






# Translation and Validation of the Spanish Version of the MAPS20 and ISRI Scales

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**Abstract:** Emerging adulthood has been defined as a critical life stage. According to Erikson's psychosocial theory, developing a sense of self and a personal identity is a critical task of adolescence and emerging adulthood. A well-integrated identity is critical for emerging adults because such identity provides a meaningful and consistent self-structure despite the inevitable events encountered in life. The aim of the present study was to translate and validate the Multi-Measure Agentic Personality Scale (MAPS20) and Identity Stage Resolution Index (ISRI) scales into Spanish. Both scales are key measures to assess identity capital, which refers to the assumption of identity commitments and adult roles during emerging adulthood. Back-translation procedures were performed to create Spanish versions of both scales. The scales were administered to a nationally representative sample of 1,200 Spanish emerging adults aged 18–32 years ( $M = 25.3$ ,  $SD = 4.13$ ). Confirmatory factor analyses (CFI) were conducted to assess the factor structure, validity, and reliability of scores generated by these measures. The results suggested adequate model fit [MAPS20 (RMSEA = .066, CFI = .953, and TLI = .945); ISRI (RMSEA = .052, CFI = .999 and TLI = .997)] and evidence for convergent and discriminant validity. We therefore concluded that the Spanish versions of the MAPS20 and ISRI scales are valid and reliable for evaluating intangible agentic resources and identity resolution in emerging adults. Limitations and directions for future research are discussed.

**Keywords:** translation and validation, identity capital, emerging adulthood, identity resolution, psychosocial development

Emerging adulthood (Arnett, 2000) has been defined as a distinctively developmental stage from the late teens through the early thirties, in which young people are neither adolescents nor adults. Although the emerging adult life stage originally focused on ages 18–25 years (Arnett, 2018), subsequent studies have commonly referred to a longer period that extends up to 18–32 years because of social and demographic changes in many Western contexts (Nelson, 2021). Along with feeling-in-between, this stage is also characterized by a constant exploration of identity, especially in the love/work domains; an age of constant instability; self-focus; and multiple possibilities. Emerging adulthood is considered a critical stage for two reasons (Arnett, 2007). First, no other stage in life experiences such complex changes in the social, psychological, neurological domains (Wood et al., 2017). The constant dynamic changes that young adults experience represent a turning point that carries benefits

and pitfalls for mental health issues and psychological well-being (Baggio et al., 2017; Conley et al., 2020; Tanner, 2016). Second, young adults develop the necessary qualities for their future adult life during this stage. They are in the process of becoming self-sufficient, mature, and committed, so they can assume their future adult roles successfully (Galanaki & Sideridis, 2019). How they navigate this stage will influence their future trajectories and positive or negative outcomes as adults (Mitchell et al., 2021). As Schwartz (2016) states, this stage is *two-faced* because it can establish individuals' life course via diverging trajectories regardless of a given person's background or past experiences. The ways in which young people confront the risks or opportunities presented to them will depend not only on their own resources and environmental support (García-Mendoza et al., 2020; Wood et al., 2017) but also on how they use and purposefully engage with those resources (Nelson, 2021).

According to Erikson's (1985) psychosocial theory, developing a sense of self and personal identity is a critical task that starts in adolescence and extends into emerging adulthood. During these years, individuals develop self-sufficiency and establish foundations for adult commitments in areas such as romantic relationships and gainful employment, while also defining and committing to a set of personal values and beliefs (Wood et al., 2017). Emerging adulthood is the period in which most people's life either *goes well* or *goes bad*, with identity issues often serving as a key determinant of which direction one's life is likely to follow (Schwartz, 2016).

The *identity capital model* (ICM; Côté, 1997, 2016) is a social-psychological framework that indexes emerging adults' progress toward establishing adult roles and commitments. This model is based on the assumption that, in Western late-modern societies where traditional normative structures and transitions (e.g., rituals marking one's entry into adulthood) are largely absent, young people must find their own way into adulthood and are largely left to their own devices when making major life decisions (Côté, 2000). Although increased individualization and the absence of normative structures might be beneficial for some young people, it presents formidable challenges to many others (Côté, 2002) who might suffer considerably, socially and emotionally.

The disappearance of normative social structures for the transition to adulthood requires emerging adults to develop a *portfolio* of psychosocial resources that will help them navigate the transition to adulthood and adapt to the demands of postmodern societies (Côté, 2016). According to the ICM, these resources include both tangible (e.g., education, socioeconomic status, social credentials) and intangible (e.g., agentic personality) assets. Although tangible assets can often be assessed using demographic proxies such as household income, intangible assets must be assessed using validated self-report (or other) types of scales.

Identity capital itself is often indexed in terms of the extent to which emerging adults believe that they have entered into adult roles and found a community that validates and nurtures those roles and commitments (e.g., Côté, 1997; Côté & Schwartz, 2002). Indeed, self-verification theory holds that identity claims are not secure unless they are validated by people who are established members of the group in which one is claiming membership (Swann et al., 2007). In the case of identity capital, claiming adult status is most secure when other established adults accept and treat the person as an adult.

A key theoretical proposition within ICM is that agentic personality (as a primary intangible asset) should predict indices of identity capital (Côté, 2002). As a result, Côté (1997) developed the *Multi-Measure Agentic Personality Scale* (MAPS20) and the *Identity Stage Resolution Index*

(ISRI) to assess agentic personality and identity capital, respectively. The MAPS20 includes items assessing agentic personality in four subdimensions: self-esteem, purpose in life, internal locus of control, and ego strengths. The ISRI evaluates the extent to which one believes that one has reached adulthood and found a community that validates one's adult status. The identity capital components are grounded in, and closely related to measures of, Erikson's concept of identity synthesis (Mitchell et al., 2021; Schwartz et al., 2007), which can be expressed as "having a clear sense of who one is."

Originally, Erikson's conceptualization of identity development acknowledged the interaction of person and context by integrating external social demands with internal personal dynamics (Widick et al., 1978). Identity encompasses not only "who you think you are" but also "who you act as being" in interpersonal interactions (Vignoles et al., 2011). One of the main limitations of other identity frameworks, such as *identity status* (Marcia, 1966), and *identity styles* (Berzonsky, 1989), is that they are focused exclusively on the intrapsychic level, leaving aside the social aspects of identity development. On the contrary, the ICM is grounded in both the intrapsychic level and the contextual realm to address some of these gaps. Indeed, using samples of US and Canadian emerging adults, Côté and Schwartz (2002) empirically linked psychological (Eriksonian) and sociological (identity capital) approaches to identity and, in doing so, operationalized individualization in terms of agentic personality.

Subsequent identity capital research has used this approach in a number of countries, including Japan (Côté et al., 2016; Sugimura & Mizokami, 2012), Denmark (Helve et al., 2017), China (Yuan & Ngai, 2016), Italy (Sica et al., 2014), the United Kingdom (Webb et al., 2017), and Turkey (Atak et al., 2013). To our knowledge, the MAPS20 and ISRI scales have not been translated into Spanish. Given that Spanish is the fourth most widely spoken language in the world, there is a need to create Spanish versions of identity resolution measures during the transition to adulthood. For this reason, in the present study, we translate and validate the MAPS20 and ISRI scales for use in Spanish-speaking countries.

## Methods

### Participants and Sampling Procedures

The sample consisted of a nationally representative sample of 1,200 Spanish young adults aged 18–32 years ( $M = 25.3$ ,  $SD = 4.13$ ), evenly distributed by gender. Participants were recruited from different autonomous

regions of Spain by a specialized market research company. The company performed a random and systematic sampling, based on demographic distribution (NIELSEN zones), population size, age, sex, education level, and occupational status. These characteristics were contrasted with the last Active Population Survey of the National Institute of Statistics (INE) to ensure representativeness. Participation in this study was voluntary, confidential, and anonymous, and no incentives were provided. Before data collection, this study was approved by the University of Navarra's Ethics Committee (ref. 2021.018).

## Measures

### Multi-Measure Agentic Personality Scale (MAPS20)

The MAPS20 is a validated scale assessing agentic personality. The original version (Côté, 1997) comprised 96 items and six subscales: self-esteem, purpose in life, self-actualization, internal locus of control, ego strength, and ideological commitment. However, reduced length, a 20-item reduced version was created with the help of Acumen Research Group (2008). This reduced version was divided into four subscales with five items apiece: self-esteem, purpose in life, internal locus of control, and ego strength. Self-esteem (e.g., "Most people are better liked than I am") uses a dichotomous response option ("Unlike me," "Like me"). Purpose in life (e.g., "My life is empty and filled with despair . . . or . . . running with good or exciting things") has a 7-point scale option. Locus of control (e.g., "When I make plans, I am almost certain I can make them work") has a 6-point Likert response scale (1 = *strongly agree*, 6 = *strongly disagree*). Ego strength (e.g., "I enjoy difficult and challenging situations") uses a 5-point Likert response scale (1 = *completely false*, 5 = *completely true*). For more details, see Electronic Supplementary Material 1 (ESM 1).

In the original version of this scale (Côté, 1997), CFA modification indices suggested deletion of two items (LC2 and PL5), and the remaining items provided acceptable fit (CFI = .961, RMSEA = .037). Correlations between the full and reduced versions suggested no important loss of information associated with the shortened subscales, and that results would likely not change appreciably between the full and shortened versions of the scales.

### Identity Stage Resolution Index (ISRI)

The ISRI assesses forms of identity capital accumulation during the transition to adulthood (Côté, 2016). It provides an approximation of progress toward adulthood and the establishment of a functional community of significant others. The ISRI is a 6-item index and uses a 5-point Likert response scale (0 = *not at all true*, 4 = *entirely true*). The scale is divided into two subscales: adult identity stage resolution (AIRS; e.g.,

"You consider yourself to be an adult") and social identity stage resolution (SIRS; e.g., "You have found your niche in life"). Described fit indices of the original English version are appropriate ( $\alpha = .85$ , CFI = .97, RMSEA = .08). For more details, see Electronic Supplementary Material 2 (ESM2).

## Data Analysis

### Translation Procedure

Both the MAPS20 and ISRI scales were translated from English to Spanish using the back-translation method. Two people (a native Spanish speaker and a multilingual English-Spanish translator) participated in the back-translation process. First, both scales were translated into Spanish by the multilingual translator. Then, the Spanish versions were back-translated into English by the native Spanish-speaking professional. The two translators, along with three members of the research team, met to discuss discrepancies between the original and back-translated English versions and worked together to produce the final Spanish version. According to our aim, and because this is the first Spanish translation and validation of the MAPS20 and ISRI scales, we tried to ensure that the Spanish was understandable for people from other Spanish-speaking countries (Latin America, Central American, South American, and Spanish-speaking Caribbean). For this reason, we had members on our team from Chile and Mexico to assure that the Spanish version was widely understandable.

### Validation Procedure

To examine whether the scales performed as theoretically expected, convergent and discriminant validity analyses were performed using the multitrait-multimethod approach (Campbell & Fiske, 1959) for the MAPS20 and ISRI scales, respectively. Responses to each item were correlated with their own subscale and with other subscales to examine the differentiation degree. To assess whether the convergent validity correlations were significantly higher than the discriminant validity correlations, we compared each item correlation with each subscale, using a Fisher transformation with Benjamini-Hochberg correction to avoid Type I error inflation ( $\alpha = .05$ ). Convergent validity was obtained from the correlations between the items and their corresponding subscale, whereas discriminant validity was obtained from the correlations between items and subscales of which they were not a part. Reliability was evaluated according to Cronbach's  $\alpha$  ( $\geq .70$ ; Cortina, 1993) and McDonald's  $\omega$  ( $\geq .70$ ; McNeish, 2018).

A confirmatory factor analysis (CFA) was performed to validate the measurement model and to determine whether the Spanish versions of the MAPS20 and ISRI scales provided scores that matched the original theoretical constructs

and measures (Lloret-Segura et al., 2014). Each measure was analyzed independently, testing a first-order model of the four subscales on the MAPS20 (self-esteem, locus of control, ego strengths, purpose in life) and the two ISRI subscales (adult identity and social identity resolution). Given the ordinal nature of the Likert scale, and the dichotomous response scale used with the self-esteem subscale, we performed these analyses treating each item response as ordinal, and the CFA model was evaluated using a diagonally weighted least squares estimation (DWLS) rather than robust maximum likelihood (Li, 2016). Reverse-scored items were recoded prior to computing subscale scores.

Post hoc model modifications were evaluated using Modification Indices to improve model fit. Only theoretically plausible modifications were included. Validity was evaluated using the recommended model fit indexes (Hu & Bentler, 1999) – the chi-square statistic ( $\chi^2$ ), root-mean-square error of approximation (RMSEA < .08), Comparative Fit Index (CFI > .90), and Tucker-Lewis Index (TLI > .90; Brown, 2015). The standardized root-mean-square residual (SRMR) was not considered because previous evidence suggests that this index does not perform well in CFA models with categorical indicators (Yu, 2002). Discriminant

validity was tested analyzing interfactor correlations ( $r \leq .90$ ; Fornell & Larcker, 1981). Finally, reliability of the CFA solution was evaluated using McDonald's Omega coefficient ( $\omega \geq .70$ ; McNeish, 2018) and the average interitem correlation (AIC). All analyses were conducted using the *lavaan*, *psych*, and *psy* packages in R (version 4.1.3).

## Results

### Descriptive Statistics

Sample sociodemographic characteristics are provided in Table 1. The sample consisted of 1,200 participants between 18 and 32 years ( $M = 25.3$ ,  $SD = 4.13$ ) and with equal proportions of women (49.59%) and men (50.41%). In terms of relationship status, 55.83% of the sample described being in a relationship (committed relationship, engaged, or married), whereas 43.5% were single. Regarding occupation, 40.17% of the sample held full-time jobs, 27.92% were students, 19.17% were both studying and working, and the remaining 12.74% were either unemployed or looking for a

**Table 1.** Sociodemographic characteristics of the sample ( $n = 1,200$ )

Variable	<i>N</i>	%
Gender		
Men	605	50.41%
Women	595	49.59%
Relationship status		
Single	522	43.50%
Committed relationship	453	37.75%
Engaged	153	12.75%
Married	64	5.33%
Other	8	0.67%
Occupational status		
Only working	482	40.17%
Only studying	335	27.92%
Working and studying	230	19.17%
Looking for a job	139	11.58%
Temporarily unemployed	13	1.08%
Other	1	0.08%
Socioeconomic status		
Low	59	4.92%
Middle-low	313	26.08%
Middle	664	55.33%
Middle-high	161	13.42%
High	2	0.17%
Not specified	1	0.08%

**Table 2.** Multitrait–multimethod results of convergent and discriminant analyses of MAPS20

Item	Alpha (item deleted)	Self-esteem	Purpose in life	Internal locus of control	Ego strengths
SE1	.81	<b>.31</b>	.31	.09	.14
SE2	.80	<b>.42</b>	.31	.08	.16
SE3	.80	<b>.35</b>	.28	.09	.21
SE4	.81	<b>.30</b>	.23	.07	.11
SE5	.80	<b>.43</b>	.30	.07	.12
PL1	.79	.48	<b>.43</b>	.25	.22
PL2	.79	.31	<b>.57</b>	.26	.24
PL3	.79	.28	<b>.59</b>	.23	.27
PL4	.79	.36	<b>.59</b>	.30	.24
PL5	.80	.11	<b>.17</b>	.22	.31
LC1	.80	.05	.24	<b>.53</b>	.18
LC2	.79	.22	.34	<b>.39</b>	.32
LC3	.80	.11	.30	<b>.36</b>	.24
LC4	.81	.00	.11	<b>.35</b>	.15
LC5	.80	.09	.27	<b>.51</b>	.25
ES1	.79	.21	.39	.32	<b>.40</b>
ES2	.79	.21	.34	.26	<b>.53</b>
ES3	.80	.17	.22	.23	<b>.56</b>
ES4	.80	.13	.17	.18	<b>.40</b>
ES5	.80	.12	.19	.19	<b>.51</b>

Note. SE = Self-Esteem; PL = Purpose in Life; LC = Internal Locus of Control; ES = Ego Strength. Corresponding values of each subscale are bolded.

job. Finally, more than half (55.33%) of participants characterized themselves and their families as middle class.

## Reliability and Validity

Before validating the measurement model, we conducted a series of multitrait–multimethod analyses (Campbell & Fiske, 1959). Table 2 shows MAPS20 correlations between each item and each theoretical subscale and Cronbach's alpha if each item were removed. Table 3 provides the same results for the ISRI scale.

**Table 3.** Multitrait–multimethod results of convergent and discriminant analyses of ISRI

Item	Alpha (item deleted)	AIRS	SIRS
AIRS1	0.85	<b>0.63</b>	0.41
AIRS2	0.84	<b>0.59</b>	0.51
AIRS3	0.84	<b>0.57</b>	0.52
SIRS1	0.81	0.59	<b>0.75</b>
SIRS2	0.82	0.50	<b>0.77</b>
SIRS3	0.83	0.46	<b>0.69</b>

Note. AIRS = Adult identity resolution stage; SIRS = Social identity resolution stage. Corresponding values of each subscale are bolded.

As Table 4 illustrates, the MAPS20 scale provided scores with acceptable internal consistency ( $\alpha = .81$ ) and acceptable reliability coefficients for each of the MAPS20 subscales (Self-Esteem,  $\alpha = .61$ ; Purpose in Life,  $\alpha = .72$ ; Locus of Control,  $\alpha = .67$ ; Ego Strength,  $\alpha = .72$ ). These coefficients are comparable to those reported in the original work (Côté, 2016). In terms of MAPS20 subscales, a high proportion of items significantly differentiated their respective subscales from the other agentic personality subscales (see Scaling Success in Table 4). These results provide evidence for discriminant validity.

For the ISRI scale, convergent and discriminant validity were theoretically consistent. Acceptable internal consistency was obtained for the ISRI as a whole ( $\alpha = .86$ ) and for each of the ISRI subscales (AIRS  $\alpha = .76$ ; SIRS  $\alpha = .86$ ). Significant relationships were found between the ISRI scores and the adult identity (AIRS) and societal identity (SIRS) subscales.

## CFA Results

### MAPS20 Scale

CFA shows significant factor loadings (see Table 5). In terms of factorial validity, fit indices show an adequate fit to the data (CFI = .935; TLI = .925; RMSEA = .077).

**Table 4.** Summary of convergent and discriminant analyses of the MAPS20 and ISRI scales

Scale	Reliability ( $\alpha$ )	Subscale	Items	Convergent validity	Discriminant validity	Scaling success <sup>a</sup>	Reliability ( $\alpha$ )
MAPS20	.81	Self-esteem	5	.30–.43	.07–.31	14/15	.61
		Purpose in life	5	.17–.59	.11–.48	11/15	.72
		Internal locus of control	5	.35–.53	.00–.34	14/15	.67
		Ego strengths	5	.40–.56	.12–.39	14/15	.72
ISRI	.86	AIRS	3	.57–.63	.41–.52	3/3	.76
		SIRS	3	.69–.75	.46–.59	3/3	.86

Note. Convergent validity = minimum and maximum values of the correlation between the items of the same construct. Discriminant validity = minimum and maximum values of the correlation between the items to other subscales except their own. <sup>a</sup>Scaling success: refers to the proportion of convergent correlations significantly higher than the discriminant correlations/number of correlations computed.

**Table 5.** Factor loadings of the original MAPS20 model with the present data

Item	Self-esteem	Purpose in life	Internal locus of control	Ego strengths
SE1	.799			
SE2	.734			
SE3	.628			
SE4	.474			
SE5	.658			
PL1		.640		
PL2		.732		
PL3		.738		
PL4		.686		
PL5		.365		
LC1			.630	
LC2			.686	
LC3			.575	
LC4			.403	
LC5			.667	
ES1				.699
ES2				.715
ES3				.665
ES4				.482
ES5				.586

Note. SE = Self-Esteem; PL = Purpose in Life; LC = Internal Locus of Control; ES = Ego Strength. Originally reverse-scored items adapted before CFA. All loadings have  $p < .001$ .

Discriminant validity is proved by interfactor correlations that show significant correlations with all factors (Table 6), and the correlations ranged from .28 to .69, indicating that the subscales were related to each other but not redundant. Reliability using McDonald's ( $\omega$ ) measurement ranged from .54 to .89, and the average item correlation (AIC) is between .38 and .41, showing internal consistency to most subscales. Purpose in Life was the only subscale with an omega coefficient under .70 ( $\omega \geq .54$ ). See Table 7.

**Table 6.** MAPS20 factor intercorrelations

Factor	Self-esteem	Purpose in life	Internal locus of control
Self-esteem	—		
Purpose in life	.689	—	
Internal locus of control	.238	.508	—
Ego strengths	.364	.497	.527

Note. All correlations with  $p < .001$ .

**Table 7.** MAPS20 McDonald's  $\omega$  and AIC

MAPS20	Reliability ( $\omega$ )	AIC
Self-esteem	.890	.412
Purpose in life	.540	.337
Internal locus of control	.730	.344
Ego strength	.780	.381

Note. AIC = Average interitem correlation.

Modification indices, consistent with the results presented above, suggested cross-loadings for some items from the Purpose in Life (PL) subscale. Specifically, item PL5 also appeared to be associated with the Ego Strength ( $mi = 248.5$ ) and Locus of Control ( $mi = 145.3$ ) subscale. This item was also associated with the lowest factor loading on the PL subscale factor (.365). Item PL1 also appeared to be associated with Self-Esteem subscale ( $mi = 171.2$ ). In terms of suggested residual correlations, items PL2 and PL3 had a high residual correlation ( $mi = 210.6$ ;  $\rho = .126$ ), as did items ES3 and ES5 ( $mi = 108.2$ ;  $\rho = .155$ ). These residual correlations might be considered plausible given that both correlations involve items in the same subscale. Some of these results were described in the original study introducing the MAPS20 in English (Côté, 2016): Côté added a covariance term between PL2 and PL3, and deleted PL5, within his CFA. In the present study, we performed an additional modification in relation to the original model (see Table 8) where an error covariance was added between PL2 and PL3 and between ES3 and ES5. According to our results, and because

**Table 8.** Fit measurements of proposed models to MAPS20 scale

Model	$\chi^2$	<i>df</i>	RMSEA	CFI	TLI
Original	1,325.845	164	.077 (.073; .081)	.935	.925
Modification 1	1,008.237	162	.066 (.062; .070)	.953	.945

Note.  $\chi^2$  = chi-square. *df* = degrees of freedom. RMSEA = root-mean-square error of approximation. CFI = Comparative Fit Index. TLI = Tucker–Lewis Index. All models have a  $p < .001$ .

**Table 9.** Factor loadings of the original ISRI model with the present data

Item	AIRS	SIRS
AIRS1	.765	
AIRS2	.796	
AIRS3	.785	
SIRS1		.910
SIRS2		.875
SIRS3		.788

Note. AIRS = Adult Identity Resolution Scale; SIRS = Societal Identity Resolution Scale. All loadings have  $p < .001$ .

the fit indexes are good enough, we conclude that the best option is to keep the 20-item original scale with the constraints of Modification 1.

### ISRI Scale

Significant factor loadings emerged for all ISRI items. As Table 9 indicates, good fit indices were obtained (CFI = .997; TLI = .994; RMSEA = .079). Discriminant validity was obtained between the AIRS and SIRS subscales (AIC = .745;  $p < .001$ ). Regarding reliability, both subscales provided scores with acceptable internal consistency [AIRS ( $\omega = .826$ ; AIC = .603); SIRS ( $\omega = .894$ ; AIC = .733)].

Excellent fit measures were obtained in the original ISRI scale (CFI = .997; TLI = .994; RMSEA = .079;  $p < .001$ ); therefore, we recommend using the original scale as it is.

## Discussion

The present study was designed to create and validate the first Spanish version of the Multi-Measure Agentic Personality Scale (MAPS20) and Identity Stage Resolution Scale (ISRI). In keeping with established translation and transcultural adaptation processes, our results suggest that the Spanish versions of both scales provide good fit and provide valid and reliable measures to evaluate intangible agentic personality resources and adult identity resolution. For the MAPS20, the fit indices we obtained were comparable to those described in the original study (Côté, 2016). For the Purpose in Life subscale (PL), we found the same modification indices described in the original

study (Côté, 2016) in terms of error covariance between items PL2 and PL3 and the lower loading of item PL5 on its respective subscale. However, unlike Côté's results, our analyses indicated a high correlation between item PL1 and the self-esteem subscale. There may be two possible explanations for this finding. First, from a psychosocial developmental point of view, self-esteem and personality traits (such as extraversion, neuroticism, conscientiousness, agreeableness, and openness) are often highly related (Fetvadjev & He, 2019; Pilarska, 2018; Weidmann et al., 2018). The way in which the PL1 item is written ("I am usually (1) completely bored... (4) neutral... (7) exuberant and enthusiastic") might suggest an introversion-extraversion personality trait as well as a self-concept construction; both of these constructs are known to be related to self-esteem. Second, the PL1 item translation might not be completely accurate. The Spanish translation of *bored* would be *aburrido*, which in Spanish refers to the adjective of *being bored*, and not as an agentic personality trait as it was originally intended. Because *aburrido* is not a common expression used in Spanish, the translation was changed to the expression *pasiva y apagada*, which refers to someone being passive and dull, and as adequate opposite meanings to *exuberant and enthusiastic*. However, in an effort to avoid using an unusual Spanish construction, this translation might have caused more confusion or inaccuracy. Therefore, future qualitative studies should examine the most accurate translation of this item wording.

As for the CFA analyses, modifications slightly improved the MAPS20 model. However, the original model already fit the data well, and as a result, we decided to maintain all the items of the original scale. In relation to ISRI, analyses verified the scale's factorial structure, with a considerable convergent and discriminant validity. Fit indexes were excellent and acceptable for the Spanish sample and were similar to those obtained in the original study. Because the ISRI consists of only three items per subscale (AIRS and SIRS), no modifications were needed. The fit indices were excellent for the ISRI. Future studies are advised to test the factorial structure using a one-factor model, as we did in our study.

Finally, the questionnaire in the original study (Côté, 2016) was validated using principal components analysis (PCA), a varimax rotation with Kaiser normalization,

and then corroborated with CFA. Because this method has been criticized for this type of validation (Lloret-Segura et al., 2014), and following Côté's (2016) recommendation, a CFA approach was adopted. It should be noted that CFA is more powerful, adaptable, and accurate than EFA (Brown, 2015), and CFA is preferable for measures where an existing factor structure has been established.

The MAPS20 and ISRI scales evaluate the extent to which young people (1) have the agentic personality traits necessary to address the demands of postmodern societies and (2) possess the intangible identity capital resources to compete successfully within such societies (see Côté, 2000, 2016, for further discussion). To our knowledge, this study has created the first Spanish adaptation of these scales. Given that Spanish is the second most widely spoken native language in the world (behind only Mandarin Chinese), there was a critical need to create and validate Spanish versions of these measures. Because the sample used in the study was representative, and because our translation and validation followed established cultural adaptation practices, the MAPS20 and ISRI can now be used to measure identity capital and identity resolution in Spanish-speaking populations. Nonetheless, we were not exempt from challenges in the adaptation and translation process. As mentioned before, there were concepts that were harder to translate for not being understandable in Spanish culture. Also, we found some difficulties with some of the items (PL2 and PL3); however, these same difficulties were described in the original article.

## Limitations

The present results should be considered in light of some limitations. The efforts performed in the back-translation process to create a global Spanish version of the scale need further cultural validation work to confirm the applicability of our Spanish language measures across the Spanish-speaking world. Because the Spanish spoken in Spain is quite different from the Spanish spoken in most Latin American countries, it was important to include people from Mexico and Chile in the translation process. However, further research should examine the adequacy and psychometric properties of scores produced by these translated versions with emerging adults from Central American, South American, and Spanish-speaking Caribbean backgrounds.

Additional limitations include the cross-sectional research design, which does not permit us to draw directional or causal conclusions, as well as the absence of external correlates that might have been used to demonstrate concurrent and construct validity. Future work

would be advised to include multiple measurement occasions and to include external constructs (e.g., depressive symptoms, personality traits) that could be correlated with the MAPS20 and ISRI scores.

## Future Implications

In conclusion, and despite these and other limitations, the present study has introduced the first Spanish validation and translation of the MAPS20 and ISRI scales. Our work therefore allows future studies to evaluate intangible agentic personality resources and identity resolution in emerging adulthood among Spanish-speaking populations. This validation allows future collaborations and dialogs between other researchers interested in youth transitions, identity development, and intrapsychic and contextual resources among Spanish-speaking emerging adults. However, given important differences in the Spanish spoken in Spain versus Latin America, cross-national studies are needed to validate the MAPS20 and the ISRI for use in different Spanish-speaking contexts. However, this first attempt offers the possibility of extending the Identity Capital Model to the Spanish-speaking world and to Spanish-speaking emerging adults from a number of countries.

Studies using these translated scales have the potential to shed more light on identity formation among Spanish-speaking emerging adults and may help to evaluate interventions to promote identity during the transition to adulthood in this population. Given the vast diversity in structural contexts between and among Spanish-speaking countries, it is essential to gauge the contexts for emerging adulthood in these various settings. We hope that our study inspires additional work in this direction.

## Electronic Supplementary Material

The electronic supplementary material is available with the online version of the article at <https://doi.org/10.1027/2698-1866/a000051>

**ESM 1.** Spanish translation of the MAPS20 Scale.

**ESM 2.** Spanish translation of the ISRI Scale.

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