

Validity of Space Responses

What Can We Learn From Rorschach Protocols of Divorcing Couples Fighting for Child Custody?

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Abstract

Divorcing couples who require the intervention of the court system to resolve their child custody dispute usually exhibit an intense anger and experience strong resentment. The Rorschach Inkblot Method is one of the most commonly used tests in child custody evaluation, in which one crucial issue is affectivity and its regulation, and specifically, negative emotions such as anger and resentment. White Space (S) is one of the Rorschach Comprehensive System (C.S.) variables usually taken into account to assess anger and resentment, but to date the construct validity of S responses for this purpose is far from established. This study addressed this issue, by exploring the association of S responses coded according to the C.S., to the Rorschach Performance Assessment System, and to Rosso et al. (2015a) classifications with motor, emotional, and cognitive components of aggression reported by clinicians in a sample of divorcing couples engaged in child custody litigation ($n = 85$). Findings supported the hypothesis according to which Space-fusion responses could be a marker of separation and emptiness anxiety, whereas no support comes from the current study to the hypothesis that Space reversal and Space integration responses are indicative of anger.

Keywords: child custody, divorcing couples, Rorschach test, White Space responses

Summary

Divorcing couples who are not able to find an agreement regarding child custody, and therefore require the intervention of the court system to resolve their dispute, usually exhibit an intense anger and experience strong resentment often related to severe narcissistic vulnerability. For these narcissistic vulnerable individuals mourning the loss of the marital relationship is a somewhat impossible task because the former spouse was mostly experienced as a self-object needed to maintain the self cohesion. The Rorschach Inkblot Method (RIM) is one of the most commonly used test in child custody evaluation. One of the major issues in child custody evaluation is affectivity and its regulation, particularly concerning negative emotions, including anger and resentment. White Space (S) is one of the first Rorschach Comprehensive System variables taken into account relating to anger and resentment. However, the construct validity of White Space responses to date is far from being established. This study investigated the construct validity of the Rorschach S responses, exploring the association of different types of S responses with motor, emotional, and cognitive components of aggression reported by clinicians in a sample of divorcing couples engaged in child custody litigation. Rorschach protocols of divorcing couples involved in a legal battle offered a unique opportunity to investigate the association of S responses with anger and hostility, as well as with separation anxiety. In order to overcome some limitations of the previous studies, S responses were investigated as 1) an inclusive type according to C.S., 2) two not mutually exclusive types (SI and SR) according to R-PAS, and 3) three mutually exclusive types according to Rosso et al. (2015a) (S-integration, S-reversal, and S-fusion). This study offered support for C.S.'s interpretation of the S responses as a whole category, as well as for differentiating S-rev, S-int, and S-fus responses. Findings offer support to the hypothesis according to which Space-fusion responses could be a marker of separation and emptiness anxiety, whereas no support comes from the current study to the hypothesis that either S-rev or S-int responses are indicative of anger.

Divorcing couples who require the intervention of the court system to resolve their child custody dispute usually exhibit an intense anger and experience strong resentment (Caldwell, 2005; Demby, 2009; Donner, 2006; Shopper & Gunsberg, 2009; Wallerstein & Kelly, 1980), presumably due to the narcissistic vulnerability which was supposed to be at the core of the extreme conflict experienced by divorcing individuals (Donner, 2006; Johnston & Campbell, 1988). Accepting the failure of marriage and the partial loss of a close and daily relationship with the children might be very challenging, especially for narcissistically vulnerable individuals.

These couples, who have often been involved in legal disputes for years after their divorce, seem to need engaging themselves in never-ending battles, probably because they need to hate each other. Hatred may be regarded as an attempt to avoid the unbearable pain for mourning the lost marital relationship, and to defend themselves against an agonizing depression and fears of ego disintegration (Demby, 2009; Wallerstein & Kelly, 1980).

Mourning the loss of the marital relationship might be a somewhat impossible task for narcissistic vulnerable individuals because the former spouse was mostly experienced as a self-object needed to maintain their self-cohesion, and narcissistic vulnerability can hinder the awareness of affects such as sadness and guilt, as these feelings threaten the precarious self-structure. Thus, use of the splitting and of the projection might be essential to protect the fragile self and to deal with the psychic PSYCHIC? PHYSICAL? PSYCHOLOGICAL? pain triggered by the separation (Demby, 2009). Consequently, hatred and chronic acrimony become the way for not losing the former spouse and the legal dispute might assume the function of maintaining close proximity to the former partner.

As Donner (2006) reported, many litigant parents are so pathologically narcissistic that seek their child's alliance against the other parent to support their fragile narcissistic balance, ignoring to extent to which their behavior can be devastating to their child. While

such behavior may seem reprehensible, one way to understand it is to realize that such parents are trying to maintain a stable sense of self and to avoid intense shame and disintegration. These couples have to cope two major challenging life events: the loss of the marital partner due to the failure of the marriage and the change of the daily relationship with the children who usually spend some days with one parent and some days with the other parents. Thus, separation anxiety is intensely triggered and it might be devastating for narcissistic vulnerable individuals.

The Rorschach Inkblot Method (RIM) is one of the most commonly used tests in child custody evaluation (Evans and Schutz, 2008). Singer, Hoppe, Lee, Olesen, and Walters (2008) reported that nearly 44% to 48% of custody evaluators use the RIM as part of a multimodal approach to data gathering. According to Evans and Shutz (2008), the first issue to be addressed in Child Custody and Parenting Plan Evaluations (CCPPE) is affectivity and its regulation, with a focus on negative emotions such as anger and resentment. White Space (S) and Aggressive Movement (AG) are the Rorschach variables in Exner's Comprehensive System (C.S., Exner, 2003) that are usually taken into account to investigate anger and resentment. However, to date the diagnostic meaning of White Space responses is far from established.

Space responses were initially coded when the respondent interpreted the background white space of the blot, i.e., a figure-ground inversion occurred. Rorschach (1921) suggested that they might be a marker of oppositionality, since they indicated an opposite behavior compared to the request to say what the inkblot might be. After Rorschach, also the responses produced by an integration of the figure and the ground were scored as Space responses. As a result, the former were labeled "primary S responses" and the latter "secondary S responses" (Beck, 1944; Hertz, 1936).

Empirical and clinical research focused on primary and secondary S responses, sometimes considering them as one entity, sometimes as two distinct variables. Studies that did not differentiate primary and secondary Space responses did not support the relationship between S, as a whole category, and self-reported oppositional tendencies (Murray, 1957; Tegtmeier, & Gordon, 1983).

Findings from studies that investigated the Space responses as two distinct variables supported the hypothesis that primary and secondary Space responses were associated with different psychological processes. In particular, only primary S responses seemed to be associated with oppositionality (Bandura, 1954a; 1954b; Carlson and Drehmer, 1984; De Koninck and Crabbe-Decleve, 1971; Stein, 1973).

Exner's Comprehensive System (C.S., Exner, 2003) considered S responses as an inclusive type despite these empirical evidence. According to the C.S., the presence of more than two S responses can be considered as a marker of oppositionality that may cause difficulties in the interpersonal sphere. Four or more S responses are regarded as a sign of considerable generalized anger and a low level of tolerance in dealing with social life. More recently, Exner (Exner, 2007; Exner, & Erdberg, 2005) raised the cut-off point by one unit (from $S > 2$ to $S > 3$) if the count includes at least one of the responses frequently given to the first card ("The face of an animal" or "A mask") and to the DS5 in the second card ("Rocket" or "Space shuttle").

The lack of substantial support for Exner's C.S. interpretive guidelines on S responses was reported in a recent meta-analysis (Mihura, Meyer, Dumitrascu, & Bombel, 2013), as well as in a broad survey of perceived validity by experienced clinicians (Meyer, Hsiao, Viglione, Mihura, & Abraham, 2013). Mihura, Dumitrascu, Roy, & Meyer (2017) argued that the meta-analysis did not support C.S. Space as a measure of oppositionality because the figure-ground reversal responses are only one third of the C.S. Space responses (Meyer,

Viglione, Mihura, Erard, & Erdberg, 2011). Consequently, the recently developed Rorschach Performance Assessment System (R-PAS, Meyer et al., 2011) introduced a revised coding and interpretive guidelines differentiating primary and secondary S responses, labeling them SR (Space Reversal) and SI (Space Integration), respectively. Since SI and SR are not mutually exclusive, both might be coded for the same response: SI is the only code when the respondent uses the inked area as the main object, while SR and SI are both coded if the white area is the main object, then it is integrated with inked areas. Differently from the C.S. coding guidelines, neither SI nor SR are coded when the white area is not deliberately included as part of the percept, unless the respondent explicitly communicates that the space is used. For example, “a face [W]” on Card III is coded neither SI or SR unless the respondent clearly identifies white area as a well-defined part of the object. In contrast, according to the C.S., this response should be coded as S without assigning Z score because the white background was implicitly used although no Space integration occurred.

According to R-PAS, the behavior implied by SR responses, namely, not conforming to the instruction, may indicate creativity, individuality, oppositionality, or positive assertiveness. Since insufficient support for interpreting SR as a measure of anger was found, R-PAS suggests to no longer consider this interpretation as valid. On the other hand, since SI reveals a certain amount of cognitive complexity and thus is a synthesized response, R-PAS proposes its cautious interpretation as an indicator of effort, motivation, complex and flexible thinking, and, possibly, creativity.

Another way of using the white area of the blot was reported by Bohm (1967), who was struck by a “particular phenomenon” labeled as “fusion of figure and ground”. It occurs when a respondent puts figure and ground on the same plane, creating a new figure which is seen in front of a new ground (e.g., the following response on Card III: “a clown’s face [WS], the eyes [Dd32], the white painting on his face [DdS24], the red nose [D3] and his red hair

[D2]”). Although Bohm brought attention to the psychological and, possibly, psychopathological implications of such “fusion of figure and ground phenomenon”, it was hardly ever investigated, probably because this kind of S response can be seldom observed, as reported by Fonda (1977). From a clinical point of view, Smith (1997) paid considerable attention to those responses related to white spaces placed in the centre of Cards II, III, VII, and IX. According to Smith, the empty space in these Cards represent an abyss between two figures that might trigger the separation anxiety as well as the primordial anxiety related to the internal vacuum. The anxiety of the internal emptiness and the separation anxiety would generate the need to fill up the empty space in the blots with a solid object, thus providing a S response.

Recently, Rosso, Chiorri, and Denevi (2015a) proposed three types of Space responses: Space reversal (S-rev), Space integration (S-int), and Space fusion (S-fus). Reversal responses (S-rev) were coded when only a space area of the blot was considered to produce the response (e.g., “a spaceship” in DS5, Card II). S-rev is entirely overlapping with the previously named primary S response. Figure-ground integration responses (S-int) were coded in two cases: (a) when a response integrated a space area with other inked areas of the blot, provided that the different areas were kept as separated while related to each other (e.g., “a spaceship in the darkness with red lights at the bottom” in WS, Card II); and (b) when the white area was used to describe an attribute of the object clearly identified in the inked areas (e.g., “a butterfly [W] with white spots [DdS30 and DdS29] on its wings” on Card I). S-int is only partially overlapping with the previously named secondary S response and with the SI response currently coded according to R-PAS, in that it is mutually exclusive, not overlapping with S-rev, and it does not include S-fus responses.

Rosso et al. (2015a) coded figure-ground fusion responses (S-fus) when on Cards II, III, and VII, and on Cards VIII, IX, and X, the respondent saw a single object (albeit with

different attributes), showing a fusion between figure and ground, blending white central areas and inked areas on the symmetric sides as if they were fused together (e.g., “a rather fat dancer on tip-toe, these are her feet [D2], the body [DS5+D6]” on Card II reversed; “a monster [D1] with raised arms and lungs [D3] in its belly [DdS24]” on Card III; “a man [DdS22] with green legs [D4], a red cloak [D9], the orange mouth [D3], a gray hat like a helmet [D11]” on Card X). A pictorial examples of S-fus response is provided in Figure 1.

[Enter Figure 1 about here]

As stated above, the fusion of figure and ground has been previously considered, but it has never been investigated as an S response in its own right, possibly because of its rarity (Bohm, 1967; Fonda, 1977, Philipps & Smith, 1952). However, the findings by Rosso et al. (2015a) supported the hypothesis according to which it is instead a frequent and specific type of S response uncorrelated with either S-rev or S-int.

In line with Smith (1997), it could be hypothesized that S-fus responses especially convey the anxiety of the internal emptiness as well as the separation anxiety, in that the fusion of the figure and the ground occurred in the Cards that more frequently elicit the representation of two distinct figures, especially two human figures. In S-fus responses only one figure is seen, thus the individuation and the separation of the two figures is nullified; thus S responses located in the central areas of these broken cards might indicate a defense against the pain of separation.

Overall, a review of previous studies suggests that the construct validity of S responses as an indicator of aggression is still largely in question and that further study is needed. The major limitations of the previous studies included the lack of differentiation of S responses, the use of self-report measures, and the investigation of oppositionality as overt behavior. Moreover, studies about the relationship between the different types of S responses and anger as an internally experienced emotion are still missing. As Buss and Perry (1992)

stated, aggression could be both acted out by physical as well verbal behavior and internally experienced as an affective state (anger) and/or a cognitive state (hostility). Further research to investigate the emotional and the cognitive components of aggression is still needed.

The current study has been designed to address these limitations and to investigate the construct validity of S responses as an indicator of anger, exploring the association of the different types of S responses with observer-rated motor, emotional, and cognitive components of aggression in a sample of 85 individuals engaged in a child custody legal dispute. It should be noted that the Rorschach protocols of divorcing couples involved in a legal battle offer a unique opportunity to investigate the association of S responses with anger and hostility, as well as with separation anxiety.

In order to overcome some limitations of the previous studies, S responses were investigated as (1) an inclusive type according to C.S.; (2) two not mutually exclusive types according to R-PAS, and (3) three mutually exclusive types according to Rosso et al. (2015a). Moreover, the present study investigated aggression not only in its behavioral manifestations but also in its emotional and cognitive components. Finally, scores of aggression reported by clinicians served as a criterion variable.

In line with Rosso et al. (2015a), S-int, S-rev, and S-fus were expected to be uncorrelated with each other. According to the C.S., it was expected that cut-off $S > 2$ (or $S > 3$ if the count includes at least one of the responses frequently given to the first or the second card, according to Exner and Erdberg, 2005) was effective in discriminating participants rated as more inclined to experience anger and hostility, and, according to the literature, it was hypothesized that S-rev and not S-int responses were correlated with anger. It was also predicted that S-fus responses were a frequent occurrence in divorcing couples involved in child custody evaluation and were significantly associated with aggression, possibly

indicating a more dysfunctional way to regulate anger in a conflict situation, as well as higher levels of hostility and more difficulties in coping with separation anxiety.

Method

Participants

Data were obtained from 85 child custody litigants (39 divorcing couples and 7 current male partners actively engaged in the legal dispute and in child-rearing) involved in a forensic evaluation (46 males [54.1%]; mean age 39.87 years, $SD=8.79$, range 19-58; mean years of education 13.94, $SD=4.92$, range 8-23). These participants were administered the Rorschach test as part of their forensic psychological assessment.

Measures

The Rorschach Inkblot Method (RIM) was administered according to the C.S. (Exner, 2003). An observer-rated version of Italian version (Fossati & Borroni, 2008; Fossati, Maffei, Acquarini, & Di Ceglie, 2003) of the Aggression Questionnaire (AQ, Buss & Perry, 1992) was completed by three forensic psychologists appointed by the Court for psychological evaluation of the divorcing couples. The AQ is a 29-item questionnaire designed to measure levels of anger and aggression. The forensic psychologists were asked to rate on a Likert-type 5-point scale the extent to which each item was characteristic of the parent. The AQ provides a total score and scores in four scales: Physical aggression, Verbal aggression, Anger, and Hostility. The first two scales assess the motor or instrumental components of aggression. Anger represents the affective and emotional component of aggression and includes psychological activation and preparation to aggression. Hostility represents the cognitive component of aggression and concerns basic thoughts of resentment and injustice. The Italian AQ (Fossati & Borroni, 2008; Fossati, et al., 2003) consistently replicated the factor structure of the original version and showed adequate internal consistency of the scales in both nonclinical (Cronbach α 's of scales ranged from .55 to .89) and clinical (Cronbach α 's of

scales ranged from .51 to .89) samples. In the validation study, high AQ total and scale scores showed significant ($p < .001$) associations with (i) high scores on self-reported novelty seeking and harm avoidance, and low scores on cooperativeness and self-directedness; (ii) low scores on secure attachment, and high scores on discomfort with closeness; and (iii) high scores on measures of Cluster B personality disorders (especially narcissistic, borderline, and antisocial).

Procedure

The American Psychological Association ethical guidelines (American Psychological Association, 2010) were followed throughout the study. Three forensic psychologists, appointed by the Court to perform an expert testimony about Child Custody, referred divorcing couples to the authors of this study for Rorschach administration (differently from other Countries, in Italy it is a common practice that the forensic psychologist appointed by the Court for psychological assessment designates a colleague for the administration of psychological tests). Authors administered the Rorschach according to C.S. guidelines (Exner, 2003) in their private practice.

Then, the three forensic psychologists filled in the observer-report version of the AQ and gave it to the authors when receiving the Rorschach reports, thus the authors were blind to the AQ results and the forensic psychologists were blind to the Rorschach protocols. The three forensic psychologists referred respectively 41 (48.2%), 27 (31.8%), and 17 (20%) individuals; they filled in the AQs after reviewing the legal records, observing directly the interaction of the family members, and meeting individually the litigants for some interviews.

Data analysis

All Rorschach protocols were valid as for the number of responses provided (R ranged from 14 to 56, $M = 24.91$; $SD = 10.29$).

The first author administered and coded 50 protocols, the second author administered and coded the remaining 35 protocols. Ten of the protocols coded by the first author and seven of the protocols coded by the second author were randomly selected and independently re-scored respectively by the second and the first author in order to provide data for the computation of inter-rater agreement using intraclass correlation coefficients (ICCs). The total number of S responses and the sum of S-int, S-rev, S-fus, SI and SR were computed as well as AQ scores, then descriptive statistics and Cronbach α 's for AQ scores were computed.

A general linear model was used to investigate the association of the variables of interest (S responses and AQ scores) with background variables (sex, age, and years of education).

According to the most recent C.S.'s revised interpretive guidelines (Exner, 2007; Exner & Erdberg, 2005), S cut-off point was computed to form High S and Low S groups. Then, to investigate the validity of the C.S. interpretation of the S responses, the two groups were compared on AQ scores using independent samples *t*-tests. As R-PAS uses different administration guidelines to obtain relatively constant protocols for productivity and since a significant and a substantial correlation was observed in this study between R and S responses ($r = .43, p < .001$), partial correlations controlling for R were performed to investigate the association of the different kinds of S responses with each other and with the AQ scores.

No participants had incomplete or missing data.

Results

After the Benjamini and Hochberg (2000)'s correction of *p*-values for false discovery rate, no significant association with background variables was found for any S response count or AQ score. Effect sizes (computed as η^2) were at best in the small range ($.01 \leq \eta^2 < .06$).

These results suggested that the variables of interest were not substantially associated to any background variable. Hence, no background variable was used as a control variable in subsequent analyses.

Inter-rater agreement was excellent (Cicchetti, 1994) for all S variables (Table 1). Table 1 also reports descriptive statistics for S responses and AQ scores, and Cronbach α 's for AQ scores.

[Enter Table 1 about here]

As shown in Table 1, at least one S response was reported by 78 (91.8%) litigants. S-int was the most frequent S response and 63 [74.1%] of participants reported at least one S-int, followed by S-fus (46 [54.1%] participants reported at least one S-fus) and S-rev (34 [40%] participants reported at least one S-rev). Fifty-two (61.2%) participants gave at least one S minus.

The most frequent R-PAS S response was SI (65 [76.5%] participants reported at least one SI), followed by SR (47 [55.3%] participants reported at least one SR).

Partial correlations between the different subtypes of S responses are reported in Table 2. As expected, S-int, S-rev, and S-fus responses were uncorrelated with each other. The strongest positive correlation emerged between S-fus and S minus.

In total, 100 Space responses were coded as S-fus, according to Rosso et al. (2015a) criteria. According to R-PAS criteria, 43 out of these responses were not coded as Space because the respondent included only implicitly the white background, 41 were coded as SI, and the remaining 16 were coded as SI+SR. This is the reason why AnyS is lower than S, and SI positively correlated both with S-int and S-fus. SI and SR were moderately correlated between each other.

[Enter Table 2 about here]

Table 3 reports the comparison on AQ scores between Low S and High S groups after controlling for R. Almost half of the participants (47%) reported more than two S responses. After the correction for multiple comparisons, the High S showed significantly higher scores than the Low S group on four out of five AQ scores, with small-to-moderate effect sizes. The difference in Hostility was only marginally significant ($p = .061$), but the effect size ($d = 0.42$) was comparable to that of Physical Aggression ($d = 0.47$).

[Enter Table 3 about here]

Partial correlations controlling for R between S responses and AQ scores are reported in Table 4. Both S and AnyS correlated with all the dimensions of AQ. Among the Space responses coded according to Rosso et al. (2015) criteria, only S-fus correlated with all the dimensions of AQ, whereas either S-int or S-rev correlated with any AQ's dimension. Both SI and SR correlated with all dimensions of AQ but Physical Aggression.

[Enter Table 4 about here]

We also checked whether the relative non-normal distribution of variable scores could have affected the estimation of Pearson correlation coefficients. After computing partial Spearman correlations, we found no convincing evidence of bias, hence we reported here only r_s .

Discussion

This study investigated the construct validity of the Rorschach S responses as an indicator of anger, exploring the association of different types of S responses with motor, emotional, and cognitive components of aggression reported by clinicians in a sample of divorcing couples. S responses were coded according to Exner's Comprehensive System (Exner, 2003), to R-PAS (Meyer et al., 2011), as well as to Rosso et al. (2015a) criteria. The frequency of S responses was slightly higher (Cohen's $d = 0.43$) in this sample compared to the most recent Italian nonclinical sample (Rosso, Camoirano, & Schiaffino, 2015b). Almost

half of the participants (47%) reported more than two S responses, and the S-int responses were the most frequent, followed by S-fus and S-rev. This finding, consistent with the most recent study (Rosso et al., 2015a), supported the hypothesis that currently S-fus responses are not a rare occurrence, as it was observed in the earlier studies (Phillips & Smith, 1952; Fonda, 1977), and suggested that they could (and should) be investigated as a definite variable.

Consistent with Rosso et al. (2015a)'s results, no correlation emerged between S-fus, S-int, and S-rev, suggesting that the three subtypes of Space responses might grasp distinct psychological processes. Along with Smith (1997), it was hypothesized that S-fus responses might indicate a reaction triggered by separation anxiety, since they occur when the respondent merges figure and ground, thus creating a new unique figure incorporating the large white space in the broken Rorschach cards. This kind of response usually had Form Quality *minus*, in that it clearly disregarded the “perceptual” reality of the blot. In this study S-fus responses were strongly correlated with S *minus* ($r = .75$). These findings seem to provide some support to our hypothesis and to Smith’s (1997) clinical contribution. Divorcing couples engaged in child custody legal dispute suffer from a heightened separation anxiety connected to their extreme narcissistic vulnerability that does not allow them to endure the pain for the marital separation, and they react to the loss with an intense narcissistic rage in order to maintain their fragile narcissistic balance. The white space in the middle of the Rorschach Cards in which two figures are usually seen probably evokes in these individuals an intolerable separation anxiety. As a result, they are prompted to nullify the separateness and thus they produce a Space-fusion response that merges the two figures into a single one.

S-fus was strongly correlated with SI ($r = .56$) and weakly with SR ($r = .21$). These latter findings are not unexpected, as S-fus responses are very frequently coded SI in R-PAS

(as stated above, in this study 41% of S-fus were coded SI and 16% were coded both SI and SR). While Rosso et al.'s (2015a) coding criteria led up to three not overlapping and uncorrelated variables, R-PAS coding criteria led to two partially overlapping and consequently correlated ($r = .43$) subtypes of S responses. Incorporating S-int and S-fus into a single variable, as it occurs in SI code according to R-PAS, could be inappropriate in that S-int and S-fus might indicate distinct psychological processes. It was actually hypothesized that S-int might imply a creative and efficient cognitive effort to develop a synthesized response, revealing a complex and flexible thinking, while findings from the current study support the hypothesis according to which the fusion of the figure and the ground might be triggered by overwhelming and unbearable separation anxiety.

Further indications of a possible lack of discriminant validity of the SI and SR responses could come from the correlational analyses between S responses and clinician-rated AQ scores. Only S-fus, among the Rosso et al.'s (2015a) variables, showed significant correlations with the AQ measures, while SI and SR had a similar pattern of association with aggression dimensions. It is remarkable that both SI and SR include S-fus responses, thus their associations with AQ dimensions could partially depend on S-fus responses.

Finally, the Space response cut-off point, according to the C.S., was found to be effective in detecting significant differences on all but one dimensions of aggression. This findings seems to support the C.S. interpretation guidelines of Space responses, considered as a whole category, but this result should be cautiously interpreted because it could depend on the frequent occurrence in this sample of the Space-fusion responses. These findings need therefore to be replicated in a different sample.

This study offered support for C.S.'s interpretation of the S responses as a whole category, as well as for differentiating S-rev, S-int, and S-fus responses. The findings offer support to the hypothesis according to which Space-fusion responses could be a marker of

separation and emptiness anxiety, whereas the empirical evidence we provided offered no support to the hypothesis that either S-rev or S-int responses are indicative of anger.

Nevertheless, the finding that the S-fus responses are related to separation and emptiness anxiety could not speak against the construct validity of S-fus responses as a measure of aggression: further research is needed to investigate the hypothesis that S-fus responses could be a specific indicator of dysfunctional narcissistic rage.

Some limitations of the current study have to be considered when evaluating the results: (a) we investigated only a part of the nomological network of S responses, namely, aggression, in that it was also hypothesized that they might be a marker of ego strength, positive assertiveness, mental flexibility, and cognitive complexity, as assumed by Scharmann (1950), Schachter (1970), and more recently proposed by Meyer et al. (2011); (b) we considered Space responses as a marker of anger and hostility in individuals in a very specific condition. In fact, it could be questioned if the forensic setting could have influenced the production of S responses. Exner (2003) **affirmed that if the value of S is three or more and all S answers were given to the first two or three blots, it indicates that the person was quite irritated by the test situation. Although no participant in our study gave all the S responses to the first two or three cards, currently it is unknown** to what extent the elevation of S responses in our sample might be due to negativism situationally related. A thorough examination of clinical high S Rorschach protocols, along with taking into account the complexity of the entire protocol, could be worthwhile to further investigate construct validity of S responses as an indicator of anger. Observing behavior is not sufficient, because the relationship between overt manifestations and underlying psychological processes is complex and almost always indirect. As Fonda (1977) suggested, an aggressive orientation might be experienced and manifested in a variety of ways, also depending on the defenses utilized by the individual. This is why the examination of the whole protocol is required to a

deep understanding of the individual psychological functioning. In addition, angry feelings could be manifested in a variety of manners during the Rorschach administration, for example in explicit assertions, as well as in reluctance to give responses, or in an excessive productivity which sometimes forces the psychologist to a greater amount of attention and concentration.

Further research is needed both to replicate the results from the current study in populations suffering and not suffering from narcissistic vulnerability, also using a well validate measures of narcissistic vulnerability, which were not employed in the current study.

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Table 1.

Space Responses and Aggression Questionnaire: Descriptive Statistics, and Reliability Coefficients

Variable	<i>M</i>	<i>SD</i>	<i>Freq</i>	<i>Skewness</i>	<i>Kurtosis</i>	α	ICC
R	24.91	10.29	85	1.174	.661		
S	3.47	2.67	78	1.523	3.955		.95
S-	1.20	1.57	52	2.484	8.361		.90
S-int	1.55	1.37	63	.860	.376		.86
S-rev	.74	1.15	34	1.694	2.405		.98
S-fus	1.18	1.61	46	1.888	3.925		.84
AnyS	2.91	2.27	75	1.622	5.608		.85
SI	2.14	1.93	65	1.221	2.195		.85
SR	1.28	1.70	47	2.217	7.555		.85
PA	18.86	8.09	85	1.018	.673	.95	
VA	12.78	4.15	85	.156	-.076	.88	
H	16.82	4.96	85	.477	-.431	.78	
A	17.78	6.61	85	.189	-1.072	.93	
AQ	66.24	21.17	85	.442	-.310	.96	

Note: M = mean; SD = standard deviation; α = Cronbach's alpha; R = total number of responses provided in the Rorschach protocol; S = Space response according to the Comprehensive System; S- = Space responses of Minus Form Quality according to the Comprehensive System; S-int = Figure-ground integration S response; S-rev = Reversal S response; S-fus = Fusion S response; AnyS = Space responses according to R-PAS; SI = Space Integration according to R-PAS; SR = Space Reversal according to R-PAS; PA = Physical Aggression; VA = Verbal Aggression; A = Anger; H = Hostility; AQ = Total score Aggression Questionnaire.

Table 2.

Partial correlations (controlling for R) among different subtypes of Space response (n = 85)

	S	S-	S-int	S-rev	S-fus	AnyS	SI
S	-						
S-	.79***	-					
S-int	.65***	.34***	-				
S-rev	.40***	.23*	-.002	-			
S-fus	.68***	.75***	.13	-.09	-		
AnyS	.94***	.63**	.74***	.47***	.46***	-	
SI	.83***	.56***	.83***	-.01	.56***	.86***	-
SR	.68***	.47*	.34*	.74***	.21	.74***	.43***

Note: S = Space response according to the Comprehensive System; S- = Space responses of Minus Form Quality according to the Comprehensive System; S-rev = Reversal S response; S-int = Figure-ground integration S response; S-fus = Fusion S response; AnyS = Space responses according to R-PAS; SI = Space Integration according R-PAS; SR = Space Reversal according R-PAS; *: $p < .05$; **: $p < .01$; ***: $p < .001$ (after adjustment of the p-value following the Benjamini-Hochberg (2000)'s adaptive false discovery rate controlling procedure)

Table 3.

Comparisons between Low S and High S group

	Low S		High S		p [§]	adj-p	d
	(N=45)		(N=40)				
AQ score	M	SD	M	SD			
PA	16.98	8.03	20.98	7.71	.038	.047	0.47
VA	11.36	3.61	14.38	4.17	.002	.011	0.70
H	15.73	5.43	18.05	4.11	.061	.061	0.42
A	15.78	5.89	20.03	6.73	.007	.012	0.61
AQ total	59.84	20.45	73.43	19.84	.007	.012	0.61

Note: AQ = Aggression Questionnaire; M = mean; SD = standard deviation; α = Cronbach's alpha; p[§] = *p*-value of the mean difference after adjusting for R; adj-p = adjusted *p*-value following the Benjamini-Hochberg (2000)'s adaptive false discovery rate controlling procedure; d = Cohen's measure of effect size ($|d| < 0.20$: negligible; $|0.20| < d < |0.50|$: small; $|0.50| < d < |0.80|$: moderate; $d > |0.80|$: large). PA= AQ Physical Aggression; VA=AQ Verbal Aggression; H = Hostility; A = AQ Anger; AQ total = AQ total score;

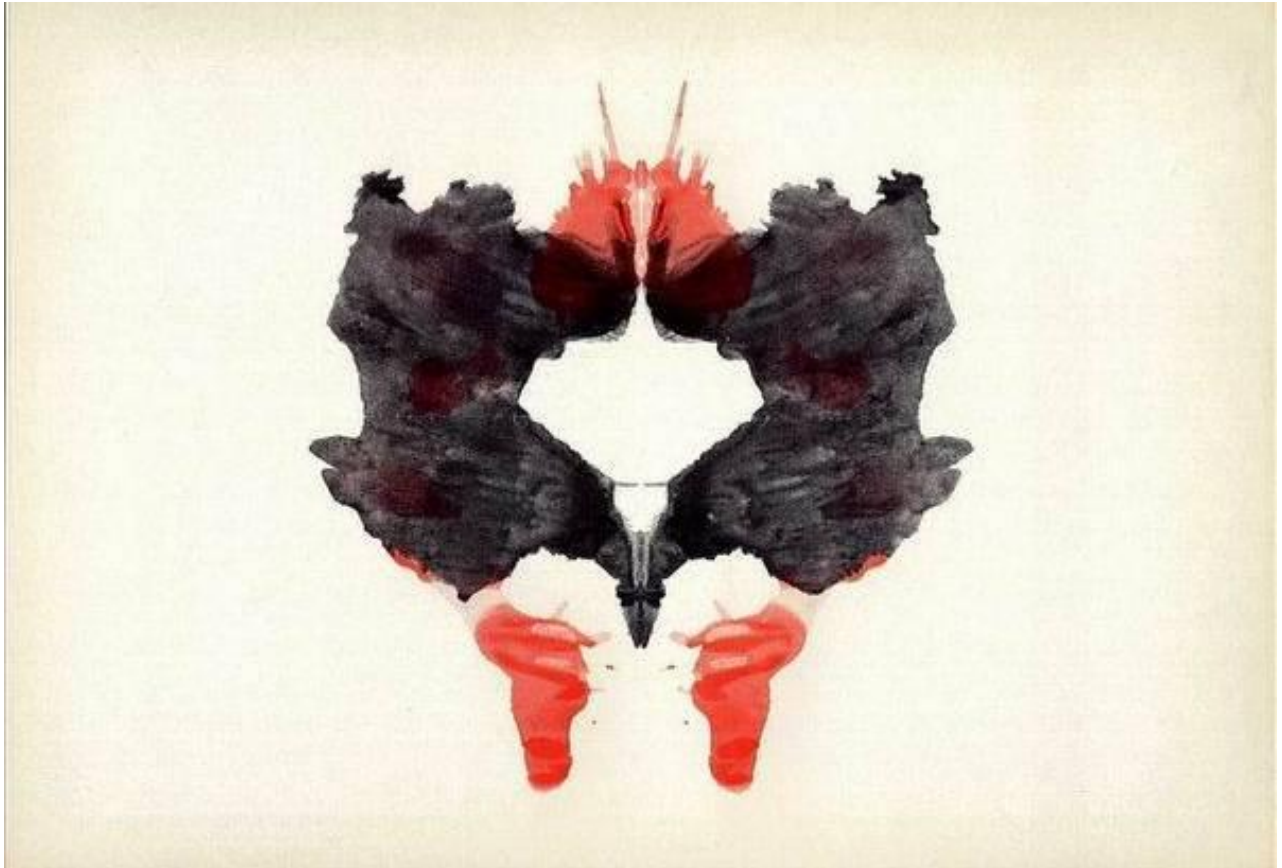
Table 4.

Partial correlations (controlling for R) of frequency of S responses with scores on the Aggression Questionnaire (n = 85)

AQ score	S	S-	S-int	S-rev	S-fus	AnyS	SI	SR
PA	.25*	.14	.03	.15	.25*	.22*	.19	.20
VA	.35**	.16	.16	.14	.30**	.35**	.32**	.25*
H	.30**	.18	.14	.16	.22*	.27*	.24*	.22*
A	.33**	.20	.14	.13	.29**	.33**	.31**	.23*
AQ total	.34**	.19	.12	.16	.30**	.32**	.29*	.25*

Note: AQ = Aggression Questionnaire; S = Space response according to the Comprehensive System; S- = Space responses of Minus Form Quality according to the Comprehensive System; S-int = Figure-ground integration S response; S-rev = Space reversal; S-fus = Fusion S response; AnyS = Space responses according to R-PAS; SI = Space Integration according R-PAS; SR = Space Reversal according R-PAS; PA= AQ Physical Aggression; VA=AQ Verbal Aggression; H = Hostility; A = AQ Anger; AQ total = AQ total score; *: $p < .05$; **: $p < .01$; ***: $p < .001$ (after adjustment of the p-value following the Benjamini-Hochberg (2000)'s adaptive false discovery rate controlling procedure)

Figure 1. Example of S-fus response



S-fus response: “A rather fat dancer on tip-toe, these are her feet [D2], this is her body [DS5+D6], this is her head [D3]”