

Construct validation of the Narcissistic Admiration and Rivalry Questionnaire in Spanish-speaking countries: Assessment of the reliability, structural and external validity and cross-cultural equivalence

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A recent re-operationalisation of grandiose narcissism has resulted in the distinction of two narcissistic strategies based on the cognitive, affective-motivational and behavioural dynamics: admiration (assertive self-enhancement) and rivalry (antagonistic self-protection). The Narcissistic Admiration and Rivalry Questionnaire (NARQ) was developed to assess this model with two higher-order dimensions. However, cross-validations of the NARQ have not been extensively conducted across diverse population groups and languages. This study aimed to test the internal and external validity (through the relation with envy and self-esteem), reliability and cross-cultural equivalence of the Spanish version of the NARQ. The psychometric properties were evaluated in a Spanish sample ($N = 310$), and cross-cultural equivalence was tested in participants from Chile ($N = 234$) and Colombia ($N = 256$). The results supported the reliability and validity of the Spanish NARQ, as well as the cross-cultural equivalence across Spanish-speaking countries. In addition, we discuss obtained differences across Spanish, Chilean and Colombian sample within two narcissistic strategies.

Keywords: NARQ; Narcissism; Admiration; Rivalry; Envy.

Existing research focusing on narcissism and culture has shown ambivalent findings regarding the influence of cultural background on narcissism (Żemojtel-Piotrowska et al., 2018). Due to the importance of advancing the understanding on narcissism across cultures (particularly social groups typically underrepresented in the scientific research), it is necessary to have instruments capable of properly measuring narcissism. Hence, the current paper investigates the psychometric properties

of the Narcissistic Admiration and Rivalry Questionnaire (NARQ; Back et al., 2013) in Spanish-speaking countries. In particular, this study aimed to test the internal and external validity (through the relation with benign and malicious envy and self-esteem), reliability and cross-cultural equivalence of the NARQ in Spain, Chile and Colombia. The findings of this study will inform future cross-cultural research in narcissism.

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Narcissistic admiration and rivalry concept – underlying theoretical foundations and its measurement

Narcissistic personality encompasses a broad set of complex manifestations. Krizan and Herlache (2018) argued that evidence on narcissism needed to be integrated into a comprehensive and parsimonious theoretical framework. As a result of this integration (i.e., the narcissism spectrum model), a correspondence between existing measures and narcissistic-related core characteristics has been proposed. In this investigation we used a Spanish version of the Narcissistic Admiration Rivalry Concept operationalisation, that is, NARQ, which provides an opportunity to reliably measure grandiose narcissism divided into two strategies representing its two expressions, that is, the agentic aspect of admiration and the antagonistic aspect of rivalry (Back, 2018; Back et al., 2013). The strategy of admiration involves narcissistic engagement in self-promotion (assertive self-enhancement) in order to achieve social awe, while the strategy of rivalry (antagonistic self-protection) serves as a mean of self-defence to prevent social failure (Back et al., 2013)—both of these traits can differ in ease, strength and frequency (Wetzel, Leckelt, Gerlach, & Back, 2016). Each strategy comprises three components: on the one hand, admiration is composed of striving for uniqueness (affective-motivational) which means that the narcissistic person desires to be uncommon, grandiose fantasies (cognitive) which relates to the imagination of being superior and charmingness (behavioural) which involves being pleasant and attractive. Whereas rivalry is composed of striving for supremacy (affective-motivational) referring to a need for dominance, devaluation of others (cognitive) which uses declination of others' actions and aggressiveness (behavioural) which constitutes being combative in response to ego threat (Back et al., 2013). Although theoretical assumptions and previous research (Back et al., 2013; Lange, Crusius, & Hagemeyer, 2016; Rogoza, Wyszynska, Maćkiewicz, & Ciecuch, 2016b; Zeigler-Hill et al., 2018) emphasised that both narcissistic strategies have points in common (e.g., excessive focus on one's own interests and desire for status), they also differ in their outcomes and correlates (e.g., in relation to envy, personality traits or self-esteem).

Existing measures did not assess the antagonistic side of narcissism sufficiently but mostly accounted for the more agentic expressions (Krizan & Herlache, 2018); thus, the further appearance of the NARQ (Back et al., 2013) eases the conceptualisation and measurement of this trait (Leckelt, Wetzel, Gerlach, Ackerman, & Miller, 2018). Although the scale was translated in several languages (e.g., in Chinese, Dutch and Danish, retrieved from <http://www.persoc.net/Toolbox/NARQ>), currently

the NARQ apart from its initial English and German versions (Back et al., 2013) was validated only in Polish (Rogoza, Rogoza, & Wyszynska, 2016a) and Italian (Vecchione et al., 2018). Therefore, further validation of the NARQ in a more widespread language, such as Spanish, is needed.

Envy and self-esteem as a validity criterion of narcissistic admiration and rivalry

The inclusion of benign and malicious envy in the study of narcissism is particularly pertinent as these two dispositional tendencies can be considered as motivators or pathways that modulate certain narcissists' interpersonal behaviours (Crusius & Lange, 2017). Indeed, several studies suggested the existence of specific connections between narcissistic personality and envy (Krizan & Johar, 2012; Lange et al., 2016). Both of these constructs may be seen as comprising two distinct and yet positively correlated dimensions: the admiration and rivalry in narcissism and benign and malicious in envy. Apart from the structural similarities, narcissism and envy share some of the underlying motivational mechanisms (e.g., the hope for success or the fear or failure), which strengthens the theoretical connection between both constructs. Lange et al. (2016) confirmed these expectations about the relations between narcissism and envy by reporting that only rivalry predicted malicious envy, and only admiration predicted benign envy. To summarise, narcissism and envy are complementary constructs which have much in common and as only the study by Lange et al. (2016) have examined this issue, it is worth further investigation, which is among the goals of the current paper.

Narcissism and self-esteem share many phenotypical features like positive self-view (Brummelman, Thomaes, & Sedikides, 2016), however narcissism, unlike self-esteem, apart from agentic aspects also comprises antagonistic aspects, which are directed against other people (Back, 2018). Differentiation of admiration and rivalry already demonstrated that while agentic aspects are positively related to self-esteem, antagonistic aspects are related negatively (Back et al., 2013).

CURRENT STUDY

The main objective of the present study was to test the structure of narcissism as measured by the Spanish version of the NARQ (Back et al., 2013). For this purpose, we formulated three hypotheses: (1) admiration and rivalry are reliable in their measurement; (2) the Spanish version of NARQ is structurally valid and adopts the second-order factorial structure; (3) the Spanish version of NARQ is externally valid, that is, admiration is a positively related to dispositional benign envy, self-esteem, while rivalry is positively related to the dispositional malicious envy and negatively related to self-esteem.

Additionally, we aimed to test the differences in admiration and rivalry in samples from other Spanish-speaking countries, that is, from Chile and Colombia and to compare the structural validity to the original Back et al. (2013) data on German population.

For the transparency of our research we would like to stress that our hypotheses were not preregistered and our analyses on cultural differences were exploratory. We would like to encourage other researchers in the field to validate our results in similar Spanish-speaking setting. The codebook with complete list of variables as well as datasets and used syntaxes necessary for replication of the analyses presented in this paper are available at the Open Science Framework platform under a following web link: <https://osf.io/42fny/>.

METHOD

Participants and procedure

Using the data from previous initial NARQ study (Back et al., 2013), we conducted the Markov-Chain Monte Carlo simulation study to assess the power of parameters in the hypothesised confirmatory factor analysis (CFA) model (assuming tau-equivalency with the values of residuals set to .50). The results suggested that the sample size = 200 yielded a power > .90 and a sample of = 100 yielded a power > .80 for all parameters. Because we aimed to have at least 10 participants per item (i.e., at least 180) in the final database, we decided on the >200 threshold. The study enrolled in total 800 undergraduate student participants: (a) 211 females and 99 males from Spain ($M_{\text{age}} = 22.76$; $SD = 3.95$), (b) 164 females and 70 males from Chile ($M_{\text{age}} = 20.94$; $SD = 3.12$) and (c) 142 females and 114 males from Colombia ($M_{\text{age}} = 21.06$; $SD = 3.22$). Participants were recruited for the study by the research collaborators in each country. The link to the Google Forms online survey was spread among students via snowball method. Participation in the study was voluntary, there were no incentives provided by any of the collaborators. As the current research was part of a larger study, respondents were administered a set of self-report measures including questionnaires to measure narcissism, envy and self-esteem.¹ To complete the survey participants had to answer all test items, as a result, no missing data were registered.

Measures

The NARQ (Back et al., 2013) comprised of 6-point response scale (ranging from 1 = *not agree at all* to 6 = *agree completely*) and 18 statements assessing two

narcissistic strategies, that is, admiration and rivalry, both of which consist of three various components referring to cognitive, affective-motivational and behavioural dynamics—for each component there are three test items. In this vein admiration captures as follows: grandiosity (e.g., “I deserve to be seen as a great personality”), uniqueness (e.g., “Being a very special person gives me a lot of strength”) and charmingness (e.g., “Mostly, I am very adept at dealing with other people”). Whereas rivalry includes: devaluation (e.g., “Other people are worth nothing”), supremacy (e.g., “I want my rivals to fail”) and aggressiveness (e.g., “I react annoyed if another person steals the show from me”).² For the purpose of the current study we translated all statements of the NARQ into Spanish following the International Test Commission guidelines (2017). First (a) all items were translated from English to Spanish, then (b) the translation was discussed by several researchers regarding the linguistic suitability, (c) the back-translation of all items from Spanish to English was done independently, (d) afterwards the translation was consulted with the NARQ authors and (e) the approved version of Spanish NARQ was used within the research. The final translation is provided in the appendix.

To assess the external validity of the Spanish version of the NARQ, we applied the Benign and Malicious Envy Scale (BeMaS; Lange & Crusius, 2015; Spanish version: Navarro-Carrillo, Beltrán-Morillas, Valor-Segura, & Expósito, 2017). The BeMaS includes 10 items to which subjects respond using 6-point scales ranging from 1 (*strongly disagree*) to 6 (*strongly agree*). The scale measures two kinds of envy, that is, dispositional benign envy (e.g., “I strive to reach other people’s superior achievements”) and dispositional malicious envy (e.g., “I feel ill will toward people I envy”). Also, we administered one additional measure for testing external validity: Single-Item Self-esteem (SIS; Robins, Hendin, & Trzesniewski, 2001)—a one-item measure of global self-esteem with 7-point response scale (1 = *not very true of me*; 7 = *very true of me*).

Statistical analyses

In the assessment of reliability we applied the McDonald omega coefficient, which we computed in addition to popular alpha—the values of both coefficients are interpreted similarly. However, there are specific circumstances when omega outperforms alpha, such as multidimensionality or hierarchical character of a measure, as is the case with the NARQ (see Zinbarg, Revelle, Yovel, & Li, 2005 for more information). Reporting alpha served us for further comparisons of reliability estimates with those from initial study by Back et al. (2013).

¹For the purposes of a larger cross-cultural study we applied a set of self-report methods. See codebook for more detailed description.

²The NARQ has its short version as well—the NARQ-S (Back et al., 2013; Leckelt et al., 2018). It contains six items—three for admiration and three for rivalry—one test item representing each component.

TABLE 1
Zero-order observed correlation matrix for the Spanish sample

Variable	1	2	3	4
1. Admiration	—			
2. Rivalry	.16**			
3. Benign envy	.31**	.32**		
4. Malicious envy	.08	.64**	.31**	
5. Self-esteem	.39**	-.17**	.03	-.22**

* $p < .05$, ** $p < .01$.

To assess whether the NARQ is structurally valid, we tested its measurement model via CFA, whereas to examine the external validity we tested a structural equation model (SEM) in which narcissistic strategies were predictors of envy. Within the interpretation of the results we followed Byrne's (1994) recommendations of model fit evaluation, that is, CFI > .90 and SRMR < .08. To test the differences in narcissistic admiration and rivalry across different Spanish-speaking countries (i.e., Spain, Chile and Colombia) we analysed the multigroup CFA (MGCF), which compares three models differing in their restriction, that is, the unconstrained configural model, the metric model in which factor loadings are constrained to be equal, and the scalar model in which additional to factor loadings, intercepts are also constrained to be equal across compared groups. In assessment of model fit, we followed criteria proposed by Chen (2007): The difference between consecutive models (i.e., between configural and metric and between metric and scalar) should not exceed .010 for CFI and .015 for RMSEA.

RESULTS

Reliability and descriptive statistics

Table 1 presents zero-order observed correlations among all measures administered to Spanish sample.

Table 2 shows reliability estimates (both omega and alpha), the univariate descriptive statistics within the Spanish, Chilean and Colombian samples. Additionally, we present gender differences in all the analysed variables.

Mean scores in admiration in Spanish speaking samples were all significantly higher than in the initial study Back et al. (2013) study (from 0.67 in Spain, $t_{(1261)} = -11.47$, $p < .001$; through 0.83 in Chile, $t_{(1185)} = -12.33$, $p < .001$; to 1.22 in Colombia, $t_{(1207)} = -19.04$, $p < .001$), whereas there were rather no substantial differences in rivalry (from 0.04 in Spain, $t_{(1261)} = 0.79$, $p = .430$; to 0.12 in Chile, $t_{(1185)} = 2.10$, $p = .036$) except Colombian sample in which the mean for rivalry was significantly lower by 0.28 ($t_{(1207)} = 5.27$, $p < .001$). The reliability estimates of admiration and rivalry were good, with only a small amount of the variance due to measurement error—and thus, the first assumed hypothesis was confirmed. According to statistical comparisons between Cronbach's alpha coefficients, the reliability estimates did not differ both for admiration ($\chi^2_{(2)} = 5.28$, $p = .071$) and rivalry ($\chi^2_{(2)} = 3.97$, $p = .138$) across analysed samples. In comparison to Back et al. (2013), the reliability estimates differed only slightly, that is, the estimates on admiration were significantly lower by .09 in the Spanish sample ($\chi^2_{(1)} = 27.96$, $p < .001$), .06 in the Colombian sample ($\chi^2_{(1)} = 12.40$, $p < .001$) and did not differ in the Chilean sample ($\chi^2_{(1)} = 3.36$, $p = .067$). Estimates on rivalry were also in line, that is, we found no significant differences (Spanish: $\chi^2_{(1)} = 1.18$, $p = .278$; Chilean: $\chi^2_{(1)} = 1.14$, $p = .285$; Colombian: $\chi^2_{(1)} = 1.02$, $p = .313$) from the initial study by Back et al. (2013).

While benign envy demonstrated good univariate distribution, malicious envy was more skewed and the results

TABLE 2
Reliability estimates, descriptive statistics and gender differences across analysed variables in Spanish, Chilean, Colombian and German samples

Scale	ω (α)	M	SD	S	K	$M_{females}$ (M_{males})	t	p	d [95% CI]
Spain									
Admiration	.83 (.78)	3.44	0.73	-0.04	0.61	3.39 (3.56)	-1.79	.076	-.22 [-.46; .02]
Rivalry	.88 (.81)	2.10	0.76	1.42	2.64	1.96 (2.39)	-4.51	.001	-.57 [-.81; -.33]
Benign envy	.88 (.84)	3.74	1.16	-0.36	-0.35	3.62 (3.99)	2.68	.008	-.32 [-.56; -.08]
Malicious envy	.86 (.82)	1.96	0.91	1.34	2.09	1.85 (2.21)	-3.21	.002	-.39 [-.63; -.15]
Self-esteem	—	4.03	1.60	-0.25	-0.79	3.87 (4.42)	-2.71	.007	-.34 [-.58; -.10]
Chile									
Admiration	.87 (.84)	3.60	0.85	-0.25	0.19	3.64 (3.50)	1.15	.251	.16 [-.12; .44]
Rivalry	.90 (.85)	2.02	0.79	1.20	1.90	1.95 (2.22)	-2.50	.013	-.34 [-.62; -.06]
Colombia									
Admiration	.86 (.81)	3.99	0.79	-0.43	0.13	3.32 (4.08)	-1.63	.104	-.21 [-.46; .04]
Rivalry	.88 (.81)	1.86	0.65	1.45	3.11	1.79 (1.94)	-1.76	.079	-.23 [-.48; .02]
Germany (data from initial study; Back et al., 2013)									
Admiration	.89 (.87)	2.77	0.94	0.18	-0.59	2.70 (2.96)	-3.84	.001	-.27 [-.53; -.01]
Rivalry	.88 (.82)	2.14	0.78	0.84	0.57	2.04 (2.39)	-6.27	.001	-.43 [-.69; -.17]

Note: ω = McDonald's omega; α = Cronbach's alpha; M = mean; SD = standard deviation; S = skewness; K = kurtosis; t = independent-samples t -test; d = Cohen's d (effect size used to indicate the standardised difference between two means); positive values indicate higher values for women. Descriptive statistics for admiration and rivalry facets for all three countries are presented in the appendix.

TABLE 3

Results of the confirmatory factor analyses of the Spanish version of the Narcissistic Admiration and Rivalry Questionnaire in Spanish sample

Model	$\chi^2_{(df)}$	$P_{(\chi^2)}$	CFI	RMSEA	RMSEA 90% CI	$P_{(RMSEA)}$	SRMR
Model 1	298.842 ₍₁₂₈₎	.001	.874	.066	.056–.075	.005	.081
Model 2 ^a	281.671 ₍₁₂₇₎	.001	.886	.063	.053–.073	.018	.080
Model 3 ^b	267.374 ₍₁₂₆₎	.001	.895	.060	.050–.070	.048	.078

Note: $\chi^2_{(df)}$ = chi-square test of model fit; CFI = comparative fit index; RMSEA = root mean square error of approximation; CI = confidence interval. ^aCorrelation between residual errors of item 6 and item 9. ^bCorrelation between residual errors of item 7 and item 18.

were more concentrated around the mean. Regarding the gender differences, there were no significant differences for admiration in Spain and Chile, but males scored higher on rivalry. No significant gender differences were found in Colombia. Males turned out to score higher on benign and malicious envy and self-esteem. Finally, we performed Mardia's multivariate normality test which indicated that our data set do not follow a multivariate normal distribution, therefore we implemented robust maximum likelihood in the subsequent analyses.

The structural validity of the NARQ in the Spanish sample

Driven by theory we tested a second-order factorial model of NARQ, with two main components: admiration, composed of lower-order factors evaluating grandiosity, strive for uniqueness and charmingness; and rivalry, composed of devaluation, supremacy and aggressiveness. Results of the CFA are displayed within Table 3.

In the first step we tested the second-order factor model as the model best representing the structure of the NARQ because it also takes into consideration the covariations between the two main components. Because Model 1 did not attain the recommended criteria for the model fit, we decided to re-specify its parameters on both theoretical and statistical grounds and test whether the fit improved. Following the recommendations of the multivariate Lagrange multiplier test (LM-test) and taking into consideration the interpretability of the factors, in the first step we allowed for a correlation of residual errors of item 6 and item 9 (Model 2). As it is shown in Table 2, the CFI change parameter indicated a significant improvement of the model ($\Delta CFI = .012$). In the next step, we added another correlation of residual errors between items 7 and 18 again (Model 3) obtaining a slightly improved model fit ($\Delta CFI = .009$). As further recommendations of the LM-test could not be substantiated theoretically, we

ceased the model re-specification at this step. The modified measurement model showed reasonable fit to the data, as all three fit indices were close to the assumed criteria. The standardised factor loadings and factor correlations are displayed in Figure 1.

Although the obtained results were satisfactory, we scrutinised what substantially impacted the model fit. Owing to the inspection of the modification indices we noticed that item 16 had high expected parameter change when re-specified as an indicator of admiration. We tested for a model which excluded this item and the results yielded superior fit, that is, ($\chi^2_{(111)} = 216.37$, $p = .001$; CFI = .911; RMSEA = .055, RMSEA 90% CI [.044; .066], RMSEA $p = .204$; SRMR = .075)³ which suggests that this item caused difficulties in interpretation. We asked three Spanish-language native speakers to assess the translation quality of six randomly chosen items from the NARQ (including item 16). Native speakers assessed the comprehensiveness of the presented items using 10-point Likert-type scale (ranging from 1 = *the translation is weak* to 10 = *the translation is excellent*). The results revealed that the quality of item 16 was the poorest ($M = 6.67$; $SD = 3.21$) in comparison to the assessment of other items (which were evaluated on average between 8 and 10 points), which confirmed our conjectures. In summary, the obtained results, with the exception of the poor quality of the item 16 translation, support the structural validity of the Spanish version of the NARQ, and thus—our second hypothesis was mostly confirmed.⁴

The external validity in the Spanish sample

The validity of the NARQ was verified through the examination of the relationship of narcissistic strategies and two envy types as measured by the BeMaS. In line with theory and previous research (Lange et al., 2016), we tested the model where admiration predicted benign envy, while

³For identification purposes the correlation between residuals of item 18 and item 7 was freed as they were the only items remaining within the lower-factor.

⁴The CFA was also tested for the NARQ-S (Leckelt et al., 2018)—when allowed residuals of item 4 and item 17 to covary, the model fitted the data well ($\chi^2_{(7)} = 12.07$, $p = .098$; CFI = .978; RMSEA = .048, RMSEA 90% CI [.000; .093], RMSEA $p = .465$; SRMR = .030), both factors were moderately correlated at .50, and factor loadings were satisfactory (mean for admiration at .62, mean for rivalry at .67).

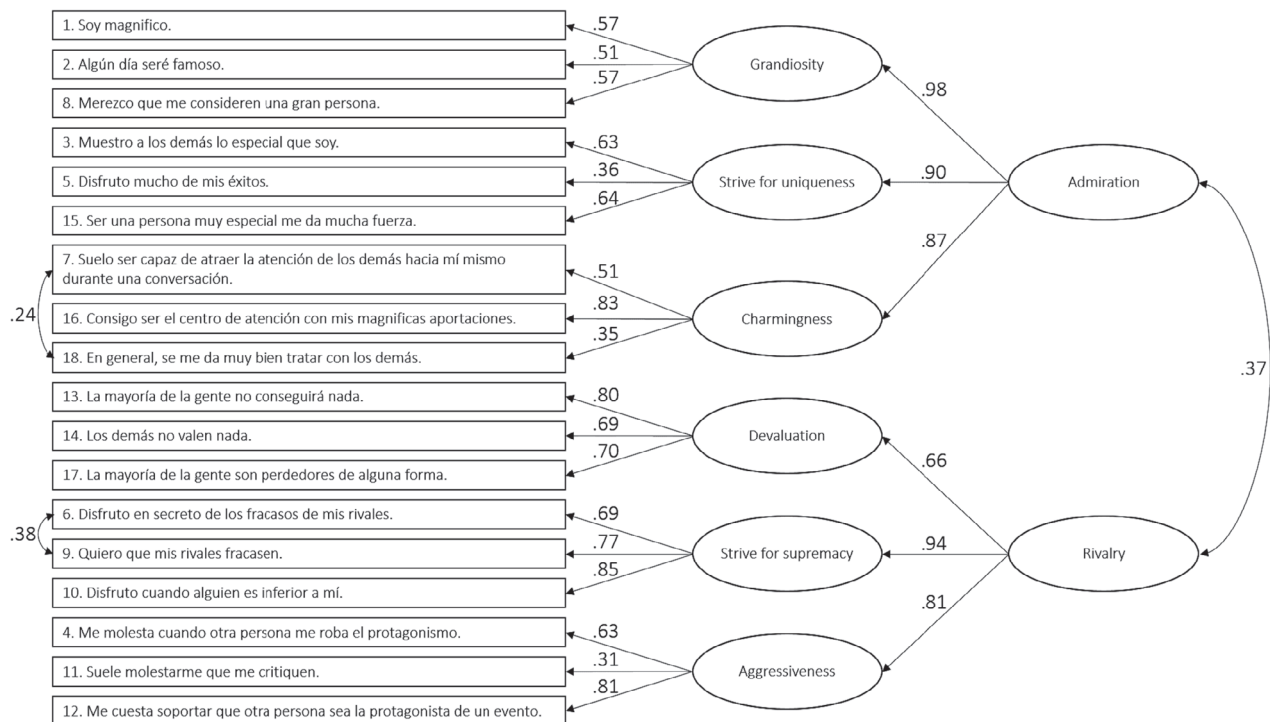


Figure 1. Standardised factor loadings of the Narcissistic Admiration and Rivalry Questionnaire in Spanish sample. All pathways are standardised and significant at $p < .01$.

rivalry predicted malicious envy. The standardised factor loadings of the measurement models and the standardised regression coefficients are presented in Figure 2.

The model displayed good fit to the data ($\chi^2_{(338)} = 600.28, p < .001$; CFI = .903; RMSEA = .050; RMSEA 90% CI [.043; .057], RMSEA $p = .489$; SRMR = .073). The measurement model of the BeMaS had no correlated error covariances and a mean strength of factor loadings equalling .71 for both benign and malicious envy. Within both models the latent factors were found to be positively correlated with each other. In terms of regression analysis, admiration was positively associated with benign envy, and rivalry was positively associated with malicious envy. However, using a Z-test for dependent samples, the strength of prediction for rivalry was significantly stronger than for admiration ($Z = 7.54; p < .001$), which confirmed our assumptions. In addition, we tested a model with the exclusion of item 16 within the NARQ and maintaining a correlation of residual errors of items 6 and 9. The introduced correction slightly improved the fit ($\chi^2_{(313)} = 533.57,$

$p < .001$; CFI = .912; RMSEA = .048; RMSEA 90% CI [.041; .055]; RMSEA $p = .704$; SRMR = .072) and did not affect estimates as admiration predicted benign envy at $\beta = .36$, while rivalry predicted malicious envy at $\beta = .78$.

In regard to self-esteem, narcissism turned out to be a significant predictor ($F_{(2, 298)} = 38.92; p < .001$; $R^2 = .21$): Admiration predicted self-esteem positively ($\beta = .43$) and rivalry negatively ($\beta = -.24$). Thus, our results corroborated to the existing findings on self-esteem (Back et al., 2013) and were in accordance with the theoretical expectations. Taken together, our results provide support for the external validity of the Spanish adaptation of the NARQ, which confirms our third hypothesis.

Differences across Spanish-speaking countries

The results of the MGCFA across Spanish-speaking⁵ countries are presented in Table 4.

⁵We have also compared the differences between Chilean and Colombian samples. The model fit indices of the analysed models are as follows: admiration: configural model ($\chi^2_{(48)} = 97.65$; CFI = .949; RMSEA = .065); metric model ($\chi^2_{(54)} = 106.14$; CFI = .946; RMSEA = .063); scalar model ($\chi^2_{(48)} = 109.92$; CFI = .949; RMSEA = .058); rivalry: configural model ($\chi^2_{(48)} = 103.04$; CFI = .949; RMSEA = .068); metric model ($\chi^2_{(54)} = 114.25$; CFI = .944; RMSEA = .067); scalar model ($\chi^2_{(48)} = 122.54$; CFI = .942; RMSEA = .065). Both admiration and rivalry turned out to be invariant in terms of loadings and intercepts across the Chilean and Colombian samples. The differences in admiration and rivalry facets (standardised) are as follows (higher value means higher score in the Colombian sample): grandiosity = .55 ($p < .001$); uniqueness = .70 ($p < .001$); charmingness = .33 ($p = .002$); Devaluation = $-.22$ (n.s.), supremacy = $-.37$ ($p = .004$) and aggressiveness = $-.13$ (n.s.).

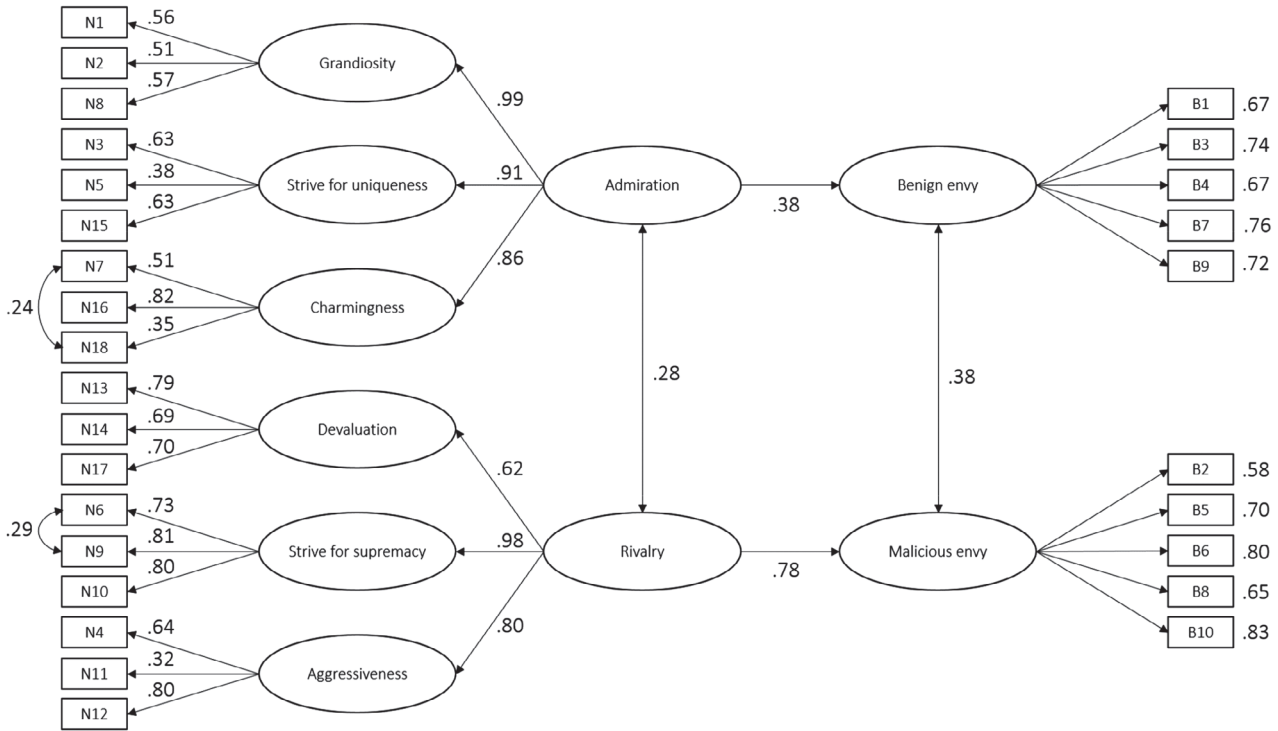


Figure 2. Structural equation model of narcissistic strategies predicting envy. All pathways are standardised and significant at $p < .001$ regressions and at $p = .026$ for the correlation between admiration and rivalry.

TABLE 4

Model fit comparisons of the measurement invariance of narcissistic admiration and rivalry across Spain, Chile and Colombia

	Admiration			Rivalry		
	χ^2 (df)	CFI	RMSEA	χ^2 (df)	CFI	RMSEA
Configural	155.79 ₍₇₂₎	.941	.066	154.94 ₍₇₂₎	.951	.066
Metric	169.75 ₍₈₄₎	.940	.062	173.43 ₍₈₄₎	.947	.063
Scalar	246.58 ₍₉₆₎	.894	.077	214.50 ₍₉₆₎	.930	.068
Partial scalar	177.63 ₍₉₅₎	.942	.057	191.26 ₍₉₄₎	.943	.062
Metric vs. configural	13.96	.001	.004	18.49	.004	.003
Scalar vs. metric	76.83	.046	.015	41.07	.017	.005
Partial scalar vs. metric	7.88	.002	.005	17.83	.004	.001

Note: In the partial scalar model the intercepts of items 11 (admiration), 10 and 12 (rivalry) were freed.

Full scalar invariance was not met as the differences in model fit indices exceeded acceptable thresholds. Thus, we investigated which parameters caused the scalar non-invariance and freed the intercept of one item for admiration and two items for rivalry, which improved the model fit statistics to the acceptable range. Thus, we compared the latent mean differences in admiration and rivalry across Spanish-speaking countries, which are presented in Table 5.

We found no differences in the level of admiration and rivalry between the citizens of Spain and Chile with the exception of grandiosity in which citizens of Chile scored significantly higher. Simultaneously, there were significant differences between citizens of Spain and Colombia, who turned out to score higher on all admiration facets

and lower on devaluation and supremacy than citizens of Spain.

Structural validity of the NARQ in Spanish-speaking countries in comparison to Back et al. (2013)

Finally, to assess the structural validity of the NARQ in Spanish-speaking samples, we referenced them to the original Back et al. (2013) data on German participants. The results are provided in Table 6.

In all comparisons, both admiration and rivalry reached metric level, but failed to reach scalar level of invariance. Nevertheless, the fit indices in scalar models

TABLE 5
Differences in latent mean scores of admiration and rivalry facets across Spain, Chile and Colombia

Country	Variable	M	95% CI	t	p	d [95% CI]
Chile	Grandiosity	.24	[.09, .39]	2.65	.008	.16 [−.01; .33]
	Uniqueness	.11	[−.04, .26]	1.24	.213	.15 [−.02; .32]
	Charmingness	.03	[−.11, .17]	0.35	.725	.08 [−.09; .25]
	Devaluation	−.09	[−.25, .08]	−0.87	.387	−.08 [−.25; .09]
	Supremacy	−.10	[−.27, .06]	−1.04	.298	−.08 [−.25; .09]
Colombia	Aggressiveness	.01	[−.15, .17]	0.11	.910	.01 [−.16; .18]
	Grandiosity	.64	[.49, .79]	7.22	.001	.68 [.51; .85]
	Uniqueness	.67	[.53, .82]	7.85	.001	.65 [.48; .82]
	Charmingness	.34	[.20, .48]	3.93	.001	.49 [.32; .66]
	Devaluation	−.21	[−.35, −.07]	−2.41	.016	−.26 [−.43; −.09]
	Supremacy	−.40	[−.55, −.25]	−4.46	.001	−.35 [−.52; −.18]
	Aggressiveness	−.09	[−.24, .05]	−1.04	.299	−.19 [−.36; −.02]

Note: Means were fixed to 0 in the Spanish sample. Negative values mean higher score in Spain. The estimates were standardised.

TABLE 6
Model fit comparisons of the measurement invariance of narcissistic admiration and rivalry across Spanish-speaking countries in regard to the German sample reported in Back et al. (2013)

Country	Model	Admiration			Rivalry		
		$\chi^2_{(df)}$	CFI	RMSEA	$\chi^2_{(df)}$	CFI	RMSEA
Spain	Configural	159.44 ₍₄₈₎	.963	.061	106.73 ₍₄₈₎	.977	.044
	Metric	169.03 ₍₅₄₎	.961	.058	115.38 ₍₄₈₎	.976	.042
	Scalar	477.78 ₍₆₀₎	.860	.105	259.40 ₍₆₀₎	.923	.073
Chile	Configural	133.33 ₍₄₈₎	.971	.055	107.47 ₍₅₄₎	.977	.046
	Metric	147.79 ₍₅₄₎	.969	.059	147.33 ₍₅₄₎	.963	.046
	Scalar	327.75 ₍₆₀₎	.912	.086	267.62 ₍₆₀₎	.918	.076
Colombia	Configural	165.91 ₍₄₈₎	.961	.064	105.13 ₍₄₈₎	.977	.044
	Metric	184.09 ₍₅₄₎	.957	.063	116.61 ₍₅₄₎	.975	.044
	Scalar	344.82 ₍₆₀₎	.905	.089	241.97 ₍₆₀₎	.926	.071

were mostly good (except for admiration in Spanish sample).

DISCUSSION

Research suggests that the current cultural contexts emphasise self-centred perspective makes narcissism a prominent topic in modern societies (Rogoza, Kwiatkowska, Kowalski, & Ślaski, 2018). Nonetheless, recent evidence showed that narcissism levels were reduced over the last two decades with no differences across genders (Wetzel et al., 2017). Such dichotomies in these findings confirm the attraction of narcissism in empirical research, making it likely to investigate how this trait functions in different cultural fields. Given the diverse outcomes resulting from the agentic and antagonistic aspects (Leckelt et al., 2018), it is necessary to gather knowledge about the mechanism underlying narcissistic differences in a variety of cultural contexts. The current study aimed at presenting empirical evidence concerning the reliability, structural and external validity

and cross-cultural equivalence of the Spanish adaptation of the NARQ (Back et al., 2013), which could be useful for further studies on the mechanism underlying narcissistic differences.

As a preliminary check, we assessed gender differences in narcissistic admiration and rivalry in the studied sample. Consistent with prior research (Back et al., 2013; Leckelt et al., 2018), in the Spanish and Chilean population men scored significantly higher in rivalry than women, however there were no differences in the Colombian sample. This partially supports the claims suggesting that men yield higher scores in the antagonistic traits (Muris, Merckelbach, Otgaar, & Meijer, 2017).

While the distribution of the scores in admiration was close to normal, the distribution for rivalry was positively skewed and the scores were mostly concentrated around the mean—indicating that most of the participants in this Spanish sample rather disagreed with the more antagonistic expressions. Admiration involves approaching social interactions taking profit of the benign-type strategies such as hope for success (Lange et al., 2016); whereas rivalry involves difficulties

in approaching social interactions when problems come up, making use of malicious-type strategies such as desire for revenge (Grove, Smith, Girard, & Wright, 2019). In this study, a small amount of gathered information was due to measurement error, and the reliability estimates were similar to those obtained in original and previous studies on NARQ (Back et al., 2013; Rogoza, Rogoza, et al., 2016a; Vecchione et al., 2018), which altogether supports the first of the formulated hypotheses stating that narcissistic admiration and rivalry can be reliably measured within the Spanish population.

The subsequent hypothesis postulated that the Spanish version of the NARQ is structurally valid and adopts the second-order factorial structure. As in accordance with prior research (Back et al., 2013; Leckelt et al., 2018; Rogoza, Rogoza, et al., 2016a; Vecchione et al., 2018), the current study also confirmed the assumed factorial structure of the NARQ, successfully verifying the hypothesis. However, apart from general good model fit indices, we also identified one particular test item that showed poor performance (i.e., item 16: original version “I manage to be the center of attention with my outstanding contributions”; initial Spanish wording “Consigo ser el centro de atención con mis magníficas aportaciones”). The poor efficiency of this test item was identified through the exploration of the modification indices and was further confirmed through qualitative assessment in terms of comprehensibility and cultural accuracy carried out by four independent Spanish native speakers. Although the current version of NARQ may be successfully used in Spanish, we recommend rephrasing this item to further refine its psychometric properties—the proposed reformulation of the item: “Puedo ser el centro de atención gracias a mis excelentes aportaciones.”

The correlation between the summated scores of admiration and rivalry in the Spanish sample was rather low ($r = .16$) compared to the one reported in the original NARQ study ($r = .43$; Back et al., 2013) or other adaptation studies (range: $r = .32$ in Polish; Rogoza, Rogoza, et al., 2016a; and $r = .40$ in Italian; Vecchione et al., 2018), however it was comparable in strength ($\rho = .37$) when the measurement error was accounted for in the SEM. Moreover, Wetzel et al. (2016) reported that there are different subgroups of moderate narcissists—those who score on admiration and those who score on both, admiration and rivalry. Perhaps, in the Spanish sample there are more moderate admiration narcissists, which diminished the observed correlation between admiration and rivalry.

Regarding the third hypothesis, our study provided evidence on the relationship between admiration and benign envy as well as between rivalry and malicious envy. In view of the connections between the constructs of narcissism and envy, our third hypothesis regarding the external validity of the NARQ was confirmed. Moreover, we replicated findings in regard to the relations of admiration and

rivalry to self-esteem (Back et al., 2013) to which admiration was positively and rivalry negatively related. Summarising, our results provided support for the external validity of the Spanish adaptation of NARQ; however, this study should be still treated as a first step toward validating the Spanish NARQ, as tests of the relations to more constructs (such as e.g., basic personality traits, Dark Triad, values) is needed to provide definitive validity evidence.

A cross-cultural assessment of the Spanish NARQ questionnaire proposed in this paper was conducted using samples from Chile and Colombia. The results mostly confirmed the invariance across Spanish-speaking countries. This finding is positive given that scalar measurement invariance needs to be demonstrated before interpreting findings or comparing population groups (Oviedo-Trespalacios & Scott-Parker, 2017). Psychometric studies using samples from Chile and Colombia typically confirm factorial differences while utilising questionnaires developed in other Spanish-speaking jurisdictions (Martínez-Buelvas, Oviedo-Trespalacios, & Luna Amaya, 2016). We recommend the implementation of the Spanish NARQ questionnaire reported in this paper in Spanish-speaking countries.

The results of the cross-cultural validations revealed significant differences in the Colombian sample, which achieved higher scores in all admiration facets and lower in devaluation and supremacy but not in aggressiveness. Moreover, Spanish respondents scored lower on grandiosity from Chilean participants. There is a consideration that needs to be discussed to contextualise this finding. According to OECD Income Distribution Database (IDD), both Colombian and Chilean people present rather similar levels of inequality, which is largely higher than in Spain. The main differences are between privileged and under-privileged groups of the population. Therefore, it is necessary to take into account that the participants are students enrolled in universities, which are definitely more privileged than the majority of the society (Melguizo, Sanchez, & Velasco, 2016) and have likely developed a sense of affinity with their peers. On the other hand, in comparison to German participants, we reached metric but not scalar invariance, which means that while it is possible to compare the correlates of narcissism across these populations, there are some substantial cultural differences between them, thus, our findings regarding the cross-cultural differences in Spanish speaking populations are rather preliminary and future research is necessary to confirm this assertion.

Limitations and conclusions

Some limitations are worth mentioning. First, the three independent samples used in the validation of the NARQ in Spanish-speaking countries were of small-to-medium

size. Likewise, they were composed of undergraduate students; therefore, respondents mostly had homogeneous sociodemographic characteristics (e.g., age). These issues can limit the generalisation of our results. Further research should expand our findings by recruiting larger and more representative samples to allow for robust cross-cultural comparisons. Second, the cross-sectional design does not enable evaluation of the temporal stability of the measure. Third, it is very likely that the wording of the problematic item should also be revised in order to facilitate cultural adaptation of the scale and avoid measurement problems. Future studies could assess different types of validity of the NARQ not reported in the current paper (i.e., construct and content validity) such as criterion-related validity and to use different methodologies such as multi-trait multi-method analyses, other-ratings and across time periods. Fourth, in the assessment of the measurement invariance, we relied on rather liberal criteria, while application of more stringent ones (e.g., Meade, Johnson, & Braddy, 2008) could result in reaching partial metric invariance. Thus, we advocate to interpret the results from the given paper with caution, and we emphasise that there is a need for future studies to provide definitive validity evidence.

To conclude, we have demonstrated that the Spanish version of NARQ is a reliable and valid measure of narcissistic admiration and rivalry. As a result, the NARQ can be successfully administered in a wide range of Spanish-speaking countries and in a variety of research contexts and designs, although future research is needed to verify this claim. Accordingly, we confirmed the positive relationship between narcissism and envy, and self-esteem. Our environment provides shifting domains where narcissism, among other traits, will face a challenge in terms of how it is developed, supported and maintained in social environments. The more we know about the dynamics of narcissism, the more we will be able to understand its evolution beyond cultural bounds.

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ETHICAL STATEMENT

The study was reviewed and accepted by the Commission of Ethics and Bioethics at Cardinal Stefan Wyszyński University in Warsaw, Poland (ID: KEiB – 14/2017; date of the decision: 25 October 2017).

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APPENDIX

SPANISH ADAPTATION OF THE NARCISSISTIC ADMIRATION AND RIVALRY QUESTIONNAIRE

Por favor, indica en qué medida te describen cada una de las siguientes afirmaciones utilizando un formato de respuesta que va desde 1 (fuertemente en desacuerdo) a 6 (fuertemente de acuerdo).

1. Soy magnífico.
2. Algún día seré famoso.
3. Muestro a los demás lo especial que soy.
4. Me molesta cuando otra persona me roba el protagonismo.
5. Disfruto mucho de mis éxitos.
6. Disfruto en secreto de los fracasos de mis rivales.
7. Suelo ser capaz de atraer la atención de los demás hacia mí mismo durante una conversación.
8. Merezco que me consideren una gran persona.
9. Quiero que mis rivales fracasen.
10. Disfruto cuando alguien es inferior a mí.
11. Suele molestarme que me critiquen.
12. Me cuesta soportar que otra persona sea la protagonista de un evento.
13. La mayoría de la gente no conseguirá nada.
14. Los demás no valen nada.
15. Ser una persona muy especial me da mucha fuerza.
16. Puedo ser el centro de atención gracias a mis excelentes aportaciones.
17. La mayoría de la gente son perdedores de alguna forma.
18. En general, se me da muy bien tratar con los demás.

TABLE A1
Reliability estimates, descriptive statistics and gender differences across analysed variables in Spanish, Chilean and Colombian samples

Scale	ω (α)	M	SD	S	K	$M_{females}$ (M_{males})	t	p	d
Spain									
Admiration	.83 (.78)	3.44	0.73	-0.04	0.61	3.39 (3.56)	-1.79	.076	-.22
Grandiosity	.60 (.56)	3.20	0.91	0.14	0.22	3.13 (3.35)	-1.95	.053	-.24
Uniqueness	.57 (.56)	3.80	0.90	-0.23	-0.20	3.78 (3.84)	-0.47	.639	-.06
Charmingness	.65 (.63)	3.32	0.91	-0.08	0.04	3.24 (3.50)	-2.30	.022	-.28
Rivalry	.88 (.81)	2.10	0.76	1.42	2.64	1.96 (2.39)	-4.51	.001	-.57
Devaluation	.78 (.74)	1.63	0.90	1.96	4.15	1.45 (2.03)	-5.54	.001	-.65
Supremacy	.85 (.84)	2.00	1.07	1.37	1.59	1.83 (2.36)	-4.15	.001	-.49
Aggressiveness	.64 (.56)	2.67	0.92	0.75	0.84	2.61 (2.79)	-1.59	.114	-.19
Benign envy	.88 (.84)	3.74	1.16	-0.36	-0.35	3.62 (3.99)	2.68	.008	.32
Malicious envy	.86 (.82)	1.96	0.91	1.34	2.09	1.85 (2.21)	-3.21	.002	-.39
Self-esteem	-	4.03	1.60	-0.25	-0.79	3.87 (4.42)	-2.71	.007	-.34
Chile									
Admiration	.87 (.84)	3.60	0.85	-0.25	0.19	3.64 (3.50)	1.15	.251	.16
Grandiosity	.68 (.65)	3.54	1.02	-0.29	-0.03	3.57 (3.47)	0.70	.484	.10
Uniqueness	.66 (.65)	3.90	0.98	-0.16	-0.23	3.98 (3.70)	2.01	.046	.29
Charmingness	.68 (.68)	3.35	0.98	0.09	-0.14	3.37 (3.33)	0.27	.791	.04
Rivalry	.90 (.85)	2.02	0.79	1.20	1.90	1.95 (2.22)	-2.50	.013	-.34
Devaluation	.78 (.77)	1.58	0.87	2.12	5.08	1.46 (1.84)	-3.14	.002	-.44
Supremacy	.84 (.83)	1.91	1.00	1.29	1.38	1.82 (2.12)	-2.17	.031	-.30
Aggressiveness	.74 (.72)	2.60	1.02	0.60	-0.07	2.56 (2.70)	-1.00	.318	-.14
Colombia									
Admiration	.86 (.81)	3.99	0.79	-0.43	0.13	3.32 (4.08)	-1.63	.104	-.21
Grandiosity	.61 (.59)	3.92	0.95	-0.22	0.15	3.87 (3.99)	-1.01	.314	-.13
Uniqueness	.63 (.61)	4.40	0.90	-0.46	0.18	4.33 (4.48)	-1.26	.207	-.17
Charmingness	.74 (.71)	3.65	1.03	-0.31	-0.30	3.55 (3.77)	-1.71	.089	-.22
Rivalry	.88 (.81)	1.86	0.65	1.45	3.11	1.79 (1.94)	-1.76	.079	-.23
Devaluation	.74 (.68)	1.46	0.70	2.13	6.41	1.31 (1.64)	-3.82	.001	-.49
Supremacy	.83 (.82)	1.64	0.81	1.75	3.35	1.52 (1.78)	-2.64	.009	-.32
Aggressiveness	.70 (.67)	2.47	0.97	0.68	0.03	2.54 (2.39)	-1.30	.194	-.15

Note: ω = McDonald's omega; α = Cronbach's alpha; M = mean; SD = standard deviation; S = skewness; K = kurtosis; t = independent-samples t -test; d = Cohen's d (effect size used to indicate the standardised difference between two means); positive values indicate higher values for women.