

PSYCHOMETRIC PROPERTIES OF THE INTERPERSONAL REJECTION SENSITIVITY SCALE IN A SPANISH SAMPLE: FACTOR STRUCTURE, RELIABILITY AND MEASUREMENT INVARIANCE

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1. INTRODUCTION

The Interpersonal Rejection Sensitivity Scale (IRSS) was developed as a one-dimension scale aimed to measure sensitivity to rejection in interpersonal relationships in general population based on the Interpersonal Acceptance-Rejection Theory (Rohner, 1986). Items are scored on a 4-point Likert scale ranging from (1) “not at all true of me” through (4) “very true of me”. Possible scores range from a minimum of 11 (no self-reported rejection sensitivity) through a maximum of 44 (i.e., maximum possible self-reported rejection sensitivity).

This theory holds that interpersonal acceptance or rejection (especially from significant figures such as parents) has a profound impact on people's emotional and behavioral development throughout their lives.

GOALS OF THE PRESENT STUDY

- 1 Analysis of the internal structure of the IRSS through Confirmatory Factor Analysis
- 2 Estimation of the reliability index most suitable according to the internal structure
- 3 Analysis of measurement invariance level between the populations of subjects who take the IRSS online and those who take it with pencil and paper.
- 4 Analysis of the convergent and criterion validity of the IRSS

2. METHOD AND RESULTS

The Spanish subsample from the multicultural study by Rohner et al. (2023) was used: this sample consisted of 388 people, of whom 75.77% were women, and the mean age and its standard deviation were 38.29 and 10.82, respectively. Data preparation and subsequent analysis were performed using the free software R.

The analysis code, data to replicate the study, and other supplementary material are available on Open Science Framework...



1 INTERNAL STRUCTURE ANALYSIS

- The joint distribution of the items violated multivariate normality: Mardia's multivariate skewness coefficient was 659.87, $p < .001$, and the kurtosis coefficient was 9.38, $p < .001$.
- Given the lack of multivariate normality, the **Weighted Least Squares Mean and Variance adjusted** (WLSMV) method was chosen as the estimation method for the Confirmatory Factor Analysis (Brown, 2006).
- To determine the dimensionality of the IRSS, a **parallel analysis** based on principal component extraction and polychoric correlations was conducted, leading to only **one dimension**.
- Next, two one-dimensional models were assessed through **Confirmatory Factor Analysis**: the model without covariations (1) did not fit well. After revising the modification indices, a new model with covariations (2) between items 1 and 7, 1 and 8, 2 and 11, and items 9 and 8 reached adequate fit indexes.

Model	χ^2	df	χ^2/df	CFI	TLI	RMSEA	SRMR	USMRM
1	174.105	44	3.957	.975	.969	.087	.053	.047
2	121.760	40	3.044	.984	.978	.073	.044	.036

Items	Loadings CFA Model 2
1. Soy sensible a las críticas de los demás	.766
2. Cuando mis amigos están de mal humor suelo preguntarme si es por mí	.574
3. Me preocupa muy poco lo que la gente pueda pensar de mí	.405
4. Cuando hablo con gente que no conozco me preocupa lo que puedan pensar de mí	.692
5. Me afecta emocionalmente y de manera negativa la desaprobación de los demás	.804
6. Me preocupa la impresión que pueda causarle a la gente	.822
7. Me molesto cuando alguien me critica	.657
8. Cuando me relaciono con los demás estoy atento a las posibles señales de rechazo	.644
9. Me preocupa lo que la gente piensa de mí, incluso cuando sé que se trata de algo sin importancia	.882
10. A menudo me preocupa que la gente me critique o me busquen defectos	.848
11. Cuando no oigo de qué habla la gente me preocupa que puedan estar diciendo algo negativo sobre mí	.632

2 RELIABILITY ESTIMATION

- To assess the extent to which the 11 items consistently measure the same underlying construct, **composite reliability** was computed given non-equal item loadings. Specifically, a value of .895 for McDonald's ω (1999) was obtained.

3 MEASUREMENT INVARIANCE

- As can be seen, subjects who answered the IRSS online and those who answered it on paper and pencil showed configural and metric invariance, but not scalar invariance (although the significance is close to the 0.05 threshold).

Model	χ^2	df	p-value	RMSEA (p)	CFI	Comparison	$\Delta\chi^2$	Δdf	p-value	$\Delta RMSEA$	ΔCFI
1. Configural in.	179.145	80	0.000	0.08	0.981	-	-	-	-	-	-
2. Thresholds in.	185.488	91	0.000	0.073	0.982	2 vs. 1	5.4626	11	.907	-0.007	0.001
3. Loadings in.	183.164	101	0.000	0.065	0.984	3 vs. 2	13.336	10	.206	-0.008	0.002
4. Intercepts in.	202.360	111	0.000	0.065	0.983	4 vs. 3	22.636	10	.012*	0.000	-0.002

4 CONVERGENT AND CRITERION VALIDITY

- PAQ: the Personality Assessment Questionnaire (Rohner y Khaleque, 2005) ($r = .587$, p -value $< .0001$, $N = 388$)
- PARQM: the Parental Acceptance-Rejection Questionnaire regarding Mother (Rohner, 2005) ($r = .131$, p -value $= .010$, $N = 388$)
- PARQP: the Parental Acceptance-Rejection Questionnaire regarding Father (Rohner, 2005) ($r = .118$, p -value $= .020$, $N = 388$)

2. CONCLUSIONS

- The IRSS is a single-factor scale that is partially invariant between online and paper-and-pencil administration
- Moreover, the IRSS is a highly reliable scale (89.5% of the total variance in scores can be attributed to the common factor)
- Finally, the positive correlations between the IRSS scores and those of the PAQ, PARQM, and PARQP demonstrate their convergent and criterion validity.

REFERENCES

- Brown, T.A. (2006). *Confirmatory Factor Analysis for Applied Research*. The Guilford Press.
- McDonald, R. P. (1999). *Test theory: A unified treatment*. Lawrence Erlbaum Associates.
- Rohner, R. P. (1986). *The warmth dimension: Foundations of parental acceptance-rejection theory*. Sage Publications, Inc.
- Rohner, R.P. (2005). Parental acceptance-rejection questionnaire (PARQ): Test manual. In R. P. Rohner y A. Khaleque (Eds.), *Handbook for the study of parental acceptance and rejection*, 4th ed. (pp. 43-106). Rohner Research Publications.
- Rohner, R.P. & Khaleque, A. (2005). Personality Assessment Questionnaire (PAQ): Test manual. En R. P. Rohner y A. Khaleque (Eds), *Handbook for the study of parental acceptance and rejection* (4.^a ed) (pp 187-225). Rohner Research Publications.
- Rohner, R.P., Ali, S., Filus, A., Senese, V.P., Molaver, A., Ahmed, R. A., Carrasco, M.A., Ibrahim, M., Koltcheva, M., Sajid, B., Uddin, M.K., Izquierdo-Sotorrio, E., Khaled, Z.E., Nasti, C., Shahnaz, I., Zeb, R., Holgado-Tello, F.P., Massaro, R., Riaz, M., ... & Britner, P. A. (2024). Reliability and validity of the interpersonal rejection sensitivity scale: a multicultural study. *Current Psychology*, 43(9), 7986-7996. <https://doi.org/10.1007/s12144-023-04980-9>