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Rorschach Changes in Long-Term and Short-Term Psychotherapy

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Over a period of several years, repeat Rorschach testing was done with two groups of patients receiving outpatient psychotherapy, a long-term group (n = 88) engaged in intensive, dynamically oriented psychotherapy and a short-term group (n = 88) involved in behavioral or gestalt therapy. Rorschach protocols were obtained at the beginning of the treatment and on three subsequent occasions, 1 year, 2½ years, and 4 years later, when most of the long-term and all of the short-term patients had completed their therapy. The findings demonstrate generally beneficial effects of psychotherapy, greater change in long-term than in short-term therapy, and the validity of the Rorschach for measuring these effects and changes.

In a recent discussion of assessing readiness for termination from long-term dynamic psychotherapy, Weiner and Exner (1988) identified several personality characteristics associated with achieving the goals of this form of treatment. As described in standard texts on dynamic psychotherapy, these goals include patients' being able to manage stress adequately, bring a consistent coping style to bear on problem situations, attend openly to their experiences, engage in constructive self-examination, and feel comfortable in interpersonal relationships (Beitman, 1987, chapter 11; Chessick, 1974; chapter 14; Langs, 1974, chapter 25; Luborsky, 1984, chapter 9; Reid, 1980, chapter 6; Sifneos, 1987, chapter 11; Weiner, 1975, chapter 12). Although these capacities do not ensure successful termination of psychotherapy, their absence usually contraindicates ending a treatment relationship. That is, when people are managing stress poorly, coping with problems in a haphazard fashion, hesitating to reflect on or

talk about their experiences, feeling out of touch or dissatisfied with themselves, and avoiding interpersonal involvements, termination is rarely propitious.

Weiner and Exner suggested that certain Rorschach variables related to these personality characteristics might provide a useful measure of progress in intensive psychotherapy. Pursuant to this suggestion, the interpretive guidelines elaborated in *The Rorschach: A Comprehensive System* (Exner, 1986) were examined for indices of impaired functioning that might identify need for further treatment in a variety of forms of psychotherapy of varying duration. Twenty-seven indices of adjustment difficulty were selected as potentially valid clues to insufficient treatment progress.

Four of these indices indicate difficulty managing stress adequately: $D < 0$ (subjectively felt distress resulting from inadequate resources to meet experienced demands), $AdjD < 0$ (persistently felt distress extending beyond transient or situational difficulties in meeting experienced demands), $EA < 7$ (limited resources for implementing deliberate strategies of resolving problematic situations), and $CDI > 3$ (general deficit in capacities for coping with demands of daily living).

Five of these indices reflect difficulty dealing with experience attentively, openly, consistently, and conventionally: *Ambitence* (lack of commitment to a cohesive coping style leading to a personal sense of uncertainty), $Zd < -3.0$ (insufficient attention to the nuances of one's experience, with superficial scanning of environmental events and hastily drawn conclusions about their significance), $Lambda > .99$ (narrow and limited frames of reference and an inclination to respond to situations in the simplest possible terms), $X+\% < 70$ (inability or disinclination to perceive objects and events as most people would), and $X-\% > 20$ (inaccurate perception of one's circumstances and faulty anticipation of the consequences of one's actions).

Five of these indices point to problems in modulating affect pleasurably and sufficiently: $SumSh > FM + m$ (negative emotional experiences of dysphoria, loneliness, helplessness, and/or self-denigration), $DEPI = 5$ (depressive concerns), $DEPI > 5$ (likelihood of diagnosable depressive disorder), $Afr < .50$ (avoidance of emotional interchange with the environment and reluctance to become involved in affect-laden situations), and $CF + C > FC + 1$ (overly intense feelings and unreserved expression of affect).

Four of these indices demonstrate difficulties in using ideation effectively: $Sum\ 6\ Sp\ Sc > 6$ (tendency toward loose and arbitrary thinking), $M- > 0$ (strange conceptions of the nature of human experience), $Mp > Ma$ (excessive use of escapist fantasy as a replacement for constructive planning), and $Intellect > 5$ (excessive reliance on intellectualization as a defensive measure).

Four of these indices suggest problems relating to examining oneself: $Fr + rF > 0$ (narcissistic glorification of oneself and tendencies to externalize blame), $3r + (2)/R < .43$ (excessive self-focusing and preoccupation with oneself), $3r + (2)/R < .33$ (low regard for oneself in comparison with others), and $FD > 2$ (unusual extent of introspection).

The remaining five indices identify difficulty feeling comfortable in interpersonal relationships: $p > a + 1$ (passivity in relation to other people and an inclination to avoid taking initiative and responsibility), $T = 0$ (lack of expectation or reaching out for close, psychologically intimate, nurturant, and mutually supportive relationships with others), $T > 1$ (unmet needs for close and comforting relationships with other people leading to feelings of loneliness and deprivation), *Pure* $H < 2$ (disinterest in and/or difficulty identifying with other people), and $H < [(H) + Hd + (Hd)]$ (uneasiness in contemplating relationships with real, live, and fully functional people).

If these 27 indices of adjustment difficulty have potential for measuring progress in psychotherapy, their frequency should diminish over time among patients engaged in a treatment relationship. In addition, the diminution in their frequency should be directly related to the duration of the treatment and should be less marked in short-term than in long-term psychotherapy patients. These expectations are based on research evidence that (a) psychotherapy generally contributes to improved coping capacities and an enhanced sense of well-being; and (b) the more therapy people receive, the more benefit they derive from it (Lambert, Shapiro, & Bergin, 1986; Luborsky, Crits-Christoph, Mintz, & Auerbach, 1988, chapter 19; Orlinsky & Howard, 1986).

Rorschach research on change in psychotherapy has been limited almost entirely to outcome predictions based on unrepeated measures, with particular attention to the Rorschach Prognostic Rating Scale (see Goldfried, Stricker, & Weiner, 1971, chapter 12; Luborsky et al., 1988, pp. 331–332) and one-time reexaminations conducted 15 months or less after the inception of treatment (e.g., Cramer & Blatt, 1990; Fishman, 1973; Gerstle, Geary, Himmelstein, & Reller-Geary, 1988; LaBarbera & Cornsweet, 1985). The monitoring of longer term change during and subsequent to psychotherapy through sequential Rorschach testing has not to the authors' knowledge been reported previously.

METHOD

Over a period of several years, Rorschach protocols were obtained at four stages during or following the treatment of patients receiving outpatient psychotherapy. The collection of these data was made possible by the collaboration of 53 doctoral-level clinicians in several large cities who recruited some of their psychotherapy patients as volunteers in the study. These patients were told that they would be administered the Rorschach test at the beginning of their treatment and on three subsequent occasions as part of a research project concerned with monitoring change during and after psychotherapy.

As subjects entered the study, they were classified as *long-term* or *short-term* patients depending on the type of therapy they would be receiving. The long-term group comprised patients who were going to be seen more than once

weekly in dynamically oriented, uncovering psychotherapy. The short-term group was composed of patients who were going to be seen once weekly in rational emotive, gestalt, modeling, or assertiveness forms of treatment.

During the course of the study it was possible to collect 4-year follow-through data on 88 long-term patients. Almost all of these patients were seen either two or three times a week by their therapist; a few were seen four times a week for 12 to 18 months but were subsequently reduced to two or three sessions weekly. The average for this entire group over 48 months was 2.35 sessions per week. Following the baseline Rorschach testing done at the beginning of the therapy, a first retest was done between 12 and 14 months later; a second retest took place between 27 and 31 months into treatment, by which time 17% of the patients had terminated; and a third retest was performed between 46 and 50 months, by which time 67% had completed therapy and were continuing to participate in the study as nonpatients.

Data on several hundred short-term therapy patients were collected during the study period. To facilitate comparisons with the long-term group, 88 of these short-term patients were randomly selected for data analysis. These 88 patients had been seen slightly less than once per week on the average; all of them had terminated therapy within 16 months of having begun it. Like the long-term patients, the short-term sample had been given a baseline Rorschach and were retested between 12 and 13 months later and then twice more, between 27 and 31 months later and betwen 46 and 50 months later, at least 30 months after all of them had completed therapy.

Basic demographic and other descriptive data concerning these long-term and short-term psychotherapy patients are shown in Table 1. The groups were comparable in age, education, sex, marital status, and socioeconomic background, although lower social class patients constituted a significantly larger percentage of the short-term group (43%) than of the long-term group (20%).

As also indicated in Table 1, approximately two thirds of each group entered treatment complaining primarily of an emotional problem of some sort, including anxiety, depression, tension, or loss of control. About one fourth of each group presented a primary complaint of interpersonal difficulties, with an unstable marriage being the most common of these. The remaining patients in both groups expressed concern mainly about somatic discomfort of one kind or another. The only significant difference in the presenting problems of the two groups involved depression, which was more frequent among the short-term (30%) than the long-term (20%) patients. Both groups were about evenly divided between patients seeing a private therapist and patients attending a clinic, and about 90% of the total study group were receiving third-party payments.

The long-term patients in the study were seen by 38 different therapists and the short-term patients by 34 different therapists. The Rorschach testing was conducted independently of the treatment by 61 different examiners trained and experienced in use of the Comprehensive System. The examiners were

TABLE 1
Demographic and Descriptive Characteristics of Long-Term and Short-Term Psychotherapy Groups

	Long Term[a]			Short Term[a]		
Characteristics	*M*	*SD*	*Range*	*M*	*SD*	*Range*
Age at onset	26.2	6.3	19–37	23.4	5.2	18–39
Years of education	14.4	2.9	12–21	12.3	2.8	10–21
	n		%	*n*		%
Sex						
Male	36		71	40		45
Female	52		59	48		55
SES						
Upper	9		10	3		3
Middle	61		69	47		53
Lower*	18		20	38		43
Marital status						
Married	44		50	49		55
Divorced	19		21	15		17
Widowed	3		3	1		1
Single	23		26	23		26
Primary presenting complaint						
Anxiety	13		14	9		10
Depression*	18		20	27		30
Tension	10		11	9		10
Emotional dyscontrol	15		17	11		12
Interpersonal difficulties	24		27	23		32
Somatic problems	8		9	3		3
Third party payer	77		87	83		94
Private therapist	45		55	41		46

[a]$n = 88$.
*Difference between groups yields 2×2 χ^2 significant at .01 level.

aware that they were testing patients in psychotherapy as part of what they were told was a "treatment effects" study. However, they had no information about the kind of therapy subjects were receiving or the stage of their treatment, and no examiner tested the same patient more than once.

RESULTS

The performance of these long-term and short-term psychotherapy patients at four points in time on the 27 selected Rorschach indices of adjustment difficulty is presented in Tables 2 and 3. Longitudinal differences were assessed with 2×2 chi-squares with correction for continuity. To be conservative in evaluating

TABLE 2
Longitudinal Changes for Selected Rorschach Variables Among 88 Patients in Long-Term Dynamic Psychotherapy

	First Testing		*1st Retest 12–14 months*		*2nd Retest 27–31 months*		*3rd Retest 46–50 months*	
Average number of sessions			121.5		224		452	
Terminations			–		15		59	
Variables Related to	*n*	%	*n*	%	*n*	%	*n*	%
Managing stress								
D < 0	31	35	35	39	15	17**	4	5*
AdjD < 0	27	31	34	39	15	17**	4	5*
EA < 7	30	34	24	27	9	10**	3	3
CDI < 3	28	32	11	13**	7	8	5	6
Dealing with experience								
Ambitence	32	36	26	29	9	10*	7	7
Zd < −3.0	34	39	8	9**	12	14	0	10
Lambda > 0.99	25	29	16	18*	11	13	5	6*
X+% < 70	19	21	6	7**	2	2	3	3
X−% > 20	26	30	12	14*	9	10	7	8
Modulating affect								
Sum Shading > *FM* + *m*	29	32	22	25	2	2**	1	1
DEPI = 5	40	45	16	18**	10	11	5	6
DEPI > 5	13	15	11	13	9	10	7	8
Afr < .50	30	34	18	20*	14	16	9	10
CF + *C* > *FC* + 1	53	60	26	30**	12	14*	11	10
Using ideation								
Sum 6 Sp Sc > 6	27	31	22	25	13	15*	10	11
M− > 0	41	47	24	27**	9	10**	6	7
MP > *Ma*	37	42	24	27*	11	13**	10	11
Intellect > 5	21	24	7	8**	6	7	6	7
Examining oneself								
Fr + *rF* > 0	12	14	12	14	9	10	6	7
3r + (2)/*R* > .43	24	27	20	23	11	13*	8	9
3r + (2)/*R* < .33	28	32	24	27	16	18*	13	15
FD > 2	12	14	23	26**	10	11*	8	9
Feeling comforable in interpersonal relationships								
p > *a* + 1	30	34	17	19**	15	17	10	11
T = 0	27	31	22	25	13	15**	7	8
T > 1	19	22	4	5**	2	2	2	2
Pure H < 2	28	31	15	17**	4	5*	2	2
H < [(*H*) + *Hd* + (*Hd*)]	48	52	37	42	29	33*	27	31

*Significantly different from previous test, $p < .05$. **Significantly different from previous test, $p < .01$.

TABLE 3
Longitudinal Changes for Selected Rorschach Variables Among 88 Patients in Short-Term Psychotherapy

	First Testing		*1st Retest 12–14 months*		*2nd Retest 27–31 months*		*3rd Retest 46–50 months*	
Average number of sessions			41.2		62.1		62.1	
Terminations			49		88		–	
Variables Related to	*n*	%	*n*	%	*n*	%	*n*	%
Managing stress								
D < 0	46	52	13	15**	14	16	11	13
AdjD < *0*	20	3	11	13*	12	14	10	11
EA < 7	21	24	15	17	11	10***	12	14
CDI < 3	31	35	9	10**	10	11	12	14
Dealing with experience								
Ambitence	38	43	27	30*	28	31	26	29
Zd < −3.0	29	32	10	11**	8	9	9	10
Lambda > 0.99	22	25	13	15*	12	14	14	16
X+% < 70	41	46	24	27**	19	21	21	23
X−% >20	35	39	17	19**	18	20	16	18
Modulating affect								
Sum Shading > FM + *m*	29	32	22	25	2	2**	1	1
DEPI = 5	44	50	11	10**	8	9	10	11
DEPI > 5	8	9	10	11	6	7	7	8
Afr < .50	29	33	12	14**	15	17	13	15
CF + C > FC + *1*	58	65	32	36**	27	31	24	27
Using ideation								
Sum 6 Sp Sc > 6	21	24	17	19	18	20	16	18
M− > 0	33	38	26	29	19	22***	20	23
MP > *Ma*	31	35	18	20*	15	17	19	22
Intellect > 5	14	16	11	13	12	14	15	17
Examining oneself								
Fr + *rF* > 0	10	11	11	13	10	11	10	11
3r + *(2)/R* > .43	29	33	21	24	24	27	11	25
3r + *(2)/R* < .33	30	34	13	15**	11	13	10	11
FD > 2	14	16	27	31**	20	23	10	11*
Feeling comforable in interpersonal relationships								
p > *a* + *1*	23	26	11	13**	14	16	12	14
T = 0	21	23	17	19	18	20	16	18
T > 1	26	29	8	9**	6	7	7	8
Pure H < 2	37	42	27	30*	20	23	23	26
H < [(H) + *Hd* + *(Hd)*]	55	63	33	38**	26	30*	27	31

*Significantly different from previous test, $p < .05$. **Significantly different from previous test, $p < .01$. **Significantly different from baseline test, $p < .01$.

the extent of these differences, the chi-square formula adjustment for nonindependent measures (which is warranted here and would have increased the size of the obtained chi-squares) was not used.

Long-Term Group

As indicated by Table 2, 14 of the indices show a significant decline in frequency in the long-term therapy group on the first retest (*CDI* > 3; *Zd* < −3.0; *Lambda* > 0.99; X+% < 70; X−% > 20; *DEPI* = 5; *Afr* < .50; CF + C > FC + *1*; M− > 0; *Mp* > *Ma*; *Intellect* > 5; *p* > *a* + *1*; *T* > 1; and *Pure H* < 2), demonstrating that by the end of the first year of treatment these patients as a group had become more capable of coping with demands of daily living; more attentive to their experiences and more conventional in their perceptions; less depressed and better able to enjoy and modulate their feelings; more realistic, less escapist, and less intellectualized in thinking about life events; and more active, interested, and satisfied in their relationships with others. At the same time, after 1 year of therapy their frequency of *FD* > 2 had increased significantly, indicating that they had become increasingly involved in examining themselves. At the second retest (approximately 2½ years into treatment), *FD* > 2 had diminished significantly from the first retest and a total of 24 indices of adjustment difficulty had become significantly less frequent than baseline, demonstrating that these patients as a group were now more capable then when they began treatment of managing stress, dealing effectively with their experience, thinking logically, feeling good about themselves, and enjoying interpersonal relationships. Each of these 24 indices remained significantly different from baseline at the third retesting (approximately 4 years following the inception of therapy), by which time two thirds of the group had terminated treatment. Interestingly, the significant decrease in the frequency of *Ambitence*, which appeared at the second retesting and was sustained at the third retesting, was accompanied by a significant increase in *Introversiveness* (from 23% of the group at baseline to 45% after 4 years), but only a slight change in *Extratensiveness* (from 39% at baseline to 46% at endpoint).

The only two indices aside from *FD* > 2 that were not significantly less frequent after long-term therapy involve pathological elevations in Reflections and the Depression Index. There were infrequent to begin with in this patient group (14% and 15%, respectively) and hence probably should not be expected to provide a barometer of improvement for patients taken into intensive psychotherapy.

It is noteworthy that those indices not showing significant change until the second retesting cluster in the area of stress management. For *D* < 0, *AdjD* < 0, and *EA* < 7.0, the findings suggest that these long-term patients as a group were experiencing as much if not more subjectivity felt distress 1 year into treatment as they were initially. At the 27- to 31-month retest, however, these

three indices of coping resource difficulty have not only become significantly less frequent than they were initially but have also decreased dramatically from the 12- to 14-month retest. $D < 0$ and $AdjD < 0$ diminish by more than half, from 39% to 17% of the group, and $EA < 7$ diminishes by about two thirds, from 27% to 10% of the group. Interestingly, the D and $AdjD$ indices of difficulty managing stress continue to decrease significantly in frequency between the retest at 27 to 30 months and the third retest at 46 to 50 months. Both $D < 0$ and $AdjD < 0$ characterized just 5% of the long-term therapy group at this endpoint. The only other variable to show a significant decrease from the second to the third retest is *Lambda* > .99, which appears in just 6% of the group and indicates progressively greater openness to experience among these patients extending to 4 years after they entered therapy.

Short-Term Group

In the short-term therapy group, as indicated by Table 3, 18 of the 27 indices of functioning impairment show a significant decline in frequency on the first retest. These do not include $M- > 0$ and *Intellect* > 5, which decreased after 1 year among the long-term therapy patients, but they include $D < 0$, $AdjD < 0$, *Ambitence*, *SumSh* > FM + *m*, $3r + (2)/R < .33$, and $H < [(H) + Hd + (Hd)]$, which did not change in the first year among the long-term patients. On $FD > 2$, the short-term group resembled the long-term group in demonstrating increased frequency on the first retest.

Hence, although becoming more markedly introspective, the short-term patients, like the long-term group, displayed generally improved adjustment after 1 year of treatment. In several respects, moreover, particularly in avoiding the experience of subjectively felt distress, they progressed more rapidly in a positive direction than did the long-term patients. Between 12 to 14 and 27 to 31 months after the inception of their treatment, the short-term group also achieved significant improvement over baseline on the $EA < 7$ and $M- > 0$ variables and a further increment of improvement in $H < [(H) + Hd + (Hd)]$, even though all of them had terminated treatment by the end of 16 months. At the time of the second retesting, they fell behind the long-term group, 83% of whom were still in therapy and who improved significantly between 12 to 14 months and 27 to 31 months into treatment on 15 of the indices of functioning impairment. Between the second and third retesting, during which time the long-term group had an even further significant improvement on three indices, the short-term group changed significantly only in $FD > 2$, which declined in frequency approximately back to its baseline level.

Similarities and differences between the long-term and short-term therapy groups at the beginning and end of the study period are also worth noting. At the baseline testing, upon entering therapy, the groups differed significantly at the .01 level in their percentage frequency of only two of the functioning

impairment indices: $D < 0$ (35% in the long-term group vs. 52% in the short-term group) and $X+\% < 70$ (30% in the long-term group vs. 46% in the short-term group). These indications that the short-term group were suffering more subjectively felt distress and were less in touch with conventional reality than the long-term group may have influenced their being taken into short-term rather than intensive dynamically oriented therapy.

However, the two groups at the final retesting, 4 years after entering psychotherapy, showed 10 significant differences at the .01 level, with the long-term group showing a lower frequency in each instance: in $EA < 7$ (3% in the long-term group vs. 14% in the short-term group), *Ambitence* (7% vs. 29%), $X+\% < 70$ (3% vs. 23%), *SumSh* > *FM* + *m* (1% vs. 10%), *CF* + C > *FC* + *1* (13% vs. 27%), M− > 0 (7% vs. 23%), *Mp* > *Ma* (11% vs. 22%), *Intellect* > 5 (7% vs. 17%), *3r* + *(2)/R* > .43 (9% vs. 25%), and *Pure H* < 2 (2% vs. 26%).

DISCUSSION

The 88 long-term psychotherapy patients in this study showed a significant decrease in the frequency of 24 of 27 Rorschach indices of adjustment difficulty over the course of a baseline examination and three retestings during the subsequent 4 years. Clustered together conceptually, these Rorschach changes demonstrate improvement in six dimensions of personality functioning; as a group, these patients appear to have become:

1. Better able to manage stress (less $D < 0$, less *AdjD* < 0, less $EA < 7$, less *CDI* > 3).
2. More likely to deal with experience attentively, openly, conventionally, and consistently (less *Ambitence*, less $Zd < -3.0$, less *Lambda* > .99, less $X+\% < 70$, less $X-\% > 20$).
3. More capable of modulating and enjoying emotional experience (less *SumSh* > *FM* + *m*, less *DEPI* = 5, less *Afr* < .50, less CF + C > FC + *1*).
4. More effective in their ideation (less *Sum 6 Sp Sc* > 6, less M− > 0, less *Mp* > *Ma*, less *Intellect* > 5).
5. Less preoccupied and more satisfied with themselves (less *3r* + *(2)/R* > .43, less *3r* + *(2)/R* < .33).
6. More interested and comfortable in interpersonal relationships (less *p* > *a* + 1, less $T = 0$, less $T > 1$, less *Pure H* < 2, less *H* < *[(H)* + *Hd* + *(Hd)]*).

The 88 short-term (16 months or less) psychotherapy patients showed a significant decrease over the 4-year period from the inception of their treatment in 20 of the 27 Rorschach indices of adjustment difficulty. These indications of

improved functioning involve each of the just-mentioned six personality dimensions.

Generally speaking, these findings bear witness to the beneficial effects of psychotherapy. Patients involved in treatments of varying length and different modalities became substantially less likely to manifest a broad range of Rorschach indices associated with adjustment difficulty. These improvements were sustained 4 years after therapy began, by which time two thirds of the long-term and all of the short-term patients had terminated their treatment. Of the three indices that did not become significantly less frequent in either the long-term or short-term group, two are pathological indicators that were infrequent from start to finish in both groups (*DEPI* > 5, *Fr* + *rF* > 0). The third, an index of an unusual extent of introspection (*FD* > 2), was infrequent before and after treatment but increased significantly for both groups during the course of their therapy—which is exactly what one would expect to find in psychotherapy patients being encouraged to examine themselves.

These Rorschach findings are also consistent with the expectation that positive personality change will derive in greater measure from long-term than from short-term therapy. Unlike the long-term patients in this study, the short-term patients as a group did not show significant change for the better in their frequency of loose and arbitrary thinking (*Sum 6 Sp Sc* > 6), excessive intellectualization (*Intellect* > 5), excessive self-focusing (*3r* + *(2)/R* > .43), and lack of expectation of close and supportive interpersonal relationships (*T* = 0).

Despite their general benefit from psychotherapy, moreover, the short-term group did not make as much progress toward improved adjustment as the long-term group. Initially the two groups were fairly equivalent in adjustment, with the only two significant differences being a greater frequency of subjectively felt distress (*D* < 0) and unconventional perception (*X+%* < 70) in the short-term group. Four years later, however, the short-term group was substantially more likely to be suffering from stress overload (*D* < 0 in 13% vs. 5% of the long-term group), inconsistent coping style (*Ambitence* in 29% vs. 7%), problems with modulation of affect (*CF* + *C* > *FC* + *1* in 27% vs. 13%), strange thoughts about people (*M−* > 0 in 23% vs. 7%), unconventional perceptions (*X+%* < 70 in 23% vs. only 3%), and interpersonal detachment (*T* = 0 in 18% vs. 8% and *Pure H* < 2 in 26% vs. just 2%).

Finally of note is the accuracy with which the Rorschach monitored expected change over time in these psychotherapy patients. Consistently with expectation based on the psychotherapy research literature, Rorschach indices of adjustment difficulty became less frequent in the course of these patients' participation in psychotherapy; longer term therapy resulted in greater diminution of these indices than shorter term therapy; indices of subjectivity felt distress diminished more quickly in short-term than in long-term therapy, whereas short-term therapy did not produce as broad a range of improvements as long-term therapy; and both long-term and short-term patients demonstrated

a transient increase in indices of an unusual extent of introspection during the course of their treatment. The successful measurement of these expected changes by Rorschach variables lends construct validity to their use for this and related purposes.

Caution calls for considering these Rorschach findings preliminary rather than definitive, however. Clinical research methods addressed to naturally occurring events often require some sacrifice in internal validity to promote external validity of the findings, and such was the case in this study. To collect a large, diverse, and multisetting population of patients entering and receiving psychotherapy as they ordinarily would, without artificial constraints, the subjects were taken as they were found. Numerous experimentally advantageous controls were accordingly not in place. The patients were not randomly assigned to the treatment groups, and there was no independent judgment concerning the appropriateness of the treatment selected for them. With respect to the participating therapists, aside from determining that they were professionally qualified, no assessment was made of their clinical skills, and there was no independent evaluation of conformity between the treatment techniques they actually employed and general guidelines for the treatment modality they said they were using.

Although these limitations involving the internal validity of the study indicate the need for further, better controlled investigation of Rorschach changes over time in psychotherapy, some unambiguous features of these results strongly suggest that real effects are there to be measured. These subjects were involved in psychotherapy of varying duration, and their Rorschach protocols did change significantly over time and in relation to how much therapy they received. Because most Rorschach variables are temporally stable in nonpatient adults (Exner, 1986, chapter 2), the changes observed in this study would not have been expected unless (a) psychotherapy makes a difference and (b) the Rorschach can validly measure this difference.

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