
Differential Patterns of Responding Among Three Groups of Chronic, Psychotic, Forensic Outpatients



Lynne A. Bannatyne

Austin State Hospital, Austin, Texas



Carl B. Gacono

Center for Psychotherapeutic Assessment, Austin, Texas



Roger L. Greene

Pacific Graduate School of Psychology

Elements of response style were examined among three groups of chronic, psychotic, forensic patients: paranoid schizophrenics ($N = 89$); undifferentiated-disorganized schizophrenics ($N = 38$); and schizoaffective patients ($N = 53$). Forensic patients with elevated MMPI-2 L Scales produced increased percentages of Pure Form ($F\%$) on the Rorschach. A similar relationship occurred when the Rorschach was used as the independent measure. Schizoaffective patients reported more psychotic symptoms on the MMPI-2 and lower $F\%$ (Rorschach) than both schizophrenic groups. Although undifferentiated schizophrenics evidenced the most psychopathology on the Rorschach (impaired reality testing and perceptual accuracy disturbance), all three groups produced lower than expected frequencies for Rorschach variables commonly associated with thought disorder and poor reality testing (Exner, 1995b). The clinical importance of using the MMPI-2 and Rorschach in tandem with forensic psychiatric patients is discussed. Our empirical findings suggest the need for forensic evaluators to consider the important relationship between psychiatric diagnosis and response style (defensiveness, denial, illness chronicity, medications, and concurrent Axis II psychopathology) when interpreting often-constricted psychological testing protocols in chronic forensic patient populations. © 1999 John Wiley & Sons, Inc. *J Clin Psychol* 55: 1553–1565, 1999.

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Correspondence concerning this article should be addressed to Lynne Bannatyne Ph.D., P.O. Box 140633, Austin, Texas 78714–0633; e-mail LABPHD@aol.com.

Despite the paucity of research on forensic assessment, forensic psychologists extensively utilize psychological tests in risk assessment, diagnosis, and treatment. Forensic psychiatric patients often are guarded, defensive, and deny their mental illness (Audubon & Kirwin, 1982; Bagby, Rogers, & Buis, 1994; Bannatyne, 1996; Fjordbak, 1985; Grossman & Wasylw, 1988; Roman, Tuley, Villanueva, & Mitchell, 1990; Wasylw, Grossman, Haywood, & Cavanaugh, 1988); all characteristics of a response style that can constrict psychological testing results and require interpretation by the forensic examiner (Melton, Petrila, Poythress, & Slobogin, 1998).

In forensic populations, denial and defensiveness have been attributed to a socially desirable response set (Bagby et al., 1994; Grossman & Wasylw, 1988; Roman et al., 1990; Wasylw et al., 1988) and the use of primitive defensives such as denial (Coyle & Heap, 1965; Fjordbak, 1985; Gacono & Meloy, 1994; Meloy, 1988; Weiner, 1966); however, factors such as illness chronicity, stabilization on psychotropic medications, cognitive and emotional impoverishment, and/or the influence of concurrent character pathology (Gacono & Meloy, 1994; Meloy, 1988) may also shape the response style in forensic psychiatric patients. Since multiple factors influence test results, protocol constriction or expansion—when they occur—require special interpretation within the forensic assessment (Gacono & Meloy, 1994; Meloy & Gacono, 1995; Melton et al., 1998).

Defensiveness

The Minnesota Multiphasic Personality Inventories' (MMPI) (Hathaway & McKinley, 1951) and MMPI-2 (Butcher, Dahlstrom, Graham, Tellegen & Kaemmer, 1989) *L* and *K* scales have been used to examine defensiveness, denial, and minimization of psychopathology among groups of forensic patients (see Tables 1 and 2). Research with these populations have found *L* and *K* to relate to denial (Lanyon & Lutz, 1984; Lanyon, Dannenbaum, & Brown, 1991), "faking-good" (Gendreau, Irvine, & Knight, 1973; Hunt, 1948; Rice, Arnold, & Tate, 1983), defensiveness (Audubon & Kirwin, 1982; Lawrence, 1996), paranoid psychopathology (Fjordbak, 1985), severity of pathology (Roman et al., 1990), forensic status (Bagby et al., 1994), and underreporting of psychopathology (Baer, Wetter, & Berry, 1992). Despite clinically useful findings, the results of these studies were confounded by their failing to account for diagnostic specificity; they used heterogeneous groups.

The Rorschach is also used frequently in forensic settings (Meloy, Hansen, & Weiner, 1997). Few studies, however, have examined defensiveness (Ganellen, 1994; Meyer, 1997; Sloan, Arsenault, Hilsenroth, Harvill, & Handler, 1995) or faking-good response sets (Carp & Shavzin, 1950; Fosberg, 1938, 1941; Seamons, Howell, Carlisle, & Roe, 1981). No studies have established empirically defensiveness indices (Exner, 1991; Ganellen, 1994; Stermac, 1988; Sloan et al., 1995). Although a composite of low *R* (number of responses) and high Lambda at times represents a resistant or guarded response style (Exner, 1995a), and perhaps defensiveness (Archer & Krishnamurthy, 1993a, 1993b; Exner, 1991, 1995a; Ganellen, 1994; Meyer, 1993), there is no clear method for determining whether a high Lambda and low Response frequency (*R*) indicates defensiveness or valid coping style for an individual forensic psychiatric patient.

Even less is known of the interactive effects of the MMPI-2 and Rorschach in determining response style among forensic psychiatric patients. In fact, only one study has examined the "direct" relationship between a MMPI defensiveness scale and a Rorschach variable that was theoretically thought to measure defensiveness (Exner, Armbruster, & Mittman, 1978), and one study examined "response-style" as a factor related to the absence

Table 1
MMPI/MMPI-2 L Scale Studies in Forensic Populations

Study (Date)	Test	Subjects	Means, Standard Deviations and/or Cutting Scores
Hunt (1948)	MMPI	74 military prisoners	<i>L</i> was not significant indicator of falsification
Gendreau et al. (1973)	MMPI	24 prisoners	Significant differences between "honest" ($M = 3.4, SD = 2.6$) and "good" ($M = 10.2, SD = 3.9$)
Audubon & Kirwin (1982)	MMPI	45 male forensic, psychiatric patients	High defensiveness group ($M = 65.6$)* Low defensiveness group ($M = -.04$)*
Rice, Arnold, & Tate (1983)	MMPI	25 male maximum security psychiatric inpatients	Significant differences between "honest" ($M = 3.80, SD = 2.75$) and "good" ($M = 7.44, SD = 3.47$) conditions
Lanyon & Lutz (1984)	MMPI	90 males convicted or indicted for a felony sex offense	No denial ($M = 45.71; SD = 4.83$) ^a Part denial ($M = 50.08; SD = 9.07$) ^b Full denial ($M = 52.56; SD = 6.57$) ^b
Lanyon et al. (1991)	MMPI	125 adult male and female persons suspected of involvement in child abuse	Denial subjects scored significantly higher on <i>L</i>
Fjordbak (1985)	MMPI	25 male psychiatric, forensic patients	$L \geq 7$
Wasyliw et al. (1988)	MMPI	74 male psychiatric, forensic patients	<i>L</i> scale not significant indicator of minimization or denial of psychopathology
Roman et al. (1990)	MMPI	353 male psychiatric, forensic patients	Psychotic group $L < 7 = 58\%$ $L 7-10 = 31\%$ $L > 10 = 11\%$ Mixed Psychiatric Dx $L < 7 = 74\%$ $L 7-10 = 26\%$ $L > 10 = 0\%$ Malingers $L < 7 = 90\%$ $L 7-10 = 10\%$ $L > 10 = 0\%$
Bagby et al. (1994)	MMPI-2	215 college students and 153 forensic psychiatric inpatients	Defensive group $L (M = 64.31; SD = 16.92)$ ^a Malingered group $(M = 49.33; SD = 12.33)$ ^{bc} Honest group $(M = 47.56; SD = 10.00)$ ^{bc} Forensic patients $(M = 58.30; SD = 12.50)$ ^d <i>Accuracy of Cutting Scores for Defensive Responses (%)</i> 1. $L > 70$ ^a Sensitivity rate 37** ^b Specificity for controls 96 ^c Specificity for patients 81
Lawrence (1996)	MMPI	21 male death row	<i>L</i> scale mean raw score of 7.19

Note. Groups with common subscripts are not significantly different from one another at the .05 level. However, significant group differences are significant at the .01 level.

*Standard deviations and/or significance tests were not provided for the sample.

**Sensitivity and specificity percentages were rounded to the nearest whole number.

Table 2
MMPI/MMPI-2 K Scales Studies in Forensic Populations

Study (Date)	Test	Subjects	Means, Standard Deviations, and/or Cutting Scores
Hunt (1948)	MMPI	74 military prisoners	<i>K</i> was significant indicator of falsification*
Gendreau et al. (1973)	MMPI	24 prisoners	Significant differences between "honest" ($M = 47.7, SD = 7.4$) and "good" ($M = 58.4, SD = 7.7$) conditions
Rice et al. (1983)	MMPI	25 male maximum security psychiatric inpatients	Significant differences between "honest" ($M = 17.72, SD = 5.82$) and "good" ($M = 21.64, SD = 4.03$) conditions
Lanyon & Lutz (1984)	MMPI	90 males who had been convicted or indicted for a felony sex offense	No denial ($M = 48.15; SD = 8.13$) ^a Part denial ($M = 55.96; SD = 10.26$) ^b Full denial ($M = 62.00; SD = 9.31$) ^b
Lanyon et al. (1991)	MMPI	125 adult male and female persons suspected of involvement in child abuse	Denial subjects approached significance on <i>K</i> *
Wasyliw et al. (1988)	MMPI	74 male forensic, psychiatric patients	<i>K</i> scale not significant indicator of minimization or denial of psychopathology
Roman et al. (1990)	MMPI	353 male forensic patients	Psychotic group $K < 70 = 88\%$ $K 70-83 = 12\%$ Mixed Psychiatric Dx $K < 70 = 92\%$ $K 70-83 = 8\%$ Malingers $K < 70 = 100\%$ $K 70-83 = 0\%$
Bagby et al. (1994)	MMPI-2	215 college students and 173 forensic, psychiatric inpatients	Defensive group ($M = 58.06; SD = 8.05$) ^a Malingered group ($M = 36.67; SD = 5.54$) ^b Honest group ($M = 45.21; SD = 10.01$) ^c Forensic patients ($M = 48.05; SD = 12.07$) ^d <i>Accuracy of Cutting Scores for Defensive Responses (%)</i> 1. $K > 58$ ^a Sensitivity rate 51** ^b Specificity for controls 96 ^c Specificity for patients 84
Lawrence (1996)	MMPI	21 male death row	<i>K</i> raw scale mean score of 16.95.

Note. Groups with common subscripts are not significantly different from one another at the .05 level. However, significant group differences are significant at the .01 level.

*Standard deviations, means, and/or significance tests were not provided for the sample.

**Sensitivity and specificity percentages were rounded to the nearest whole number.

of convergent validity between the MMPI-2 and Rorschach (Meyer, 1997). Unfortunately, neither study included "forensic psychiatric patients."

In order to better understand response style within forensic psychiatric patients, we assessed the interrelatedness between targeted MMPI-2 and Rorschach variables and the impact of "defensiveness" on select MMPI-2 and Rorschach variables in a sample of chronic forensic psychiatric patients ($N = 180$). We then examined these relationships within three diagnostic groups; paranoid schizophrenics, undifferentiated/disorganized schizophrenics, and schizoaffective patients. We predicted that MMPI-2 *L* and *K* Scales would correlate positively with *F*% and negatively with *R* (response frequency). Specifically, forensic psychotic patients, who produced an elevated MMPI-2 *L* Scale, would demonstrate theoretically related patterns on the Rorschach (elevated *F*% and low *R*) and report less psychotic symptomatology across test indices (*BIZ*, *8(Sc)*, *K*, *F - K*, & *SCZI*). We hypothesized a positive correlation between the MMPI-2 Bizarre Mentation scale (*BIZ*) and the Rorschach Schizophrenic Index (*SCZI*), and predicted that a combination of lower *L* Scale scores, lower *F*% and higher *R* (test involvement) would differ dependent on diagnosis. Frequencies for various Rorschach indices associated with thought disorder and perceptual accuracy (*X+*; *F+*), reality testing (*X-*), and cognitive slippage (*WSum6*) were calculated. We predicted that our chronically psychotic, forensic patients would appear less pathological (more impoverished or constricted) than the Exner (1995b) inpatient schizophrenics and that Rorschach patterns would be consistent with diagnosis.

Method

Participants

The participants were 180 California State Conditional Release Program (CONREP) patients who met the DSM-IV (American Psychiatric Association, 1994) criteria for undifferentiated/disorganized or paranoid schizophrenia or schizoaffective disorder,¹ and had been remanded to the custody of a state forensic hospital as either not guilty by reason of insanity, incompetent to stand trial, or as a mentally disordered offender. CONREP outpatients receive mental-health treatment as a condition of their community parole. All patients in this study were in outpatient treatment and stabilized on neuroleptic medication at the time of psychological testing.

Fifty-six percent of the sample were Caucasian, 36% African American, 5% Hispanic, 2% Asian, and .05% Native American. Eighty-seven percent were male. Mean age at testing was 48. Forty-nine percent were paranoid schizophrenic ($N = 89$), 29% were schizoaffective ($N = 53$), and 21% were undifferentiated/disorganized ($N = 38$). Eighty-five percent of the sample were judged not guilty by reason of insanity (NGRI).

Materials

The MMPI-2 and Rorschach were administered routinely to every CONREP patient ≤ 18 months in the program to assess the patient's current functioning and provide information for treatment planning. MMPI-2s were administered in the presence of a licensed psychologist and scored using the NCS computerized scoring system. Rorschach tests were administered and scored by licensed psychologists well versed in the Rorschach Comprehensive System (Exner, 1991). Every completed Rorschach was rescored indepen-

¹These were the most common Axis I (APA, 1994) psychotic diagnosis within the CONREP sample.

dently by a licensed psychologist who specializes in Rorschach administration and scoring. A minimum of 80% agreement for all Rorschach variables was assured for each and every Rorschach protocol (Exner, 1995b; Weiner, 1991, 1995a). A third expert scorer resolved any and all discrepancies between the first and second scorers (even when variables met the 80% cut off). This procedure was more stringent than Weiner's (1991) recommendations for acceptable interrater agreement calculation. His recommendations required only a percentage of each sample to be evaluated for interrater agreement. As outlined above, in the CONREP database, every Rorschach was subjected to interrater agreement assessment and subsequently corrected based on a third expert rater's consultation. Invalid MMPI-2 and Rorschach protocols were discarded; the patient was retested at a later date.

Procedure

The participants for this archival study were selected from the files of the CONREP patient population. Only those patients for whom the MMPI-2 and Rorschach were available, who met the DSM-IV (APA, 1994) criteria for paranoid or undifferentiated/disorganized schizophrenia or schizoaffective disorder, and were prescribed neuroleptic medications were included ($N = 180$).² Psychiatric diagnoses were determined by *consensus* between several evaluators (licensed psychologists and psychiatrists). Charts were examined by the senior author to confirm and record demographics, history of the diagnosis, and relevant MMPI-2 and Rorschach data. High levels of agreement (>90%) were obtained between consensus-derived primary diagnoses and subsequent record review.

The following indices were recorded for all patients: MMPI-2 L , F , and KT scores, $F - K$, $8(Sc)$, and BIZ , and Rorschach $F\%$, Response frequency (R), $X - \%$, $X + \%$, $F + \%$, $WSum6$, and Constellations. Since it approximated a normal distribution, $F\%$ was chosen instead of Λ ; $F\%$ was statistically the best measure of Pure Form. Λ was severely, positively skewed at 5.3 (kurtosis = 36.6), whereas $F\%$ had skewness .30 (kurtosis = .53). The Pearson correlation coefficient was used to assess the relationship between MMPI-2 BIZ and Rorschach $SCZI$.

Design

An individual differences, correlational design was utilized to examine the relationship between MMPI-2 and Rorschach defensiveness variables (L , K , $F\%$, and response frequency) and psychotic symptomatology scales (BIZ and $SCZI$). MANOVA and ANOVA group mean differences and ETA square estimates were utilized to examine the effects of the independent variables, response style, and diagnosis on select MMPI-2 and Rorschach dependent variables. An a priori statistical power analysis determined that the sample size necessary for .80 power to detect the significance of a product-moment correlation at a medium-effect size at the .05 level was at least 85 persons, for ANOVA 64 persons per group, and MANOVA 72 persons per group (Cohen, 1992).

MANOVA analyses were used for the nonlinear dependent variables, L , K , F , BIZ , $8(Sc)$, and R , and ANOVA was used for those dependent variables, $F - K$, $F\%$, and $SCZI$, that were linearly dependent on the preceding variables. "Constricted" response style was

²We excluded any participant whose MMPI-2 $TRIN$, $VRIN$, or L Scale was ≥ 91 (Roger Greene, personal communication, 1995). We additionally gathered Rorschach data, only, on a small sample ($N = 41$) of bipolar patients.

Table 3
MMPI-2 and Rorschach Variable Means and Standard Deviations

Variable	Mean	SD	Minimum	Maximum
MMPI-2				
<i>L</i>	59.61	11.65	33	91
<i>F</i>	62.92	18.68	36	120
<i>K</i>	53.79	10.98	30	81
<i>F - K</i>	-7.93	10.61	-24	33
8(<i>Sc</i>)	64.39	15.13	39	117
<i>BIZ</i>	56.61	14.70	39	112
<i>TRN</i>	60.18	9.26	50	86
<i>VRN</i>	55.73	11.64	34	84
Rorschach				
<i>F%</i>	.46	.19	.10	.95
<i>Lambda</i>	1.40	2.16	.11	19
Response frequency	21.03	6.37	14	44
<i>SCZI</i>	2.47	1.54	0	6

Note. $N = 180$. Variables are presented descriptively only (no inferential analysis).

defined by two methods for the *L* scale: (1) a median split, $T \geq 62$; $T < 62$); and (2) extreme groups ($T > 73$; $T < 53$). Although not subjected to statistical analysis, frequencies for other Rorschach variables were presented with Exner (1995b) inpatient schizophrenic data (see Table 7; results section).

Results³

Table 3 provides the overall mean scores for the entire sample on the MMPI-2 and Rorschach variables. As a group they tended to answer the MMPI-2 in an unsophisticated and naive manner (*L* scale). Interpreting ego strength as adequate (*K* Scale, $M = 53.79$) would be inconsistent with the documented histories of these patients. These patients endorsed moderate levels of unusual and bizarre symptomatology 8(*Sc*) without acknowledging outright psychotic symptomatology (*BIZ*). Response frequency (*R*) and Lambda for this forensic psychiatric sample ($R M = 21.03$, $SD = 6.37$; Lambda $M = 1.40$, $SD = 2.16$) were similar to Exner's (1995b) inpatient schizophrenic sample ($R M = 23.44$, $SD = 8.66$; Lambda $M = 1.57$, $SD = 3.47$). These findings suggested that *successful*⁴ forensic outpatient schizophrenics, like inpatient schizophrenics, tend to be simplistic and uncomplicated in their problem solving style. While the mean *SCZI* index for this psychotic forensic outpatient sample was 2.47 ($SD = 1.54$), comparative data (Exner, 1995b) was not available.

As expected, patients with high *L* did not evidence as much psychotic symptomatology (*BIZ*, 8(*Sc*), *F*, *SCZI*) as those patients with lower *L* scores (see Table 4). As *L* elevated, *K* elevated, and *F*, *F - K*, 8(*Sc*), and *BIZ* decreased. High *L* explained 4% of the variance for *F*, 24% of the variance for *K*, 15% of the variance for a low *F - K*, 16% of

³Most variables from Tables 3, 5, 6, and 7 were not analyzed with inferential statistics.

⁴*Successful patients* are those who are compliant with and benefit from outpatient mental-health parole. These patients are likely to be distinctly different from those mentally ill offenders with concurrent psychopathic traits.

Table 4
High and Low *L* Scale Group Differences

Test Variables	L Scale Scores											
	<i>T</i> > 62 (<i>N</i> = 109)		<i>T</i> ≤ 62 (<i>N</i> = 71)		<i>p</i>	<i>ES</i> *	<i>T</i> ≥ 74 (<i>N</i> = 28)		<i>T</i> ≤ 52 (<i>N</i> = 63)		<i>p</i>	<i>ES</i> *
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>			<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>		
MMPI-2												
<i>F</i>	60	18	65	19	–	–	60	17	69	21	.05	.04
<i>K</i>	59	10	51	10	.00	.14	48	11	60	10	.00	.24
<i>F</i> – <i>K</i>	–11	9	–6	11	.00	.06	–13	9	–4	11	.00	.15
8(<i>Sc</i>)	64	15	65	15	–	–	61	13	69	17	.03	.05
<i>BIZ</i>	54	12	59	16	.03	.03	48	9	63	16	.00	.16
Rorschach												
<i>F</i> %	.49	.20	.45	.19	–	–	.54	.25	.44	.18	.04	.05

Note. Means and standard deviations rounded to whole numbers.

*Eta square effect size estimates.

the variance for a low *BIZ*, and 5% of the variance for Scale 8(*Sc*). These latter MMPI-2 findings cannot be explained by item overlap among the scales, since *L* shares only one item with *K*, one item with *F*, one item with Scale 8(*Sc*), and shares no items with *BIZ*. Rather, these findings suggested that higher *L* Scale scores are associated with less self reporting of psychotic symptomatology on the MMPI-2.

As noted in Table 4, high *L* patients produced Rorschachs with high *F*%, and reported less psychotic symptomatology (*BIZ*, 8(*Sc*)) than did the low *L* patients. For the whole sample, a small but significant positive correlation was found between *BIZ* and *SCZI* ($r = .19, p = .01$). Although no significant differences were found between high and low *L* scorers and the *SCZI* index, significance was found for the *BIZ* scale. Higher *L* scores correlated with significantly lower *BIZ* scale scores. When the forensic groups were divided by high *L*, there was also a significant but small relationship between high *L* and high *F*% (see Table 4). The 28 patients with high *L* Scale *T*-scores ($T \geq 74$) had a mean *F*% of 54% Pure Form in their Rorschach protocols, with 5% of the variance for elevated Pure Form responses being explained by high *L*.

There was a significant positive correlational relationship ($r = .18, p = .02$) between *L* and *F*% (see Table 5). When *R* and *F*% were used as the independent variables and *L*

Table 5
Correlations Between MMPI-2 and Rorschach Response Style Indices

Rorschach Variables	MMPI-2 Scales			
	<i>L</i> Scale	<i>p</i>	<i>K</i> Scale	<i>p</i>
<i>F</i> %	.18*	.02	.06	.43
Response frequency	–.07	.32	–.09	.26

Note. *Significance.

Table 6
Group Differences Based on Response Frequency and *F%*
with the *L* Scale as a Dependent Variable

	L Scale T Scores				
	<i>M</i>	<i>SD</i>	<i>N</i>	<i>ES</i> *	<i>p</i> **
<i>R</i> ≤ 17	59	12	62	.02	–
<i>R</i> > 17	63	10	118		
<i>F%</i> ≤ .58	59	14	132	.03	.023
<i>F%</i> > .58	63	11	48		
<i>F%</i> < .80	59	11	178	.04	.019
<i>F%</i> ≥ .80	66	15	12		

Note. *N* = 180. Means and standard deviations were rounded to whole numbers.

*Eta square effect sizes.

***T*-test.

was the dependent variable, significant mean differences occurred for *F%* (see Table 6); *L* increased when *F%* increased; however, *L* and *R* did not exhibit a similar relationship.

Schizoaffective patients were less constricted and scored significantly lower than the undifferentiated/disorganized schizophrenic patients on *L* (*M* = 57 vs. 65) and *F%* (.41 vs. .51; see Table 7). Paranoid schizophrenics fell between the other groups (*M* = 59,

Table 7
Comparison of MMPI-2 and Rorschach Variables for Psychotic Subgroups*

Variables	Undifferentiated (<i>N</i> = 38)			Schizoaffective (<i>N</i> = 53)			Paranoid (<i>N</i> = 89)			Inpatient Schizophrenics (<i>N</i> = 320)		
	Mean	<i>SD</i>	Freq.	Mean	<i>SD</i>	Freq.	Mean	<i>SD</i>	Freq.	Mean	<i>SD</i>	Freq.
MMPI-2												
<i>L</i> Scale	65a	13	100%	57b	12	100%	59b	11	100%	–	–	–
RORSCHACH												
Cognitive & Perceptual												
<i>X</i> –% ≥ 20	–	–	78%	–	–	70%	–	–	69%	–	–	90%
<i>X</i> –% ≥ 30	–	–	45%	–	–	37%	–	–	39%	–	–	69%
<i>X</i> +% ≤ 50	–	–	67%	–	–	60%	–	–	57%	–	–	73%
<i>F</i> +% ≥ 50	–	–	58%	–	–	49%	–	–	47%	–	–	–
<i>F%</i>	51a	.21	–	.41b	.17	–	.48a	.19	–	–	–	–
<i>W</i> Sum6 > 20	–	–	15%	–	–	33%	–	–	17%	–	–	–
<i>W</i> Sum6 < 10	–	–	60%	–	–	54%	–	–	56%	–	–	–
Constellations												
+SCZI	–	–	36%	–	–	21%	–	–	26%	–	–	82%
+DEPI	–	–	21%	–	–	40%	–	–	30%	–	–	29%
+CDI	–	–	52%	–	–	32%	–	–	32%	–	–	25%
+Suicide	–	–	0%	–	–	11%	–	–	3%	–	–	6%
+HVI	–	–	18%	–	–	19%	–	–	7%	–	–	18%

*Means and standard deviations were rounded to whole numbers. Means with subscripts were statistically significant (*p* < .05). Inpatient schizophrenic data are from Exner (1995b).

.48). The three groups did not differ on *R*. The undifferentiated/disorganized and paranoid schizophrenic groups each differed significantly from the schizoaffective group on *F%* with the latter having a lower mean *F* percentage.

The *SCZI* index ($M = 2.5$) did not differ significantly among any groups tested. As noted in Table 7, psychotic forensic outpatients were less likely to produce a positive *SCZI* than Exner's (1995b) inpatient schizophrenics. Patients with a concomitant mood disorder (schizoaffective) were not as constricted as schizophrenics without a mood disorder (undifferentiated/disorganized and paranoid) and were more likely to elevate on the *DEPI*. Consistent with diagnostic criteria, undifferentiated schizophrenics were particularly dysfunctional in terms of impaired perceptual accuracy, reality-testing problems, cognitive slippage, and elevations on both *SCZI* and *CDI* when compared to other groups (see Table 7).

Discussion

Measuring components of response style, such as *defensiveness* and/or *constriction*, may be a more straightforward process on the MMPI/MMPI-2 (*L* and *K*) than the Rorschach; however, the specific MMPI-2 variables that indicate these aspects of response style may be population dependent. For example, *K* has been conceptualized as a more sophisticated form of denial or adaptive ego strength (Dahlstrom, Welsh, & Dahlstrom, 1972; Greene, 1991) and even within forensic populations has been found to vary in a bimodal fashion between faking-good and faking-bad in criminal offenders (Lanyon & Lutz, 1984; Lanyon et al., 1991). Since chronic, psychotic forensic patients as a group tend to be inadequate and unsophisticated, with less than normal psychological resources (elevated *CDIs*, low *EA*; Gacono & Meloy, 1994), *K* Scale scores of these patients were not significantly elevated, despite the constriction across testing instruments. Actually, the *L* Scale scores were more useful for examining response style.

The overuse of Pure Form in this population raises concerns about the usefulness of Rorschach structural variables in identifying psychosis. The *SCZI* index (≥ 4) identified psychosis in less than 36 percent of each sample compared to Exner's (1995b) 82% for inpatient schizophrenics. This poor showing, although perhaps not unexpected (Doug Korpi, Ph.D., personal communication, December 1995) warrants an explanation. Exner (1991, p. 121) stated, "Pharmacological intervention, especially when the subject has been stabilized reasonably well on the medication, has relatively little impact on most Rorschach variables," and "that the schizophrenic organization does not alter substantially, especially during brief intervals, even though intervention by pharmacological and other therapeutic tactics aids the newly hospitalized subject to reenter his her social environment" (Exner, 1986, p. 461). Our findings, however, suggest the need for reevaluating this hypothesis and reexploring older ones concerning psychometric differences between acute versus chronic psychosis (Weiner, 1966), and the need for considering the impact of the presence or absence of neuroleptic medication on responding. The *SCZI* index may not be the best Rorschach index of psychosis, particularly for chronic forensic psychotic psychiatric outpatients.⁵

⁵Hypotheses concerning *SCZI*, like other Comprehensive System variables (i.e., AG movement, see Gacono & Meloy, 1994) need careful reevaluation in forensic samples where defensiveness, denial, chronicity, and concurrent character pathology may impact psychological test results. Gacono and Meloy (1994) found that only 55% of their antisocial schizophrenic sample were positive on *SCZI*. Although Axis II diagnosis were not assessed in this study, the presence of antisocial personality disorder (APA, 1994) was likely ubiquitous.

Differences between the MMPI-2 and Rorschach in identifying psychotic symptomatology may be in part explained by more filtering on the MMPI-2. The Rorschach reality-testing index ($X-\% \geq .20$) was elevated for the majority of patients, but the MMPI-2 psychosis scales were not.⁶ The MMPI-2 was, however, more accurate in identifying psychotic symptomatology for those patients producing lower L scores in that they produced significantly higher BIZ , F , and $8(Sc)$. Although volition may contribute to the total number of Rorschach responses produced, it is less likely to contribute to Rorschach perceptual accuracy and reality testing measures.

In this population, high L and $F\%$ appeared to measure a simplistic problem-solving style, lack of engagement in the task, lack of cognitive and emotional complexity, and a lack of attending to the self (Gacono & Meyer, 3–10–1996, personal communication) rather than more global concepts such as *defensiveness* or *denial*. If Λ and $F\%$ measure cognitive and emotional complexity, then it follows that psychotic patients with a concomitant mood disorder would be more emotionally complicated than schizophrenics without mood problems (e.g., $PureC \geq 1 =$ Schizoaffective = 52%, Undifferentiated = 15%, Paranoid = 25%) and have less Pure Form in their Rorschach protocols. Testing constriction in the undifferentiated/disorganized group likely resulted from the high levels of general cognitive and emotional impoverishment observed in these patients (high $F\%$ and L , see Table 7), whereas elevated scores in paranoid schizophrenics might have occurred due to affective avoidance ($Afr < .50 = 60\%$), impaired tolerance for emotions, and a need to be in control. In adjudicated forensic schizophrenic populations, high L and $F\%$ may be measuring a defensive response style; however, it is just as likely an accurate depiction of a defended, unsophisticated, un insightful, emotionally, and cognitively impoverished person who lacks the cognitive and emotional resources to contend with the self and the world effectively, and perhaps, in addition, needs to see him/herself in a virtuous, ideal, and emotionally healthy light or both (MMPI-2 L scale $T \geq 65$) (Meyer, 1996); an apt depiction of the undifferentiated/disorganized schizophrenic.

Although many psychotic forensic patients *may* intentionally under report their psychopathology on the MMPI-2, schizophrenic offenders with lower L scores as well as schizoaffective patients appeared to more accurately report their psychopathology. Although unlikely, another explanation for self-reporting psychopathology may be that these patients wanted to appear mentally ill. For this sample of CONREP patients, this latter hypothesis would mean that patients wanted to stay in the program for secondary gain or unconscious fear of being without the program's support. Clinical experience suggested that this usually was not the case. Significantly lower scores on L and $F\%$ for the schizoaffective patients, might relate to better treatment prognosis for those patients and patients with nondefensive (low L and reasonable $F\%$) MMPI-2 and Rorschach protocols. Their *openness* to the task and their own affect, however, may or may not correlate with specific treatment interventions.

As with other clinical populations, simple sign approaches alone do little to aid our understanding of the patient's psychology. Test results must always be interpreted within the context of patient's response style (Melton et al., 1998), particularly when atypical patterns of constriction or expansiveness are noted. Due to multiple factors that influence psychological test results with this forensic psychiatric outpatient population, the MMPI-2 and Rorschach seem to measure *different* aspects of response style. When used in tandem, however, they provide a more comprehensive understanding of the patient's psychopa-

⁶Nonpsychotic ASPD patients tend to elevate on the same Rorschach variables; $X-\% > .20 = 46\%$, $X+\% < 50 = 41\%$ (Gacono & Meloy, 1994).

thology. As clinicians become more adept at understanding the nuances of response style, the usefulness of psychological testing can increase the clinical understanding of the schizophrenic forensic outpatient.

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