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Modifying the Rorschach Human Experience Variable to Create the Human Representational Variable

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The Human Experience Variable (HEV; Perry & Viglione, 1991) provided information about interpersonal perceptions not previously available within the Comprehensive System (CS; Exner, 1993). Research data suggests that it was related to interpersonal functioning and as a result, psychological impairment and health. In this article, we present the rationale and empirical basis for recent psychometric refinements to the HEV, consequently renamed the Human Representational Variable (HRV). Research addressing the reliability and validity for the HRV is summarized. Based on data and experience with the HEV, this study summarized some small modifications to the original algorithm. The refined variable, the HRV, has been added to the CS (Exner, 2000). Data presented here suggest that the HRV has improved psychometric properties compared to the HEV and that it is simpler to understand. Research recommendations and interpretive suggestions are also presented.

Object relational, attachment, and interpersonal schema theories suggest that Rorschach human representations are linked through real-life perceptions to interpersonal relatedness as a major factor involved in psychological health or disturbance (Blatt, Brenneis, Schimek, & Glick, 1976; Blatt & Lerner, 1983; Mayman, 1967). Confirming this point of view, a great amount of empirical data associates various aspects of Rorschach human representations with psychological health versus impairment (e.g., see summaries by Exner, 1993; Perry & Viglione, 1991; Stricker & Healy, 1990; Viglione, 1999; Weiner, 1966). Research results suggest that human representational and interactional Rorschach responses are related to interpersonal behavior and patterns in both pathological and nonpathological populations (Blake, Humphrey, & Feldman, 1994; Burns & Viglione, 1996; Fowler, Hilsenroth, & Handler, 1996; Fritsch & Holmstrom, 1990; Hart & Hilton, 1988; Hibbard, Hilsenroth, Hibbard, & Nash, 1995; Ryan, Avery, & Grolnick, 1985; Urist, 1977; Urist & Shill, 1982; for negative evidence, see Blatt & Berman, 1990). Adapting this work to the Comprehensive System (CS; Exner, 1993), Picker (1984) incorporated CS form quality and special scores with Urist's (1977) human

representation scale, the Mutuality of Autonomy scale. This research reported an association between Picker's CS-based score and interpersonal or object-relations development.

Thus, there is a strong empirical grounding for Rorschach human representations as a measure of interpersonal perception and psychological health or impairment. Based on this complex of findings, Perry and Viglione (1991) developed the Human Experience Variable (HEV) as a measure of human perception and representation on the Rorschach. Their goal, relative to previous scales, was to increase reliability and precision of measurement so as to increase validity potential and to adapt the literature fully to the CS. Continuing in this tradition, in this article we present minor modifications to the HEV to produce a new CS variable, the Human Representational Variable (HRV).

TABLE 1
HEV and HRV Conceptual Basis and Examples

Basis	*Example*
GHE/GHR: Accurately perceived, realistic, logical, intact human responses or representation with benign or cooperative interaction	Card III: "Two brothers setting a table for a party at their house" D + 1 M[a]o 2 H, Hh P 3.0 COP, GHR (or GHE with previous coding)
PHE/PHR: Distorted, unrealistic, imaginary, logical, damaged, or aggressive human response or representation	Card III: "Upside down, a monster or alien person, the middle is blown away and you can see some body parts, legs, and arms and stuff spread around." Wo F– (Hd) 5.5 MOR, PHR (or PHE with previous coding)

Note. HEV = Human Experience Variable; HRV = Human Representational Variable; GHE = Good Human Experience; GHR = Good Human Representation; PHE = Poor Human Experience; PHR = Poor Human Representation.

HEV

In the past, the CS did not have a summary variable that organized the interpersonal perception information available on the test. To create such a score, Perry and Viglione (1991) utilized existing CS variables that were associated with human representational features of the responses. The response characteristics used in the HEV were derived from previous research and conceptual descriptions. Within the HEV algorithm, responses were classified as either (a) positive/intact, Good Human Experience responses (GHE), or (b) negative/problematic, Poor Human Experience responses (PHE). Conceptually, GHE responses incorporated accurate, conventional, benevolent, intact, realistic, and logical features. In contrast, PHE responses incorporated distorted, malevolent, aggressive, damaged, confused, and illogical features. Of course, any given response did not incorporate all these positive or negative features. Also, response pull and common responses were considered in developing the algorithm. For example, fictional and partial human responses were designated as GHE when they were scored Popular. Table 1 presents conceptual examples of good and poor human responses as classified by either the original HEV or the modified HRV.

The HEV was operationally defined by an algorithm. This algorithm relied on CS response codes to identify human experience responses and to differentiate between GHE and PHE responses. The HEV itself was a weighted difference score developed from data published in Haller and Exner (1985; Haller, 1982; Perry & Viglione, 1991). The weights and a constant were derived to equalize the contribution of the GHE and PHE responses within the HEV summary variable. Specifically, the HEV algorithm was a difference between the standardized scores or Z-Score transformations of PHE and GHE. The left side of Table 2 presents the HEV algorithm.

From a theoretical perspective, the HEV was originally developed to represent the object representation aspect of ego functioning (Perry & Viglione, 1991). According to this view, Rorschach responses involving human content and descriptions of human experience reflect the respondent's understanding of people and relationships. The HEV could also be understood from other theoretical points of view. For example, cognitive theory suggests that one's understanding of people and relationships helps one to visualize and to describe such phenomena in Rorschach test responses because very few cues are available from the test. Thus, the HEV involved the schema of self, others, and interpersonal relations.

Since it was originally developed, researchers have assessed the reliability and validity of the HEV. The interrater reliability on the HEV, when scored by well-trained coders, is excellent (intraclass correlation = .97; Perry & Viglione, 1991). Researchers found the HEV to be related to severity of psychological disturbance, prognosis, and measures of neurophysiological dysfunction, thus supporting the connection with psychological health and impairment (Adrian & Kaser-Boyd, 1995; Cadenhead, Perry, & Braff, 1996; Perry & Braff, 1994; Perry & Viglione, 1991).

Other research focused on the criterion-related validity of the HEV, relating the respondents' human representations on the Rorschach to the quality of interpersonal relationships (Burns, 1993; Burns & Viglione, 1996). Burns and Viglione contrasted 35 nonpatient women with strong and stable interpersonal relations, as described by their spouses and themselves, with another group of nonpatient women with relatively more negative or problematic interpersonal relationships. The effect size for this comparison was large. Also, there was essentially no difference in the effect size when calculated with the original weights (Cohen's d =1.03) or when computed using weights based on standardized scores derived from the distributions in the Burns and Viglione data (Cohen's d = 1.01). This finding is especially notable in that restrictions of range within a nonpatient sample would lead one to expect a small effect size in a nonpatient sample even if the study em-

ployed an extreme groups design (Wood, Nezworski, Stejskal, Garven, & West, 1999). Post hoc goodness-of-fit analysis with logistic regression addressed incremental validity. This analysis demonstrated that the HEV's ability to differentiate these two groups of women were not accounted for by other Rorschach variables and responses (WSum6, X – %, demographic variables, and the responses excluded from the HEV). These findings, in the context of the previous positive findings, suggest that Rorschach human representations captured by the HEV offered specific information about interpersonal perception as a foundation to interpersonal relatedness and psychological health.

Table 3 summarizes the available HEV descriptive data published in journals and dissertations. The groups are arranged from low to high HEV scores, that is, from healthy to problematic scores. As in the original (Perry & Viglione, 1991) study, PHE was greater in number and more variable than GHE. These research findings and experience with the HEV revealed some possible areas for improving the HEV. For example, PHE responses were more frequent than GHE responses in almost all samples. Moreover, this predominance of PHE in many cases seemed to contradict our assessment of the responses according to interpretive guidelines culled from the empirical and theoretical literature. Also, examinations of representative protocols suggested that some neutral or even positive human representational responses were misclassified as PHE.

The greater variability of PHE associated with the higher frequency of PHE relative to GHE initially led Perry and Viglione (1991) to incorporate corrective weights and a constant in the original HEV calculation equation. However, these weights confused some commentators (Wood, Nezworski, Stejskal, & Garven, 2001; Wood et al., 1999). To make calculation more simple, it was determined that a simple raw (unit weighted) difference score would be preferable. Such a simplification could only be justified if the GHE and PHE distributions were more similar.

ENHANCING THE HEV TO PRODUCE THE HRV

For these reasons, we decided to examine the original HEV algorithm for differentiating GHE from PHE responses with

TABLE 2
HEV and HRV Algorithms for Classifying Human Representational Responses As Good or Poor

HEV	*HRV*
Step A. Select All Responses That Contain Either Human Content Coding [H, (H), Hd, (Hd), Hx], the Determinant M, or COP or AG Special Scores With an FM Coding	
Step B. Assign Either a Good or Poor to Each of These Human Responses Through the Following Classification Algorithm	
1. Assign Good (GHE) for responses containing a Pure H coding that also have all of the following: (a) Form Quality of FQ+, FQo, or FQu (b) No cognitive special scores	1. Assign Good (GHR) for responses containing a Pure H coding that also have all of the following: (a) Form Quality of FQ+, FQo, or FQu (b) No cognitive Special Scores except DV (c) No Special Scores AG or MOR
2. Assign Poor (PHE) to the remaining responses that have either (a) FQ minus, (b) ALOG, CONTAM, or any Level 2 cognitive Special Score, or (c) AG or MOR	2. Assign Poor (PHR) to the remaining responses that have either: (a) FQ minus or FQ none (no Form) or (b) ALOG, CONTAM, or any Level 2 cognitive Special Score
3. Assign GHE to any remaining responses that have either (a) Popular to III, IV, VII, and IX or (b) Responses with COP	3. Assign GHR to any remaining responses that have the Special Score COP but do not have the Special Score AG
4. Assign PHE to any remaining responses that have either (a) Responses without H that contain (H), Hd, (Hd), or Hx, (b) FABCOM1, INCOM1, DR1, or (c) Responses with FQnone	4. Assign PHR to any remaining responses that have either: (a) The Special Scores of FABCOM or MOR, or (b) The Content of An
5. Assign GHE to all remaining responses	5. Assign GHR to any remaining responses that have a Popular to III, IV, VII, or IX 6. Assign PHR to any remaining responses that have either: (a) The Special Scores AG, INCOM, DR, or (b) An Hd coding [not (Hd) coding] 7. Assign GHR to all remaining responses
Step C: Create the GHE to PHE Ratio and Calculate the HEV	*Step C: Create the GHR to PHR Ratio and Calculate the HRV*
1. Express as ratio of GHE to PHE responses (e.g., 5:3) 2. Calculate the HEV score (a) Formula 0.51(PHE) – 0.75(GHE) + 0.04 = HEV (b) Positive scores are associated with more impairment	1. Express as ratio of GHR to PHR responses (e.g., 5:3) 2. Calculate the HRV score (a) Formula GHR – PHR = HRV (b) Negative scores are associated with more impairment

Note. HEV = Human Experience Variable; HRV = Human Representational Variable; GHE = Good Human Experience; PHE = Poor Human Experience; GHR = Good Human Representation; PHR = Poor Human Representation.

TABLE 3
HEV and HRV Scores of Adults Published in Journal Articles or Dissertations

Source	Sample Description	N	GHE M	GHE SD	PHE M	PHE SD	HEV M	HEV SD
HEV								
Burns, 1993; Burns & Viglione, 1996	Nonpatient married women good interpersonal relations	35	3.66	2.15	2.03	1.75	–1.68	1.98
DeLucas, 1997[a]	Military male security personnel—adequate and good relationships	30	2.37	1.13	1.80	1.86	–0.78	1.23
Auslander, 2000	Older nonpatients, mean age = 75	45	2.30	2.00	2.30	2.00	–0.44	1.40
Perry, Sprock, et al., 1995	Nonpatient college men placebo	20			2.04			
Perry, Sprock, et al., 1995	Nonpatient college men, small dose amphetamines	20			2.45			
DeLucas, 1997	Military violent male offenders	33	2.85	1.37	3.39	2.12	–0.38	1.58
Netter, 1990; Netter & Viglione, 1994	Nonpatient volunteers	20	3.10	2.12	3.85	3.59	–0.32[b]	
Auslander, 2000	Older patients with schizophrenia, stabilized on meds, with late-life onset; mean age = 60	44	2.10	1.90	2.40	2.90	–0.27	1.90
Perry, 1989; Perry & Viglione, 1991	Outpatients with depression diagnosis	49	2.63	1.86	3.80	2.48	–0.01	1.94
Haller, 1982; Haller & Exner, 1985[c]	Inpatients with depression symptoms	50	2.09	1.33	3.02	1.97	0.00[c]	1.00[c]
Adrian & Kaser-Boyd, 1995[d]	Outpatients	24	2.20	1.60	3.20	2.60	0.02[b]	
Ingham, 1993	Women whose military husbands were about to deploy overseas	68	2.28	1.48	3.50	2.83	0.21	1.93
DeLucas, 1997	Military nonviolent male offenders	32	2.00	1.32	3.25	0.35	0.35	1.39
Adrian & Kaser-Boyd, 1995[d]	Clinical team diagnosis, nonpsychotic	48	2.30	1.50	4.00	3.10	0.36[b]	
Burns, 1993; Burns & Viglione, 1996	Nonpatient married women poor interpersonal relations	35	2.23	1.35	4.06	2.27	0.42	1.59
Adrian & Kaser-Boyd, 1995[d]	Inpatients	61	1.70	1.40	4.20	3.40	0.91[b]	
Netter, 1990; Netter & Viglione, 1994	Inpatient, schizophrenia diagnosis from locked residential-care ward	20	1.60	1.10	4.20	2.26	0.98[b]	
Adrian & Kaser-Boyd, 1995[d]	Clinical team diagnosis; psychotic	37	1.30	1.20	3.80	3.40	1.00[b]	
Adrian & Kaser-Boyd, 1995[d]	Clinical team diagnosis; major depression	22	2.00	1.60	5.40	3.80	1.29[b]	
			GHR M	GHR SD	PHR M	PHR SD	HRV[e] M	HRV[e] SD
HRV								
McGlone, 2001	Control Roman Catholic priests	80	4.15	1.92	2.04	1.79	2.11	2.43
	Ephebophile Roman Catholic priests	79	5.00	2.85	3.16	2.63	1.84	3.86
	Pedophile Roman Catholic priests	78	4.23	2.43	2.65	2.35	1.58	3.09

Note. Table arranged from lowest to highest HEV scores and highest to lowest HRV scores. HEV = Human Experience Variable; HRV = Human Representational Variable; GHE = Good Human Experience; PHE = Poor Human Experience; GHR = Good Human Representation; PHR = Poor Human Representation.

[a]Eight participants in this dissertation were included in the sample ($N = 389$) described later in this article. [b]HRV estimated from GHE and PHE. [c]This is the HEV derivation sample, therefore, $M = 0$ and $SD = 1$, from the factor analysis. [d]Samples from the Adrian & Kaser-Boyd (1995) study share participants. [e]The HRV is scored in the opposite direction of the HEV. High HRV scores and low HEV scores are associated with more positive interpersonal perception.

the aim of (a) increasing the frequency of good human responses relative to poor human responses, (b) making the good and poor human distributions more similar so as to justify a simple difference score, and if possible, (c) increasing the validity of the classification of human responses as good or poor. We reviewed some readily available data to provide direction for changes to the HEV algorithm. We examined available Rorschach data in computerized forms from ongoing research projects with nonpatients controls and for individuals with depression, a history of criminal offenses, or schizophrenia. In Table 4 these groups are ordered from problematic interpersonal relationships (individuals with schizophrenia) to more positive and mutually enhancing interpersonal relationships (nonpatients/controls). Available demographic information for these groups is presented in the footnotes of Table 4.

Human Detail, Hd, and Fictional Human Contents, (H), and (Hd)

The percentage scores in Table 4 refer to the percentage of human representational responses that are accompanied by

these human contents. The differences between the groups are small but in the expected direction for H and Hd. In other words, groups at the bottom of the table, presumably with healthier interpersonal relationships, produced more Pure H and less Hd. This expected pattern was not discernible for (H), (Hd), and Hx in the third column of the table.

In the HEV algorithm, Pure H identified good responses, and (H), Hd, (Hd), and Hx identified poor responses (see Table 2, HEV column, Step B, 4a). The second to last column in Table 4 represents this HEV algorithm for the four clinical samples. Based on the findings in Table 4 with these various human content categories, we dropped (H), (Hd), and Hx as poor criteria but retained Hd as a poor criterion for the new HRV. The right side of Table 2 provides the complete algorithm for scoring the HRV and the changes just noted can be seen in Step B, 6b and 7. Returning to Table 4, the results for this component of the HRV algorithm are represented in the final column. The expected pattern, that is, greater percentages at the bottom of the columns, is discernible for the HRV algorithm but not for the HEV algorithm. Accordingly, retaining Hd to identify poor responses while dropping (H) and (Hd) in the HRV algorithm preserves its more valid components. Because responses are no longer classified as poor based on (H) and (Hd) scores, it also contributes to our second goal for the HRV of increasing the number of good responses relative to poor.

COP

Although Cooperative Movement (COP) occurs at a relatively high frequency among samples with superior interpersonal relatedness, it was not often used in the algorithm to classify good responses in HEV Step B, 3b. In the sample of 294 nonpatient controls, only 2% of the human responses were classified as good based on having a COP on this step of the algorithm. For this group and others, Table 5 presents (a) the percentages of human responses with COP contrasted with (b) the percentage of human responses classified by COP in the HEV algorithm. To classify more responses as good based on the occurrence of a COP, we moved COP up in the algorithm. As a secondary consequence of this move, responses with both COP and MOR are now classified as good in the new HRV, whereas they were assigned PHE in the HEV algorithm.

Level 1 Cognitive Special Scores

The Level 1 cognitive Special Scores of INCOM1, DR1, and FABCOM1 were grouped together in the last step of the HEV algorithm as poor human criteria. To ensure this criterion was working properly, we examined numerous responses that were classified at this step to determine whether the responses entailed positive or negative interpersonal schema. Our collective judgment was that the human representations in the FABCOM1 responses were more impaired then those in the INCOM1 and DR1 responses. Accordingly, FABCOM1 was moved up in the algorithm, and INCOM1 and DR1 scores were retained at the end of the algorithm. In Table 2 this can be seen by comparing HEV Step B, 4b to HRV Step B, 6a.

AG, MOR, and An

Our data indicated that among various groups presumably with different interpersonal capacity, Aggressive Movement (AG) and Morbid (MOR) did not differ greatly. These Special Scores were found early in the HEV algorithm (HEV Step B, 2c) as poor criteria. Accordingly, there was a basis to reduce the importance of AG and MOR. To investigate this, we examined many representative responses with MOR and

TABLE 4
Percentages of Human Responses With Hd Versus Other Human Contents

		H	*Hd*	*(H) + (Hd) + Hx*	*H – [Hd + (H) + (Hd) + Hx]*	*H – Hd*
Group[a]	*N*	*GHE Step B, 1*[b]	*PHE Step B, 4a*	*PHE Poor Step B, 4a*	*HEV Algorithm*[b]	*HRV Algorithm*
Schizophrenia[c]	85	34	24	28	–18	10
Offenders[d]	243	39	24	29	–14	15
Depression[e]	93	40	22	32	–14	18
Nonpatient/Controls[f]	294	40	19	30	–19	21

Note. Percentages correspond to percentage of all Human Element relevant responses with the variable noted in the column heading. In other words, 34% of all human representational responses among the schizophrenia group included a Pure H content. Rorschach protocols were derived from samples previously reported in Brinderson, (1995), DeLucas (1997), Jansak, 1999; Montemagni, K. A. (2003), Morgan & Viglione (1992), Netter & Viglione (1994), Perry, Viglione, & Braff (1992), Strauss, (1996), Viglione, Brager, et al. (2001), Viglione, Gaudiana, & Gowri, (1997). HEV = Human Experience Variable; HRV = Human Representational Variable; GHE = Good Human Experience; PHE = Poor Human Experience; GHR = Good Human Representation; PHR = Poor Human Representation.

[a]These groups are listed in supposed order of more intact human representational capacity from hypothetically most disturbed (schizophrenia) to most intact (nonpatient/controls). [b]Steps and algorithm refer to HEV steps in Table 2. [c]55 males and 27 females, 3 unknown. Other demographic information not available in computerized Rorschach files. [d]214 males, 29 females; age $M = 35$, $SD = 12$; ethnicity data not available. [e]40 males and 53 females, age $M = 39$, $SD = 11$; ethnicity was 5 African Americans, 4 Asian Americans, 8 Hispanic American, 72 White, 4 unknown ethnicity. [f]127 males and 167 females, age $M = 36$, $SD = 14$, with 71 missing age data; ethnicity data not available.

TABLE 5
Percentages Associated With COP in HEV (Step B, 3c in Table 2)

Group	*COP As % of Human Responses*	*% of Human Responses Classified As Good by COP in the HEV*
Schizophrenia	5	1
Offenders	7	1
Depression	8	2
Nonpatient/ Controls	12	2

Note. COP = cooperative movement; HEV = Human Experience Variable.

AG. This examination led us to reduce the importance of AG (now HRV Step B, 6a) and MOR (now HRV Step B, 4a). Examining these responses also revealed that Anatomy Content (An) should be addressed in the HRV algorithm (see HRV Step B, 4b in Table 2).

To distinguish the new algorithm from the original HEV and to name it more accurately, we changed its name from HEV to HRV. The HRV consists of two variables, Good Human Representation (GHR) and Poor Human Representation (PHR), and a raw value difference score (rather than a weighted difference score as with the HEV). As indicated earlier, the right hand column in Table 2 presents the new HRV algorithm, which incorporates the minor enhancements summarized previously. As evident in Step C, the direction of scoring for the HRV was reversed relative to the HEV. High scores for the HRV are in the positive or desirable direction. High HEV scores were in the negative, or undesirable direction.

HRV DEVELOPMENT STUDY

We conducted a study to compare the psychometric properties of the original HEV with the HRV and to determine how closely the variables are related. We also hoped to confirm that the GHR and PHR distributions are sufficiently similar to justify a simple difference score for the HRV calculation.

Method and Results

We assembled a sample of 389 Rorschach records from eight subgroups. These eight groups were selected to represent a diverse range of impairment and administration contexts. Table 6 contains the relevant descriptive and demographic data for this sample. Within each subgroup, we incorporated cultural and ethnic diversity by matching each of the eight groups as closely as possible to the 1997 to 1998 estimated census data. The data available in Table 6 suggest that the sample closely resembles the U.S. population characteristics in terms of age and ethnicity, but high school educated individuals were slightly underrepresented. All of us provided

TABLE 6
Sample Descriptive Data

	N	%	*1997/1998 Census Estimate*[a]
Sex			
Female	193	50	
Male	192	49	
Missing data	4	1	
Age (years)			
18 to 25	77	20	15
26 to 54	265	68	70
> 54	46	12	15
Missing data	1	1	
Ethnicity			
African American	51	13	12
Asian American	18	5	4
European American	259	67	72
Hispanic American	42	11	11
Native American	2	1	1
Native American/other[b]	3	1	NA
Missing data	14	4	
Education (years)			
Less than 12	56	14	16
12	107	28	35
13 to 15	96	25	25
16	45	12	16.5
> 16	19	5	8
Missing data	66	17	
Status			
CS nonpatients	50	13	
CS character disorders	48	12	
Community volunteers nonpatients	50	13	
Community volunteers mild-moderate depressed	40	10	
Offenders[c]	50	13	
Outpatient	50	13	
Inpatient	50	13	
Patients with schizophrenia	51	13	

Note. *N* = 389. CS = Comprehensive System; NA = not available.
[a]Given in percentages. [b]Some data sources combined these groups. [c]Includes 6 offenders with severe psychiatric disorders.

Rorschach records from our laboratories and previous studies (Cassella, 1999; DeLucas, 1997; Exner et al., 2001; Green, 1995; Jansak, 1999; Meyer, 1999; Montemagni, 2003; Perry, Viglione, & Braff, 1992; Viglione, Gaudiana, & Gowri, 1997) Approximately one fourth of this HRV developmental sample was included in the preliminary HRV analysis presented earlier in this article. Numerous individuals administered these records at many different sites, which maximized external validity across examiners and institutions. Of these records, 363 contained more than 13 responses and were retained in the final sample.[1]

[1]Some of the subgroup data included only summaries for age, ethnicity, and education. In other words, for these subgroups demographic data were not stored by individual respondents within the computerized Rorschach summary files but instead were reported for the entire subgroup. Accordingly, we were unable to identify which participants were lost when we eliminated the records with

TABLE 7
Descriptive Data for the Old HEV and the New HRV

Variable	*GHE*	*PHE*	*GHR*	*PHR*	*PHR–10*[a]	*HEV*[b]	*HRV*[b]	*HRV With PHR–10*[a]
M	2.95	3.89	3.58	3.26	3.09	–.19	.32	.48
SD	1.79	3.44	1.96	3.24	2.59	2.25	3.76	3.22
Skew	.71	2.07	.43	2.38	.93	.711	–1.43	–.45
Kurtosis	.61	7.88	.07	9.28	.25	2.40	4.41	.43
Min.	0	0	0	0	0	–6.20	–19	–10
5th percentile	0	0	0	0	0	–3.70	–6	–5
25th percentile	2	1	2	1	1	–1.70	–1	–1
Mdn	3	3	3	3	3	–.38	1	1
75th percentile	4	6	5	4	4	1.09	2	2
95th percentile	6	9	7	8.80	8.80	3.10	5	5
Max.	9	27	10	25	10	7.72	9	9

Note. $N = 363$. HEV = Human Experience Variable; HRV = Human Representational Variable; GHE = Good Human Experience; PHE = Poor Human Experience; GHR = Good Human Representation; PHR = Poor Human Representation.
[a]Maximum = 10. [b]The HRV is scored in the opposite direction of the HEV. High HRV scores and low HEV scores are associated with more positive interpersonal perception.

Table 7 contains the descriptive statistics for the HEV and HRV components. An examination of Table 7 reveals that the GHR and PHR means are more nearly equal as compared to the GHE and PHE means. In fact, the distributions are highly similar from the 0 through 95th percentiles. The PHR distribution, like the distribution for the former PHE variable, is highly skewed. It has a tail at the high end and a maximum score of 25 in this sample. The last column in Table 7 presents the HRV with the PHR capped at a maximum score of 10. This cap was employed to explore the effects of the skew with PHR relative to the maximum score of 10 found with the GHR. Table 8 provides correlations between the HEV and HRV and their subcomponents. PHR is not capped at 10 in this table.

DISCUSSION

As expected, the data and analyses in this article reveal that the HRV has improved psychometric qualities relative to the HEV. With the original HEV, there were more PHE responses than GHE responses. Consistent with our goals, the GHR and PHR means and distribution are more nearly equal, which justifies using a raw score difference for computing the HRV (HRV = GHR – PHR). It should be noted again that the direction of the HRV scale is reversed relative to the HEV. Now high HRV scores are associated with healthy interpersonal perception and functioning, whereas low HEV scores were associated with healthy interpersonal perception and functioning.

A number of psychometric issues are worthy of consideration. In such a large sample with great diversity of psychological impairment and approaches to the testing, it is not surprising that there are some very high values for PHR. On the other hand, there seems to be a ceiling of about 10 for GHR suggesting that GHR may be constrained by the limited number of potential good human forms identifiable in the 10 Rorschach plates (Exner et al., 2001). The disparity in maximum GHR and PHR scores produces a moderate degree of skew in the composite HRV (Curran, West, & Finch, 1996). Accordingly, in research it might be advisable to truncate PHR at 10 (i.e., retain all data points but change all values greater than 10 to 10) so as to maximize the similarity between GHR and PHR distributions. Such a tactic would minimize the negative skew in the HRV. There are other small differences in the GHR and PHR distributions. The GHR distribution is comparably normal with relatively few (5.2 %) zero values. In contrast, relatively equal proportions of individuals have PHR scores of 0, 1, 2, or, 3 in our sample (15% to 17%) so that most individuals give three or fewer PHR responses.

There is one dissertation (McGlone, 2001) using the current HRV, a large study with Roman Catholic clergy as respondents. This study contrasted control priests ($N = 80$) to pedophile and ephebophile priests ($N = 79$). *Ephebophile* is a term used to identify individuals who have molested adolescents rather than prepubescent children. The data from this study are presented in Table 3. There were no significant HRV differences between these groups, although the differences were in the expected direction. As might be expected with priests, a group that presumably has an intact understanding of others, GHR was relatively high compared to PHR. These are somewhat confounded groups in that the author tested the control group as research volunteers, whereas the offender groups came from institutional settings and were tested as a part of formal clinical evaluations.

Within the sample presented in Table 8, GHR and PHR are not correlated with one another. If this unexpected independence holds up under further research, GHR and PHR

less than 14 responses and thus cannot present the demographic information for the sample of 363. The great majority of the records with fewer than 14 responses came from the sample of individuals with schizophrenia.

TABLE 8
Correlations Between HRV and HEV and Subcomponents

Variable	*GHR*	*PHR*	*HRV*	*GHE*	*PHE*
PHR	.02/.00				
HRV[a]	.51/.59	–.85/–.77			
GHE	.88/.87	–.02/–.07	.47/.56		
PHE	.13/.12	.96/.94	–.76/–.63	–.04/.–09	
HEV	–.43/–.42	.76/.71	–.88/–.92	–.63/–.66	.80/.77

Note. $N = 363$. The first number listed is the Pearson correlation coefficient and the second number is the Spearman rank order correlation coefficient. The corresponding HEV/HRV correlations are underlined. HEV = Human Experience Variable; HRV = Human Representational Variable; GHE = Good Human Experience; PHE = Poor Human Experience; GHR = Good Human Representation; PHR = Poor Human Representation.

[a]The HRV is scored in the opposite direction of the HEV. High HRV scores and low HEV scores are associated with more positive interpersonal perception.

may ultimately be interpreted or researched individually. GHR and PHR may be related to different interpersonal characteristics in different groups and situations. Also, it is not clear whether the interpersonal implications of a protocol with GHR to PHR scores of 1 to 1, for example, would be the same as a protocol with scores of 5 to 5. Accordingly, research should explore the total number of human representational responses, the total number of responses in the protocol (R), and protocol complexity as potential moderator variables.

The HRV provides summary statistical information about interpersonal perception organized in a way that is not available from other CS Rorschach measures. Extensive research indicates that a wide variety of Rorschach human content and response qualities are associated with interpersonal functioning and psychological health (Stricker & Healy, 1990; Viglione, 1999). This is a robust finding in that human representations have been measured in many different ways in this research. More recent research (e.g., Burns, 1993; Burns & Viglione, 1996; also see Table 1) suggests that the original HEV possessed similar interpretive qualities.

As expected, HRV, GHR, and PHR scores are highly correlated with the corresponding HEV, GHE, and PHE scores (*r*s range from .87 to .96). To put the strength of these correlations in context, it should be noted that they are extremely similar to the correlations between the Wechsler Adult Intelligence Scale–Revised and the WAIS–III for VIQ, PIQ, and FSIQ scores. Across the older and newer versions of the WAIS, the alternate forms reliability coefficients range from .86 to .94 (Psychological Corporation, 1997). These high correlations support the position that the HRV should be interpreted like the HEV.

The results in Tables 7 and 8 were generated with a psychiatrically diverse sample that was demographically similar to the U.S. population so that the results should be applicable to diverse ethnic groups and settings. This generalization is further supported by the fact that the HRV encompasses many response dimensions including Form Quality, Content, Populars, and Special Scores, many of which are well represented in previous positive research findings.

To produce HRV responses, the respondent conceptualizes, visualizes, and describes people, human intentions, and human experience. In turn, this behavior is the foundation of the interpretation of the HRV. This is consistent with the point of view (Viglione, 1999) that the most valid Rorschach interpretations are those that closely resemble the actual behavior embodied in the response process. GHR responses are perceptions or representations of positive schema of self, other, and relationships manifested in accurate, realistic, logical, intact, human responses and benign or cooperative interactions. PHR are negative or problematic perceptions or representations as manifested in distorted, unrealistic, damaged, confused, illogical, aggressive, or malevolent representations or perceptions. Along these broad and heterogeneous dimensions, the HRV summarizes the overall quality of human and interpersonal perceptions and representations, that is, the implicit understanding of people and relationships. Within the interpretation of a Rorschach record, one would use additional Rorschach data in terms of the CS Interpersonal Cluster (Exner, 2000) and the qualitative analysis of the Rorschach responses and relationship with the examiner, in addition to collateral data, to arrive at a more specific description of interpersonal perception and relatedness. Thus, one elaborates the interpretation of the HRV based on additional data.

Further elaboration of interpretations associated with individual HRV score levels awaits additional research. Initial efforts should address the association of HRV with perceptions, representations, and interpretations of people, social interactions, and relationships. As with other Rorschach variables, one would expect stronger relationships with (a) behaviorally valid and perceptually based criteria in comparison to (b) self-report criteria (Meyer & Archer, 2001; Viglione, 1999; Viglione & Hilsenroth, 2001). Associations between the HRV and interpersonal criteria most likely would be strongest when situational cues are ambiguous and under conditions in which the respondent has to rely on himself or herself to make sense of external and internal events.

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