

A Critical Review on Using the Rorschach Method in Somatic Illnesses

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Introduction

The Rorschach Inkblot Method is one of the most widespread qualitative methods in psychological assessment. Although it has been criticized, arguments have been developed by clinical researchers that justify its validity, reliability, and clinical utility (Beutler, 2003; Hersen, Segal, & Hilsenroth, 2004). Yet, only scattered data are available as to its application in somatic illness. In medical settings the objective of individual psychological assessment is usually to assess personality traits with a potential impact on health (as in primary or secondary prevention) or study the psychological response of the ill subjects (this can be used for rehabilitation purposes) (Fava & Feyberger, 1998).

The question is whether the Rorschach is useful and valid in this field. The aim of this article is, therefore, to examine recent research into the use of the Rorschach in the field of physical illness. In particular, we shall show that the different approaches that identify a link between psychological functioning and physical disorder have given rise to Rorschach-based studies. Our approach is based on the successive evaluation of three avenues of research, organized from the most theoretical to the most empirical. The first consists of two content-scoring methods that are widely employed in the healthcare field (Fisher and Cleveland's Barrier and Penetration scale and Masling and co-workers' Rorschach Oral Dependency Scale). These methods have been the subject of criticisms, which the arguments presented below go some way to answering. The second avenue of research focuses on the evaluation of alexithymia, and, thus, illustrates the investigation of "personalities at risk," a classic

avenue of exploration in the psychosomatic field and that of health psychology. The third focuses on the variables that are predictive of behavioral markers, in particular in diabetes.

Scoring and Interpreting Key Contents

One of the approaches adopted by researchers in order to make use of the information provided by the Rorschach has been to score the content of the responses on the basis of scales possessing the appropriate psychometric properties (in that case, interrater reliability). These contents are thought to reveal the profound and underlying themes that structure the individual's relationship with the world. There is, thus, thought to be an analogy between certain types of content (as seen in the Rorschach) and underlying psychological functioning. This content is thought (1) to act as a marker of the functioning in question and (2) to be related in some "analogical" or "symbolic" way to this functioning. Most research in this health-related field has dealt with the counter-excitation function of the ego (via the ideas of barrier and penetration) and the prototypical relational modes (via the concept of oral object relation).

Fisher and Cleveland's (1958) Barrier and Penetration Scales (B&P)

The theoretical basis of the B&P scores is the psychoanalytical concept of psycho-affective development. It assumes that there is a close relation between the image of the body and the limit, solidity, and cohesion of the self (Fisher, 1968; Freud, 1923/1961). Subjects with a self having clear and stable limits should be better able to enter into relations with others on the basis of well-established positions. Situations can then be addressed in an assertive, integrated, and effective way. The postulate underlying the B&P scales is that this solidity and these limits will transpose into "Barrier"-type contents whereas vaguer physical limits, relating to a less structured self, will result in "Penetration"-type contents. Table 1 provides a summary of the two types of scores. Fisher and Cleveland (and their successors) showed that subjects whose body image is characterized by an adequate internal defensive barrier that possesses a solid surface and structure (revealed by the B scores as opposed to the

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Table 1. Summary of Fisher and Cleveland's Barrier and Penetration Scales (1958) (acc. to Masling, 1999, p. 170)

The Barrier scale contains eight content categories and one "miscellaneous" category:

- 1) Clearly identified clothing: man in dressing gown, chef's hat, crown
- 2) Animals with specific skin: beaver, crocodile
- 3) Enclosed openings in the earth: valley, mine shaft
- 4) Unusual animal containers: teat, udder, bloated cat
- 5) Surfaces used for protection: umbrella, shield
- 6) Protected or armored objects: tank, warship
- 7) Covered, surrounded or hidden objects: log covered with moss, man covered by blanket
- 8) Unusual container-like forms: bagpipes, throne

Miscellaneous: cage, spoon, basket, tube

The Penetration scale contains seven content categories and one "miscellaneous" category:

- 1) Open mouth: dog eating, man being sick
- 2) Traversed or penetrated objects: X-ray plates, view of the inside of the body
- 3) Broken or fractured bodily barrier: person bleeding, squashed insect
- 4) Opening in the earth without clear boundaries: bottomless pit, water issuing from a spring
- 5) All openings: bodily orifices, window
- 6) Inconsistent objects, without clear boundaries: candy floss, ghost
- 7) Transparency: window

Miscellaneous: unassembled jigsaw puzzle, misshapen fur coat

Note. Only one point is issued per scoreable response. However, a response can be scored for both the Barrier and Penetration scales. The scores on the scales are the totals of the B and P responses.

P scores) are more likely to have the need or desire for accomplishment or self-fulfillment and to succeed in their task. They are, in addition, less susceptible to suggestion, better able to express anger openly when frustrated (they are less likely to hold their anger inside them), have greater tolerance to stress, and a tendency toward self-gratification (Masling, 1999). The main contribution of these authors has been to show that (1) the body image can influence perception of the world, in particular the perception of inkblot tests; (2) these perceptions can be objectively recorded and measured; (3) psychoanalysis can aid in the understanding of perceptions observed on Rorschach tests (Masling, 1999).

The majority of the studies that have used these scores suffer from the postulate that was established by Fisher and Cleveland but has never been empirically proven. Thus, very many of the studies of body image that have made use of the Rorschach, even the most rigorous among them (see Spigelman & Spigelman, 1991), can be challenged if we deny

the (unproven) link between the type of response (B&P) and the characteristics or the functioning of the self (limits, protection, efficiency, etc.). This effect has been given the name “domino effect” (Viglione & Exner, 1995), and is particularly detrimental to research in this field. Moreover, logically speaking, the interpretation of the scores should be symmetrical (Barrier being the inverse of Penetration) whereas experience shows that the B&P scores are not inversely correlated (Sanglade, 1983). In short, after 50 years of research, the validity of the B&P scales as a construct remains to be demonstrated (Porcelli, in press).

The Rorschach Oral Dependency Scale (ROD, Masling et al., 1967)

The “domino” effect that undermines studies that have used the Fisher and Cleveland scales was subjected to particularly intense scrutiny by the researchers who developed the ROD and during the course of the ensuing validations. Dependency is defined by these researchers in terms of a motivational component (a need to be guided and supported), a cognitive component (a self-judgment characterized by impotence and a judgment of others who are considered to be capable), an affective component (feeling of anxiety when required to act independently), and a behavioral component (request to be helped or reassured) (Bornstein, 1992, 2006). The relations between interpersonal dependency and health are complex (Bornstein, 2000). Dependency is primarily thought to have negative (and, to a lesser extent, positive) effects on health. Thus, the results seem to suggest that the experience of interpersonal conflicts and the break-down of relations will make dependent individuals vulnerable to depression and other illnesses (Blatt, Cornell, & Eshkoll, 1993; Bornstein, 1995; Maunder & Hunter, 2001; Overholser, 1996). In other words, dependency is considered a risk factor for the development of certain disorders, as research into chronic discomfort (Kinney, Gatchel, Polatin, Fogarty, & Mayer, 1993) and epilepsy (Naugle & Rodgers, 1992) testifies. These links between dependency and health seem to supplant the supposed impact of the illness (or the period of hospitalization) on dependency: In a meta-analysis, Bornstein (1998) compared retrospective studies, on the one hand, and prospective studies, on the other, and showed that the results of the two groups of studies were consistent, with dependency having a clearly detrimental effect on the state of health. Current results obtained using instruments for the evaluation of dependency also indicate that “indirect” (in particular, projective) measure-

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Table 2. Rating categories for the ROD (Rorschach Oral Dependency Scale, acc. to Masling et al., 1967).

Rating categories	Example responses
1. Food (eating and drinking)	Milk, whisky, boiled lobster
2. Food sources	Restaurant, bar, breast
3. Food-related objects	Kettle, serving dish, glass
4. Food-related persons	Waiter, cook, barman
5. Fed characters (passive)	Bird in nest, thin or fat man
6. Begging or praying	Dog begging, person saying prayers
7. Food-related organs	Mouth, stomach, lips, teeth
8. Oral instruments	Lipstick, cigarette, tuba
9. Protectors and nurturers	Jesus, mother, father, God, doctor
10. Gifts and gift-givers	Christmas tree, cornucopia
11. Lucky objects	Four-leafed clover, wishbone
12. Oral activity	Eating, speaking, singing, kissing
13. Passivity and helplessness	Lost person, confused person
14. Pregnancy and reproductive organs	Placenta, ovaries, embryo, uterus
15. Childish speech	Flopsy bunny, pussy cat, patty-cake
16. Negation of oral dependent percepts	No mouth, woman without breasts

Note: In category 1, animals are scored only if they are clearly identified with food. In category 3, pots and cauldrons are scored if they are used for cooking. In category 13, a baby is scored only if the idea of fragility or passivity is clearly suggested. In category 14, the sexual organs are not scored. Categories 6, 9, 10, 11, 13, and 14 represent percepts relating to dependency; categories 1, 2, 3, 4, 5, 7, 8, and 12 represent percepts relating to orality. One point is allocated for each response that can be scored one or more times on the ROD. The total number of responses that contain at least one “oral-dependency” percept is then divided by the total number of responses (R).

ments are at least as valid as “direct” measurements (self-descriptions) (Bornstein, 1999).

Much of the research evaluating degrees of dependency uses the ROD. This scale, developed by Masling et al. (1967) includes 16 response categories (see Table 2). Two types of content are envisaged, i.e., content relating to dependency (for example, Categories 6, 9, or 13) and content representing “oral” percepts (for example, Categories 1, 3, or 8). The theoretical basis of the ROD rests on Freud’s (1905/1968) psychoaffective theory and, in particular, on the concepts of fixation and regression to the oral stage. This stage is characterized by a mode of relating to the world that is characterized by immaturity, dependency, powerlessness, and passivity. Since the pioneering studies were performed with people

suffering from obesity, the scale favored “oral dependency” over “oral sadism” (the prototypical activities of which are biting, chewing etc.) since the authors intuitively considered the former to be more relevant.

To our knowledge, no studies have attempted to validate the interpersonal dependency and orality scores on the ROD separately. Validation studies against external criteria have all used aggregate scores for the entire scale. Even though reviews exist concerning studies that have specifically addressed orality and Freud’s model of psychosexual development via the ROD, the results seem to be premature and contradictory (Juni, 1993; Masling, 1986). In contrast, there is solid empirical evidence testifying to the validity of this scale in the evaluation of interpersonal dependency. If we take account of the studies that have investigated factors that are potentially important for individuals’ health, we can see that high ROD scores are related to cooperation and a tendency to comply with the desires of a figure of authority (Bornstein & Masling, 1985; Masling, O’Neill, & Jayne, 1981), a finding that may have serious implications for the therapist/patient relationship. Similarly, individuals obtaining high scores on this scale are better able to form representations of the attitudes and beliefs of their acquaintances, teachers, and psychotherapists (see, for example, Juni & Semel, 1982). A number of studies indicate that high ROD scores constitute a sign of vulnerability to both mental (difficulty completing a course of psychotherapy: Greenberg & Bornstein, 1989; O’Neill & Bornstein, 1991) and physical disorders (Bornstein, 1998).

One attempt to separate the two content subscales (dependency and orality) is done in the Comprehensive System in which only the food-related (Fd) responses are scored. Fd is scored when the content of the response includes a food that is normal for a human being or a feeding animal providing that the action in question is appropriate to the species. This rating is, therefore, not as exhaustive as the ROD categories relating to orality. One study has shown that this score is associated with certain interpersonal dependency behaviors (request for assistance from the teacher during a workshop or number of questions asked; Exner & Kazaoka, 1978). Nevertheless, the fact that this latter study has not been replicated, the small number of participants, and the absence of a statistical analysis of the results suggests that extreme prudence is called for. Despite the low level of available empirical support, orality and dependency are still addressed together in the interpretation of the Comprehensive System in which the passivity that may be identified on the basis of the a:p ratio (active vs. passive movements) is illuminated by

the “dependency” observed in the presence and number of Fd responses and interpreted in the light of the need for proximity reflected by the number of Texture responses (Exner, 2003).

Despite its interesting features the ROD is subject to certain criticisms that also apply, in some measure, to the Comprehensive System scores cited above. The major criticism relates to the composition of the scale, the one-dimensional nature of which has not, to our knowledge, been clearly and exhaustively studied (analysis of the correlations between the items). The “good” internal consistency reported by various studies (often around 0.60, Bornstein, 1996) is not, in effect, sufficient to testify to the one-dimensional character of this scale (Streiner, 2003). Powerful arguments resulting from earlier meta-analyses suggest that the scale possesses at least a two-dimensional structure (Bornstein, 1996): When the coefficients of correlation between the dependency categories and the orality categories are aggregated between studies the size of the correlation becomes small and nonsignificant (r close to 0.10). In reality, only one published study to date has indicated a correlation between the two aspects of the scale. This calls into question many of the validation studies, in particular in the health field, since the correlation with interpersonal dependency may perhaps be caused solely to the “dependency” part of the ROD. Another criticism relates specifically to the use of this measure in the health field: Since studies that employ the ROD are retrospective (Marquis, Sinnott, & Winter, 1952; Rothstein & Cohen, 1958), it is quite possible that the high level of dependency is a result of the impact of the disorder and its consequences in terms of the care provided (hospitalization, patient’s behavior; see Bornstein, 2000).

Two major problems have to be dealt with if we want to analyze the content revealed by the Rorschach. First, the face validity of the response contents may pose a problem since the individuals are aware of the objective of the measurement. This must be treated in the same way as self-descriptive evaluations (for example, by controlling social desirability or the action of certain defenses, i.e., by calling on variables that are external to the scale itself). Second, if we want to evaluate an abstract concept (orality, dependency, self-image, etc.) via language productions such as the Rorschach contents, the operationalization of the concept must be as concrete as possible and studies undertaken to establish its validity (in particular that of the criteria) must be available. These concerns, which lie at the base of scientific work in the psychological field, can be seen in the approaches described below.

Evaluating Personality Susceptible to Health Problems

One of the traditional objectives of health psychology has been to identify the personality traits that result in vulnerability or confer protection. Alexithymia occupies a special place among these traits. The clinical characteristics describing this concept are: difficulty in identifying and describing certain aspects of emotional feelings; difficulty distinguishing feelings and the physiological sensations corresponding to emotional activity; impoverished imagination; a lack of introspection; an externalizing, concrete cognitive style; a tendency toward social conformity (Taylor, Bagby, & Parker, 1997). While this concept has generally been discussed in connection with psychosomatic problems (see Taylor, 1997), alexithymia is currently considered to be either (1) a nonspecific predisposing factor, that is to say a factor of vulnerability to physical illness, or (2) a mode of accommodation to difficulties (illness or trauma). It plays a role in the regulation of emotions and could, in certain forms, have a biological basis (Berthoz et al., 2002).

For more than 15 years, a series of studies have attempted to determine criteria that might make it possible to identify alexithymic functioning in the Rorschach, and this from both a diagnostic and a descriptive perspective. Two types of study have been published: those that have sought validation using an indirect external criterion and those that have used an acknowledged measure of alexithymia as the external criterion.

Rorschach Studies Using Indirect Criteria

A number of studies, including some recent studies, have limited themselves to comparing groups of patients on certain Rorschach scores or variables from the Comprehensive System. These groups have usually been differentiated by distinct pathologies, one of which is thought to be caused by "alexithymic functioning." The observed differences have generally been interpreted as a measure or pattern of marker variables for alexithymia (for example Clerici, Albonetti, Papa, Penati, & Invernizzi, 1992; Slepoy, Pezzotto, et al., 1999). Among this group of studies, we find Acklin's pioneering research (Acklin & Alexander, 1988; Acklin & Bernat, 1987), which sought to identify a group of Rorschach variables that would reveal alexithymic functioning. In its most successful version,

the study revealed a pattern of variables relating to the presence of four “psychosomatic” pathologies (the psychosomatic nature of the pathologies was assumed *a priori*): low back pain and related problems ($n = 33$), gastro-intestinal problems ($n = 31$), dermatological problems ($n = 29$), and head aches ($n = 35$). Comparisons with the American reference sample ($n = 600$) revealed significant differences on the variables selected *a priori* as a function of their relationship with the concept of alexithymia: low R and M (impoverished imagination), low WsumC and FC (weak emotional response and lack of modulation of affects), low EA (lack of internal resources), high Lambda and few Blends (low level of mental complexity and high conformism). Despite its undeniable qualities (*a priori* selection of variables, use of a robust system for handling the Rorschach), the main problem in this study is methodological: The quality of the external criterion is highly debatable since the authors adopt the questionable view that there is an equivalence between the presence of certain disorders and the concept of alexithymia, where this has not yet been clearly demonstrated. At the same time, the comparison with a very large, normative sample ($n = 600$) that did not form part of the study artificially increases the power of the statistical tests employed. It is possible that a comparison with a control group ($n = 30$, approximately) would not have given the same results.

Rorschach Studies Including an Acknowledged Measure of Alexithymia

As far as we know, only five Rorschach studies have included an evaluation of alexithymia (all using the Toronto Alexithymia Scale – TAS – Bagby, Parker, & Taylor, 1994). Some of the results cannot be analyzed because the authors do not provide sufficient information on the relations we are interested in here (Soland, Toriello, Barnaba, Ara, & Taylor, 2000). The majority of the studies have included comparable variables following Acklin’s example (Akimoto, Fukunishi, Baba, Matsumori, & Iwai, 2002; Petot, 1996; Porcelli & Meyer, 2002; Prazeres, 1996). The results of these studies all suggest the same thing: The Rorschach makes it possible to identify the imaginative, affective, relational, and cognitive components of alexithymia (see Table 3).

The study conducted by Porcelli and Meyer (2002) offers a particularly good demonstration of this because of the robust nature of the external criterion used (stability of alexithymia measured on the TAS at 6

Table 3. Summary of alexithymia-related Rorschach variables in the recent literature (acc. to Porcelli et al., 2002)

Rorschach variables	Interpretation	Facets of alexithymia
“Low” R and M	Low level of verbal productivity and reduced ability to use advanced ideational functions	Restriction of imaginative processes. This facet describes subjects who lack introspection and exhibit a relative impoverishment of their imaginative lives.
“Low” WsumC and FC	reduced ability to express one’s emotions and modulate emotional states	Difficulty distinguishing between and communicating one’s feelings. This facet describes subjects who are unable to control their emotional expressions in an appropriate way and communicate these emotions in a way that is appropriate to their environment.
“High” pop and T = 0	Social conformity and difficulty in entering into intimate relations. Coldness and relational distance.	Difficulty in entertaining empathetic relations with others. Describes subjects who have superficial relationships with other people, and who find it difficult to maintain close, warm relationships.
“High” Lambda and “Low” Blends	Simplistic, evasive style of thought. Low level of psychological complexity.	Simplification and concrete thought. Thoughts are factual, centered on the avoidance of emotional ambiguities and affective commitment.
“Low” EA and ambivalent EB	Low level of personal resources and an unstable, inefficient coping style	Vulnerability to stress in persons susceptible to difficulties in emotional regulation

Note: In the studies in question, alexithymia is evaluated using the Toronto Alexithymia Scale (Bagby, Parker, & Taylor, 1994). The terms “low” and “high” refer to different thresholds depending on the clinical studies in question. In the absence of an objective threshold, we suggest that readers consider the Comprehensive System interpretation thresholds (Weiner, 1998; Exner, 2002, 2003) wherever possible. If this not possible, it is possible to consider the mean \pm a standard deviation for existing normative samples or the central values obtained for the groups studied by Porcelli and Meyer (2002). R: number of responses; M: number of human movements; WsumC: weighted total of color determinants; FC: number of responses predominantly determined by shape and by color. Pop: number of popular responses; T = 0: no texture shading; Lambda: number of purely formal responses/other responses; Blends: number of responses with more than one determinant; EA: M + WsumC; ambivalent EB: protocol where M and WsumC are approximately equivalent. The interpretations of the variables are taken from Exner’s review of the literature (2003).

months); the high level of interrater reliability on the Rorschach (intra-class coefficients of correlation from 0.72 to 1.00); the statistical procedures employed, which made it possible to compare a large number of variables; control of the number of responses in the scores (considered as percentages), and of the number of subjects ($n = 92$), which made it possible to compare three groups of patients (nonalexithymic, indeterminate, and alexithymic). In this study conducted among individuals suffering from inflammatory bowel disease (ulcerative colitis and Crohn's disease), many of the variables selected *a priori* (20 out of 27) appear to have been associated with the degree of alexithymia, a finding that tends to confirm the hypothesis proposed by the authors.

The studies conducted on this subject, therefore, possess numerous methodological qualities. However, the interpretation of the alexithymic characteristics as a risk factor is extremely debatable given that (1) the research strategy focused on patients who were *already* ill, on this point, longitudinal studies have shown that alexithymia is sometimes less correlated than the distress level during the illness itself (Porcelli, Leoci, Guerra, Taylor, & Bagby, 1996); (2) the fact that the "psychosomatic" status of some of the disorders has now been widely challenged (Spiro, 1999). It is, therefore, regrettable that confounding factors were not controlled for in these studies, in particular depression and mood in general. However, these criticisms have nothing to do with the use of the Rorschach and relate to problems of feasibility. As far as the pattern of alexithymia in the Rorschach is concerned, a number of questions remain unanswered: Are the Rorschach variables exclusive markers of alexithymia? In other words, can their configuration be observed in other areas, in particular in the case of psychopathological problems? This point touches on the discriminant validity of measures of alexithymia in the Rorschach. This problem was tackled by Prazeres (1996) who developed a discriminatory function to classify subjects as a function of the "alexithymic pattern" on the Rorschach and examined the quality of this classification in the light of the classification generated by the TAS (more than 88% correct classifications for a group of $n = 34$). However, the results have not as yet been published. While current studies argue in favor of the validity of certain patterns, the field is clearly in need of studies designed to replicate and extend the results already obtained, in particular through the use of multidimensional data analysis methods making it possible to operationalize the notion of an "alexithymic pattern" and confirm its descriptive or classificatory power.

Predicting Self-Care Behaviors

The use of the Rorschach to evaluate personality factors (such as alexithymia) is only of scientific interest if these factors are able to engender robust research. If a personality factor is considered as a risk factor, we can expect to see longitudinal or quasi-experimental research strategies centered on the demonstration of the existence of such factors (Chmura Kraemer et al., 1997). Within this context, one direction of research that has developed reflects the influence of the adaptive models proposed within the field of health psychology. Its objective is to establish a link between previously validated Rorschach factors (whose validity as constructs and criteria has been validated by independent empirical research) and behavior or, more specifically, the markers of behavior (measurement of adherence to treatment, measurement of metabolic control, etc.) We shall examine two examples of fields that have given rise to this type of study: insulin-dependent diabetes and myocardial infarcts.

Rorschach Studies among Insulin-Dependent Diabetic Individuals

The majority of Rorschach studies conducted among insulin-dependent diabetic patients (type 1) have attempted to identify a set of psychological characteristics among these patients, which would make it possible to distinguish them from healthy control groups (in search of the “diabetic personality,” Faellstroem & Vegelius, 1978; McCraw & Tuma, 1977). This long-standing avenue of research has not generated any convincing results, with psychologists eventually recognizing that systematic comparisons with external norms does not contribute to an understanding of the psychological functioning of ill people. Other studies have focused on the relationship between psychological functioning (in the Rorschach) and the process of adaptation to the illness (Ahnsjo, Humble, Larsson, Settergren-Carlsson, & Sterky, 1981; Andronikof-Sanglade, 1986). It seems that the longer the duration of the illness, the more (validated) signs of disturbance appear in the protocols.

Metabolic control, evaluated by the biological markers of the level of glycemia, is an indirect reflection of the self-regulating behaviors of diabetic patients. In type 1 diabetes, psychological functioning has traditionally been considered as equivalent to a model of behavioral self-

regulation. Only three studies have explored the links between psychological functioning in the Rorschach and metabolic control that is a reflection of the glycemia regulation behaviors (Di Iullo, Ranzini, & Zabattini, 1985; Koch & Molnar, 1974; Sultan, Jebrane, & Hartemann-Heurtier, 2002). Early studies obtained very few noteworthy results. However, this is probably because of the nature of the biological marker used at the time (glycosuria), which offers much less validity than the one currently used in laboratories (dosage of glycated hemoglobin). For its part, the study conducted by Di Iullo et al. (1985) took an exclusive account of the content of the Rorschach responses and led to the conclusion that glycemic control is related to a more positive self-image (in particular, less morbid content). Other authors have examined the correlations between certain Rorschach variables and the glycemic balance in a more systematic fashion (Sultan et al., 2002). In this study, the variables were selected on the basis of results obtained using instruments other than the Rorschach (in particular, self-administered questionnaires), which evaluated emotional distress, coping and problem-solving styles, and cognitive efficiency (these results were reported by Sultan & Hartemann-Heurtier, 2001). Two successive regression analyses showed that the three groups of variables (corresponding to the three groups of

Table 4. Rorschach variables correlated with glycemic control (glycated hemoglobin) in type 1 diabetes (acc. to Sultan et al., 2002)

Rorschach variables	Interpretation	Direction of the correlation
SumY > 1	- Emotional distress - Feeling of loss of control	- Glycemic imbalance
WsumC	- Emotional expression - Processing of tasks by trial and error	- Glycemic balance
SumT = 0	- Social Detachment - Independence and relational coldness	- Glycemic balance
SumC' > 1	- Sadness, melancholy - Repression of affective experience	- Glycemic imbalance
Wsum6 Spec. Sc. (*)	- Cognitive slips - Slippage of thought	- Glycemic imbalance

Note: The variables are placed in order of probability in the initial regression model: the most probable correlations are listed first. The interpretations of the variables are taken from Exner's review of the literature (2003). SumY > 1: more than one diffuse shading in the protocol; WsumC: weighted total of the color determinants; SumT = 0: no texture shading; SumC' > 1: more than one response determined by "achromatic" colors; Wsum6 Spec. Sc.: weighted total of the six special critical scores. (*) This correlation ceased to appear when complications were introduced into the regression model (confounding variable).

Rorschach factors) were related to the long-term glycemia balance. The main results are summarized in Table 4: the variables $Y > 1$ and $C' > 1$ make it possible to explain poorer glycemic control, while the variable $T = 0$ and $WsumC$ are related to better control. These relations can be interpreted as the negative impact of emotional distress and the feeling of not being in control on the glycemia balance, the positive role of social detachment, of coldness, of an ability to express emotions and function on a trial-and-error basis (Exner, 2003).

The value of this study is that it controls for a confounding variable that is very often ignored by researchers, namely the presence of complications that may potentially be responsible for negative emotional feelings. Furthermore, the obtained correlations are comparable, if not better, than those observed using the questionnaires. However, this study is limited because of its cross-sectional character, while the problem that needs to be addressed is, once again, one of prediction. Initial results from a longitudinal study involving the same patients tend to suggest that some of the considered variables retain a predictive power over a period of 5 or 6 years (in particular, the variable $Y > 1$, Sultan, 2003). Furthermore, we should bear in mind that glycemia is only an indirect marker of behavior (Rubin & Peyrot, 2001).

Rorschach Studies Relating to Cardiovascular Illnesses

Very few Rorschach studies have been conducted among cardiac patients. An early study (Siltanen, 1975) among patients exhibiting signs of an infarctus noted that these patients showed signs of anxiety, aggression, solitude, and were more defensive than a control group. However, the author did not specify the characteristics (and the involved variables) that are directly attributable to the Rorschach since the set of instruments used contained a variety of procedures.

Sultan, Bungener, and Andronikof (2002) compared two small groups of cardiac patients subject to general follow-ups following an infarct with surgery more than 1 year before the time of evaluation. The two groups differed in terms of their level of adherence to the health-related and dietary advice given by their doctors (smoking behavior, diet, physical activity). The Rorschach responses for the two groups were compared on certain preselected variables as a function of their supposed link with a model of invulnerability associated with risk-taking (Sultan & Jouvent, 2001): the DEPI and CDI indices, the EGO index, and the presence of

reflections ($Fr + rF > 0$). Overall, nonadherence behaviors were characterized by a higher proportion of positive DEPI indices (and, to a lesser extent, CDI indices) on the Rorschach, and a greater presence of reflection responses, while the level of the EGO index was the same for the two groups. These exploratory results suggest that nonadherence is characterized by a tendency toward depression and a high level of self-focus.

This study has a number of limitations. On the one hand, the behavioral measure (adherence) was obtained using a self-descriptive, retrospective technique (change before/after episode), and this type of method has been subject to challenge (Wright, 1993). On the other, confounding factors that were not evaluated may be responsible for the obtained results, in particular the level of emotional distress, which is closely related to self-focus and is traditionally associated with reflection responses and the EGO index (Exner, 2000). Finally, the small number of subjects ($n = 16$), even though frequent in this field, does not permit us to draw any real inferences concerning the external validity of the results.

Conclusions

In two reviews of the literature, Bash (1986, 1995) has shown that studies that use the Rorschach in the health field suffer from major limitations. The main problems that he has pointed out relate to the heterogeneity of the patients (problems concerning the inclusion/exclusion criteria that impair the internal validity of the results), the insufficient description of the employed methodology (which makes it difficult to replicate the results), the use of unsuitable data description methods (leading to incorrect statistical choices), as well as to the failure to publish the negative results of the studies (with only the variables that discriminate between the groups being mentioned).

The three avenues of research that we have presented here attempt, with greater or lesser success, to provide solutions to these fundamental problems. However, many questions remain unanswered. A number of areas of progress concerning the use of the Rorschach in this field have been identified. First, studies should only include validated scales or factors in order to avoid the “domino” effect (this points to construct validity as mentioned by Viglione & Exner, 1995). The variables includ-

ed in validation studies should also be carefully selected *before* data is collected on the basis of their supposed link with the criterion, in a logic of hypothesis testing. Similarly, as for any scoring of speech or nonstructured material (direct observation, video, clinical scales, etc.), studies must systematically state the level of interscorer agreement (in this regard, recent methodological advances have greatly simplified the task, see Meyer et al., 2002). Finally, Rorschach studies must specify the criteria of validity used for the selection of the protocols following data collection: In many studies, it might be thought that task involvement on the Rorschach is itself a good criterion.

Other recommendations relate to the fields of illness and health and, if taken into consideration, will make it possible to identify fruitful avenues of research. Thus, the identification of risk or vulnerability factors, whether related to personality or to the environment, demands longitudinal studies that are sadly lacking, thus impeding further progress. In effect, the very idea of “risk factor” itself includes a causal relationship.

Second, very serious consideration must be paid to the importance of confounding factors in the health field: the status of the illness (its stage of development, its severity, etc.) can have a major effect on the psychological variables (such as the degree of distress, anxiety, etc.), which may themselves influence the self-care behavior of ill people or the evaluated psychological factors such as alexithymia. That is why studies focusing on secondary prevention must control for the characteristics of the illness in order to detail the nature of the revealed mind/body correlations.

In conclusion, the application of the Rorschach to the field of physical illness has resulted in a number of theoretical questions as well as some methodological progress. The questions relate to the definition of ambiguous concepts such as “oral dependency” or “alexithymia” and lead us to identify metrical problems. In contrast, we have seen progress in terms of the improvement in interscorer agreement, thus raising the key problem of the validity of the employed scales. The originality of this research field lies in the fact that the constraints of proof are equally rigorous for avenues of research resulting from very different theoretical inspirations. Our comments here inspire us with the desire to see more research bearing directly *on* the Rorschach factors on the basis of valid external criteria, in the absence of which much of the research conducted *with* these factors risks becoming outdated. In our field, the Rorschach, like other assessment instruments, cannot be considered to be fully developed but, instead, requires ongoing validation.

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Summary

The Rorschach Inkblot Method is widely used in psychological assessment. Is it valid and clinically useful in the specific context of somatic illness? The goal of this article is to give synthetic arguments for deciding which Rorschach-derived measures to adopt in assessing individuals. Therefore, we reviewed three research directions in which this instrument has been applied and discuss methodological issues: (1) content scoring procedures of ego solidity and dependency, (2) the assessment of alexithymia, and (3) the prediction of self-care behaviors. This review identifies the main issues in using Rorschach in this field as being construct and discriminant validity. Future validation research should be developed and emphasize prevalidated external criteria and longitudinal designs.

Résumé

La méthode de Rorschach est couramment utilisée dans l'évaluation psychologique. L'on peut toutefois se poser la question de sa validité et de son utilité clinique dans le contexte plus spécifique d'une maladie somatique. Le but de cet article est de proposer des arguments synthétiques qui permettent de décider quelles mesures dérivées du test de

Rorschach peuvent être adoptée dans l'évaluation des sujets souffrant de troubles somatiques. Pour ce faire nous avons examiné trois types d'études dans lesquelles cet outil a été utilisé et discuté des conséquences méthodologiques: (1) Les procédures de cotation de contenu sur la solidité et la dépendance du Moi; (2) l'évaluation d'alexithymie; (3) la prédiction des comportements de soin. Cette étude identifie les principales questions relatives à l'utilisation du Rorschach dans ces champs d'analyse comme étant les validités de construct et discriminante. L'effort de recherche sur ce sujet doit se poursuivre et mettre en relief plus particulièrement les critères extérieurs prévalidés et les plans de recherche longitudinaux.

Resumen

El método de la mancha de tinta de Rorschach es de uso común en la evaluación psicológica. Sin embargo se puede cuestionar su validez y su uso clínico en el contexto mas específico de una enfermedad somática. El objetivo perseguido por este artículo es de proponer argumentos sintéticos que permitan decidir cuales de las medidas derivadas del test de Rorschach se han de adoptar para la evaluación de los individuos. Con este fin hemos examinado tres direcciones de estudio que han usado del mencionado instrumento y discutido de las consecuencias metodológicas:(1) Los procedimientos de notación del contenido sobre la solidez y la dependencia del ego; (2) la evaluación de la alexithymia; (3) la predicción de los comportamientos de "self-care." Este estudio identifica las principales cuestiones relativas al uso de Rorschach en estos temas como teniendo una validez discriminante y construida. Los estudios sobre la validación se han de perseguir y enfatizar los criterios externos pre-validados y los estudios longitudinales.