

Academic learning problems and Rorschach indices: A re-replication

[Dificultades en el aprendizaje académico e índices del Rorschach: Una nueva réplica]

Carlos Rodríguez Sutil*¹, Pilar Ortiz², Ralph Scott³

^{1,2}Universidad Complutense de Madrid, ¹Centro Integrado de Salud del Distrito de Retiro (Ayuntamiento de Madrid) y

³Department of Educational Psychology and Foundations, University of Northern Iowa^(***)

Abstract: This study compared the Rorschach responses of male children who were and who were not experiencing learning problems. Whith controls exacted on social class, chronological age, and IQ, the responses of 19 pairs of subjects were examined; group differences in perceptual accuracy, self-concept, and reactivity were assessed. Despite some differences being small, responses of children with learning problems were characterized by lower perceptual accuracy and lower self-concept. On the other hand, they obtained a D score significantly lower.

Key words: Learning difficulties, Rorschach, Perceptual Accuracy, Self-concept, Reactivity.

Título: Dificultades en el aprendizaje académico e índices del Rorschach: Una nueva réplica

Resumen: Este estudio compara las respuestas al Rorschach de niños con dificultades de aprendizaje con las de aquellos que no tienen dichas dificultades. Se examinaron las respuestas de 19 sujetos, emparejados con 19 sujetos de control, equiparados en clase social, edad cronológica y CI, examinando las diferencias grupales en exactitud perceptiva, autoconcepto y reactividad. A pesar de que algunas diferencias resultaron escasas, las respuestas de los niños con problemas de aprendizaje se caracterizaban por una exactitud perceptiva inferior y un autoconcepto disminuido. Por otra parte, también obtenían puntuaciones D inferiores.

Palabras clave: Dificultades de Aprendizaje, Rorschach, Exactitud Perceptiva, Auto-concepto, Reactividad.

Introduction

Responding to what has been termed an educational crisis, the educators have introduced a myriad of reforms over the past several decades. Disappointing results of intervention programs may be associated with the tendency of researchers to seek a single model which will serve all children who present learning problems, even though it is clear that academic deficiencies of individual children may be primarily associated with diverse etiologies including psychoneurological, behavioral, social, emotional, maturational, and cultural factors (Paul & Epanchin, 1988, p.91). In seeking to enable vulnerable students to learn more effectively, some clini-

learn more effectively, some clinicians draw upon the psychodynamic rationale (Coppolillo, 1987). When such a strategy is employed, standardized psychological tests are often administered (Sattler, 1988). One of the more common of these tests is the Rorschach (Paul & Epanchin, 1988, p.323), and yet, as Acklin (1990) notes, relatively little empirical knowledge exists concerning whether various Rorschach measures are indeed associated with learning disabilities.

The authors conducted two different researches about this topic, which results are summarized in Table 1 (Harper & Scott, 1990; Rodríguez-Sutil, Calonge & Scott, 1992), with other two previous studies (Acklin, 1990; Champion *et al.*, 1984). In three of the studies (Acklin, 1990; Harper & Scott, 1990; Rodríguez-Sutil *et al.*, 1992) children were identified as learning disabled if they obtained IQs within the Average Classifica-

* **Dirección para correspondencia:** Carlos Rodríguez Sutil, Departamento de Personalidad, Evaluación y Psicología Clínica. Facultad de Psicología. Universidad Complutense de Madrid, Campus de Somosaguas, 28223 Madrid (España)

© Copyright 1995: Secretariado de Publicaciones e Intercambio Científico, Universidad de Murcia, Murcia (España). ISSN: 0212-9728. Artículo recibido: 24-1-95, aceptado: 21-3-95.

tion (or with a pair that has no learning problem and the same IQ), with achievement at least one standard deviation below IQ, in at least one significant academic area. The other study (Champion, Doughtie, Johnson, & McCreary, 1984) identified learning disabled children on the basis of visual, audiological, and neurological screening, as well as a variety of unidentified cognitive and academic

measures. Further, two of the studies (Acklin, 1990; Champion, *et al.*, 1984) relied on Rorschach archival data for nonclinical comparison groups of children based on chronological age (Exner, 1978, 1985). Our studies (Harper & Scott, 1990; Rodríguez-Sutil, Calonge, & Scott, 1992), however, paired learning disabled students on the basis of attendance at similar schools, gender, social class, and IQ.

Table 1: Descriptive statistics on selected Rorschach Indices: Four studies of learning disabled and nonlearning disabled children.

	Acklin (1990)				Champion <i>et al.</i> (1984)				Harper & Scott (1990)+				Rodríguez-Sutil, <i>et al.</i> (1992)+			
	L.D. n = 143: CA 9 to 12		N.I.D. n = 143: CA 9 to 12		L.D. n = 20: CA 11.4		N.I.D. n = 100: CA 11.0		L.D. n = 12: CA 12.6		N.I.D. n = 13: CA 12.8		L.D. n = 15: CA 12.8		N.I.D. n = 15: CA 12.8	
	M	SD	M	SD	M	SD	M	SD	M	SD	M	SD	M	SD	M	SD
N° of Responses	21.6	7.6	20.1	4.4	21.6	6.6	19.7	4.2	24.7	7.7	18.7	8.0	19.7	4.9	29.1	15.3
Lambda	2.26	3.03	.83	.19	1.70	2.10	.89	.17	3.00	2.50	1.40	1.10	2.06	2.28	1.76	1.65
X + %	.52	.15	.82	.10	.56	.15	.83	.09	.26*	.13*	.19*	.07*	.70	.19	.71	.13
F + %	.50	.20	.84	.11	.57	.18	.81	.11	.76+	.28+	.79+	.31+	.62+	.31+	.70+	.17+
Egocentricity	.33	.21	.51	.11	.55	.20	.49	.08	.26	.16	.38	.21	.41	.24	.47	.16
Affective Ratio	.47	.16	.87	.15	.55	.20	.81	.11	.52	.21	.45	.16	.63	.31	.56	.20

* Based on X-responses only

+ FQ+, Fqo, and Fqu combined in computing F + %

CA = Chronological age

As noted in Table 1, the four investigations into Rorschach indices and learning disabilities examined only six indices in common. On five of these items the studies reported that learning disabled children provided more responses than their nonlearning disabled peers, except for the study by Rodríguez-Sutil *et al.* (1992) with Spanish children, indicating greater reactivity, spontaneity, and readiness to respond to ambiguous visual stimuli, and secured higher lambda scores. Lambda is computed by dividing the number of pure form (F) responses by the total number of responses and is considered a measure of conceptual rigidity and cognitive defensiveness. They obtained lower scores on form quality, considered indicative of perceptual accuracy and conventionality as measured by X+% and F+% and obtained a lower egocentricity ratio. This ratio is computed by dividing the sum of the pair responses plus three times the reflection responses of the to-

tal number of responses. It provides an index of self-regard and self-esteem.

On the sixth variable, affective ratio, only our two studies (Harper and Scott, 1990, Rodríguez-Sutil *et al.*, 1992) reported a higher affective ratio with learning disabled children. The other two studies reported that such children obtain lower affective ratios, which is usually interpreted as evidence of constriction in responding to affectively laden stimuli. This ratio is computed by dividing the sum of responses to Cards VIII, IX, and X by the sum of responses to Cards I through VII.

The present investigation is a Spanish replication of the three American studies in which were examined the relationships between the key six Rorschach and learning disability indices.

Methods

The original sample consisted of 294 male children, grades 5 to 6 of one private school (in the previous study it was public) located in the central Madrid, Retiro District. Learning disabled children were identified by a twofold criteria: a) they had obtained bad marks during the last and the present terms, and b) they obtained a score under the mean on a Reading Comprehension Test (group administered). This test is used by the Spanish Educational Ministry to identify the reading progress of students, and consist of two short stories, followed by questions which test student' comprehension skills. Scores on the reading test ranged from 0 to 10, with 10 representing superior skills. For the present group (N = 195) the mean is 7.42 and the standard deviation 1.55.

The first author established matched pairs, with controls on gender (all the subjects were male), chronological age (+- 6 months), parental occupation -following the criteria of the U.S. Bureau of the Census (1970)-, and IQ based on the total IQ obtained on the Spanish version of the Primary Mental Abilities (Thurstone & Thurstone, 1989), paired subjects have the same z score. No subject had a visual deficiency which might have explained perceptual inaccuracies on the basis of sensory deficit.

The final sample included 38 subjects or 19 pairs, the mean chronological age for learning disabled children and for control subject were similar: 11 yr., 4 mo. The mean parental professional level for both groups have a mean of 1.95, with a standard deviation of .57, that is, they were professional or technical workers (level 1), managers, officials, etc. (level 2), or craftsmen and foremen (level 3). Average IQs were 87.73 (S.D.=13.12) and 89.10 (S.D.=12.93), respectively¹. Average score on the Reading Comprehension Test were 5.37 (S.D.= 1.16) for learning

disabled children and 8.47 (S.D.= .77) for the control subjects.

Results

Table 2 summarizes the findings and shows that the groups are diverse: differences in means and large SDs for certain indices. For example, on the Lambda index for both groups the standard deviation is quit similar in magnitude to the mean. Tables 1 and 2 show that, consistent with the three American studies, although some differences are small, Spanish children with learning difficulties had lower F+%, and lower X+%. In the previous research (Rodríguez-Sutil *et al.*, 1992) on one measure, the results were discordant with American investigations: the children with reading problems made fewer responses, whereas in the relevant American studies learning disabled children provided more responses. Present study is concordant with American investigations on this index but shows other inconsistencies, and too with our previous study. For example, Spanish learning disabled children have moderately higher Egocentricity and lower Lambda than their peers. Finally, consistent with one American study of learning disabled children (Harper & Scott, 1990), the Affective Ratio indices of Spanish disabled children were higher than those of their peers.

We also compare the difference between both groups in D score (relationship between EA and es), a score related to stress tolerance and elements of control. As is shown in Table 2, learning disabled children have a significative lower score in this index than nonlearning disabled children.

Discussion/Conclusions

Results indicate that on four of the six indices assessed in this study, scores of the Spanish children with learning problems when compared with those of their peers not experiencing learning problems are consistent with trends unanimously reported with American

1. IQs in this study are lower because we use the total group, 294 subjects, as standard sample.

learning disabled and nonlearning disabled children. The Spanish learning disabled children provided a higher number of responses, lower F+% and X+% percentiles than their peers. On two indices the American studies and findings of this analysis diverge: Spanish learning disabled children have moderately higher Egocentricity and lower Lambda than their peers. This results may indicate that, so-

metimes, a low or a high self-image (Egocentricity) could be problematic for academic achievement.

Consistent with our previous study (Rodríguez-Sutil et al., 1992) and with one American study (Harper & Scott, 1990), the Spanish children with learning problems attained higher mean affective ratios than children without learning problems.

Table 2: Means and standard deviations for learning problematic and nonlearning problematic children.

	Learning		Nonlearning Deficient		t	p
	M	SD	M	SD		
No. of Resp.	23.05	10.15	20.63	11.37	.73	.47
Lambda	2.80	2.22	3.25	3.58	-.52	.61
X + %	.62	.14	.64	.14	-.46	.65
F + %	.54	.20	.55	.18	-.12	.91
Egocentricity	.26	.21	.25	.17	.08	.94
Afr	.59	.23	.53	.11	1.00	.33
D	-.52	.77	-.15	.60	-2.35*	.031

*p = .05

Table 2 shows that, on both X+% and F+%, the differences in means for children with and children without learning problems is small. Further investigations may show that this measures, contingent as they are on questions of perceptual accuracy and conventionality, may be skewed by cultural bias. If so, and as Exner (1974, p.134) has observed, it is probably premature to conduct cross-cultural studies until cultural-specific norms are developed, with respect to X+% and F+% criteria in the determination of perceptual accu-

racy and conventionality. Indeed, Takeuchi and Scott (1986) suggested the need for such norms after observing that Japanese, but not American, children provided frequent responses involving dragons and such elements of nature as the North Wind.

Learning disabled children have a significant lower D score than control subjects, it is a score related to stress tolerance and some elements of control. That could indicate that this children experience a high degree of stress or have less skills to control it.

References

- Acklin, M.W. (1990). Personality dimensions in two types of learning disabled children: a Rorschach study. *Journal of Personality Assessment*, 54, 67-77
- Champion, L., Doughtie, E.B., Johnson, P.J., & McCreary, J.M. (1984). Preliminary investigation into the Rorschach response patterns of children with documented learning disabilities. *Journal of Clinical Psychology*, 40, 329-333.
- Coppolillo, H.P. (1987). *Psychodynamic psychotherapy of children*. Madison, CT: International Universities Press.
- Exner, J.E. (1974-1978). *The Rorschach: A Comprehensive System* (vols. I y II). Nueva York: John Wiley & Sons.
- Exner, J.E. & Weiner, I.B. (1982). *The Rorschach: a comprehensive System* (vol. 3). Nueva York: John Wiley & Sons.
- Harper, G. & Scott, R. (1990). Learning disabilities: an appraisal of Rorschach response patterns. *Psychological Reports*, 67, 691-696.
- Ministerio de Educación y Ciencia (1989). *Informe sobre la evaluación de las Enseñanzas Mínimas del Ciclo Medio de la E.G.B.*. Madrid.
- Paul, J.L., & Epanchin, B.C. (1991). *Educating emotionally disturbed children and youth*. New York: Merrill.
- Rodríguez-Sutil, C., Calonge, I., & Scott, R. (1992). Academic learning problems and Rorschach indices: A Spanish replication. *Perceptual and Motor Skills*, 74, 771-778.

- Sattler, J.M. (1988). *Assessment of children*. San Diego, CA: Jerome M. Sattler.
- Takeuchi, M., & Scott, R. (1986). Educational and Rorschach location responses of preschool Japanese and American children. *Psychology in the Schools*, 23, 368-373
- Thurstone, L.L. y Thurstone, Th.G. (1989). *Aptitudes Mentales Primarias (Primary Mental Abilities)*. Madrid: TEA Ediciones.
- U.S. Bureau of Census (1972). *General Population Characteristics, Final Report P C(1)-B1, United States Summary* Washinton D.C. U.S. Government Printing Office

