# Exneriana – II – The Scientific Legacy of John E. Exner, Jr.<sup>1</sup>

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Abstract. Based on an analysis of John Exner's peer-reviewed published work from 1959 to 2007, plus a brief comment for an editorial in Rorschachiana, the author draws a comprehensive picture of the scientific work of this outstanding personality. The article is divided into three sections: (1) the experimental studies on the Rorschach, (2) the clinical studies using the Rorschach, and (3) Exner's "testament," which we draw from the last paper he saw published before his death (Exner, 2001/2002). The experimental studies were aimed at better understanding the nature of the test, in particular the respective roles of perception and projection in the response process. These fundamental studies led to a deeper understanding of the complex mechanisms involved in the Rorschach responses and introduced some hypotheses about the intentions of the author of the test. The latter were subsequently confirmed by the preparatory sketches and documents of Hermann Rorschach, which today can be seen at the H. Rorschach Archives and Museum in Bern (Switzerland). Exner's research has evidenced the notion that the Rorschach is a perceptivecognitive-projective test.

Keywords: Rorschach test, John Exner, perception, cognition, projective test

John E. Exner, Jr. (1928–2006) was an outstanding personality in the field of clinical psychology and had a profound influence on the psychologists, practitioners, teachers, and researchers who had the privilege to encounter him either personally or through his writings and teachings. He was a charismatic person whose gentleness, generosity, and modesty have tended to overshadow his seminal contribution to psychological assessment. As is common with outstanding personalities,

<sup>1</sup> Part of this paper was presented at the XIXth International Congress of Rorschach and Projective Methods, July 22–26, 2008, Louvain, Belgium.

John Exner has also aroused jealousies, rivalries, and, at times, even resentment.

This article intends to explore the work of John Exner and capture fundamental aspects of his original scientific contribution to the Rorschach and projective methods. The following analysis is based on 33 articles published in peer-reviewed journals between 1959 and 2007, plus a brief comment of 2006. Selection of the articles (out of more than 60) was based on the following inclusion and exclusion criteria: included were articles where John Exner was the first or second author in peer-reviewed journals; excluded were (1) his books and manuals, (2) papers from congresses, and (3) articles not centered on the Rorschach test. To that list we added the last text he personally wrote, a short comment published in 2006 in the journal *Rorschachiana*.

The scientific work of John Exner can be divided into two broad categories: (1) fundamental research on the Rorschach and (2) clinical studies with the Rorschach. This classification was chosen to facilitate this presentation and is by no means the reflection of a divide between theory and practice, or experimental and clinical approaches. On the contrary, the constant linking of one and the other, the natural inclination to associate findings, concepts, and methodology, the daring working habit to cross-examine them, is among the most striking features of John Exner's style in his published articles.

The first part of this article focuses on his work on the nature of the Rorschach test; a second part deals with major clinical studies; the third part is devoted to what may be called the philosophy and teaching of John Exner.

# On the Nature of the Rorschach

The inward urge to understand the operative properties of such a powerful but arcane test as the Rorschach, and the role of projection, runs through all the life and work of John Exner. It first appears in 1959 in the article "Influence of Chromatic and Achromatic Color in the Rorschach," based on part of his 1958 academic dissertation, and never abated thereafter. Here we will summarize and analyze the four major articles exploring the nature of the Rorschach, expanding from 1959 to 1996.

# Influence of Chromatic and Achromatic Color in the Rorschach, 1959

This article describes an experiment using color-modified cards so as to determine what impact colors have in determining typical "color" responses. The essential finding is that green and brown colors tend to elicit more CF responses whereas blue facilitates FC responses. On the side, John Exner makes some very interesting comments on inquiry and scoring, already posing a question that is the object of an ongoing debate; he asks himself whether the responding subject is aware of the influence of color on the response and, thus, whether the scoring should reflect what the subject says in the inquiry or what he is supposed to have reacted to. John Exner responded to this question 19 years later, in the article "The Rorschach Response Process" (1978). In 1959, though, John Exner finds that the subject is not always aware of the influence of color in the obviously color-determined responses (such as landscape, botany, nature, and blood responses). He concludes that "the introspection-type method of inquiry" is inadequate and that it would be necessary to distinguish "perceptual" from "projective" type of responses. He even suggests to either inquire differently about the responses according to their type, or score the responses differently by attributing different weights.

The influence of color is further studied in 1961 in "Achromatic Color in Cards IV and VI of the Rorschach" and in 1962 in "The Effect of Color on Productivity in Cards VIII, IX, X of the Rorschach." In the 1961 experiment, John Exner finds that achromatic color has no influence on popular responses to Cards IV and VI, which seem to be more influenced by the shading and form characteristics of the blots. On the side, John Exner writes "Clinical psychology is intensely concerned with demonstrating the reliability and validity of projective techniques" and, doubting the sturdiness of some published studies, "equal concern must be given to the experimental designs."

## The Rorschach Response Process, 1978

In this article John Exner explores productivity in an experimental design using a modified instruction "Give as many responses as possible in

<sup>2</sup> At that time, Exner did not challenge the notion that the Rorschach was a projective technique.

60 seconds" and comparing five groups of subjects on this task: 20 schizophrenic patients, 20 depressives, 20 nonpatient adolescents, and 40 nonpatient adults subdivided into High K and Low K (referring to their score on the K scale of the MMPI, split at the median) groups. The yield of this research had considerable bearing on the understanding of the response process and on future developments of the Comprehensive System. Exner finds that (1) all the subjects produce many more responses than is usual in a clinical setting and with proper instructions, (2) 2/3of the responses are delivered in the first 30 s, and (3) the form quality of the responses is good, except in the schizophrenic group, and is basically unchanged from start to finish. He then asked the subjects to "Select two best answers" and found that the High K and depressive subjects tended to choose popular responses more often than the other groups. In this article, Exner also reports on another study in which he had 20 psychotherapists select two patients and administer the Rorschach to one of their own patients and to one patient of another therapist. He found that the protocols of the patients tested by their own therapist produced significantly more responses and more *projective* responses.

This article represents a turning point in Exner's conception of the test: He understands that, in normal administration procedures and settings, the examinee filters the responses and does not communicate everything that was seen. This implies a selection process and, thus, an important cognitive activity. Exner concludes: "The responses do not simply reflect what the subject could see in the blot, but instead represent how he decided to use what he saw." (Italics by John Exner).

With that finding, Exner definitively departs from the previous notion of *free association* as a basic process in the Rorschach response and conceptualizes the test as a decision-making task where decisions are oriented by both social and personal factors, later called *sets*, of the individual.

# But It's Only an Inkblot, 1980

"That's an inkblot!" is the most common reaction of young children (5–6 years old) to Card I, but the Rorschachist expects another type of response, in which the subject will have "converted" the inkblot into something that is not a direct (and correct) identification of reality. What are the mental mechanisms at work, what are the properties of the inkblots that provoke this specific mental activity, how do the "psychological styles or habits" of a person merge with "the more private and person-

alized world" of the subject in the response, what part do they play, and how can they be differentiated<sup>3</sup>? This set of questions appears like the formulation of a research program that Exner lays for himself, and which, indeed, he will follow-up to the end of his life.

This article is adapted from the address John Exner gave when he was awarded the Bruno Klopfer Distinguished Contribution Award from the Society of Personality Assessment on September 3, 1980. It is a touching text in which Exner retraces his early dual relations to the Rorschach when he was torn between idealization and disappointment: "I also found myself a bit disappointed that [Hermann Rorschach's monograph Psychodiagnostics] was such a small book, and because it failed to speak of the magic of the ego and the id, and the myriad of intrapsychic conflicts that, as rumor had it, could be discerned from this miracle test." (p. 563). He describes the long and painful process that led him to embark on a life-long investigation – in defense of the Rorschach. Referring to the list of questions mentioned above, he concludes the article with the following declaration: "And if we can find those answers, we will surely be able to perform better in the service of others. I am optimistic that we can, for after all, that kind of searching for truth concerning people is what we are all about." (p. 575).

## Searching for Projection in the Rorschach, 1989

This article is a detailed presentation of Exner's conceptualization of the Rorschach response process (the three-phases schema) and of several studies targeted on tracking projection through experimentally induced sets. In the conclusion, John Exner recommends great caution in interpreting seemingly projected material (such as aggressive, cooperative, or morbid responses) which might be the result of some blot characteristics rather than personal inclinations or trends. Exner calls for more research on the evocative "potency" of the blots.

In spite of the title of the article, and although the author thoroughly reviews the literature on theories of projection, Exner's own definition remains unclear. A close analysis of all his references to projection

<sup>3</sup> It is interesting to note that Exner does not believe the distinction can be made by "using structural data to identify [basic styles] and content to address [the private world]" (p. 574). He suspects the "merge" to be a much more complex phenomenon.

throughout the text brings forth the notion that, in fact, Exner shifts from one conceptualization to another, mainly from projection as the expression of personal concerns and life experiences to projection as the personal sets and styles influencing the choice of the response. He suggests that different forms of projection do occur at different phases of the response process.

#### Critical Bits, 1996

In this seminal article, John Exner offers a comprehensive and elaborate theory of the Rorschach, which reconciles perception and projection. We can surmise that this novel and powerful understanding of the nature of the Rorschach stems from the convergence of two lines of thought:

- experiments with the perceptual properties of the blots and
- study of Hermann Rorschach's personal documents by permission of Hermann Rorschach's children Wadim and Elizabeth, such as his experimental blots, his preparatory studies in perception, his notes, and correspondence<sup>4</sup>.

On one side, John Exner rediscovers, as it were, the fundamental role of perceptual processes (as distinct from cognitive and/or affective processes) in the making of a response. Through a series of experiments with perceptively modified blots, John Exner understands that (1) each of the cards possesses "potent characteristics of the stimulus field," called *critical bits*; (2) the potency (or evocative power) of a critical bit depends on the perceptual environment "the potency of any single feature is gauged in relation to the potency of other features"; (3) the laws of perception described in the Gestalt theory fully apply here; and (4) last but not least, critical bits hold competing positions within the cards.

Although the central role of perception had been stressed by many an author, including Hermann Rorschach, the novelty resides in two notions. The first is that critical bits, defined as "potent characteristics of the stimulus field that influence the judgments (identifications) by people," operating as attractors for certain classes of images also reduce the range (scope) of possible responses. Exner writes: "Critical bits are pa-

<sup>4</sup> These documents can now be seen in the Hermann Rorschach Archives & Museum in Bern.

rameters limiting the array of available translations congruent with the distal properties of the field" (the distal properties are contours, position, and colors). The second essential notion is, as mentioned above, that critical bits compete within a card, and oftentimes contradict each other. The traditional view is to consider the blots as being ambiguous, i.e., having more than one possible meaning, not clear, and, therefore, largely open to interpretation. Exner's view and theory is a reversal of this approach in as much as he finds that the blots are plagued, so to speak, with an abundance of discrete, clear "meanings," often contradictory, which provoke an internal conflict that the subject will have to solve.

This finding is fully supported by Hermann Rorschach's preparatory documents and experiments, which evidence that Hermann Rorschach actively studied people's reactions to perceptual conflicts and that he deliberately planted those in the cards, which we now know he designed with care and artistry.

On the other side, Exner understands that projection occurs whenever the response goes beyond a simple identification of an object and whenever a subject escapes the limitations imposed by the critical bits. New in this article is the considerable place he gives to projective mechanisms and projected matter. Exner writes: "To detect personal attributions or projection, a more liberal approach seems useful. It is one that regresses to the more traditional approach of studying consecutive answers, with the proviso that ordinary responses without embellishments be excluded."

What does remain unclear for us is the exact concept lying behind the term "projection" so often used and explored by Exner. At times, and in the "Critical Bits" article, he defines projection as "the expression of personal sets"; elsewhere he speaks about "projected material." Personal sets, as we have seen *supra*, designate all the personal factors and social attitudes of the subject. However, Exner's conception of "personal factors" is rather ambiguous: Do they refer to personality traits and styles, or do they refer to personal content in the individual (feelings, fantasies, cognitions)? As an example, Exner discovers (Critical Bits article) that on Card V, Introversives tend to prefer the response "bat," and Extratensives the response "butterfly." This surely is an expression of "personal sets" or factors but in the same article, Exner affirms that "ordinary responses without embellishments" have no projection. It seems that John Exner never decided which of Frank's or Murray-Bellak-Rapaport's conception was best fitted to his theory of the Rorschach.

#### Other Works on the Rorschach

Apart from the articles presented above, centered on the nature of the Rorschach test, it is rather artificial to set apart other articles *on* the Rorschach (as opposed to *with* the Rorschach), as in all other articles there is a constant shift of attention from how the test can contribute to a better understanding of patients to what the findings teach us about the Rorschach's validity and reliability.

Here we shift our method of presentation to summarizing the findings by themes. The main concerns of John Exner were: Is the Rorschach reliable as a test, is the number of responses (R) a confounding factor, and how to ensure the validity of interpretation.

### Reliability of the Rorschach

The issue of reliability is approached by Exner in classical test-retest designs, with short (3–4 days), medium (30 days), and long intervals between first and second testing. All of the studies with nonpatient adults yield very sturdy results, correlations falling between .66 and .90 with a median of .80 for most of the variables. This is not the case in children's Rorschach, as evidenced in a 8-year longitudinal study of 57 children (Exner, Thomas, & Mason, 1985).

Each of the studies also have interesting side effects. The first (Exner, Armbruster, & Viglione, 1978) confirms the existence of both trait (*structural*) and state variables in the Rorschach, the former showing great consistency over a 3-year interval, the latter substantial variability. The ability of the test to capture structural aspects of personality is further confirmed through an imaginative experimental design in which 8-year-old children, although instructed to give different responses in the retest (3 days interval) end up with similar variable patterns (Exner, 1980). This design was later replicated on adults (Haller & Exner, 1985), enabling the authors to write: "(...) the reliability of the Rorschach is due in large part to the consistency of the traits and response styles of the subject." (1985, p. 518). At the same time, observing some unexpected side results, they conclude that "while it seems clear that the test, as such, is temporally reliable, issues remain concerning the reliability of some variables that are crucial to the descriptive-diagnostic process." (p. 521).

# The Question of R

Variability of *R* in Rorschach protocols has always been considered as posing a crucial challenge both for researchers and clinicians: Should the scores be normalized in relation to *R*?

Exner constantly addressed this issue. On one hand, "frequencies of almost all response categories and many of the derived ratios and percentages are substantially correlated with the number of responses" (Exner, Viglione, & Gillepsie, 1984, p. 65); on the other hand "Fixing the number of responses can often dramatically alter the nature of a protocol, (...). [It] presumes that an equal probability exists for any type of answer to occur to any of the 10 plates, which is erroneous because the plates do not have equal stimulus characteristics for all variables." (p. 66).

In 1992, Exner revisits the issue and offers a comprehensive picture of the problem and its solutions ("R in Rorschach Research: A Ghost Revisited"). After reviewing all the statistical evidence and suggestions provided by major authors, Exner presents the results of his own study of correlations between R and 17 of the main Rorschach variables. He concludes that "the role of R is not so important as had been thought" (only the D location is consistently correlated with R across samples). He discusses the merits and drawbacks of each of the proposed solutions (proportional scores, logarithmic transformations, partialing or normalizing - p. 250). Exner's conclusion is that, when the Rorschach is administered and interpreted properly, the issue of R is trivial. To the researchers, his recommendation is to "exercise good judgment (...) knowing that, in some instances, R can play a significant role but also that, in most instances, R is likely to be irrelevant in the analyses for most variables." (p. 251). In other words, although it is a fact that the number of responses influences some (but few) of the Rorschach variables, the interpretive usefulness of the test is greater when used as it is than when R is tampered with.

### Validity of Interpretation

As mentioned above, R is not a problem for interpretation, provided it is administered and interpreted correctly. The rules of administration and interpretation that were included in the Comprehensive System are based on a series of studies that showed the following:

- 1. Retest reliability is good only if *R* is greater than 13 (Exner, 1988). It seems that short records, and especially when *L* is greater than .85, often fail to capture the core features of the subject's psychological functioning.
- 2. Studying intercorrelations (with *R* partialed) of 16 variables derived from two testings of 100 adult nonpatients (same sample as in the 1978 research), Exner shows how variables influence each other. Knowing that interpretation of the Rorschach is largely based on the possibility to discriminate "between typical and atypical patterns," later called the deviation principle, Exner stresses the importance of these findings: "while the broader interpretive meaning of a variable does not change, its specific interpretive importance will vary considerably depending on the configuration of other variables." (p. 65).
- 3. It is important to have solid nonpatient reference data, as they form the basis of interpretative guidelines. Exner collected a new sample of 450 nonpatients between 1999 and 2005 (posthumously published in 2007), which largely confirmed his previous data except for two variables: X + % (lower) and S (higher). The author suggests slightly shifting the guidelines for these two variables accordingly, and concludes that "The current sample (...) can serve as a basis for understanding the response rates of variables coded in the Comprehensive System." (p. S158).

The validity of interpretation is finally dependent on, and proportional to, the evidence (or lack thereof) that links a variable to the psychological feature it is assumed to reflect or measure. Many studies are dedicated to that issue.

As examples, we have selected four articles that specifically address the potential meaning and validity of the variables: "The Rorschach *EA-ep* Variable (...)" (Wiener-Levy, & Exner, 1981), "The Effects of State Anxiety and Limited Social-Evaluative Stress on the Rorschach" (Viglione & Exner, 1983), "Rorschach and MMPI Simulation of Depression" (1997), and "Rorschach Responses as an Index of Narcissism" (1969).

# The Rorschach EA-ep Variable as Related to Persistence in a Task Frustration Situation Under Feedback Conditions (Wiener-Levy & Exner, 1981)

Subjecting 80 adult volunteer nonpatients to a frustrating task, the authors show that when ep (later named es) is greater than EA, people tend to persist in the task against evidence of failure. Noting that the variables accounting for the elevation of ep in this sample is the result of two types of variables, m and shading (and not FM), the authors hypothesize that a state of stress overload can interfere with the capacity of a person to adequately use "cognitive processing-mediational operations" (p. 123). The authors speculate that this finding might have some importance to intervention tactics, suggesting that "feedback routines be maintained at simple and less complicated levels for the patient entering treatment with ep being significantly greater than EA until such a time that more resources are available (...)." (p. 123)

# The Effects of State Anxiety and Limited Social-Evaluative Stress on the Rorschach (Viglione & Exner, 1983)

This research was aimed at searching for the expression of anxiety in the Rorschach, mainly testing the traditional hypothesis that it is to be found in shading determinants. As it happens, the experimental design did not yield a positive result and the authors conclude that it is probably impossible to experimentally induce state anxiety in volunteer subjects, only at best, social-evaluative stress.

# Rorschach and MMPI Simulation of Depression (Exner & Ros i Plana, 1997)

In this rather famous experiment, the authors administered the Rorschach to four groups of subjects: patients diagnosed with depression, control nonpatients, and "simulators" who were asked to respond as if they were in a depressive state. Half of the simulator group listened to an audio tape explaining the DSM-III criteria for depression and containing a statement by a seriously depressed in-patient, the other half received no particular information about depression.

The yield of that research is important both for interpretation and for

understanding the nature of Rorschach variables. The authors show that depression can, to a certain extent, be simulated on the Rorschach through an increase of achromatic color (TotC), vista shading (TotV) and morbid content (MOR). They recommend caution when interpreting the protocol of someone who would benefit from being diagnosed as depressed. This research also confirms that the Rorschach and the MMPI do not capture the same dimensions of depression and should be used in a complementary fashion.

On another plane, this study evidences that certain variables can be controlled by testees, and slanted for a real or supposed benefit. More research is certainly warranted to differentiate "controllable" and "uncontrollable" variables.

#### Rorschach Responses as an Index of Narcissism, 1969

Although this article belongs to the pre-Comprehensive System epoch, we have chosen to give it particular attention for several reasons: (1) The outcome of this study has been criticized long after it was written (1995), (2) the article gives a good insight into the relationship of John Exner's work to psychoanalytic theories, (3) the study produced one of the most original new variables of the Rorschach, and (4) the study exemplifies Exner's creative thinking and genius.

John Exner, just as many authors before him, became intrigued by a relatively rare type of responses in the Rorschach, in which symmetry is interpreted by the subject as a mirror image. Traditionally, these responses were considered as expressing narcissistic tendencies, with the exception – according to Bohm (1958 for the English translation) – of the animal reflection on Card VIII.

Exner, thus, sets out to investigate this hypothesis and, knowledgeable in psychoanalytic theory, reviews the relevant literature and history of the concept of narcissism, and adopts the views of Bing, McLaughlin, and Marburg and the developments of Kohut. Testing the occurrence of symmetry responses, both reflections and pairs, in various groups of patients or nonpatients reputed to be highly narcissistic, he confirms that, compared to a control group, the frequency of reflections is higher in the narcissistic groups. Nevertheless, instead of contenting himself with that empirical result, he decides to add a psychometric approach to the conceptual one, searching for confirmation by an external criteria.

In the second part of the study Exner uses the Narcissism Sentence

Completion Test (NSCT) devised by Alba Watson in her 1965 dissertation on a mixed group of nonpatients and compares the Rorschach results of two contrasted groups (high narcissism versus low). (The test was later modified and renamed "Self-Focus Completion" and the notion of narcissism was replaced by that of egocentricity [Exner, 1973]).

The yield of this study is considerable as it has led to the creation of the egocentricity index (EGO), an original ratio combining reflections and pairs that later proved to capture an important aspect of the relation to self. Exner's tentative differentiation between the meaning of reflection versus pair responses, the former positioned clearly close to narcissistic cathexis of the self, the latter expressing a more subtle and healthy capacity (or lack of) to have a solid self-base (the expression "self-base" is not from Exner). One interesting intuition is that some pathological states might be linked to failures or distortions of the otherwise necessary and normal self-centeredness. This was later confirmed in empirical studies on the EGO, with scores situated in the average range in nonpatients and showing a bimodal distribution in patient populations. Too little or too much self-centeredness are also found in presuicidal states.

Exner concludes the article with the following remark: "The emphasis of study of psychopathology during the past three decades has focalized on the defences of the ego. Quite possibly this emphasis has created a neglect in the study of a more significant aspect of predisposition toward pathology, that of the 'narcissistic balance.' We believe that four decades later the neglect still lingers."

Some 26 years after Exner's article, opponents to the use of the Rorschach (including the Comprehensive System) criticized the EGO index, arguing that it had failed as a measure of narcissism. Exner responded in a matter-of-fact article (1995) retracing the steps and studies that led to the creation and validation of the EGO index and summarizing the accumulated evidence concerning the meaning of reflection responses. Just as was already the case in his 1969 article, he carefully dissociates the meanings of pair and reflection responses, as well as of an EGO score containing (or not) reflection responses. Whereas the reflection response continues to have a rather straightforward interpretation ("I have continued to interpret the findings concerning the reflection responses in the context of the Bohm postulates, that is, representing a narcissistic-like feature that tends to be stylistically influential in most psychological operations, especially those in which issues of self-value are involved."), pair responses seem to capture a trait that is more difficult to define. When combined with reflections (if any) to produce the

EGO index, they can be conceived as a measure of "self-concern" or self-centeredness, of which a certain quantity is warranted in anyone. The EGO index is not a measure of narcissism, nor of self-esteem, nor of self-concept. Whereas the presence or absence of reflection responses in a protocol seems to be a constant feature of the personality, the number of pair responses, and, thus, the EGO index, are sensitive to, and indicators of, improvement in therapy (or lack of). Today, the EGO index stands out as one of the most original and intriguing variables in the Rorschach Comprehensive System.

#### Research with the Rorschach

Between 1973 and 1977, Exner & Murillo extensively studied the short-term and long-term effects of regressive ECT administered to schizophrenic patients (1973, 1975, 1977). Incidentally, they found that the Rorschach was unable to predict relapse in these patients. In 1977, the seminal study on Rorschach characteristics of suicidal patients was published (Exner & Wylie, 1977), which led to the creation of the suicide constellation (S-CON). That same year Exner and colleagues analyzed the Rorschach protocols of 95 prostitutes (Exner, Wylie, Leura, & Parrill, 1977) and found that a psychological profile of prostitution does not exist. As an anecdote, but exemplary of the unfailing curiosity and openmindedness of John Exner, the study was triggered by erroneous conclusions drawn by a student in an assessment course!

In 1978, Weiner and Exner published a study of thought disorders in various groups of patient and nonpatient adolescents where they show that some of the six critical special scores (*DV*, *ALOG*, *INCOM*, *FABCOM*, and *CONTAM*) do occur in nonpatient adolescent protocols albeit less frequently than in patient groups. At that time, Exner had not introduced the notion of qualitative differences in cognitive slips, as expressed in the Level 1/Level 2 current scorings. The authors are naturally led to believe that the difference between patients and nonpatients is a strictly quantitative one. They write: "(...) the present findings constitute further evidence of the continuity between normal and abnormal behavior, which differ more in the amount and pervasiveness of certain kinds of behavior than in the quality of these behaviors" (p. 343).

We will see that John Exner progressively abandoned that "dimension-

al" view of psychopathology, as becomes evident in the following 1986 paper.

# Some Rorschach Data Comparing Schizophrenics with Borderline and Schizotypal Personality Disorders, 1986

Comparing three groups of DSM-diagnosed schizophrenic, borderline, and schizotypal patients on the Rorschach, Exner finds that schizophrenic and schizotypal patients have some common characteristics and together they significantly differ from borderlines. He challenges the clinical and conceptual pertinence of the DSM-III descriptions of the schizotypal and borderline disorders, the descriptions of which seem to overlap, and suggests reverting to the previous categories of latent (or borderline) schizophrenia and inadequate personalities, respectively.

Much more important for us here are the notions emphasized in the discussion part of the article. Exner clearly differentiates two lines, or levels, of descriptions. One pertains to the actual functioning, the other to the organization of the personality. In that perspective, schizophrenic and schizotypal refer to specific disorders, at the functioning level, whereas borderline (in the DSM-III description) describes a certain pattern of psychological characteristics on the organization level. The distinction between organization and functioning, while classical in all sciences, seems to have been largely forgotten in the mental health field and represents a powerful and operative conceptual system in psychology assessment. In a way, it reconciles the dimensional and categorical approaches of psychopathology: Organization can be described from a dimensional perspective – quantitative and linear, whereas functioning can best be approached from a qualitative perspective.

This article is a good example of John Exner's frame of mind toward research: every single study, whatever the scope or modesty of its object, is an occasion to learn something about clinical applications, to question methodology, methods, and tools, and to challenge concepts and takenfor-granted notions.

The conceptual distinction between organization and functioning, quantitative and qualitative logics will eventually and progressively pervade and internally structure the Comprehensive System to the point that it can today be considered as the cornerstone of the method. It directly translates into the coexistence of parametric and nonparametric variables; the notion of thresholds alternating with that of linear mea-

sures. This is probably what makes the Rorschach so powerful as a clinical tool, so difficult to use in research, and so complex to learn.

## Rorschach Changes Following Therapy, 1991 and 1992

At the International Congress of Rorschach in Paris in 1990, Exner, Andronikof, and Weiner presented several studies on the observed Rorschach changes during various modes of psychological treatment (very brief, short-term, and psychodynamically oriented long-term). The studies were published in 1991 (Weiner & Exner) and 1992 (Exner & Andronikof) and have set a tentative model for this type of study.

The authors verify the notion that the Rorschach includes both organizational, or stylistic, variables and functional ones liable to change over time. They also demonstrate that the Rorschach is an appropriate tool to trace improvement (or lack of) in therapy and psychological evolution after termination of treatment.

# Rorschach Findings Concerning Closed Head Injury Patients (Exner, Colligan, Boll, Stisher, & Hillman, 1996)

This study of the protocols of 60 adult closed head injury patients (CHI; mild to moderate trauma), tested between 3 and 5 weeks after the trauma, although not producing any breakthrough findings, is interesting to mention here as it suggests that Rorschach findings are directly usable for planning treatment and rehabilitation programs on an individual basis. The group description captures the average characteristics of the psychological functional impairment of these patients, which, contrary to expectations, occurs mainly in the form of restricted resources, avoidance of complexity, lack of social skills, and emotional blockage instead of in the area of cognitive skills or self-perception. Evidently these findings could (and should) be taken into account in devising rehabilitation programs. Moreover, the fact that "Obviously, not all CHI patients have all of the negative or positive features noted (...)" (p. 325) shows that rehabilitation programs and treatments could be further customized to meet the particular needs of a particular person.

# Responses of Schizophrenics and Nonpatients to a Tachistoscopic Presentation of the Rorschach (Colligan & Exner, 1985)

This article was set apart (from the chronological order) because it perfectly illustrates how an experimental study on the response process can produce fundamental results in psychopathology.

In this very interesting experimental study, Exner targets the first phase of the response process "involving the encoding and classification of the stimulus." At the time of the study, there was an ongoing debate about schizophrenia: Does this disorder affect perception, encoding of stimuli, or the cognitive processing of the stored image?

The results are rather fascinating, showing that: (1) schizophrenics and nonpatients do not differ in their perceptual accuracy in the encoding phase, (2) at very brief exposure times (600 ms) people have a rather shoddy, global view of the cards (nonpatients: X+% = .48, schizophrenics: X+% = .50 and W/D is 7/1), and (3)the only significant differences found concentrate on the cognitive Special score, specifically in DV and ALOG. These findings confer considerable weight to the postulate that, (1) in normal administrating procedures, the articulated response is the product of a complex cognitive activity occurring after the initial encoding and (2) psychopathology interferes with and distorts this activity. In other words, a schizophrenic disorder does not affect the input phase but some, or all, of the mental operations involved in the treatment of the processed information. One result that Exner does not comment on is that none of the tested groups produce contamination responses (CONTAM), an interesting fact that might say something about the nature of the CONTAM phenomenon, possibly as reflecting a problem in the short-term storage of images rather than in perception or, as Exner believed, in ideational processes.

# **Automated Interpretation of the Rorschach**

Following Piotrowski, John Exner investigated the potential aid of computer programs to Rorschach interpretation and, beginning in the mid-1970s he undertook a project "designed to increase computer utilization as an aid in interpreting the test" (Exner, 1987). This project led to the creation of the "Rorschach Interpretation Assistance Program (RIAP)." The objectives, as detailed in the article "Computer Assistance in Ror-

schach Interpretation," (1987), were: (1) to easily and without error create the Structural summary, (2) to search for deviations and/or significant findings, and (3) to eliminate "the possibilities of error by reason of fatigue, haste, or omission." Already aware of the possible misuses of such a seemingly powerful "evidence-based" computer program, Exner discusses at great length the limitations of the program, concluding that "in some instances statements may be only partially correct, or even totally incorrect" (p. 4), points out that "the computer cannot think," reminds psychologists that conclusions can solely be drawn when data are integrated into a broader assessment process and put in perspective with clinical data, and offers recommendations on how best to use the computer-assisted program.

Two decades later, John Exner was appalled by the very concrete use of the program made by many psychologists around the world and completely abandoned the computer approach. In September 2005 he wrote a comment to an editorial note for the journal *Rorschachiana* (Andronikof, 2006), which we partly reproduce here:

"[The computer] cannot think, and it cannot integrate data at a level higher than that for which it has been programmed. The complexity and uniqueness of each human makes it essentially impossible for any program to be developed that would account for all of the idiosyncratic features that mark the individual, but the competent human interpreter can usually do this. As Andronikof points out, excessive reliance on interpretative programs is bad psychology and simply reflects a sort of naivety or carelessness by the program user and ultimately does a grave disservice to clients and the profession."

# The Philosophy and Teaching of John Exner

A review of all the published work of John Exner gives a sort of Gestalt vision of the personal "sets" and convictions of the author, which framed and guided his life-long endeavor. First and foremost were his deeply rooted ethical values as a person, as a psychologist, and as a researcher. As a person, he was convinced of the uniqueness of every single person, never reducible to categories, whether conceived in terms of personalities or disorders, or types, etc. He had great respect for "the other" and was curious to meet and exchange with this "other." As a psychologist, he perceived himself as being in the service of the client, as opposed to being in the service of ideas or theories and was aware of the psychologist's responsibility in advancing the quality of health care.

As a researcher his motto might have been "learn from experience," meaning that he would not accept as true something that could not be proved or evidenced, and at the same time he was ready to change or even reverse his views in the face of new evidence. This motto also implies a constant quest for proving or disproving hypotheses.

This core ethical position translated into an elaborate and coherent point of view on the Rorschach, a "philosophy," if you will, which John Exner articulates in a 2001 article that now takes the status of a testament.

#### The Present Status and Future of the Rorschach, 2001

Starting by reaffirming the foremost characteristic of the Rorschach as a test, i.e., its ability to capture the singularity of a person "one of its marvels is, indeed, the personal picture of the individual that can be derived from its yield (...)" (p. 10), Exner denounces the artificial search for "generalized truths":

"Mythical classes of humans are created that tend to ignore the individuality that marks each human being" (p. 9); "It is, after all, indisputable, that the human being is a very unique creation and, as such, behaves throughout his or her particular life span in a distinctive fashion that reflects that uniqueness." (p. 8).

Exner recognizes the difficulty of dealing scientifically with individual differences but deplores the current neglect of this dimension and the concrete use of statistics:

"An increasingly large number of researchers (...) embraced the fact that the issue of individual differences might be minimized or ignored by drawing conclusions based on laws of probability and the use of sometimes questionable estimation levels of significance. Theorists naturally have tended to side-step the issue of individual differences by resorting to esoteric generalizations." (p. 9).

Analyzing the causes of the current "waning of interest for personality and individuality," he offers three sources: (1) the radical behaviorism of the 1960s and 1970s, now called cognitive-behavioral, postulating that the "black box," unattainable, can be (and should be) altogether ignored; (2) the increasing emphasis in psychiatry on a biological basis of psychopathology, and (3) the DSM series, which he qualifies as "bookkeepers' manuals," conceived to "diagnostically classify people in distress," and unfortunately misused, contrary to its author's recommendations, as automatically translating into treatment indications.

The largest part of the article is dedicated to the future of the Rorschach and Exner draws a research plan for future generations in four points:

- 1. Broadening information about the nature of the test: "It seems realistic to suggest that the future of the test is in jeopardy of some stagnation unless the matter of the blot characteristics and the response process is addressed more aggressively than has been the case." (p. 11).
- 2. Further researching the variables known to relate to various personality features or organizations. In this area, Exner stresses the importance of considering the variables "in light of response styles," and neglect of that necessity is "a costly error because the baseline frequencies, proportions, and so-called average ranges for many variables differ quite substantially across the three categories." (p. 11). Exner strongly disavows researchers' efforts to smooth out differences by broadly mixing heterogeneous samples: "(...) even when sophisticated procedures have been used, the findings may be very questionable because the data sets have not been subjected to partialing for response styles. [This] has led to overgeneralized conclusions (...) which in turn have been passed along for use by interpreters." (p. 13).
- 3. Searching "new directions with regard to features of personality and psychological functioning" (note the constant referral to the difference between personality and functioning), either known traits and features that are not yet identified in the Rorschach, or future conceptualizations of personality and functioning.
- 4. The fourth area of investigation is obviously, for Exner, the most important sector of future research, which, alone, could ensure the survival and success of the Rorschach. It is the relationship of the Rorschach to treatment and can be summarized in one question: Does pretreatment assessment contribute significantly to treatment selection or therapeutic outcome? Exner writes that research on the contribution of Rorschach to pretreatment assessment "can demonstrate its own credibility probably better than any other way."

This part of the article is the occasion for Exner to spell out his conception of the uniqueness of each person and conviction that each person in distress deserves the best possible treatment, that is, a therapy custommade, tailored to this person's particular mix of weaknesses and strengths, to this person's particular experiences and history, all of which led to the symptoms the person presents ("similar symptoms may

have very different psychological origins"). Exner is convinced that psychologists have a central role to play in this field and that the Rorschach can uniquely contribute to this role. He calls for a change of perspective in treatment planning: Instead of asking "which treatment for which disorder," one should ask which treatment for which patient.

"The contemporary Rorschach community is complacent about the issue of individuality and is altogether too eager to play the medical model game. (...) the test itself is not a diagnostic instrument (...) and those who teach the test should actively discourage this naïve assumption." (p. 15)

Indeed, the final part of the article is a vibrant plea for maintaining – or restoring where it was lost – high quality training of psychologists in the skills of psychology assessment and particularly in the art and science of Rorschach interpretation.

"People who use the Rorschach must be trained adequately, and this is possibly one of the most serious challenges for the future of the test." (p. 25).

The article ends on a note of hope for the future:

"Hopefully, as the future unfolds, students will be exposed to those types of experience routinely by those responsible for their training so that as they become vested in assessment, we can be assured that they will fulfill their obligations to their clientele skillfully and effectively."

Author's Note

Some of the authors mentioned in the text are not referenced because they are cited by Exner and are not the sources of this article.

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#### **Summary**

Based on an analysis of John Exner's peer-reviewed published work form 1959 to 2007, plus a brief comment for an editorial in *Rorschachiana*, the author draws a comprehensive picture of the scientific work of this outstanding personality. The article is divided into three sections: (1) the experimental studies on the Rorschach, (2) the clinical studies using the Rorschach, and (3) Exner's "testament," which we draw from the last paper he saw published before his death (Exner, 2001/2002).

The experimental studies were aimed at better understanding the na-

ture of the test, in particular the respective role of perception and projection in the response process. These fundamental studies led to a deeper understanding of the complex mechanisms involved in the Rorschach responses and introduced some hypotheses about the intentions of the author of the test. The latter were subsequently confirmed by the preparatory sketches and documents of Hermann Rorschach, which today can be seen at the H. Rorschach Archives and Museum in Bern (Switzerland). Exner's research has evidenced the notion that the Rorschach is a perceptive-cognitive-projective test.

The clinical work investigated a variety of mental disorders and some nonpatient populations. Exner was a harbinger in psychotherapy assessment, his first works on the subject having been presented at the Paris International Congress in 1990. The clinical studies also led Exner to perfect the Rorschach as a tool and to devise and validate new scores and indices such as the reflection determinant in its relationships with narcissism, the suicidal constellation, and the coping deficit index.

We present the articles in their chronological order, which enables the reader to follow the evolution of Exner's thinking, and understand how he shifted from a purely and traditional projective conception of the test, to the discovery of its perceptive and cognitive dimensions, to a rediscovery of the part played by projection. We also note how he changed his viewpoint on automated, computer interpretation of the responses, which he finally rejected entirely and firmly denounced.

In the last nonposthumous article, which we consider as his scientific testament, Exner pleads for maintaining a clinical approach to the Rorschach, always to be referred to the uniqueness of the subject, calls for the greatest caution regarding statistical manipulations that tend to oversimplify the test, deplores the current deviations resulting from the mechanical use of the DSM, and outlines directions for future research and development of the Rorschach.

#### Résumé

A partir de l'analyse de 33 articles publiés par John Exner dans des revues à comité de lecture entre 1959 et 2007, plus un commentaire rédigé pour un éditorial de *Rorschachiana* peu avant sa mort (2006), l'auteur brosse un tableau de l'œuvre scientifique de cette personnalité hors du commun. L'article est construit en trois chapitres, les travaux expérimentaux sur le Rorschach, les travaux cliniques utilisant le Rorschach

schach, et le "testament" d'Exner que nous tirons du dernier article publié de son vivant (Exner, 2000/2001).

Les travaux expérimentaux visaient à comprendre la nature du test, et en particulier quelle est la part respective de l'acte de perception et de la projection dans le processus de la réponse. Ces recherches fondamentales en laboratoire ont permis de mieux comprendre les mécanismes complexes de la formation de la réponse au Rorschach et d'émettre des hypothèses sur les intentions de l'auteur du test. Celles-ci ont par la suite été confirmées par l'étude des esquisses et documents préparatoires d'Hermann Rorschach qui sont aujourd'hui réunies aux Archives et musée H. Rorschach à Berne (Suisse). Ces travaux montrent – et démontrent – que le Rorschach est un test perceptivo-cognitivo-projectif.

Les travaux cliniques ont porté sur des troubles psychiques variés, ainsi que sur diverses populations non consultantes. Exner fut un précurseur dans l'évaluation des traitements psychologiques, ses premières études sur le sujet ayant été présentées en 1990 au congrès international de Paris. Les recherches cliniques ont aussi été l'occasion pour lui de perfectionner l'instrument Rorschach et de proposer, puis valider, de nouvelles cotations ou indices tels que le déterminant reflet dans ses liens avec le narcissisme, la constellation suicidaire ou encore le Coping Deficit Index (indice d'incompétence sociale).

Les articles d'Exner sont présentés dans leur ordre chronologique, ce qui permet de suivre l'évolution de sa pensée, de comprendre comment il passe d'une conception toute "projective" du test à la découverte des dimensions perceptives et cognitives, pour finalement y réincorporer la projection. On note aussi son changement de point de vue sur l'interprétation automatisée des réponses, qu'il abandonne complètement et dénonce fermement.

Dans le dernier article publié de son vivant, que nous considérons comme son testament scientifique, Exner plaide pour le maintien d'une utilisation clinique du Rorschach, toujours rapportée à la singularité du sujet, il met en garde contre les manipulations statistiques qui tendent à simplifier le test, dénonce les dérives dues à l'application toujours plus mécanique de la classification DSM, et trace les directions de la recherche future.

## Resumen

Basándose en el análisis de los artículos publicados por John Exner desde 1959 a 2007, más un breve comentario realizado para un Editorial de Rorschachiana, la autora diseña en una síntesis integradora un cuadro global del trabajo científico de este destacado profesional. El artículo se divide en tres secciones: 1) Los estudios experimentales con Rorschach, (2) Los estudios clínicos utilizando el Rorschach, y (3) El "testamento" de Exner, que se infiere del último artículo que él pudo ver publicado antesde su muerte (Exner, 2001/2002). Los estudios experimentales tuvieron como objetivo una mejor comprensión acerca de la naturaleza del test, en particular los respectivos papeles de la percepción y la proyección en el proceso de respuesta. Estas investigaciones fundamentales llevaron a un conocimiento más profundo de los complejos mecanismos involucrados en la elaboración de cada respuesta al Rorschach y plantearon varias hipótesis sobre las intenciones del creador de la prueba. Algunas de estas hipótesis fueron posteriormente confirmadas por experimentos-piloto y por la variada documentación personal de Hermann Rorschach que puede consultarse en los Archivos-Museo Rorschach en Berna (Suiza). Las investigaciones de Exner han proporcionado claras evidencias sobre la noción de que el Test de Rorschach es una prueba perceptual-cognitivo-proyectiva. En los trabajos clínicos J.E.Exner estudió una gran variedad de trastornos mentales y muchas características de la población de No-Pacientes. Exner fue un pionero en las labores de evaluación de psicoterapias, presentando sus primeros trabajos sobre el tema en el Congreso Internacional de Paris, en 1990. Los estudios clínicos también llevaron a Exner a perfeccionar la herramienta del Rorschach y a crear y validar nuevas codificaciones e índices, como el determinante de Reflejo (Fr + rF) y sus conexiones con el narcisismo, la Constelación de Suicidio (S-Con) y el Indice de Inhabilidad Social (CDI). Se presentarán sus artículos por orden cronológico, para permitir al lector seguir la evolución del pensamiento de Exner y comprender mejor cómo él fue avanzando, desde la concepción meramente proyectiva tradicional del test hacia el descubrimiento de sus dimensiones cognitivas y perceptivas, a redescubrir el papel que desempeña la proyección en la elaboración de algunas respuestas y, finalmente, a rechazar y denunciar con firmeza cualquier interpretación concreta, prefijada y mecánica de un protocolo. En el último artículo publicado antes de su muerte, que consideramos como su testamento científico, Exner insiste en la necesidad de mantener un enfoque clínico

del Rorschach, siempre referido a las peculiaridades individuales de cada sujeto, hace una nueva llamada a la mayor precaución ante las posibles manipulaciones estadísticas que tienden a sobresimplificar el test, lamenta las actuales desviaciones debidas a un uso mecanicista del DSM, y señala directrices básicas para futuras investigaciones y desarrollos del test de Rorschach.