.32	.13	.38	.44	.59	-.38	-.42	-.30	.67	.27	.38	-.49	.52	.41
17. DANA	.14	-.17	-.11	-.32	-.22	.52	.37	.23	.00	-.22	.69	.27	-.34	-.35
18. PD	.44	-.04	-.21	-.59	-.40	.64	.81	.42	-.55	-.20	.07	.66	-.65	-.47
19. DPB	.57	-.10	-.29	-.55	-.46	.69	.71	.67	-.51	-.19	.01	.79	-.66	-.49
20. PSOR	.52	-.12	-.31	-.61	-.42	.76	.66	.64	-.51	-.23	.01	.72	-.64	-.53
21. Na	.54	-.03	-.24	-.67	-.48	.91	.49	.38	-.45	-.17	.16	.54	-.56	-.47
22. EC	-.46	.33	.37	.55	.44	-.49	-.61	-.51	.72	.31	.17	-.74	.69	.55
23. GVIT	.45	-.03	-.27	-.47	-.46	.52	.77	.45	-.54	-.11	-.19	.64	-.54	-.37
24. FTD	.31	-.12	-.24	-.44	-.38	.51	.70	.44	-.32	-.23	.02	.56	-.56	-.38
25. GME	.29	-.12	-.22	-.33	-.34	.43	.79	.35	-.32	-.21	.08	.54	-.54	-.44
26. ES	.26	.28	.22	.18	.06	-.08	-.06	.10	.04	.74	-.16	.11	.24	.39
27. DNO	.47	-.12	-.15	-.13	-.27	.38	.35	.81	-.31	.13	-.03	.60	-.19	-.17
28. PPI	.50	-.11	-.26	-.64	-.45	.78	.60	.40	-.54	-.22	.10	.60	-.60	-.52
29. SP	.29	.14	.00	-.22	-.11	.51	.34	.18	-.08	.15	.04	.22	-.13	-.09
30. ASUD	.46	.00	-.12	-.45	-.24	.57	.52	.39	-.33	-.05	.03	.46	-.40	-.28

(Continued)

APPENDIX B (Continued)

Scale	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29
1. B5M-N															
2. B5M-E															
3. B5M-O															
4. B5M-A															
5. B5M-C															
6. NAD															
7. PDTD															
8. PDVI															
9. EHCE															
10. SEE															
11. IDOC															
12. RRS-N															
13. RRS-E															
14. RRS-O															
15. RRS-A															
16. RRS-C	.45														
17. DANA	-.42	-.00													
18. PD	-.69	-.45	.40												
19. DPB	-.68	-.43	.42	.75											
20. PSOR	-.76	-.46	.39	.73	.83										
21. Na	-.77	-.45	.45	.63	.66	.73									
22. EC	.60	.62	-.18	-.65	-.64	-.66	-.53								
23. GVIT	-.55	-.63	.20	.69	.65	.64	.52	-.63							
24. FTD	-.50	-.38	.38	.71	.68	.68	.50	-.50	.56						
25. GME	-.46	-.28	.40	.60	.58	.52	.42	-.41	.48	.55					
26. ES	.14	.04	-.15	-.07	.03	-.03	-.06	.12	.07	-.07	-.09				
27. DNO	-.28	-.29	.21	.38	.53	.49	.37	-.43	.43	.40	.32	.15			
28. PPI	-.76	-.46	.39	.71	.66	.69	.77	-.64	.58	.48	.44	-.07	.37		
29. SP	-.33	-.14	.17	.34	.39	.35	.34	-.14	.30	.25	.29	.09	.31	.32	
30. ASUD	-.49	-.23	.29	.56	.56	.58	.55	-.41	.54	.51	.29	.04	.36	.57	.35

*Note.* B5M = Big Five model; RRS = Rorschach Rating Scale; N = Neuroticism; E = Extraversion; O = Openness; A = Agreeableness; C = Conscientiousness; NAD = Narcissism, Aggression, and Dominance; PDTD = Perceptual Distortions and Thought Disorder; PDVI = Passive Dependence, Vulnerability, and Inferiority; EHCE = Emotional Health and Coping Effectiveness; SEE = Social and Emotional Engagement; IDOC = Intellectual Defenses and Obsessive Character; DANA = Defensive Avoidance of Negative Affect; PD = Perceptual Distortions; DPB = Diffuse Psychological Boundaries; PSOR = Polarized Self- and Object-Representations; Na = Narcissism; EC = Effective Coping; GVIT = Global, Vague, and Impressionistic Thinking; FTD = Formal Thought Disorder; GME = Gaps in Memory or Experience; ES = Emotional Spontaneity; DNO = Dependent Needs for Others; PPI = Projection and Projective Identification; SP = Sexual Preoccupations; ASUD = Attention to Small/ Unusual Details. All scales reported in this table are derived from the sum of raw item responses; they are not factor scores for underlying dimensions. Correlations greater than .16 are statistically significant at the .01 level; correlations greater than .13 are statistically significant at the .05 level.