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Developmental implications of child maltreatment: Rorschach assessment of object representations

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Abstract

Child maltreatment is associated with a variety of negative psychological, social, and health outcomes. It is particularly important for healthcare professionals to assess psychosocial functioning in children and adolescents in foster care in order to facilitate optimal levels of adjustment in this population. The relative validity of two developmentally-based scales applied to Rorschach data, the Primitive Object Relations scheme (Kwawer, 1979) and the Developmental Object Relations Scale (Ipp, 1986), was investigated in a sample of 71 youth in foster care. Results from dimension reduction analyses suggest that the POR captures specific elements of primitive object relations, characterized by themes of vulnerability of self-boundaries, self-absorption, and preoccupation with integrity of the self. Dimension reduction for the DORS revealed three clusters of items suggesting specific developmental challenges centered around themes of proximity-seeking vs distancing, dependency vs counter-dependency, and maintenance vs dissolution of self-other boundaries. The scales showed distinct patterns of association with outcomes: primitive modes of relating were associated with insecure attachment organization, adaptive difficulties, and externalizing behavior problems, whereas conflicts around dependency on the DORS were linked to internalizing and adaptive problems. These findings suggest that the POR and DORS tap into distinct aspects of object relations and can best be used in complement with each other with this population.

Introduction

There is a long tradition of research documenting the psychological and social consequences of childhood trauma, including various forms of maltreatment. Studies have highlighted a wide range of negative outcomes associated with abuse and neglect in childhood or adolescence, including lower academic and vocational achievement (Thielen et al., 2016; Zielinski, 2009) as well as higher rates of mental health problems (Gilbert et al., 2009), interpersonal difficulties (Fantuzzo et al., 1998; Paradis & Boucher, 2010), physical health issues (Herrenkohl et al., 2013; Zielinski, 2009), substance abuse and addictive behaviors (Oshri et al., 2011) and social deviance (Topitzes et al., 2011), several of these outcomes being influenced by gender and other relevant moderators (Cicchetti & Toth, 2005; Mersky & Reynolds, 2007). While research has also uncovered pathways to resilience in survivors of abuse (Afifi &

MacMillan, 2011; Cicchetti & Rogosch, 2009; Jaffee et al., 2007), experiences of maltreatment in childhood are unquestionably a disruptive influence on development, and effects can persist throughout the person's life.

In this context, researchers and practitioners have attempted to conceptualize the developmental impacts of maltreatment as a process involving several possible mediators. Such mediators can be biological, psychological, or social-interpersonal in nature (Jaffee, 2017). Because they explain in part how maltreatment can be linked to certain outcomes, either positive or negative, mediators are especially relevant for interventions intended to promote better functioning in survivors of child abuse and neglect. In effect, it could be argued that psychotherapeutic or other forms of interventions can *only* work through their impact of mediating processes since neither history of maltreatment nor the desired outcome of intervention can be directly affected.

In terms of practice, the integration of an empirical knowledge base on mediators to the assessment process can be a challenge. Beyond a mere diagnosis, assessment is conceptualized as a process through which a clinician develops a "narrative construction" of a unique personality in a given context (Singer, 2013). This process is inherently idiographic because one of the main purposes of assessment is to inform understanding of an individual in a context of adaptive difficulty. Yet, sample-based research favors a nomothetic knowledge base which is not easily translated into practice focused on individuals (Beck, 1953; Hermans, 1988). Another issue for the clinician lies in the selection of assessment methods that allow for the identification of meaningful dimensions of psychological functioning, for the purpose of informing intervention. This objective requires that assessment methods not only be reliable and valid, but also have a strong foundation in theory. While several approaches may meet these criteria, projective techniques have a particular tradition of providing conceptually-rich, ideographically-relevant information of use for clinicians, while also emphasizing the importance of a sound empirical foundation to assessment (Aronow et al., 1995; Viglione & Rivera, 2003; Mihura et al., 2013).

One of the most fruitful areas of research and practice for projective assessment lies in the appraisal of interpersonal relatedness, as a concept stemming from object relations and attachment theory (Fishler et al., 1990; Strieker & Gooen-Piels, 2004; Urist, 1977). For children specifically, work by Lerner (1996), Coonerty (1986), Kwawer (1979), and Tuber (1989) highlighted the use of Rorschach data as a source of information on children's level of differentiation between representations of self and object. Of note, these contributions all occurred in a time period ranging from the late 1970s to the mid-1990s, coinciding with a recrudescence of interest in the contribution of psychodynamically-oriented psychological assessment for the identification and clinical management of the so-called "borderline syndromes." In a review of empirical work validating the Rorschach Mutuality of Autonomy (MOA; Ryan, Avery, & Grolnick, 1985; Urist, 1977) scale applied to children, Tuber (1989) reported strong evidence supporting the scale's construct as well as predictive validity with a range of clinical samples. The MOA is a seven-item scale with levels representing a continuum between responses describing a complete imbalance in relationships to responses characterized by a relative autonomy and reciprocity between objects. The scale has received a fair amount of attention from researchers and is considered a reliable and valid assessment of object relations in clinical populations (Bombel et al., 2009).

Efforts at developing Rorschach indices of the quality of object representations also include methodologies developed by Coonerty (1986), Ipp (1986), and Kwawer (1979).

Coonerty's scale is intended to cover the entire spectrum of Mahler's description of the stages of separation-individuation, as reflected in Rorschach material. Thus, responses lacking boundaries may refer to the pre-separation phase, those involving merging or transformation to the differentiating subphase of separation, those depicting themes of mirroring or similarity to the practicing subphase, and responses indicating struggle or ambivalence to the rapprochement stage of separation. The Separation-Individuation Scale (SIS) has shown good inter-rater reliability as well as a capacity to discriminate between diagnostic groups (e.g., borderline versus schizophrenic) in theoretically consistent ways (Coonerty, 1986; Parmer, 1991). The scale was also useful in predicting treatment dropout in a group of borderline patients (Horner & Diamond, 1996). While promising, to date the SIS has not been researched with children in a clinical setting, so its properties with this population are not well-established. Conceptually close is the work of Ipp (1986), who developed the Developmental Object Relation Scale (DORS) to assess properties of object representations in children. The scale includes the categories of Autonomy, Dependency, False Autonomy, Rapprochement, Differentiation, Symbiosis, and Catastrophic Disintegration. Using hers and other indices applied to Rorschach content, the author was able to find several differences between boys identified as having cross-gender disturbance, their non-disturbed siblings, and a control group. Although the DORS is of obvious relevance for younger populations, no other evidence exists regarding its reliability and validity.

An alternative framework to assess primitive modes of relating based on Mahler's framework was developed by Kwawer (1979). The framework consists of 10 content "markers" representing developmental struggles associated with the separation-individuation process. Rorschach responses can thus be scored in the categories of engulfment, symbiotic merging, violent symbiosis, birth and rebirth, malignant internal processes, metamorphosis and transformation, narcissistic mirroring, separation and division, boundary disturbance, and womb imagery. While not constructed as a "scale", the scheme was originally intended to help clinicians and researchers identify manifestations of borderline dynamics in Rorschach data. Compared with the scales described above, Kwawer's framework appears better suited for identifying qualitatively distinct aspects of the struggle around separation and individuation in individuals organized at the borderline or psychotic level. There is, however, little guidance as to how to use the indicators in actual practice. For instance, while one familiar with separation-individuation as a theory may easily discern some developmental hierarchy between the markers (for instance, narcissistic mirroring being more developmentally advanced than engulfment), such arrangement is not explicitly described in the literature pertaining to the scale. Perhaps in part for this reason, there has been a dearth of published empirical research using Kwawer's assessment scheme, including with children and adolescents, aside from a few case studies (Gacono & Meloy, 1994; Kwawer, 1979; Kwawer, 1980).

The study presented in this paper aims to document the convergent validity of two developmental theory-based frameworks, Ipp's DORS and Kwawer's markers for primitive object relations (POR), applied to Rorschach data in a sample of children and adolescents from an outpatient clinical setting. For this purpose, a profile-based, typological approach was first used to uncover the latent structure underlying each scale. A profile-based approach is particularly useful in situations where content markers may represent inter-related facets of a latent construct which is qualitative in nature (Robins & Tracy, 2003). This approach is consistent with theory adopting a structural approach to personality development which suggest that mental processes, including patterns of relatedness, are internally organized (Bergeret, 1974;

Kernberg, 1988). The clinical-developmental tradition of conceptualizing attachment (Ainsworth et al., 1972; George & West, 1999), for instance, exemplifies this approach. The choice of the DORS and POR scales for the current study rests on the assumption that they tap into different developmental constructs, and thus provide complementary information of relevance to the clinician. The DORS situates Rorschach material across a broad spectrum of interpersonal relatedness ranging from autonomy and reciprocity to lack of basic differentiation and boundaries. In comparison, the POR scale emphasizes a detailed, refined assessment of primitive object relations. Both approaches are potentially useful for the psychological assessment of children in foster care, in that the DORS can provide knowledge on the overall maturity of internal object representations, including potential for balance, flexibility, and reciprocity in relationships, whereas the POR can inform on specific representations underlying maladaptive behavior patterns.

The validity for the solutions extracted from the DORS and POR was investigated by looking at associations with established, well-validated measures of attachment patterns, as well as indicators of abuse and behavior problems. The relevance of attachment in this context lies in its established validity as a mediator of the link between adverse experiences and subsequent psychosocial outcomes (Cloitre et al., 2008; Finger et al., 2015; Joubert et al., 2012). It was thus hypothesized that profiles characterized by lower developmental level on the DORS and more primitive content on the POR would show significant associations with insecure attachment, particularly patterns involving enmeshment or disorganization (C/E and D/U), multiple types of abuse, and behavior problems of both types (internalizing and externalizing).

Method

Participants. The study included 108 children aged 7 to 14 years old (*M*=10.9, *SD*=3.2) and their primary caregiver. Since all children were currently in foster care or group home, an assigned caregiver took part in the study. Reasons for removal from the biological parent(s) involved documented instances of neglect (*n*=72, 66.7%), physical abuse (*n*=7, 6.5%) or sexual abuse (*n*=2, 1.9%). Multiple forms of maltreatment accounted for 22.8% (*n*=24) of cases. Information on reasons for removal was not available for 3 participants. Age at removal varied greatly, ranging from 4 months to 13 years old (*M*=5.8 years, *SD*=3.9). The average number of placements was 3.1 (*SD*=2.1), and the length of current placement ranged from 1 month to 13.1 years (*M*=20.1 months, *SD*=28.7). Participants included 51 (47.2%) boys and 57 (52.8%) girls. The sample was ethnically diverse, with children from African-American (*n*=55, 50.9%), Caucasian (*n*=30, 27.8%), Hispanic (*n*=11, 10.2%) and mixed *(n*=12, 11.1%) backgrounds. The primary analyses were conducted on a subset of 71 (65.7%) subjects with complete data, including Rorschach and attachment protocols as well as completed BASC-2 questionnaires.

Measures. The projective assessment of object representations was conducted using Kwawer's (1979) and Ipp's (1986) list of content markers applied to Rorschach stimuli. From an interpretive standpoint, two broad traditions exist in Rorschach research and practice. The first is exemplified by the development of Exner's (1993) Comprehensive System, and subsequently by the Rorschach Performance Assessment System (Meyer & Eblin, 2012), and is characterized by the systematic codification of various aspects of the subject's percepts, as well as by the use of statistical norms to derive scores and indices on which the interpretation is based. The second tradition relies on theory-based interpretive systems that emphasize the "projective" components of the method and aims at developing an understanding of the individual based on theoretically-relevant content and themes in the protocol (Aronow et al., 1995). The list of markers developed

by Ipp and Kwawer clearly reflects the latter tradition. Coding for both Rorschach scales was done by the first author. Blind coding was conducted on a subset of the sample (n=30/71; 42.3%) by a trained research assistant. Intraclass correlation coefficients for the individual indicators ranged from .71 to .96 (all <.001).

Attachment patterns for children and adolescents were assessed using methodology developed by George and colleagues (Solomon, George, & DeJong, 1995; George & West, 2012). The Adult Attachment Projective Picture System (AAP) is an apperceptive assessment method designed to elicit attachment representations using a set of pictures depicting child or adult figures, alone or in dyads. The method can be used with adolescents and adults and research supports its reliability and validity with these populations (George & West, 2012). The Attachment Doll Play Procedure (ADPP) is used with children from early latency to roughly 12 years of age. The procedure involves a sequence of three attachment-relevant scenarios which the child must play out using various accessories, including human figurines, pets, household, and food items. Several studies have documented the reliability and validity of this method (Bureau & Moss, 2010; Dubois-Comtois et al., 2011; George & Solomon, 2016). Both the AAP and ADPP provide a four-group attachment classification based on salient elements of the individual's internal working models, such as defensive exclusion and quality of integration of attachment thoughts and emotional experiences. Both methods therefore provide information that is congruent with formulations of attachment in the clinical-developmental tradition (Bowlby, 1969/1982; Fonagy, 2018). Attachment classifications include the following categories: A/Ds (Insecure Avoidant/Dismissing), B/F (Secure/Autonomous), C/E (Insecure Ambivalent/Preoccupied) and D/U (Disorganized/Unresolved). Descriptions for each pattern can be found in Daniel (2006) and Main, Hesse, & Kaplan (2005). All attachment protocols were coded by the second author. For this study, inter-rater agreement for the ADPP on the entire sample was done with Carol George, who blind-coded 14 (21.9%) of the protocols. The agreement between the raters was 92.9%, κ=.89, <.001. For adolescents, 22 (50.0%) of the AAP protocols were coded separately by both authors, with an agreement of 81.8% (18/22; κ=.76, <.001) in the attachment classification.

Problem behaviors were assessed using the clinical scales of the Parent (PRS) and Self-Report (SRP) versions of the *Behavior Assessment System for Children - 2nd Edition* (BASC-2; Reynolds & Kamphaus, 2002). The BASC-2 is a widely used and well-validated instrument for the clinical assessment of children's personality and behavior problems. For this study, composite scales for the parent-rated version representing internalizing and externalizing as well as adaptive problems were used. For the self-report version, composite scales representing internalizing problems and adaptive problems were used.

Procedures. Participants and their caregivers were recruited at a community mental health clinic where they were referred for assessment and outpatient psychotherapy following placement or difficulties experienced in group home or foster care. In a majority of cases, the purpose of the assessment was to assist in making recommendations for subsequent placement, intervention, or for diagnostic clarification. The primary caregiver was approached first for participation in the study and was provided with an opportunity to ask questions. Following the provision of informed consent by the caregiver, verbal consent was then obtained from the child prior to data collection. All assessments were performed by the second author.

*Data analysis***.** The latent structure of the POR and DORS scales was investigated using a two-step procedure in order to account for substantial deviations from the normal distribution in

the indicators as well as small sample size. Due to high skewness, variables were categorized into two (0/1) or three (0/1/2+) levels. Womb Imagery and Catastrophic Disintegration for the POR and DORS scales, respectively, were not considered due to insufficient frequency of occurrence (<3) in the sample. The two-step process first involved conducting a clustering of variables for both POR and DORS separately using the *ClustofVar* package (Chavent et al., 2012). Next, *tau* coefficients were extracted to represent the degree of fit for each case with the clusters. These values were used as variables to examine associations with relevant outcomes using non-parametric Kruskal-Wallis tests or Spearman correlations. All analyses were conducted in *R 4.0.0* (R Core Team, 2020) and *jamovi* (The jamovi Project, 2020).

Results

Latent structure analysis for Rorschach indicators. Descriptive analyses for the indicators are presented in Table 1. Observed frequencies suggest that for the POR scale, responses involving boundary disturbances and violent separation or reunion were the most often produced by participants in this sample (approximately 40% and 30%, respectively). Values for the DORS scale were less skewed towards zero, which is expected since the scale is more general than the POR. Responses most frequently observed in the sample included those describing themes of autonomy (62%) and rapprochement (54.9%), as well as themes of differentiation and symbiosis (both 39.4%).

Table 1

Descriptive Statistics for Rorschach Indicators (n=71)

Variable	**Frequencies**		
	0	1	> 1
POR			
Engulfment	63 (88.7%)	8 (11.3%)	
Symbiotic Merging	63 (88.7%)	8 (11.3%)	
Violent Separation/Reunion	50 (70.4%)	16 (22.5%)	5 (7%)
Malignant Internal Process	65 (91.5%)	6 (8.4%)	
Birth-Rebirth	64 (90.14%)	7 (9.9%)	
Metamorphosis-Transformation	67 (94.4%)	4 (5.6%)	
Narcissistic Mirroring	62 (87.3%)	9 (12.7%)	
Separation-Division	63 (88.7%)	8 (11.3%)	
Boundary Disturbance	42 (59.2%)	19 (26.8%)	10 (14.1%)
DORS			
Autonomy	27 (38.0%)	18 (25.4%)	26 (36.6%)
Dependency	47 (66.2%)	20 (28.2%)	4 (5.6%)
False Autonomy	46 (64.8%)	21 (29.6%)	4 (5.6%)
Rapprochement	32 (45.1%)	26 (36.6%)	13(18.3%)
Differentiation	43 (60.6%)	15 (21.1%)	13 (18.3%)
Symbiosis	43 (60.6%)	21 (29.6%)	7 (9.9%)

For the POR indicators, the clustering procedure produced a three-cluster solution on the basis of the dendrogram. Cluster 1 included three variables, namely boundary disturbance (r^2=.67), violent separation and reunion (r^2 =.61) and metamorphosis-transformation (r^2=.39), although the latter was less strongly related to the synthetic variable. Responses depicting themes of birth-rebirth showed a weak loading on this cluster (r^2 =.18). This cluster was thus primarily defined by responses in which self-boundaries are shifting or experienced as fluid, which may require defensive movements. Cluster 2 included responses describing themes of mirroring (r^2=.43), symbiotic merging (r^2=.42), and engulfment (r^2=.41), these indicators reflecting of process of absorption, either self-directed or threatened by an external object. The third cluster included themes of separation or division (r^2=.61) and malignant internal processes (r^2=.61), possibly reflecting a more basic preoccupation with self-integrity, including at the somatic level. No association between cluster fit and sex or number of responses on the Rorschach was observed. Fit with cluster 1 was negatively and moderately associated with age, ρ=-.32, p<.01. Furthermore, all three clusters showed reliable associations with Lambda: ρ=-.25, p<.05 (Cluster 1); ρ=-.25, p<.05 (Cluster 2); ρ=-.37, p=.001 (Cluster 3).

For the DORS, a three-cluster solution was obtained, each cluster including two indicators. Cluster 1 was defined by indicators describing autonomy (r^2=.67) and rapprochement (r^2=.67), which may depict relational ambitendency (proximity-seeking vs relative autonomy). Cluster 2 includes themes of false autonomy (r^2=.63) and dependency (r^2=.67), which possibly highlight a duality between dependency and counter-dependency. Cluster 3 includes indicators of differentiation (r^2=.68) and symbiosis (r^2=.68), thus suggesting a lower developmental level. No associations were found between cluster fit and sex, age, or number of responses. However, fit with cluster 3 was inversely associated with Lambda, this link being moderate in size, ρ=-.44, p<.001.

Associations with abuse, attachment and behavior problems. Associations between cluster scores and type of abuse, attachment organization, and behavior problems are presented in tables 2, 3, and 4 respectively. No association was found between cluster membership for both the POR and DORS and type of abuse. Regarding attachment organization, individuals assessed as Avoidant/Dismissing or Ambivalent/Preoccupied showed a significantly greater degree of fit with cluster 3 of the POR compared to their securely-attached counterparts. This difference was moderate in size and highly significant. In addition, individuals assessed as Disorganized/Unresolved tended to show higher degree of fit with cluster 2 of the POR than those in the organized categories, although this difference was only marginally significant.

Table 2.

Non-parametric comparisons: Cluster score by type of abuse (n=71).

Variable	**Type of abuse**				
	Neglect (n=48)	Physical (n=16)	Sexual (n=7)	*H*	ε^2
	Median	Median	Median		
POR					
Cluster 1	.04	.16	.07	0.71	0.01
Cluster 2	.19	.69	.19	0.98	0.01
Cluster 3	.94	.59	.66	0.81	0.01
DORS					
Cluster 1	.27	.30	.85	2.54	0.04
Cluster 2	.31	.18	.06	1.62	0.02
Cluster 3	.15	.19	.08	0.45	0.01

Table 3.

Non-parametric comparisons: Cluster score by attachment organization (n=71).

Variable	Attachment organization				H	ε^2
	A/Ds (n=11)	B/F (n=14)	C/E (n=31)	D/U (n=15)		
	Median	Median	Median	Median		
POR						
Cluster 1	.04a	.24a	.06a	.18a	6.07	0.09
Cluster 2	.02a	.02a	.02a	.22a	6.41†	0.09
Cluster 3	.94a	.05b	.89a	.42ab	10.87**	0.16
DORS						
Cluster 1	.20a	.32a	.29a	.23a	2.26	0.03
Cluster 2	.29a	.29a	.17a	.31a	0.64	0.01
Cluster 3	.16a	.09a	.09a	.19a	3.53	0.05

Note. Coefficients followed by distinct letters are statistically different at $p<.05$

† $p<.10$ ** $p<.01$

Several significant associations were found between clusters and indicators of behavior problems. For internalizing problems as reported by the parent, responses involving autonomy or rapprochement in interactions (cluster 1 of the DORS) were negatively associated with this problem, whereas self-reported internalizing problems were positively associated with themes of false autonomy and dependency (cluster 2, DORS). Responses indicating separation-division or malignant internal processes on the POR (cluster 1) were negatively related to externalizing problems. In addition, issues with adaptive behavior, both parent- and self-reported, were associated with themes of false autonomy and dependency on the DORS. Self-reported adaptive problems were also related to responses on the POR indicating themes of boundary disturbance, violence separation or reunion or, secondarily, metamorphosis-transformation.

Table 4.

Bivariate non-parametric correlations: Probability of cluster assignment and behavior problems (n=71)

	POR			DORS		
	Cluster 1	Cluster 2	Cluster 3	Cluster 1	Cluster 2	Cluster 3
PRS						
Internalizing	-.04	-.06	.09	-.24*	-.09	.17
Externalizing	.24*	-.07	-.23†	.06	.15	.19
Adaptive	.12	.05	.04	-.17	.22†	.08
SRP						
Internalizing	.06	.07	.04	-.18	.25*	.05
Adaptive	.24*	.00	.19	-.19	.23†	.05

† p<.10 * p<.05

Discussion

The current study was intended to examine the validity of two measures of interpersonal relatedness on the Rorschach, Kwawer's (1979) Primitive Object Relations scheme and Ipp's (1986) Developmental Object Relations Scale, for assessing psychological and social functioning in children placed in foster care. Both measures have only received limited attention from researchers to date.

It was hypothesized that greater levels of primitive content on the POR and lower level of maturity on the DORS would be associated with more extensive history of abuse, patterns of attachment characterized by more lability, enmeshment, and dysregulation, and greater levels of behavior problems in general. Results provide some support for these hypotheses. The latent structure for both the POR and DORS included three clusters which uncovered theoretically-relevant dimensions, although they did not necessarily highlight a clear developmental progression. For the POR, clusters extracted appeared to reflect themes of vulnerability of self boundaries, absorption and preoccupation with integrity of the self. These dimensions seem congruent with salient aspects of primitive object relations as portrayed in literature on borderline and pre-psychotic or psychotic organizations (Acklin, 1992, 1993; McWilliams, 2011). They also suggest an underlying qualitative organization to the markers originally identified by Kwawer (1979). In the case of the DORS, three clusters were identified, each including two indicators, and highlighted a qualitative rather than quantitative organization between the indicators for this scale. The clusters were respectively characterized by responses

indicating conflicts between proximity-seeking vs distancing, dependency vs counter-dependency and, at a more basic level, maintenance vs dissolution of self-other boundaries. Such a latent structure suggests that using this scale to locate responses along a developmental continuum and associated statistical procedures such as computing mean or median score, may yield misleading information.

While clusters for both scales were not associated with profiles of abuse as documented in the files, indices of cluster membership at the individual level on the POR shared medium-sized associations with attachment organization. Specifically, individuals classified as Secure/Autonomous with respect to attachment were much less likely to belong to cluster 3 (preoccupation with self-integrity) than their organized insecure (A/Ds or C/E) peers. Those classified as Disorganized/Unresolved, by contrast, were more likely to belong to cluster 2 (absorption) of the POR compared to their peers, although this result did not quite reach statistical significance. This is congruent with the hypothesis that attachment organizations featuring more relational enmeshment (C/E) or brittle forms of adjustment prone to dysregulation (D/U) are expected to produce more primitive content in the context of projective assessment. However, the finding that individuals classified as Avoidant/Dismissing (A/Ds) show a high probability of producing responses consistent with preoccupation with basic self-integrity (i.e., separation-division or malignant internal process) is somewhat unexpected. This result seems to be consistent with recent research suggesting that avoidance relative to attachment-related thoughts and feelings may partially account for the links between adverse experiences with early caregivers and characteristics congruent with a psychotic personality structure, such as paranoid and schizoid traits (Sheinbaum et al., 2015). Future research using larger samples could further expand the understanding of the links between different forms of attachment insecurity and primitive relational processes. One possible implication of the present findings is that the type of maltreatment experienced may not be as significant a factor as the disruption in normal attachment processes that occur in relation with the abuse.

In terms of behavioral problems, distinct patterns of associations were observed for the POR and DORS. Internalizing problems were positively associated with cluster 2 (false autonomy/dependency) but negatively associated with cluster 1 (autonomy/rapprochement) of the DORS. By contrast, externalizing problems were positively associated with cluster 1 (vulnerability of self boundaries) and negatively with cluster 3 (preoccupation with self-integrity) of the POR. These results may suggest that internalizing problems in children having experienced maltreatment are associated with a higher level of developmental conflict featuring needs for dependency vs attempts at establishing a sense of mastery and autonomy. Presumably then, symptoms of depression or anxiety may appear when this conflict is experienced as unsolvable, perhaps as a function of perceived harshness or lack of warmth in parental figures (van der Sluis et al., 2015). On the other hand, overt conduct problems in this population could be linked to more archaic relational dynamics in which the primary concern is to protect self-other boundaries that are perceived to be under threat (Yakeley & Meloy, 2012). Finally, cluster 1 (vulnerability of self boundaries) of the POR as well as cluster 2 (false autonomy/dependency) of the DORS were positively associated with adaptive problems. This association makes sense in that difficulties adjusting to, and meeting the demands of, the social environment could be hampered by a need to protect oneself against threats on the outside, or a struggle focused on unmet needs for dependency. These associations may point to relevant therapeutic goals for this

population, including the successful resolution of the developmental conflict around dependency needs and defenses against such needs in sub-optimal caregiving situations.

Results described above appear to support the use of developmentally-based scales in the assessment of children and adolescents in foster care. However, the research design used suffers from methodological limitations which compromise the generalization of findings. Most importantly, the use of a small convenience sample creates uncertainty in determining the extent to which the findings are valid for the broader population of maltreated children and adolescents. Furthermore, in the case of both scales the latent organization of responses does not appear to be independent from structural Rorschach indicators, namely Lambda. This variable is often conceptualized as a rough indicator of general constriction and perceptual sensitivity (Exner, 1993), and is itself related to other psychological variables such as capacity for cognitive complexity (Wood et al., 2003). It is therefore difficult to say if the associations observed between the clusters and the outcomes primarily have to do with internal representations of self and others in relationships or whether other psychological variables might be involved as well. In this context, it is worth noting that the three clusters for the POR and cluster 3 of the DORS (maintenance vs dissolution of boundaries) were all negatively associated with Lambda but not with productivity (*R*). It could thus be that defensive constriction in the response process may reduce the probability of producing more primitive or archaic type of content in the protocols. This may indeed be the function of Lambda in this population, so as to avoid disruption at the behavioral, cognitive, or affective level (Ephraim, 2002). This interpretation of the findings should be considered in future replication efforts, in order to validate its significance. Another limitation lies in the flawed and imprecise nature of the construct of "maltreatment" as operationalized in the current study. Abuse and maltreatment from caregivers can occur in multiple ways and correspond to a process rather than a clearly defined, stable state. For instance, some instances of abuse can be subtle and persist for a considerable period of time, whereas others can be overt and episodic in nature. The rough categorization that was used in the analyses presented here may conceal important differences between patterns of abuse. Future research should make use of more refined conceptualizations of child maltreatment so as to better capture associations with relevant outcomes.

The current study was intended to examine associations between developmentally-relevant indicators on the Rorschach, maltreatment profile, attachment organizations, and behavior problems in a sample of children and adolescents in foster care. Results suggest that both Rorschach scales capture qualitatively distinct dimensions of relating. As expected, the POR scale provides a more refined assessment of primitive object representations, which show differential patterns of associations with attachment insecurity or disorganization, as well as externalizing behavior. By contrast, the DORS scale covers a broader range of relational phenomena going from relatively mature (cluster 1: proximity-seeking vs distancing) to relatively primitive (cluster 3: maintenance vs dissolution of boundaries). However, the cluster solution obtained for the DORS suggests antagonism between the components, which suggests that the scale may be particularly useful in highlighting intrapsychic conflict around developmental challenges. These conflicts may contribute to the development or maintenance of behavior problems but may also decrease their likelihood, depending on how they are managed by the youth and the environment. It is therefore proposed that future research further documents the incremental validity of developmentally-based projective data in better informing clinical decision-making.

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