A Rorschach Assessment of Children's Mutuality of Autonomy

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Abstract: Explored the construct validity of the Mutuality of Autonomy Scale (Urist, 1977), which assesses the developmental level of object relations based upon Rorschach percepts, within a nonclinical child population. Mutuality of Autonomy was found to be related to teacher ratings of interpersonal functioning in the classroom, and to academic grades but not to either standardized achievement or intelligence. In addition, the Mutuality of Autonomy Scale demonstrated predicted correlations with children's perceived control. Children with developmentally lower object relations scores were more likely to perceive "powerful others" or "unknown" sources as controlling outcomes, particularly within the social domain. The results are discussed in terms of the utility of the Mutuality of Autonomy Scale, and the significance of object relations for personality functioning.

Object relations theories have become an increasingly prominent force in psychoanalytic, and more broadly, personality psychologies. Although various theorists in this area differ widely in both terminology and style, they share a common recognition of the crucial impact that early object relations have upon subsequent personality organization and development (Fairbairn, 1954; Guntrip, 1961; Jacobson, 1964; Winnicott, 1965). Early patterns in the experience of self and others are considered to be the foundations upon which the current intrapsychic and interpersonal modes of functioning of the individual are constructed, and thus have wide-ranging implications for understanding individual differences and psychopathology.

The process through which early interpersonal experiences come to be reflected in personality organization is conceptualized by several theorists as one of *internalization* (Blatt, Wild, & Ritzler, 1976; Meissner, 1981; Schafer, 1968). According to these formulations the child's ongoing transactions with others are internalized in the form of self and object representations (Kernberg, 1976). The concept of object representations serves theoretically to describe the cognitive and affective schemata that organize and direct interpersonal perception and action.

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Since object representations are hypothetical constructs assumed to lie behind various cognitive and behavioral manipulations of the subject they cannot be directly assessed. However, since they theoretically play an organizing role in perception and action they can be indirectly identified and measured by examining the way in which an individual organizes and interprets relatively ambiguous stimuli or situations. In such circumstances where external determinants of meaning are minimized, presumably personality variables such as object representations can exert their maximal influence (McClelland, 1980; Ryan, & Grolnick, 1984). Such a circumstance is provided by projective techniques, and the Rorschach in particular (Abt, 1952). Accordingly, a number of Rorschach scales of object representations have recently emerged (Blatt, Brennis, Schimek, & Glick, 1976; Krohn & Mayman, 1974; Urist, 1977) in which the structure and content of responses are rated to tap the "representational world" or object schemata of the subject.

In the present study we employed the Urist (1977) Mutuality of Autonomy Scale (MAS), which involves ratings of animate movement percepts on the Rorschach. The scale is based upon the assumption that the manner in which relationships between animate figures on the Rorschach are portrayed is indica-

tive of the subjects' experience and representation of human relationships. Rorschach responses are rated along a seven-point dimension with each point indexing "significant gradations" in the person's capacity to experience self-other relationships as mutually autonomous. Scale points 1 and 2, the highest levels of object representation, are assigned to responses which depict autonomous figures which are either reciprocally interacting or engaged in parallel activities, respectively. Percepts which depict an absence of autonomy in the interaction, such as one figure leaning on another, or one being merely a reflection or imprint of the other, are given middle scores of three or four. Finally, developmentally lower object representations are assigned 5, 6, and 7 scores. These points apply to percepts which depict not only an absence of mutual autonomy but also increasing lack of differentiation and imbalance of power or control in the relations between figures. These points, then, allow subjects' projections of relationships to be scaled along a developmental continuum of separation-individuation, with a specific emphasis upon the individual and reciprocal autonomy of the interacting figures.

The construct validity of the MAS has received initial support in several studies, where it has been related to clinical ratings (Urist, 1977; Urist & Shill, 1982) and later adjustment patterns of children in treatment (Tuber, 1983). In the present study the scales utility within a nonclinical child population will be examined.

We predicted that MAS scores would be directly related to teachers' ratings of social and interpersonal behavior within the classroom. We reasoned that if object representations play an organizing role in interpersonal interactions then a measure of these representations should correlate with various individual differences in social functioning apparent to teachers. In addition we asked teachers to rate each child on achievement and intelligence. The purpose of these latter ratings was to establish discriminant validity of the teacher observations, since MAS should be associated only with social and interpersonal ratings.

A second focus of the study was to determine the significance of object relations for actual performance in school. Our previous work (Avery & Ryan, 1984; Ryan, Connell, & Deci, in press) as well as that of others (Cooper, Findley, & Good, 1982; Weisz & Stipek, 1982) has suggested that children's grades in school often reflect social and motivational aspects of their behavior which are not reflected in standardized achievement measures. Accordingly, we predicted that developmentally lower MAS scores would be negatively correlated with grades, as well as the aforementioned teacher ratings, but not with standardized measures of achievement. Furthermore, we wanted to assess achievement and grades independently of intelligence, which can be accomplished by regressing these grades and achievement scores on to a standard measure of children's intelligence to obtain an index of relative achievement (IRA) through widely accepted procedures typically used to determine under- and over-achievement (Farquhar & Payne, 1964; Thorndike, 1963).

A final but central interest in this study was the relationship between object representations and perceptions of control. No previous study has related these variables, perhaps because object-representational constructs have typically been embedded in psychodynamic nomological networks while perceived control has more often been associated with behavioral and attributional psychologies. Nonetheless object relations theories suggest that object representations may influence the way in which sources of control within interpersonal interactions are perceived. At developmentally lower levels object representations should be associated with an absence of perceived differentiation between who or what controls outcomes, particularly in the social sphere. There is also an expectable tendency for individuals with less developed object representations to see relationships in terms of power or control rather than as reflect-

ing mutual reciprocity. A newly developed self-report scale for children, the Multidimensional Measure of Children's Perceptions of Control (MMCPC) (Connell, 1984) assesses both these forms of perceived control, namely the extent to which children perceive powerful others as having control over interpersonal outcomes, or alternatively the degree to which the sources of control are simply unknown. We predicted that developmentally lower object relations scores would be associated with greater perceptions that powerful others control outcomes or that sources of control are unknown, particularly within the social domain.

Method

Subjects

One hundred twenty-seven 4-6 grade children completed the MMCPC. Of these equal numbers of children of each sex and grade were randomly selected to participate in the study, for a total of 60 children. All subjects were drawn from an urban elementary school in Rochester, New York, which generally represents low to middle SES levels.

Procedure

Initially all 4-6 grade classrooms were visited by two examiners, one male and one female, and were administered the MMCPC in a single session. This is a self-report measure for 8- 14-year-old children which assesses their understanding of what controls important outcomes in everyday life. We used the MMCPC to assess two sources of control: Powerful Others and Unknown, across three content domains (cognitive, social, and general). The factorial consistency of the measure supports the use of separate subscales from this lengthy survey, and these subscales have demonstrated good internal consistency (Connell, 1984).

From the sample of children who completed the MMCPC, 60 children were randomly selected to obtain the remaining measures. These children were seen individually for one session by an examiner with several years of child testing experience. This examiner was not involved in the MMCPC administration and was blind to children's scores on this measure as well as to their achievement scores and grades. During this session each child received first a short form of the WISC-R and then a standard Rorschach. The short form of the WISC-R consisted of three subscales: Vocabulary, similarities, and block design. This form has previously been shown to correlate .93 with the full WISC-R battery (Sattler, 1982) and thus provides a good estimate of overall IQ. The Rorschach was administered according to standard procedures outlined in Klopfer, Ainsworth, Klopfer, and Holt (1954). From these protocols the MAS was scored by a single rater. One half (30) of these were later randomly selected and scored by a second independent rater to calculate the interrater reliability using percent agreement indices.

The MAS places each animal and human movement percept on a continuous scale from 7 to 1, with higher scores representing less developed, more primitive object representations. Previous studies (e.g., Urist, 1977; Urist & Shill, 1982) have employed several object relations scores derived from the MAS to tap not only the average level of object relations evident within the record. Accordingly we developed three MAS variables: A mean object relations score (M-O-R), the highest (H-O-R) and lowest (L-O-R) scores within the record. Following the Rorschach, each child was given crayons and paper and asked to draw themselves. Subsequently the procedures were explained, and the child's questions answered before they were escorted back to the classroom.

Approximately one month following the completion of all testing, teachers were asked to complete child rating forms containing six dimensions. Each dimension was assessed by several items which were later averaged after they were assessed for internal reliability. The item format consisted of a four-point rating scale ranging from "not at all" like the descriptor to "a lot like" the descriptor. The six dimensions assessed

were a) achivement, b) intelligence, c) attention in the classroom, d) overall social adjustment, e) self-esteem, and f) how well the student works with others.

At the end of the school year the record of the most recent standardized achievement test, and that year's academis grades was assessed. The standardized achievement measure was the Metropolitan Achievement Tests (MAT), 1978 edition, a widely used scale which assesses a range of competencies taught in traditional school curricula (Wingard & Bentler, 1978). School grades were also obtained but only grades from academic subjects were considered. This variable thus consisted of the average of fall and spring semester grades for Reading, Language Arts, Mathematics and Social Studies. Grades in their letter form ranged from A to E, and were numerically coded such that A = 12, A− = 11, B+ = 10... E = 1.

To obtain the index of relative achievement (IRA) i.e., achievement scores and grades independent of the variance due to IQ, a procedure based upon the Regression Model Selection (RMS) method was employed (Farquhar & Payne, 1964). The IRA was operationalized as follows: scores derived from the two types of achievement measures (i.e., grades and MAT) were regressed upon aptitude scores, separately by sex for the 60 subjects. The IRA was then represented by the assignment of residual scores for the two regressions to each subject.

Results

Preliminary Analyses

Interrater reliability was assessed by comparing the MAS ratings of two independent raters on 30 randomly drawn protocols. Reliability was calculated as the percentage of exact agreement and the percentage of agreement within 1 scale point, and was 90% and 98%, respectively. These results suggest substantial interrater reliability.

In order to evaluate possible sex differences on the MAS a one-way analysis of variance was obtained on all three MAS variables. No sex differences emerged, although there was a nonsignificant trend indicating that girls tended towards higher H-O-R scores than boys ($F(1,29) = 2.30$, $p < .14$). Data were collapsed across sex for subsequent analyses.

Table 1
Correlations of MAS Scores and Teacher Ratings of Interpersonal and Classroom Adjustment

Teacher Ratings	MAS		
	M-O-R	H-O-R	L-O-R
Social Adjustment	−24*	−.10	−23*
Self-Esteem	−26**	.18	−26**
Works Well with Others	−33**	−20	−30**
Attention	−30**	−20	−22*
Achievement	−17	−15	−15
Intelligence	−07	+06	−12

* $p < .10$.
** $p < .05$.

Classroom and Interpersonal Functioning

Classroom teachers rated the children who participated in the study on several dimensions of classroom and interpersonal functioning. These ratings were then correlated with MAS scores. As depicted in Table 1, these correlations supported the major hypotheses. Lower mean MAS was significantly related to teacher rated self-esteem, classroom attention, and working well with others, was marginally ($p < .06$) associated with social adjustment. A similar pattern emerged for the L-O-R variable. Teacher ratings of student achievement and intelligence were not significantly correlated with MAS scores, indicating that object relations scores were associated primarily with nonintellective aspects of child adjustment.

Achievement, Intelligence, and Grades

It was predicted that MAS would be related to grades but not to other performance variables. Table 2 contains the

Table 2
Correlations of MAS Scores with WISC-R, Metropolitan Achievement Test (MAT), Academic Grades, and the Indices of Relative Grades (IRAGRADE) and Achievement (IRACH)

	MAS		
	M-O-R	H-O-R	L-O-R
WISC-R	06	17	−11
MAT	−01	−09	04
GRADES	−28**	−26**	−11
IRAGRADES	−32**	−34**	−09
IRAACH	−04	−22*	13

* $p < .10$.
** $p < .05$.

correlations of MAS with these school-related performance variables and IQ. No relationship between MAS and WISC-R was in evidence. Significant relationships were obtained only between MAS scores and both grades and the index of relative grades (IRAGRADE) where the variance attributable to IQ was removed. A nonpredicted, marginal relationship did emerge between relative achievement and H-O-R ($p < .07$), indicating that children with the highest extreme scores on the MAS tended towards lower relative achievement.

Perceived Control

Children with less developed MAS (higher scores) were expected to report greater perceived control by powerful others and unknown sources, particularly in the social sphere. Table 3 displays the correlations between MAS scores and the perceived control variables for the social, cognitive (school-related) and general subscales of the MMCPC.

As predicted, higher M-O-R was associated with greater perceived powerful others and unknown sources of control within the social domain. M-O-R was also significantly related to perceptions of unknown control in the cognitive domain, and marginally with powerful others for the general subscale. H-O-R evidenced a significant correlation with unknown control in the social domain, but was unrelated to the remaining variables. L-O-R was marginally ($p < .08$) related to powerful others control in the cognitive domain.

Table 3
Correlations of MAS Series with Powerful Other and Unknown Control Subscales of the Multidimensional Measure of Children's Perceptions of Control (MMCPC)

	MAS		
	M-O-R	H-O-R	L-O-R
Powerful Others-Cognitive	.21	−.02	.23*
Powerful Others-Social	.32**	18	.14
Powerful Others-General	.23*	17	.17
Unknown-Cognitive	.29**	.21	.07
Unknown-Social	.35***	.26**	.21
Unknown-General	.21	12	.02

* $p < .10$. ** $p < .05$. *** $p < .01$.

Discussion

The purpose of the current investigation was to explore the predictive validity of the Mutuality of Autonomy Scale, in particular, and more generally to further explicate the significance of object representations for personality structure and functioning. The first of these goals was met by the demonstration that within an elementary school age, nonclinical population individual differences on the MAS were significantly related to teacher perceptions of social and classroom adjustment. Children with more mature object representations were perceived by teachers as being more socially adjusted, displaying better attention, having higher self-esteem, and as working better with others. Discriminant validity for these teacher ratings was supported by the fact that the MAS was unrelated to the teachers' ratings of intelligence and achievement. It thus appears that the MAS scale specifically addresses aspects of social functioning,

and that object representations are related to enduring patterns of interpersonal behavior.

MAS scores were also predicted and found to be correlated with students' grades, but not with achievement per se. This relationship was obtained for both absolute measures of grades and achievement, and relative indices which controlled for the role of intelligence. These results support our reasoning that classroom grades often reflect nonintellective aspects of child functioning in accord with the socializing role and concerns that teachers share (Ryan, Connell, & Deci, in press). This data also speaks to the potential influence that current patterns of object relations can have upon children's school-related outcomes.

Children with less developed MAS scores were also found to be more likely to perceive either powerful others or unknown sources as controlling outcomes, particularly within the social sphere. This finding is congruent with object relations theories, which hold that either excessively controlling or inconsistent objects result in more primitive internalized object representations. Our current findings suggest that such circumstances may set the stage for enduring attributional styles in which others are typically perceived as controlling, or the nature of outcome determination is experienced as unknown and/or unpredictable. However, the specific genetic model for how perceived control and MAS are associated cannot be fully explicated given the correlational nature of the present data.

Finally, the minimal method variance common to the perceived control, object relations and interpersonal rating measures employed in this study is noteworthy. Congruence between self-report, projective and behavioral rating devices suggests meaningful underlying relations. Such findings support the use of multimethod approaches to validation of dynamic constructs which by their abstract nature can only be convergently and indirectly examined.

References

Abt, L. E. (1952). A theory of projective psychology. In L. E. Abt & L. Bellak (Eds.), *Projective psychology.* New York: Alfred A. Knopf.

Avery, R. R., & Ryan, R. M. (1984). *Motivational and emotional indices of under- and over-achievement in school-aged children.* Unpublished manuscript, University of Rochester.

Blatt, S. J., Brennis, C. B., Schimek, & Glick, M. (1976). Normal development and psychopathological impairment of the concept of the object on the Rorschach. *Journal of Abnormal Psychology, 85,* 264-273.

Blatt, S. J., Wild, C. M., & Ritzler, B. A. (1976). Disturbances of object representations in schizophrenia. *Psychoanalysis and Contemporary Science, 4,* 235-288.

Connell, J. P. (1984). *A new multidimensional measure of children's perceptions of control.* Unpublished manuscript, University of Rochester.

Cooper, H., Findley, M., & Good, T. (1982). Relations between student achievement and various indices of teacher expectations. *Journal of Educational Psychology, 74,* 577-579.

Fairbairn, W. R. (1954). *An object relations theory of the personality.* New York: Basic Books.

Farquhar, W. N., & Payne, P. A. (1964). A classification and comparison of techniques used in selecting under- and over-achievers. *Personnel and Guidance Journal, 42,* 874-884.

Guntrip, H. (1961). *Personality structure and human interaction.* London: Hogarth Press.

Jacobson, E. (1964). *The self and the object world.* New York: International Universities Press.

Kernberg, O. (1976). *Object relations theory and clinical psychoanalysis.* New York: Aronson.

Klopfer, B., Ainsworth, M. D., Klopfer, W. G., & Holt, R. R. (1954). *Developments in the Rorschach technique* (Vol. 1). New York: Harcourt, Brace Jovanovich.

Krohn, A., & Mayman, M. (1974). Object representations in dreams and projective tests. *Bulletin of the Menninger Clinic, 38,* 445-466.

McClelland, D. (1980). Motive dispositions: The merits of operant and respondent measures. In L. Wheeler (Ed.), *Review of Personality and Social Psychology.* Beverly Hills, CA: Sage.

Meissner, W. W. (1981). *Internalization in psychoanalysis.* New York: International Universities Press.

Ryan, R. M., Connell, J. P., & Deci, E. L. (In press.) A motivational analysis of self-determination in education. In C. Ames & R. E. Ames (Eds.), *Research on motivation in education: The classroom milieu.* New York: Academic Press.

Ryan, R. M., & Grolnick, W. S. (1984). *Origins and pawns in the classroom: A self-report and projective assessment of children's perceptions.* Unpublished manuscript, University of Rochester (Under Editorial Review).

Sattler, J. M. (1982). *Assessment of children's intelligence and special abilities.* Boston: Allyn and Bacon.

Schafer, R. (1968). *Aspects of internalization.* New York: International Universities Press.

Thorndike, R. L. (1963). *The concepts of over- and under-achievement.* New York: Teachers College Press, Columbia University.

Tuber, S. B. (1983). Children's Rorschach scores as predictors of later adjustment. *Journal of Consulting and Clinical Psychology, 51,* 379-385.

Urist, J. (1977). The Rorschach test and the assessment of object relations. *Journal of Personality Assessment, 41,* 1-9.

Urist, J., & Shill, M. (1982). Validity of the Rorschach Mutuality of Autonomy Scale: A replication using excepted responses. *Journal of Personality Assessment, 46,* 450-454.

Weisz, J. R., & Stipek, D. J. (1982). Competence contingency and the development of perceived control. *Human Development, 25,* 250-281.

Wingard, A., & Bentler, P. M. (1978). A review of the Metropolitan Achievement tests. In O. K. Buros (Ed.), *The eighth mental measurement yearbook* (Volume 2). Highland Park, NJ: The Gryphon Press.

Winnicott, D. W. (1965). *The maturational processes and the facilitating environment.* London: Hogarth Press.

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