

A Psychoanalytic View of the Rorschach Comprehensive System "Special Scores"

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We analyzed the contemporary empirical and theoretical literature concerning the two predominant approaches for scoring formal thought disorder on the Rorschach, the Comprehensive System special scores, and the methodology of Rapaport, Gill, and Schafer (1946/1968). The psychoanalytic research related to selected special scores is reviewed, and some linkages to psychoanalytic developmental theory and psychopathology are made. Recommendations are presented to bridge the gap between these two important avenues of Rorschach research, with an emphasis on empirical rigor and intrapsychic contextual meaning.

Rapaport agreed with the criticisms that his original work on diagnostic psychological testing had "shortcomings as a piece of controlled quantitative research" (Rapaport et al., 1946/1968, p. 1). Although these shortcomings have been addressed by Exner's (1986a) empirically based approach to the Rorschach, the theoretical rationale for formal thought disorder has not been set forth in his Comprehensive System. Weiner (1986) contended that an empirical approach to the Rorschach should be enhanced by a conceptual approach, which questions "why" a certain response occurs. Through an examination of the Comprehensive System (Exner, 1986a) special scores, an empirically reliable measure of formal thought disorder, we explored the notion that the validation of these test findings is found in their linkage to external behavior, empirical data, and a developmental theory of personality and psychopathology.

We are committed, nonetheless, to both the empirical rigor of Exner (1986a) and his colleagues and to the search for intrapsychic contextual meaning of the psychoanalytic Rorschach clinicians and researchers. It is our intent to review

the contemporary areas of convergence and divergence of these two traditions as applied to the understanding of formal thought disorder and the Rorschach. We hope that through such an empirical and theoretical analysis we can bridge the unnecessary gap between these approaches and make useful recommendations for future research.

The psychoanalytic approach to the Rorschach assumes that data collected, including indices of formal thought disorder, are both motivated and meaningful. Freud (1900/1953) asserted that form may represent concealed subject matter in dreams, and we hypothesize that formal thought disorder encompasses more than "problems of disordered thinking and inaccurate perception" (Exner, 1986a, p. 414).

To date, psychoanalytic Rorschach researchers have empirically investigated the relationship between formal thought disorder and boundary disturbance (Blatt & Ritzler, 1974; Blatt & Wild, 1976; Lerner, Sugarman, & Barbour, 1985; Quinlan, Harrow, Tucker, & Carlson, 1972; Quinlan & Harrow, 1974; Wilson, 1985) and have inferred, but not empirically measured, a relationship to defensive operations (Lerner, Sugarman, & Gaughran, 1981) and object relations (Sugarman, 1986). Athey (1974, 1986) probed the individual differences among patients regarding their thinking and object representations at different levels of regression or fixation and was critical of the nomothetic work of others for ignoring idiographic subtleties. These psychoanalytic researchers primarily used the Rapaport et al. (1946/1968) system of administration, scoring, and interpretation, making direct comparison with the Comprehensive System (Exner, 1986a) difficult, but not impossible.

The Comprehensive System was developed as an empirically defensible system to be used by all Rorschach clinicians and researchers (Exner, 1986a). Special scores were categorized to quantify structural aspects of the Rorschach response that previously had been qualitatively interpreted. Exner, Weiner, and Schuyler (1976) originally proposed five special scores for the Comprehensive System, derived from the work of Rapaport et al. (1946/1968), Schafer (1954), and Weiner (1966). There are currently 12 special scores in the Comprehensive System (Exner, 1986a). We chose 7 for this analysis, because they appear to have the closest link to the Rorschach psychoanalytic research concerning formal thought disorder. The Comprehensive System divides these unusual verbalizations into three groups: deviant verbalizations, inappropriate combinations, and inappropriate logic. The specific categories are the deviant verbalization (DV), deviant response (DR), incongruous combination (INCOM), fabulized combination (FABCOM), contamination (CONTAM), and inappropriate logic (ALOG). We added the seventh, confabulation (CONFAB), score to our analysis, because a similar category (DW) occurs in the Rapaport et al. (1946/1968) scoring system.

The Comprehensive System (Exner, 1986a) views these unusual verbalizations as a form of "cognitive slippage" and limits the use of these scores to

"identify events in which some difficulty occurred in cognitive processing" (Exner, 1986a, p. 375). Psychoanalytic researchers have asserted, on the other hand, that primary process thinking provides insight into levels of thought organization (Blatt & Wild, 1976): "Various types of thinking disturbances can be distinguished by the degree to which they require a separation of self from nonself, of action from object, and of object from its mental representation" (p. 55). The resurrection of the concept of levels of personality organization (Kernberg, 1984) and empirical reviews confirming the ubiquity of formal thought disorder in certain psychopathological groups, such as borderline personality disorder (Gartner, Hurt, & Gartner, 1989), lend further support to this search for intrapsychic contextual meaning in formal thought disorder.

Table 1 compares the 7 special scores from the Comprehensive System (Exner, 1986a) and indices of formal thought disorder from Rapaport et al. (1946/1968). The two systems for scoring formal thought disorder are not entirely different. Rather, it appears that the meaning, or lack thereof, implied by each system differs.

FABCOM

The Comprehensive System FABCOM response is essentially the same as the psychoanalytic fabulized combination response and is defined as "an implausible relationship . . . between two or more objects identified in the blot" (Exner, 1986a, p. 163). The psychoanalytic interpretation, however, has included one object containing incongruous parts and two incongruous objects, identifying the former as more pathological (Lerner et al., 1985).

Psychoanalytic Rorschach researchers have viewed the FABCOM as a less severe form of thought disorder when compared to CONFABs and CONTAMs (Johnston & Holzman, 1979; Rapaport et al., 1946/1968). Blatt and Ritzler (1974) understood FABCOMs as representing a laxness or flexibility of bound-

TABLE 1
A Comparison of the Special Scores From the Comprehensive System and Rapaport, Gill, and Schafer's (RGS) Formal Thought Disorder Categories

| <i>Description of Response</i> | <i>Comprehensive System</i> | <i>RGS</i> |
|---|-----------------------------|-----------------|
| Two percepts combined in an impossible way | FABCOM | FABCOM |
| One percept with impossible details | INCOM | FABCOM |
| Extensive arbitrary elaboration of a response | DR | CONFAB |
| Fusion of two percepts into one | CONTAM | CONTAM |
| Illogical cause-effect relation | ALOG | ALOG |
| Peculiar, non sequiturs | DV | Peculiar, Queer |
| Inappropriate perceptual generalization | CONFAB | DW |

aries. A boundary is a construct that implies both structure and content; it refers to a capacity to create cognitive and affective distinctions along a bipolar coordinate where previously no difference was possible (Waelder, 1962; Wilson, 1985). Blatt and Ritzler (1974) and, later, Lerner et al. (1985) found a theoretical place for boundary disturbance in the developmental object representational work of Kernberg (1975, 1976). The concept of boundary also appears to have an affinity with the psychoanalytic literature concerning the experience of the self (Kohut, 1971). Boundary formation in object relations theory is critically important to the genesis of the preoedipal self through the developmental necessity of splitting defenses to demarcate internal representations and their respective primordial pleasure-pain feeling states.

The various FABCOMs share two characteristics: perceptual clarity and temporal or spatial discontinuity. In the FABCOM response, the spatial relationship is taken to be the real-world relationship. FABCOMs implicate a problem with object concepts, involving faulty juxtaposition, without a loss or permeability of boundaries between those concepts; object percepts, however, are largely unimpaired (Meloy, 1985, 1986).

The empirical literature concerning FABCOM responses has yielded a number of findings. FABCOMs are more common in borderline personality disordered records than in normal records (Bloomgarden, 1980; Buttenheim, Lohr, & Kerber, 1985; Singer & Larson, 1981). They occur with greater frequency in borderline personality disordered records when compared to published norms (Carr, Goldstein, Hunt, & Kernberg, 1979; Exner, 1986b; Patrick & Wolfe, 1983). FABCOMs are more frequent in borderline personality disordered than neurotic records found in the work of Singer and Larson (1981), but Wilson (1985) found no significant mean difference between borderline personality and neurotic records. Wilson's finding was replicated by Lerner et al. (1985) who found no significant mean difference in FABCOMs across four groups: outpatient neurotics, outpatient borderlines, inpatient borderlines, and inpatient schizophrenics.

Singer and Larson (1981) and Exner (1986b) found differences in the number of FABCOMs in borderline personality disordered and schizophrenic subjects. Unfortunately, the direction of proportionality in each study was opposite: Exner (1986b) found more FABCOMs in the schizophrenic subjects, Singer and Larson (1981) found more in the borderline personality disordered subjects. Wilson (1985) validated Singer and Larson's (1981) findings when he found a greater arithmetic and covariate mean of FABCOMs in borderline inpatients when compared to schizophrenic inpatients. His definition of FABCOM-benign equated with the combining of Exner's (1986a) FABCOM and INCOM in this particular study. Wilson (1985) scored FABCOM-benign when two contiguous parts of the blot of good form quality were combined in an improbable fashion or when "two independent percepts are arbitrarily juxtaposed" (p. 349).

These contradictory findings are especially interesting because Exner's (1986a) definition of FABCOM is more restrictive than the analytic definition; the Exner data (1986a, 1986b) indicate that schizophrenic populations have more of both FABCOMs and INCOMs than borderline personality disordered subjects. It may be that the schizophrenic's impairment in boundaries and disturbance in thinking is not specific to any particular stimulus pull, whereas the borderline disorder is manifested by disturbances in thinking around specific conflictual areas.

Table 2 indicates the proportional frequency of FABCOMs and INCOMs in the Exner (1986a, 1986b, 1989) clinical and normative samples. Several trends are apparent: FABCOMs increase with severity of psychopathology when subjects are selected according to descriptive diagnostic criteria, such as the *Diagnostic and Statistical Manual of Mental Disorders* (3rd ed. [DSM-III]; American Psychiatric Association, 1980); and FABCOMs are twice as likely to appear in the records of schizophrenics than in the records of borderline personality disordered patients when defined more restrictively as two or more incongruous objects in relationship.

INCOM

The INCOM is defined as the condensation of blot details or images "that are inappropriately merged into a single object" by the Comprehensive System (Exner, 1986a, p. 163). The INCOM response has been parcelled out of the analytic FABCOM literature by Exner, so it is hidden within the empirical analytic research concerning the FABCOM. Direct analysis of empirical psychoanalytic findings concerning the INCOM response is generally impossible because there are no data, unless a category that can be equated with the INCOM (e.g., FABCOM-serious) has been established for a particular study (see, e.g., Lerner et al., 1985).

Psychoanalytic Rorschach researchers, however, have theorized that the INCOM is a more pathological condensation of the FABCOM due to the

TABLE 2
INCOMs and FABCOMs in Exner Normative and Clinical Samples: Frequencies,
Means, and Standard Deviations

| Study | Subjects | n | INCOM | M | SD | FABCOM | M | SD |
|---------------|---------------|-----|-------|------|------|--------|------|------|
| Exner (1989) | Normals | 700 | 46% | .52 | .65 | 16% | .17 | .41 |
| Exner (1986a) | Normals | 600 | 43% | .54 | .79 | 12% | .18 | .56 |
| Exner (1986b) | Borderline | 84 | 56% | 1.11 | 1.34 | 36% | .62 | 1.06 |
| Exner (1986b) | Schizophrenic | 80 | 77% | 1.76 | 1.66 | 73% | 1.58 | 1.60 |
| Exner (1986a) | Schizophrenic | 320 | 66% | 1.51 | 1.71 | 78% | 1.59 | 1.63 |

merger into one object instead of two (Blatt & Ritzler, 1974; Lerner et al., 1985; Sugarman, 1986). This is not supported by Exner's (1986a) research despite the analytic assumption that spatial or temporal incongruity between two objects is less regressed than one object. Although INCOMs and FABCOMs necessitate temporal or spatial incongruity, FABCOMs usually include an additional movement incongruity: for example, a "four-legged chicken" (Exner, 1986a, p. 163) is an INCOM with spatial incongruity; "two chickens holding basketballs" (Exner, 1986a, p. 163) is a FABCOM with both spatial and movement incongruity. We think that inherent in the FABCOM is a greater violation of the constraints of real-world objects and, consequently, secondary process thinking, due to this additional movement incongruity. Such a marked departure implicates more severe disturbance in thinking, which is supported by the empirical literature.

Lerner et al. (1985) indirectly tested this hypothesis when their FABCOM-serious, which they viewed as a self-other boundary problem, was explicitly defined using the same criteria as Exner's (1986a) INCOM. They found no significant mean differences between INCOMs across their four diagnostic groups, but they did occur most frequently in their borderline inpatient group ($n = 21$). They noted that the INCOM, which they called FABCOM-serious, may not be as related to CONTAMs as they thought.

Table 2 illustrates the high frequency of INCOMs in both normal and psychopathological records, with INCOMs being more likely to appear in more psychopathological samples. The trend is in the same direction as was noted for the FABCOMs and may represent a positive correlation.

Exner's introduction (1986c) of Level 1 and Level 2 scoring criteria for certain measures of formal thought disorder will certainly lead to a fuller understanding of the INCOM and its relationship to FABCOM. Exner (1987) developed these distinctions to more effectively discriminate mild from severe forms of thought disorder. Level 1 is scored when there is mild or moderate disturbance; Level 2 is assigned when a severe disturbance in thinking is evident. Discriminated on the basis of clearly less bizarre features, the Level 1 INCOMs and FABCOMs occur at a frequency of 46% and 16%, respectively, in the nonpatient group ($n = 700$). Level 2 INCOMs and FABCOMs, however, marked by their identifiable bizarreness, occur at a frequency of only .4% and 1.7%, respectively, in the nonpatient group (Exner, 1989). This is a notable finding when empirically understood to mean that FABCOMs are four times more likely to appear than INCOMs at Level 2 in normals, although both are a rare occurrence, and the FABCOM is considered indicative of more psychopathology in the Comprehensive System. Level 1 and Level 2 distinctions in normative and clinical samples are presented in Table 3. This Level 1-Level 2 dichotomy may eventually confirm the original psychoanalytic hypothesis that spatial or temporal incongruity is less regressed in two objects than in one object in certain clinical populations.

TABLE 3
Level 1 and Level 2 INCOMs and FABCOMs in Exner (1990) Normative and Clinical
Samples: Frequencies, Means, and Standard Deviations^a

| | Subjects | | |
|-----------|----------------------|-----------------------------------|---------------------------------------|
| | Normals ^b | Character Disordered ^c | Inpatient Schizophrenics ^d |
| INCOM 1 | | | |
| Frequency | 46% | 51% | 71% |
| M | .52 | 1.06 | 1.53 |
| SD | .65 | 1.36 | 1.44 |
| INCOM 2 | | | |
| Frequency | .4% | 17% | 49% |
| M | .00 | .36 | 1.17 |
| SD | .07 | .68 | 1.68 |
| FABCOM 1 | | | |
| Frequency | 16% | 39% | 44% |
| M | .17 | .63 | .72 |
| SD | .41 | .57 | 1.07 |
| FABCOM 2 | | | |
| Frequency | 1.7% | 12% | 63% |
| M | .02 | .36 | 1.83 |
| SD | .13 | .79 | 2.04 |

^aStandard deviations are probably unreliable and misleading. They should not be used to estimate expected ranges, nor should they be included in most parametric analyses (see Exner, 1990). ^bn = 700. ^cn = 180. ^dn = 320.

The INCOM response appears to be neither sensitive nor specific to psychopathology. It may be that Exner's (1986c) Level 2 scoring criteria will further delineate these pathological features. This research has yet to be done.

DR

The Comprehensive System DR is virtually synonymous with the analytic literature's CONFAB response. The DR is slightly more expansive, with the inclusion of both circumstantial responses and inappropriate phrases (Exner, 1986a). The latter are usually denoted in the analytic research as "confabulation tendency" (Wilson, 1985).

Psychoanalytic theorists have historically understood CONFAB as representing a more severe form of thought disorder than FABCOMs, but less severe than CONTAMs (Johnston & Holzman, 1979; Rapaport et al., 1946/1968; Watkins & Stauffacher, 1952). Lerner et al. (1985) noted that CONFAB was a Rorschach manifestation of displacement, a genotypic form of primary process (Gill, 1967; Meloy, 1986). It is a disturbance in the association of ideas that may

be expressed through tangential, circumstantial, rambling, or flighty verbalizations.

Blatt and Ritzler (1974) theorized that CONFAB represented a loss of inner-outer boundary from a developmental object relations perspective. Lerner et al. (1985) agreed and theorized that CONFABs suggested a developmental defect during the rapprochement subphase of the separation-individuation process (Mahler, Pine, & Bergman, 1975), when there was a predominance of illusion and the need for transitional objects (Winnicott, 1953).

We think, however, that the theoretical proposition that CONFABs represent a loss of inner-outer boundary is somewhat simplistic and misleading because it suggests psychosis or a loss of reality testing. We offer the alternative hypothesis that the inner-outer boundary is maintained, but the patient's ability to identify interoceptive and exteroceptive stimuli correctly is confused: which is within and which is without? Bion's (1977) analogy of the container and the contained sheds light on our distinction between the maintenance of boundaries (the container), yet the confusion concerns the origin of psychological content (the contained). This alternative manner of understanding CONFABs is allied with the projective-introjective defensive cycling of psychological content found in borderline personality organization (Kernberg, 1975; Meloy, 1988): The patient can distinguish between internal and external stimuli, but is not sure which is which.

Wilson (1985) found that CONFAB-tendency means were significantly greater in inpatient borderlines than inpatient neurotics or psychotics. His CONFAB-tendency definition was virtually identical to Exner's (1986a) DR definition. Lerner et al. (1985) also found significantly greater mean CONFABs in inpatient borderline personality disordered patients when compared to inpatient schizophrenics and outpatient borderlines and neurotics.

Exner (1986b) found that CONFABs did not significantly differentiate between borderline personality disordered subjects and schizotypal subjects. The proportional frequency of DRs in the normative sample ($n = 700$; Exner, 1989) was 15% at Level 1; in the borderline personality disordered sample ($n = 84$; Exner, 1986b), the frequency was 23%; in the schizophrenic normative sample ($n = 320$; Exner, 1986a), the frequency was 46%; and in another schizophrenic sample ($n = 80$; Exner, 1986b), the frequency was 60%. Again, the trend when comparing frequency of occurrence in a large sample is that a CONFAB is more likely to appear in the records of more severely disturbed patients. Yet the comparison of means of CONFABs among various psychiatric groups appears to yield a consistent finding of more CONFABs in Rorschach protocols from borderline personality disordered (*DSM-III*; American Psychiatric Association, 1980) patients, a descriptive diagnostic group of patients who can be reasonably assumed to be organized at a borderline personality level (Kernberg, 1984).

CONTAM

The CONTAM response is defined almost identically by the Comprehensive System (Exner, 1986a) and psychoanalytic research. Both involve "two or more impressions that have been fused into a single response in a manner that clearly violates reality" (Exner, 1986a, p. 163). CONTAM on the Rorschach is phenomenologically rooted in condensation, a genotypic mechanism of primary process (Gill, 1967), which Freud (1950/1954) originally defined as "latent elements which have something in common being combined and fused into a single unity in the manifest dream" (p. 171).

Schwartz and Lazar (1984) described three categories of CONTAMs: simultaneous or overlapping perceptual images interrelated by the perception of action, fused or combined images without action, and perceptual change through influence of an extraneous perception. They reported that 42% of their simultaneous CONTAMs contained an incorporative or merger fantasy, and 50% of all their CONTAMs contained human content (Lazar & Schwartz, 1982). Rather than the contiguity in space or time seen in FABCOMs, CONTAMs involve simultaneity in either space or time. Schwartz and Lazar (1984) developed two dynamic hypotheses from their study of a large sample of CONTAMs: (a) a CONTAM indicates a change in state which reduces reflective self-awareness, and (b) it signals both a wish for merger and a counterwish to maintain contact with reality.

Blatt and Ritzler (1974) theorized that CONTAMs indicated a loss of boundaries between self and others, an object relations developmental defect at the symbiotic stage (Mahler et al., 1975). CONTAMs appear to involve a severe, if transient, impairment in both concept and percept formation (Meloy, 1985). Conceptual representations are condensed and perceptual distinctiveness is lost (Card IV: "It's seaweed, it's a monster, it's a seaweed monster").

CONTAMs, in contrast to CONFABs, represent a loss of boundary wherein interoceptive and exteroceptive stimuli merge and are no longer demarcated. Rather than contrasting loss of internal-external boundaries (the CONFAB hypothesis) with loss of self-other boundaries (the CONTAM hypothesis) as Blatt and Ritzler (1974) did, we argue that CONTAMs suggest a temporary loss of boundary at a variety of levels: the sensory barrier between internal and external stimuli; internal representations of objects, both self and others; and internal representations of percepts, both self and others (Meloy, 1985). CONTAMs, although rarely occurring in any psychiatric sample, signal the momentary, but catastrophic, dissolution of all boundary (Grotstein, 1986; Meloy, 1984). Psychological content no longer oscillates between inner and outer boundaries, thus leading to CONFAB at a borderline level of personality organization; but the dissolution of boundary, or containment (Bion, 1977), leads to CONTAM at a psychotic level of personality organization (Kernberg, 1984).

CONTAMs appear to be pathognomonic of schizophrenia (Rapaport et al., 1946/1968; Johnston & Holzman, 1979), but they rarely occur. They are specific to schizophrenia but are not sensitive (Edell, 1987). Wilson (1985) found that CONTAMs discriminated schizophrenic from both borderline personality disorder and neurotic records. Lerner et al. (1985) reported that CONTAMs had significantly higher means in inpatient schizophrenics than inpatient or outpatient borderlines and outpatient neurotics. Rapaport et al. (1946/1968) reported that schizophrenics gave approximately four CONTAMs per 100 responses.

The CONTAM response has yielded the most consistent empirical findings in both the psychoanalytic and the Comprehensive System research. Table 4 illustrates the proportional frequencies of CONTAM responses in five different studies using different samples of schizophrenics. The data repeatedly show that a CONTAM will occur in only one out of six or seven schizophrenic Rorschach protocols. CONTAMs appear to be quite specific, but not sensitive, when diagnosing schizophrenia, with the expectation of few false positives. Rapaport et al. (1946/1968) found that their borderline schizophrenic sample ($n = 33$) produced CONTAMs in only 6% of the records. Their neurotic and control groups combined ($n = 149$) produced CONTAMs in less than 1% of the protocols. Exner (1986b) reported that a borderline personality disordered sample produced CONTAMs in 4% of the records ($n = 84$), whereas the new Exner (1989) normative sample ($n = 700$) produced no CONTAMs.

A CONTAM response should be viewed as a pathognomonic suggestion of schizophrenia, but its lack of sensitivity to schizophrenia should be kept in mind, given the likelihood of a false negative rate of 80%–85%.

ALOG

An ALOG is scored by the Comprehensive System "whenever the subject, without prompting, uses strained reasoning to justify his or her answer" (Exner, 1986a, p. 164). It is virtually identical to the psychoanalytic literature references

TABLE 4
CONTAM Frequencies in Schizophrenics in Five Studies

| <i>Study</i> | <i>Subjects</i> | <i>n</i> | <i>Frequency</i> |
|--------------------------------|--|----------|------------------|
| Rapaport et al. (1946/1968) | Combined Schizophrenics | 75 | 17% |
| Johnston and Holzman (1979) | Acute and chronic schizophrenics | 69 | 13% |
| Exner (1986a) | Inpatient schizophrenics | 320 | 18% |
| Exner (1986b) | Inpatient schizophrenics | 80 | 15% |
| Edell (1987) | "Early" schizophrenics subchronic course | 30 | 16.7% |

to autistic logic in the Rorschach (Rapaport et al., 1946/1968), and finds its roots in the paralogic or paleologic of the primary process (Meloy, 1986). Most CONTAMs occurring on the Rorschach contain ALOG, but ALOG responses usually appear in the absence of a CONTAM response. ALOG usually violates one of the four principles of Aristotelean logic (Meloy, 1986), including identity, contradiction, excluded middle, or sufficient reason.

Autistic logic in the Rapaport et al. (1946/1968) data was present in only the combined schizophrenic sample ($n = 75$) with a frequency of 20%. Johnston and Holzman (1979) reported a frequency of 33% in their acute and chronic schizophrenic sample ($n = 69$ combined). Exner (1986a, 1986b, 1989) reported ALOG frequencies of 4% in his normative adult sample ($n = 700$), 54% in his normative schizophrenic sample ($n = 320$), 13% in his borderline personality disorder sample ($n = 84$), and 26% in his schizotypal personality disorder sample ($n = 76$). ALOG, or autistic logic, responses to the Rorschach appear to be specific and are more sensitive than CONTAM responses to schizophrenic, or so-called "schizophrenic-spectrum," disorders.

DV

The Comprehensive System DVs include both neologisms and redundancies. The comparable psychoanalytic research concerns only neologisms and is therefore much more restrictive.

Rapaport et al. (1946/1968) reported that neologisms only occurred in their schizophrenic sample ($n = 75$) with a 7% frequency. None occurred in their borderline schizophrenic, depressive, neurotic, or control groups. Johnston and Holzman (1979) found a frequency of 4% in their schizophrenic sample ($n = 69$). Exner (1986b), using his definition of DR to include both neologisms and redundancies, found that the frequency was significantly different between a sample of borderline (40%) and a sample of schizotypal (76%) personality disorders.

Exner (1989) nonpatient norms indicate that the frequency of Level 1 DV responses was 53%, whereas the frequency of Level 2 DV responses was 1%. It appears that the Level 2 DV would be quite similar to the neologism research in the analytic literature due to its more delineated bizarreness and oddity. Level 1 DVs probably have no interpretative significance; Level 2 DVs, although rarely occurring, may have certain dynamic or motivational meaning if they represent condensation in the form of a neologism.

CONFAB

The Comprehensive System CONFAB response occurs when a "subject attends only to a detail area of the blot, but generalizes a response from that detail to a

larger area . . . the overall response will be inappropriate for the total area involved" (Exner, 1986a, p. 166). This is the Rorschach DW response in the psychoanalytic literature (Rapaport et al., 1946/1968). Called transductive thinking by Piaget (1954), it is the discovery of the reality significance of the inkblot through the autistic logic of *pars pro toto*—the part is the whole (Meloy, 1986; Rapaport et al., 1946/1968).

The difficulty with the carefully scored CONFAB is that it rarely occurs. In the Rapaport et al. (1946/1968) samples, the frequency in the combined schizophrenic group ($n = 75$) was 27%; in the borderline schizophrenic group ($n = 33$) 18%; and in the combined depressive, neurotic, and control groups ($n = 145$) 3%. Exner's samples (1986a, 1986b, 1989), however, have yielded significantly less: the schizophrenic normative group ($n = 320$) found a zero frequency of CONFABs, as did the new adult normative group ($n = 700$).

The difference in frequency of CONFABs between the Rapaport samples and the Exner samples appears to be in the scoring methodology. Although both have defined CONFABs virtually alike, Rapaport et al. (1946/1968) cautioned against too much inquiry, and Exner (1986a) encouraged a much more aggressive inquiry to rule out "lazy or resistive articulation" (p. 166). The probable reason for the increased frequency of CONFABs in the Rapaport sample was the assumption of DW when it was not there, and integration failure had not truly occurred.

CONFAB, due to its rare presence, is neither sensitive to nor specific of psychopathology. It appears to have little use as a special score.

RECOMMENDATIONS

We offer the following recommendations to both psychoanalytic and Comprehensive System Rorschach researchers interested in formal thought disorder.

1. The psychoanalytic researchers should use the Comprehensive System special scores reviewed in this article due to their high interjudge reliabilities (93%–99% in two studies; Exner, 1986a) and their inclusiveness of most traditional psychoanalytic categories. This would make research by both Comprehensive System and psychoanalytic investigators more comparable and would probably accelerate new findings in the field.

2. The Comprehensive System special scores need to be contextualized as to both motivation and meaning. Such research could begin by studying the clustering of special scores around certain content themes, such as the association of special scores and color responses as indicative of affective disturbance or the association between special scores and human responses in paranoid conditions (Exner, 1986a). Other promising lines of research include the empirical relationship between special scores and defensive operations (Cooper & Arnow,

1986; Lerner & Lerner, 1980), object representations (Blatt, Brenneis, Schimek, & Glick, 1976), and interpersonal modes of relating (Kwawer, 1980).

3. The Comprehensive System should eliminate the CONFAB response, and rename the DR CONFAB. This would historically link future Comprehensive System research to previous psychoanalytic Rorschach research and provide impetus to the already promising findings concerning confabulation and its discrimination between neurotic, borderline, and psychotic groups.

4. The Comprehensive System should add the word *because* as a necessary criteria for scoring ALOG and should define *strained reasoning* as private, nonconsensual logic. We think the current definition does not sufficiently explain the nature of an ALOG (Exner, 1986a).

5. The new Level 1 and Level 2 scores in the Comprehensive System appear to be quite promising. Their retest reliabilities are high and range from .82 to .93 (Exner, 1989). Interjudge agreement was 80% in an initial 1986 study (Exner, 1987). This may increase both the sensitivity and specificity of DV, DR, INCOM, and FABCOM.

6. Psychoanalytic researchers must be careful to not equate borderline personality organization (Kernberg, 1984) with the descriptive diagnosis of borderline personality disorder (American Psychiatric Association, 1980, 1987). None of the psychoanalytic studies we reviewed drew this distinction, but rather developed their theoretical inferences concerning borderline personality organization from empirical findings based on samples diagnosed as borderline personality disordered. We appreciate the difficulties inherent in sample selection, but the Kernberg (1984) criteria for levels of personality organization, if valid, should be operationalized without the use of *DSM-III* or *DSM-III-R*; or, at least, other independent variables should be used in addition to descriptive diagnostic criteria to define subject samples in a more valid psychoanalytic context.

7. Both Comprehensive System and psychoanalytic Rorschach research concerning formal thought disorder should report specific categories of formal scores, including means, standard deviations, and frequencies of occurrence in samples. This will allow for more rigorous comparison between studies for validation purposes. Statistical analyses also must be carefully chosen for appropriateness of parametric versus nonparametric tests and means versus frequencies based on the psychometric nature and clinical meaning of the formal thought disorder index being researched.

We hope that these recommendations will help build a bridge between the empirical rigor of Exner's (1986a) Comprehensive System special scores and the theoretical and conceptual depth of psychoanalytic psychology's formal thought disorder research. The joining of definitions and the alliance of methodologies should greatly enhance the reliability and validity of future research efforts in this important area of research. Perhaps, as Rapaport (1951) wrote, "after the

many attempts to explain thought-disorders by a simple theory have proved partial or irrelevant, this complex phenomenon will finally exact a complex explanation" (p. 730).

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