

## **Perceptual derailment and confabulation in the Rorschach projective technique: A clinical report**

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**Abstract:** Perceptual derailment and confabulations often appear in a subtle way, being processes addressable to the field of inner world, conditioning the diagnostic process. The present clinical report aims to explore the role of Rorschach projective technique in eliciting processes otherwise unsearchable. Psycho-diagnostics data were compared to other psychometric tests such as the MMPI-2 (Minnesota Multiphasic Personality Inventory) and the POMS (Profile of Mood States) at time 0 and time 1 (after six months). Among these, the exploration of the projective process was crucial to understand the patient's mental functioning, as an elective instrument, thanks to its ambiguous nature, which leads to effectively explore both the inner world and the cognitive processes.

**Keywords:** Rorschach, confabulation, derailment, psycho-diagnostics.

## Introduction

The issue of the perceptual derailment was primarily addressed from a philosophical point of view. If an individual has in fact a belief, that belief in the subject will be comparable to the truth. According to tracking theorist such beliefs, to become acquired knowledge, requires a range of counterfactuals on which the truth covaries with the belief.

Shaefter (2003), in *Philosophical studies*, argues that the perceptual knowledge derailment presents two aspect on which the tracking theory has troubles (1) the *inner hollow* of near changes that we cannot discriminate between, and (2) the *outer islands* of far changes that we can discriminate against. The author named the first a sort of trouble *inner derailing*, and the second sort *outer derailing*.

In the field of Psychiatry and Clinical Psychology this kind of speculative thinking applies to the mind functioning, in which perceptions, knowledge and the view of reality are hardly distinguishable. Often momentary interruptions can derail the train of thought, and this process could laid the foundation for the psychopathological phenomenology (Altmann, 2014; Jaspers, 1997).

Similarly, during the clinical interview, the counterfactual evidence is not always available about derailments or confabulations that, plausibly, have the function to construct autobiographical memories in the self-memory system (Conway & Pleydell-Pearce, 2000).

From literature we know that the examination of patients who exhibit frank confabulation, with the aim to elucidate its nature in a structured situation, should be focused on the ability of confabulators to use cues, and should examine the degree to which certain cognitive deficits are associated with.

Shapiro *et al.* (1881) observed two types of confabulators: mild and severe. The parameter that could distinguish the severity of confabulation was associated with the level of perseveration, the impaired self-monitoring, and the frequent failures to inhibit incorrect responses. Furthermore, as a controfactual funding, the resolution of confabulation has been associated with an attenuation of these cognitive deficits, reinforcing the two tailed link between cognition and confabulation.

As clinicians, we aimed to verify if the exploration of the projective process could be, in this case, a key method to understand the patient's mental

functioning, since it is characterized by an ambiguous nature, which leads to effectively explore the inner world and so processes otherwise unsearchable (Settineri & Mento, 2011).

From these premises, the aim of the present single case study was to explore the role of Rorschach projective technique in eliciting perceptual derailment and confabulation.

## **METHOD**

### **Case Report**

The patient is a 30 years old woman, student in law school. She arrived in clinical outpatients alone, she was neat and tidy. The patient carried with herself a law book, that she showed off in the attending room and during the examination. She reported a significant loss of attention and concentration (she didn't take examinations during the last year), low mood and limited interactions. She had diminished emotional expression and involvement, she tended to avoid eye-contact. There was a lack of spontaneous speech, that, even when encouraged, presented fluency blocks and altered prosody. Her attitude was reticent; she tended to be evasive about the complex nature of her symptoms; her suffering seemed to be pervasive. She didn't report any case of mental illness among her family.

The emerging symptomatology is characterized by: (1) thymic deflection (2) impaired concentration and attention (3) recriminatory and ruminative ideation (4) social and relational withdrawal. Cured in appearance and dress, the mimic expresses tension and concern. The speech is poor, tangential and circumstantial. There are delusional cue of paranoid background. Furthermore, it can be observed: emotional lability, tendency to demoralization, low self-esteem, attention difficulties and poor insight. It appears therefore a possible differential diagnosis among: (1) Psychosis NOS; (2) Schizophrenia; (3) Bipolar disorder; (4) Depressive disorder with psychotic features and (5) Personality disorder.

### **Instruments**

*POMS*. The Profile of Mood States (POMS) is a self-assessment mood scale consisting of 58 items (Mc Nair *et al.*, 1992). The subject must indicate on a Likert scale from 0 (not at all) to 4 (very much) as the last week has experienced the moods listed. The instrument consists of 6 sub-scales: (1) *Tension – Anxiety*; (2) *Depression – Dejection*; (3) *Aggression – Anger*; (4) *Vigour – Activity*; (5) *Fatigue – Indolence*; (6) *Confusion – Bewilderment*. The subject obtains a score for each sub-scale, which can be transformed into standard scores (points T).

*MMPI-2*. The Minnesota Multiphasic Personality Inventory (MMPI-2) is one of the most used personality test in clinical settings (Greene, 2000). Using 567 true or false questions, it rates the tester on 130 categories (validity scales included). Once validity of the results are established, a profile is created employing the 10 Clinical Scales: hypochondriasis (Hs), depression (D), hysteria (Hy), psychopathic deviate (Pd), masculinity/femininity (Mf), paranoia (Pa), psychasthenia (Pt), schizophrenia (Sc), hypomania (Ma), and social introversion (Si). Each of these is in itself composed of various other sub-scales. The MMPI-2 produces T-Scores and Raw Scores. Usually, anything above a 75 T-Score denotes a very high ranking on that scale, that is, within the top 1% of the population. Likewise, anything above a T-Score of 65 falls outside the normal range (among the top 3 to 5% of the general population). On the lower bound, any T-Score below 35 would not be considered normal.

*RORSCHACH*. The Rorschach technique (Rorschach, 1942) is a psychological test, consisting in ten inkblot tables exploring the subjective organization of the content and form of the ambiguous stimuli presented. Responses are recorded, analysed and interpreted to examine personality characteristics and emotional functioning. Each Rorschach's table has a main theme, with an important interpretative value supported by the psychoanalytic theory. The first card offers the opportunity to evaluate the mental flexibility of the subject to a new stimulus. The second card, in colour, refers to the aggressive impulses or its suppression. The third card can be considered the image of identification and self-representation with respect to the other. The fourth card is connected with the father's image, it generate anxious and frightful feelings. The fifth card is the table of reality, a popular response may lead to the somato-psychic integrity of the self-representation. The sixth card is the table of sexuality (top / male sexuality, bottom / female sexuality). The

seventh table is the main maternal image, the great central depression can evoke the uterus. The eighth card, is the first multicoloured, these stimuli are linked to the social-affective ability to adapt to the context.

The ninth card has a vague form and it recalls the experience of loneliness, inspiring regressive and deep contents. The tenth card represents the family, it differs from previous polychrome cards because of its dispersion and variety of shapes and colours, which could be experienced by the subject as fragmentation / spaltung. It follows an *Inquiry Phase* the examiner clarifies the factors that led each answer, in order to correctly code responses into five categories: (1) *Location*: the section or area of the inkblot being used, with four possible symbols ranging from the whole inkblot to an unusual detail; (2) *Determinants*: the features, style, characteristics, or aspect of the inkblot that the examinee responded to (form, movement, colour, shading); (3) *Contents*: the name or class of object(s) used in the response, from whole human to x-ray.; (4) *Popular Responses*: the coding goal is to determine whether the examinee's response is the conventional or unconventional given response for each card; (5) *Special Scores*: the presence of an unusual characteristic(s) in the response, from deviant verbalizations to colour projection.

### **Psychodiagnostic procedure**

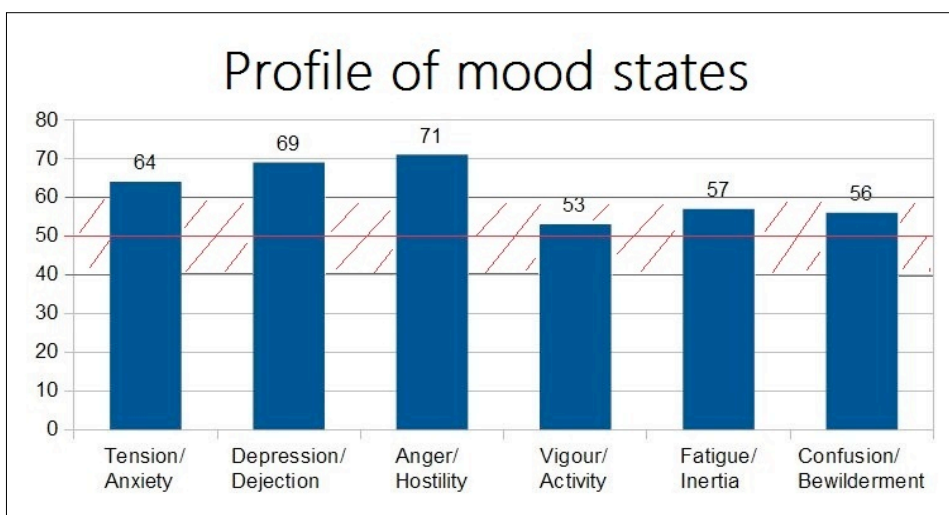
The study was carried on with the use of POMS (profile of mood states), of MMPI-2 (Minnesota Multiphasic Personality Inventory-2) and Rorschach projective technique, analysed according to the directions of the Italian school (Passi Tognazzo, 1994), in order to reach an integrated evaluation of mood, personality and the inner world's emotions. Psychological tests were administered after the signing of informed consent in a single session, lasting about two hours. The patient has been evaluated in an outpatients setting at time 0 (POMS, MMPI-2, Rorschach) and after six months, T1 (POMS and Rorschach). The data obtained from the self assessment of mood, personality and the projective protocol, were analyzed by a qualitative-descriptive method and will be presented in terms of integrated psychodiagnosis, i.e. based on different levels of evaluation (psychometric and projective).

## **RESULTS**

### **The integrated psychodiagnosis at the first psychological investigation (Time 0)**

The results that follow describe the first diagnostic evaluation of the patient, carried on through the integrated psycho-diagnosis, i.e. based on the use of different tools of nature, in this case, psychometric on one hand (POMS; MMPI-2) and projective on the other (Rorschach).

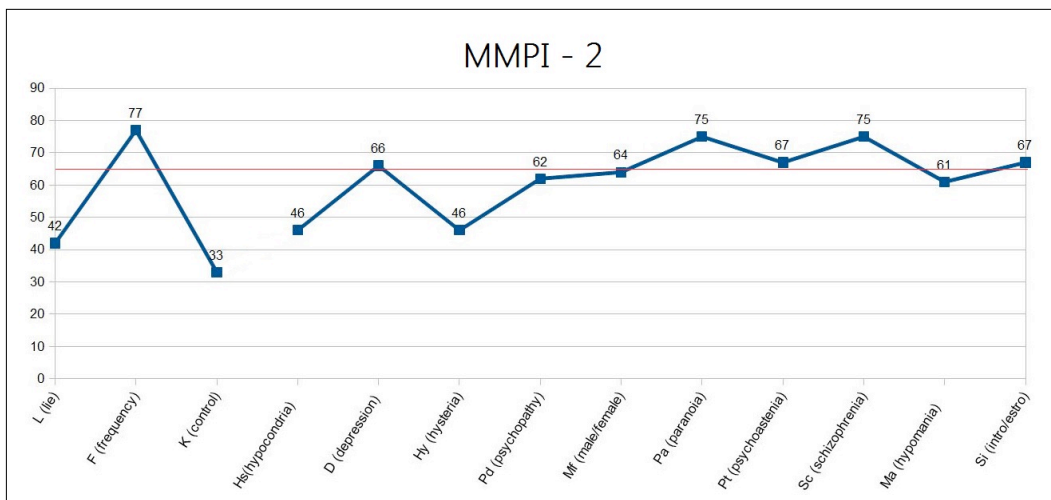
As regards the POMS raw data were transformed into standardized scores (T points). This procedure allows to compare the data obtained by the patient, at the different sub-scales that make up the profile of mood, to the data obtained by a normative sample. As already mentioned, scores are considered in the average when ranging between 40 and 60 T points. The patient has exceeded this limit in three of the six mood dimensions; in particular, as can be seen from Figure 1, in the scales measuring *Tension*, *Depression* and *Anger*. The other subscales, *Vigour*, *Fatigue* and *Confusion*, are instead in the normal range.



**Figure 1** POMS T scores at T0.

Although, the MMPI-2 results (Figure 2) illustrated the presence of alterations in many scales, probably related to the patient's state of illness, we could highlight the tendency to an interpretative and projective attitude with interpersonal relations characterized by suspiciousness and stiffness, and modification of the thought form, because of the elevation of the *Paranoia*,

*Schizophrenia, Psychoastenia and Depression* scales. Nevertheless, the psychometric data revealed insufficient elements to come to a diagnosis. The overall evaluation of the scales suggests that the subject has reduced ability to control the self image in function of others, so as to appear overly critical of herself and her problems. The inclination of the thymic axis gives evidence of an affectivity depressive oriented, with possible variations - abrupt and unjustified - associated with anxiety, irritability and tension. The subject may show low self-esteem and, in stressful situations, can assume a tendency to develop feelings of worthlessness. To cover this, it is possible that the subject employs reactive behaviors of aggressive connotation. Projective and interpretative trends emerge: the subject is extremely rigid and suspicious in relationships. A formal thought disorder is possible. The subject is in a marked difficulty in communicating her experiences in an orderly and controlled way. She seems to be poorly integrated in relationships. The lack of integration is probably due to a structural difficulty to interact with an adequate harmony level. It may follow a tendency to restrict, within certain safety limits, the field of interpersonal relationship. The emotional and behavioral disorders appear relevant: the control and defense ability are greatly reduced. A disintegration of personality is hence possible.



**Figure 2** – MMPI-2 T scores

## Discussion

The Rorschach protocol (see table 1) presents a responses production below normal limits ( $R=8$ ), in a total time of 45 minutes; it doesn't allow us to reach to a quantitative analysis of data. The Reality index (4/8) results hypo-plastic. However it's possible to take into account a qualitative analysis. The presence of vague W (*whole response*) and DW (*from common detail to whole response*) and the abstractions showed a failed attempt to contain the perception with an alternance of qualitatively well-recognized answer; Dbl responses (*intermacular details*) could be related more to the internal emptiness than to the hostility (*hollowness schock* - Table VII). The type of *organizational activity* (DW) is typical of individuals who have the need to familiarize with the environment before to expose themselves, a sign of a weakening of the reality sense that may be associated with confabulations, abstractions, denials and splitting (Bohm, 1958).

As regards contents, on table 1 the patient provides the answer "head of the devil." This type of image, religious and mystic is characterized by the presence of white details, in which she sees eyes and fangs. Eye relief is compatible with the ideas of suspicion, coherently with the elevation of the *Paranoia* scale at MMPI-2; while the mouth, which she describes "angry", recalls one aspect of aggressive orality, consistent with the elevation of the scale *Anger*, in the POMS self-assessment. The second table, that represents the management of aggression, causes in the patient a tendency to rejection. In fact, shortly after, it becomes possible for her to tell the scene of a murderess and the blood dripping on the man triumphant over the victim. It's interesting to report the confabulation emerged at Table II: "I can't see anything clear; It seems to me like blood stains...maybe it could be a killer spotted with the blood of his victim. He could be hidden (she indicated the superior, central white part), as he was blurry, if there is blood, there has to be a killer. I can't see a wretched person who got wounded". It appears evident that the patient couldn't mitigate the answer "blood". In the third table, the scene of two men talking and laughing, seated at a café table, shows the presence of vital elements (human figures, interacting positively) and suggests the potential patient strengths. However, even here the white details

are considered part of the image, confirming the trend to an oppositional attitude.

At the fourth table again the subject shows a trend to refusal: the person has difficulty in "*ecforare*" (latin term that means "carry out, projecting") the image. Finally, the patient provides the answer "fissure, pocket," giving the first cue of something similar, even not completely comparable, to a hole. The image includes the shading, that is an indicator of anxiety, which, in this case, occurs in the table connected with the father image. Towards reality, table V, the popular answer ("bat") assumes peculiar details, such as wings and horn, confirming the aggressive elements that characterize both the psychometric and the projective data.

At table six emerges a musical instruments, an "harp" with cords. In the occasion of the sexuality contents the patient shows a desire of support and contact (centre attraction). The maternal table, the VII, evokes the highest latency (reaction time 32"), and then the answer "infinite hole, nothing, emptiness" interpreted consequently as an hollowness schock. There are reasons to think to a complex, since the mechanism of scission and distancing from the table and to an element that characterizes the borderline organization (Richman & Sokolove, 1992).

There is a clear confabulation emerged at table VIII: "I don't know... something that seems to be beauty and enchanting in the surface, and rotten in the deep. I can't tell what is it, but it is rotten and bad. It could be a beauty and well-dressed woman, but she's very bad and she has bad intentions. I don't know if it is a remarkable point but all the other people only cares about how she looks, they don't care about the fact that she has bad intentions.

The woman is admired, and the other people respects her, but she is ready to hurt them - she is evil - just to feel the pleasure to arm them". Once again the mechanism of confabulation occurs when there is a split between good and bad, inside and outside. Probably these mechanism characterize the patient functioning, and are confirmed by elevation of the scale *Schizophrenia* at MMPI-2. Furthermore, it lacks the interpretation of the popular responses animals, usually interpreted in side detail as quadrupeds moving, that, as known, contribute to the calculation of reality index. Table 9 is interpreted as the image of "two elderly people who speak and having something to drink", association that returns to the theme of orality and again, there is a confabulation. Finally, on the table 10, the popular response "crabs" is missing and the effort to integrate a fragmented image fails: the patient reports the image of a music, a visual representation of an auditory stimulus,

ie a synesthesia, that some authors address to creativity and imagery (Dailey et al., 1997; Shindell, 1983).

The protocol seems to present alternately different themes such as: (1) aggression, (2) orality, (3) persecutors cues, (4) emptiness, (5) construction of fabulae (confabulation) (6) splitting mechanism. These elements, coming from both the self assessment and the projective, inform us about the patient's worry to set emotional states in thought contents arranged into structured dichotomies: victim-persecutor, in-out, beauty-rotten, all good-all bad. This urgency is stressed by the experience of the reported relief, followed by the answer to table II. The characteristic of this overcoming beyond the limit is to be transient and not destined to evolve. Therefore, there is a fluctuation of the reality examination that rises and sudden falls due to the stimulus "colour" and that we could recognize as the uncontrolled emergence of the primary process.

Mario Monti Rossi (2005) wrote about transient psychosis in borderline personality structure arguing: "... It is not the first brick of a delusional cathedral that pretend to give sense to the whole existence; it's just a brick, a first brick that will keep to be a brick, a brick to lean on for a moment...it is a mental state searching for a limit, a liquid content that do not reach the features to be a container".

Table-RT	Answer	Table-RT	Answer
I-5''	"The head of a devil" [Splitting]	VI-5''	"A musical instrument, like an harp".
II-12''	"Nothing clear" [Colour schock; Confabulation; Denial; Splitting]	VII-17''	"An endless hole, where there's no ground to land on, An infinite empty space where there is the nothing. The empty" [Hollowness schock; Astraction]

III-6''	''Two man chatting in a bar''	VIII-32''	[Confabulation; Colour schock; Splitting]
IV-13''	''I don't know...a fissure,like something to put an object in, like a pocket'' [schock]	IX-12''	''Two nice old man chatting''
V-1''	''A [popular response]	bat''. X-23''	''Music, nice melody'' [Color schock, astraction]

**Table 1 - Rorschach Test, T0. RT= reaction time**

The patient has been diagnosed as ''Other Psychotic disorder'' and has been treated with low dosages of aripiprazole (5 mg/day). In the subsequent months she periodically attended her follow up visits and she gradually achieved a partial remission of the symptoms.

### **3.2 The follow up psycho-diagnosis and the comparison between T0 and T1**

After six months we proceed to retest the patient with POMS and Rorschach technique. The POMS highlighted a decrease in *Depression* and *Anger* levels, with a mild increase in the factor *Confusion*. It's possible that the therapy, by reducing the emotional impact of the psychopathology, acted also as a trigger of an increased thoughts production.

	Tension/ Anxiety	Depression / Dejection	Anger/ Hostility	Vigour/ Activity	Fatigue / Inertia	Confusi on/ Bewilde rment
T0	64	69	71	53	57	56
T1	69	65	63	55	63	61

**Table 2** – Comparison of POMS T points at T0 and T1

The Rorschach technique (see table 3) underlined both quantitative and qualitative changes with an increased response production (R=14), allowing us to propose the presence of a Borderline Personality Organization, that underlay the psychotic-like symptoms.

We could notice significant contents changes (Table II: T0”confabulation” T1:“ A clown. A sad person”; Table IV: T0 “I don’t know, a fissure...like something to put an object in, like a pocket”. T1 “ A bad monster”). These two contents ("a sad person" and "a monster") on one side are characterizing images of anguish, but on the other side are a step ahead from the confabulatory the scene and the tendency to the hallowness shock of T0. Sometimes anxiety can be a symptom of an increased awareness (Sullivan, 1948; May, 1996). This element is probably connected to the increase in the levels of Confusion at POMS and strengthens the hypothesis of activation of cognitive processes. This, in turn, let us recognize the persistence of defense mechanisms like “splitting” but the reduction of the confabulatory component and of the undefined perception. These has been remodulated, since the perceptual process in borderline personality organizations is preserved, but is rather the processing which through confabulations and derailments perception leads to a psychosis-like result (Löffler-Statka *et al.*, 2009; Van Os *et al.*, 1999). The T1 Rorschach Test hence gave us the possibility to access to a deep content in a limited time and to achieve to a correct diagnosis over and above the transient symptomatology.

Finally, another change should be highlighted: the improvement of the elements which lead the reality examination. The first image refers to the table V, where the "bat" with wings and horns, at T1 becomes a simple “bat”. Subsequently, at table VIII are now more obvious for the patient "two felines that climb," popular response accompanied by the animal movement. These elements have improved, in technical terms, the reality index score from 4/8 (hypoplastic) to 5/8 (plastic).

Table	T0 Response (N=8)	Table	T1 Responses (N=14)
I	The head of a devil	I	The head of a

			puppy wolf. A devil with an evil face.
II	Nothing clear.. blood or a murderess	II	A Clown A Sad Person
III	Two man chatting in a bar	III	Two man chatting in a bar
IV	A fissure, something to put an object in, like a pocket	IV	A bad monster
V	A bat with wings, horns and tail	V	A bat
VI	A musical instrument, like an harp	VI	A musical instrument A monstres too.
VII	An endless hole. An infinite empty space where there is the nothing.	VII	A hole, but also a landscape. Two elves
VIII	A lady, beautiful but wicked	VIII	Two felines climbing
IX	Two nice old man chatting with some drink on hands	IX	Two hungry old man or two musicians playing music
X	The vision of a music, a nice melody	X	The entrance of Milan Expo

*Table 3 - Rorschach Test, T0 and T1 compared.*

### **Conclusions**

In Conclusion, Rorschach Technique has proved to be a prompt instrument of clinical support in outpatient setting. At T0 it helped us to reach to an early diagnosis in order to prevent negative outcomes and lead us to a focused pharmacological therapy. At T1, it allowed us to develop a treatment based on the organization of personality and concentrated on the emerged complex. However, the main result we reached is a progressive remission of the symptomatology. As clinicians, we aimed to verify if the exploration of the projective process could be, in this case, a key method to understand the patient's mental functioning, since it is characterized by an ambiguous nature, which leads to effectively explore the inner world and so processes otherwise unsearchable (Settineri & Mento, 2011; Mento et al., 2014; Mento et al., 2015; Settineri et al., 2015)

Further studies could be directed to investigate the correlations among the modification in Psychological and projective tests as POMS and Rorschach, and progressive clinical evaluation.

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