Toward the Development of Quasi-Indigenous Personality Constructs

**Measuring *Los Cinco Grandes* in Spain
With Indigenous Castilian Markers**

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Can the Big Five be recovered in Spanish? Several recent cross-cultural studies indicate that imported (i.e., translated) Big Five measures replicate in Spanish but that existing indigenous Spanish personality taxonomies map only partially onto the Big Five domain. This article outlines a complementary midlevel approach that involves identifying a quasi-indigenous Spanish Big Five taxonomy, namely, a manageable set of indigenous Spanish (Castilian) personality descriptors that reliably measure the Big Five using local, culturally relevant terms. Results from the present study support the reliability, factorial robustness, and construct validity of the resulting quasi-indigenous Spanish Big Five scales defined by the Castilian markers. Results also suggest that humor, good nature, and unconventionality may be particularly salient aspects of personality description in Spain.

Research in cultural and ethnic-minority psychology has identified a number of general value differences between Latin cultures (e.g., Spanish and Hispanic) and U.S. Anglo-American culture (Hofstede, 1983; Marín & Marín, 1991; Schwartz, 1994; Triandis, 1990; Triandis, Lisansky, Marín, & Betancourt, 1984). Compared to Anglo-Americans, Latin individuals are less individualistic and more collectivist; that is, they emphasize interdependence and the goals of the in-group; they value *simpatía*, which may be described as the need for interpersonal behaviors that promote smooth and harmonious relationships such as expressing positive emotions and avoiding interpersonal conflict; they have a more flexible time orientation (being more present than future oriented) and are

less likely to delay gratification. Latin individuals also value familialism; that is, they show strong attachment to and identification with the family. Despite these similarities, Latin cultures also differ from each other in important ways. For example, individuals of Latin-American background (e.g., Hispanics who live in the United States) speak a variant of Spanish that is different from the Castilian spoken by Spaniards living in Spain, and they seem to show the cultural characteristics of collectivism, *simpatía*, present-time orientation, and familialism to a greater extent than Spaniards (Hofstede, 1983; Marín & Marín, 1991).

An interesting empirical question is whether and how all these Anglo-Latin cultural differences at the group level translate into differences in the basic organization (or structure) of personality characteristics at the individual level. One possibility, as Gergen, Gulerce, Lock, and Misra (1996) suggested, is that each culture creates a unique personality structure, thus making multiple, culturally specific personality psychologies necessary. Alternatively, as McCrae and Costa (1997) recently suggested, there may be a basic universal personality structure, namely, the structure of traits comprising the Big Five (or five-factor model), that is culturally invariant. Several recent studies have examined this issue in the context of Latin cultures (Benet-Martínez, 1999; Benet-Martínez & John, 1998; Benet-Martínez & Waller, 1997). Using an imposed-etic approach (i.e., relying on translated instruments), Benet-Martínez and John (1998) conducted three studies to evaluate the generalizability of a Spanish version of the Big Five Inventory (BFI) (John, Donahue, & Kentle, 1991) and to explore the generalizability of the Big Five factor structure in three different Latin samples: college students from Spain and college and working-class Hispanic bilingual individuals living in California. These three studies failed to show substantial Anglo-Latin and Hispanic-Spanish cultural differences in personality at the broad level represented by the Big Five dimensions. Specifically, the factor composition and psychometric properties (e.g., alphas, means, and standard deviations) for the Big Five scales were very similar across all the cultural groups compared.

Benet-Martínez and John's (1998) use of a translated instrument optimally served the main goal of their study: to assess the robustness of the Big Five Inventory (John et al., 1991) in the Spanish language. Their use of imported instruments in this study, however, did not directly address the question of whether the Big Five taxonomy truly represents the basic structure of the indigenous Spanish personality lexicon. In other words, it is not clear whether the results from Benet-Martínez and John's (1998) study prove that Big Five dimensions best represent the actual structure of the Spanish personality lexicon or merely that American Big Five markers can be translated into Spanish and still retain their structure. This issue can only be addressed by taking an emic approach, that is, by identifying the basic dimensions of personality variation in Spanish from a pool of indigenous Spanish personality descriptors. With this goal in mind, Benet-Martínez (1999; Benet-Martínez & Waller, 1997) conducted a series of emic studies that examined the structure of self-reports on a set

of 299 indigenous Spanish (Castilian) personality descriptors selected from an unabridged Spanish dictionary and representative of the entire Spanish personality lexicon. Compared to the typical set of personality descriptors used to identify Big Five taxonomies (e.g., Angleitner, Ostendorf, & John, 1990; Goldberg, 1990; Norman, 1967), the Spanish set of 299 indigenous descriptors was selected using a broader definition of personality. In addition to traditional trait descriptors, Benet-Martínez and Waller also included historically excluded personality terms such as highly evaluative and affective state descriptors (for a discussion of this approach, see Benet & Waller, 1995; Tellegen, 1993; Waller, 1999). Self-ratings on the Spanish (Castilian) descriptors by a large Spanish college sample ($N = 894$) yielded a seven-factor structure (named the Big Seven in this and other studies). Three of these seven factors were very similar to the Big Five dimensions of Conscientiousness, Agreeableness, and Openness. The other four dimensions represented (and were named) Pleasantness and Engagement (affect dimensions representing rotations of Extraversion and Neuroticism) and Positive and Negative Valence (esteem dimensions representing positive and negative self-evaluation).[1]

Can the Big Five be recovered in Spanish? The imposed-etic and emic studies described so far suggest the following: (a) Imported Big Five measures (e.g., Big Five Inventory) replicate well in Spanish, (b) there is little evidence for Anglo-Latin cultural differences in Big Five mean levels (see Table 1 in Benet-Martínez & John, 1998), and (c) existing indigenous Spanish personality taxonomies map only partially into the Big Five (common dimensions are Conscientiousness, Agreeableness, and Openness). Researchers interested in measuring basic personality characteristics in Spain are then faced with the following two choices: (a) use translated Anglo-American personality descriptors and measure the Big Five or (b) use indigenous Spanish terms but measure instead a culture-specific Big Seven structure (which includes three of the Big Five dimensions).

In trying to decide between the two aforementioned choices, researchers will invariably have to deal with a couple of important issues (which were introduced earlier): The first choice, use translated Anglo-American personality descriptors and measure the Big Five, is a straightforward and economical one, but it is limited in that particular culture-specific personality elements and local expressions and meanings associated to them may be lost (Church & Katigbak, 1988; Triandis & Marín, 1983). The second choice, use indigenous Spanish terms and measure instead a culture-specific structure, is free of the fundamental limitations stemming from the first choice but presents a different (and perhaps equally important) disadvantage: It makes standard (i.e., empirical) cross-cultural comparisons very hard.

In this article, we propose a new midlevel approach that represents a compromise between the prior two conflicting choices and allows researchers simultaneously to achieve two desirable goals: measure the Big Five and use indigenous personality expressions. We illustrate the development and evaluation of this

approach in the context of measuring the Big Five in Spain with local Castilian personality expressions.

METHOD

PARTICIPANTS

A sample of 894 native residents of Spain, 709 women and 185 men, participated in this study. The mean age of the sample was 21.24 years (SD = 3.91). All participants were undergraduate students attending day or evening courses at the Universidad Autónoma de Barcelona, a large public university in Spain. To obtain a representative sample of Spanish college students, participants were enlisted from a diverse range of majors: psychology (417), economics (142), veterinary medicine (68), law (121), and education (146).

INSTRUMENTS

All participants completed a booklet containing a dictionary-based list of 299 Castilian personality descriptors (Benet-Martínez, 1999) and a Spanish-translated version of the Big Five Inventory (John et al., 1991). We next describe these questionnaires in greater detail.

Indigenous Spanish (Castilian) personality descriptor list. This instrument consisted of 299 personality adjectives (with defining phrases) selected from a widely used, unabridged Spanish dictionary: *Diccionario Manual e Ilustrado de la Real Academia de la Lengua Española* (Real Academia Española, 1989). Descriptors were culled using a stratified sampling method: Every fourth page of the 1,666-page lexicon was carefully inspected to identify personality-descriptive adjectives. Only the first trait term on a page was included in the list. When no trait descriptors were found on the selected page, the next fourth page was examined. A team of two expert judges (a Ph.D. in Spanish and the first author, both native speakers from Spain) independently generated descriptor lists from the stratified sample of dictionary pages. Following Tellegen and Waller's (1987) method for descriptor selection, the two judges considered an adjective to be personality relevant if (a) it could be used to distinguish the behavior, thoughts, or feelings of one human being from those of another and (b) it could be meaningfully inserted into one or both of the following sentences: "Tends to be X" or "Is often X." These were the only inclusion criteria applied. Unlike previous lexical personality studies, no exclusion criteria were applied to descriptors that were highly evaluative or referred to emotional states. The judges, however, avoided nondistinctive terms that can apply to all individuals such as terms referring to geographic origin, nationality, profession, social role, relationships, or physical qualities (see Angleitner et al., 1990, for similar criteria).

A total of 299 indigenous personality descriptors were found to be representative. These terms were assembled (with a fixed randomized order) in a research questionnaire. For all items, item responses were measured on a 5-point scale ranging from 1 (*disagree strongly*) to 5 (*agree strongly*). To enhance the definitional clarity of the descriptors, each term was followed by a synonym or short dictionary definition.[2]

The Spanish Big Five Inventory. The Big Five Inventory (BFI) (John et al., 1991) uses 44 short phrases to assess the most prototypical traits associated with the Big Five dimensions in English (John, 1990). The trait adjectives (e.g., *thorough*) that form the core of each of the 44 BFI items (e.g., "Does a thorough job") have been shown in previous studies to be univocal prototypical markers of the Big Five dimensions (John, 1989, 1990). A Spanish version of the BFI was developed using the back-translation methods of Brislin (1980). This procedure can be briefly described as follows: Using standard Spanish-English and English-Spanish dictionaries, the first author (who is bilingual) undertook the translation of the BFI items into Spanish. Using the same dictionaries, a second bilingual (Ph.D. in Spanish) independently translated the material back into English. The bilingual team then compared the back-translated version to the initial English version, discussed discrepancies between the translations, and generated further translations until arriving at a final set of Spanish BFI items on which both translators could agree.[3] Responses on the Spanish BFI items were measured on a 5-point scale ranging from 1 (*disagree strongly*) to 5 (*agree strongly*).

PROCEDURE

Questionnaires were group-administered during instructional time at the university. Participation was voluntary and anonymous. In addition to standard demographic questions, participants also indicated the primary language(s) spoken at home. This information was deemed important because most Barcelona residents speak Castilian and Catalán, the two official languages of Catalonia. Participants were instructed to provide self-rating on the two instruments "according to the way they usually feel, think, or behave."

RESULTS

As stated earlier, the basic goal of the present study is to illustrate a midlevel approach that allows researchers to measure imported personality models such as the Big Five with indigenous personality expressions. With that goal in mind, in the next sections we (a) identify a reliable and manageable set of indigenous Spanish (Castilian) markers of the Big Five and (b) evaluate the Big Five scales defined by these indigenous Castilian descriptors in terms of their reliability, factorial robustness, and construct validity.

TABLE 1:   Psychometric Properties of the Quasi-Indigenous and Imported (Big Five Inventory) Spanish Big Five Scales

Scale	Alpha		M		SD	
	Quasi-Indigenous	Imported	Quasi-Indigenous	Imported	Quasi-Indigenous	Imported
Extraversion	.88	.85	3.7	3.4	.8	.8
Agreeableness	.79	.66	3.9	3.8	.6	.5
Conscientiousness	.79	.77	3.7	3.5	.7	.7
Neuroticism	.82	.80	3.2	3.2	.8	.8
Openness	.73	.79	3.1	3.8	.7	.6
Mean	.80	.78	3.5	3.5	.7	.7

NOTE: N = 444 Spaniards (cross-validation sample). Quasi-indigenous scales defined by indigenous Spanish terms. Imported scales defined by imported (Spanish-translated Big Five Inventory) terms.

IDENTIFYING A SET OF SPANISH (CASTILIAN) BIG FIVE MARKERS

For each participant, five Big Five scale scores were computed from their responses to the Spanish-translated BFI. These imported scale scores were then used to select a set of Big Five markers from the 299 indigenous Castilian personality descriptors also rated by the participants. To ensure replicability of the findings, we used a split-sample cross-validation procedure: The derivation sample included 450 participants randomly selected from the total sample of 894, and 444 remained for cross-validation. Using the derivation sample, we computed correlations between the imported Spanish BFI scale scores and each of the 299 indigenous Castilian descriptors. Next, we selected the 20 indigenous terms that had the strongest correlations with each BFI scale. It is important to note here that the absolute magnitude of these correlations was the only criteria to select indigenous descriptors; no effort was made to filter out synonyms (e.g., *disquieted* or *restless*) or terms denoting related dispositions (e.g., *likes to travel* or *international*). When a factor analysis was performed on these 100 indigenous Castilian markers, a clear five-factor structure emerged representing the familiar five factors. Using the factor loadings as a guide, we selected the best 12 indigenous markers for each factor.

PSYCHOMETRIC PROPERTIES OF THE CASTILIAN
BIG FIVE MARKERS IN THE CROSS-VALIDATION SAMPLE

How well did this set of 60 indigenous Castilian Big Five markers hold up to cross-validation? Using the remaining 444 participants as a cross-validation sample, we computed five scales, each defined by 12 indigenous Castilian items. The internal consistency (alpha) reliabilities, means, and standard deviations for these scales are shown in Table 1. For comparison purposes, each column shows statistics for both the newly developed quasi-indigenous scales and the imported BFI scales. Why are these new scales labeled *quasi-indigenous*? Although each

TABLE 2:   Intercorrelations Among Quasi-Indigenous Spanish Big Five Scales and Among
                    Imported (Big Five Inventory) Scales

Scales	E	A	C	N	O
Extraversion (E)	—	.17	.09	−.18	.33
Agreeableness (A)	.04	—	.17	−.23	.16
Conscientiousness (C)	.16	.30	—	−.20	.17
Neuroticism (N)	−.24	−.10	−.31	—	−.14
Openness (O)	.12	−.05	−.07	.05	—

NOTE: N = 444 Spaniards (cross-validation sample). Correlations among quasi-indigenous scales are below the diagonal, and correlations among imported (Big Five Inventory) scales are above the

term in these scales is in some sense indigenous (i.e., Castilian), the scales themselves are not because they did not naturally emerge from the Castilian personality lexicon but, rather, were created from those Castilian descriptors that correlated most strongly with the imported Big Five scales.

As shown in Table 1, the alphas for the quasi-indigenous Big Five scales are very high and even somewhat higher (except for Openness) than those for the imported Big Five scales. Table 1 also shows the means and standard deviations for the quasi-indigenous and imported scales. Paired t tests between the two sets of scales revealed significant differences suggesting higher scores for the quasi-indigenous Extraversion, Conscientiousness, and Agreeableness scales and higher scores for the imported Openness scale. These differences are hard to interpret without further replication, but one possibility is that the higher mean levels obtained for these quasi-indigenous scales reflect an overall higher endorsement (relative to the imported scales) by the Spanish participants of particular culture-specific personality aspects represented in the quasi-indigenous Castilian scales.[4]

Table 2 reports the intercorrelations among the quasi-indigenous and imported Big Five scales. These findings are important because there has been concern that some of the Big Five dimensions are highly intercorrelated (e.g., Block, 1995). The present results show that the new quasi-indigenous Big Five scales are fairly independent: The absolute mean of the intercorrelations was .14, and even the highest intercorrelation was only −.31. All in all, the results reported so far show that the new quasi-indigenous Castilian Big Five scales have psychometric characteristics that are fairly similar (with the exception perhaps of means and standard deviations) to those for the imported BFI scales.

**EXPLORING THE STRUCTURE OF
THE CASTILIAN BIG FIVE MARKERS**

The dimensional structure of the self-reports on the 60 indigenous Spanish Big Five markers was assessed via factor analysis. As in the previous analyses, only the cross-validation sample was used. A plot of the first 10 eigenvalues

showed a clear break after the fifth eigenvalue, supporting the expected five-factor structure. The varimax-rotated five-factor structure defined by the indigenous markers is shown in Table 3. As can be seen in this table, the 60 indigenous Castilian terms define a clear structure easily identified as the Big Five. Furthermore, supporting the robustness of the indigenous Castilian terms as univocal markers of the Big Five, each of the 60 indigenous markers loaded on the predicted dimension, and most of the cross-loadings were consistently low.

An examination of the content areas represented by the indigenous Castilian markers reveals that the basic personality elements of the Big Five are generally well represented in the quasi-indigenous Castilian scales: sociability and positive affect (e.g., *charming* and *cheerful*) versus social disengagement and low positive affect (e.g., *isolated* and *gloomy*) for Extraversion, kindness and good character (e.g., kind and *good natured*) versus quarrelsomeness (e.g., *vindictive* and *irascible*) for Agreeableness, self-control and reflectiveness (e.g., *orderly* and *reasonable*) versus unrestraint and carelessness (e.g., *impulsive* and *sloppy*) for Conscientiousness, negative affect (e.g., *anxious* and *guilty*) for Neuroticism, which in the present structure lacks terms denoting emotional stability or low negative affect (e.g., *calm* and *stable*); and creativity and open-mindedness (e.g., *inventive* and *worldly*) versus conventionality (e.g., *conventional*) for Openness.

Also obvious when looking at the areas represented by the indigenous Castilian markers is that certain personality elements are more strongly emphasized in these scales than in most widely used English Big Five measures. In Extraversion, for instance, the expression of positive affect in social settings plays a prominent role, as indicated by the large number of traits and states referring to amusement and humor (e.g., *funny*, *jocular*, and *side-splitting*). In Agreeableness, we see a wealth of terms denoting good nature and a straightforward, unpretentious interpersonal style (e.g., *good-natured*, *good-hearted*, *down-to-earth*, and *unpretentious*). Finally, Openness dimension is defined more broadly than the imported Openness in that it refers explicitly to interests, preferences, and attitudes that define having a progressive lifestyle: unconventional attitudes and tastes (e.g., *eccentric* and *outlandish*), enjoyment of travel (e.g., *international* and *likes to travel*), a worldly wise approach to life (e.g., *bohemian* and *worldly*), and interest in spiritual and philosophical issues (e.g., *philosophical* and *mystical*). Interestingly, an examination of the indigenous factors reported in Benet-Martínez's emic studies (1999; Benet-Martínez & Waller, 1997) reveals that these personality elements (expression of positive affect in social settings, good nature, and progressive lifestyle) are also prominent in emic factors (see Table 1 in Benet-Martínez & Waller, 1997).

In sum, the factor definitions based on indigenous markers indicate that most basic personality elements of the Big Five are generally well represented in Castilian and suggest that relative to the American-English Big Five, the following personality facets are particularly salient in Spain: humor and social

TABLE 3:   Five-Factor Model Defined by Indigenous Castilian Personality Terms in the Cross-Validation Sample

Variable Number	Abbreviated English Translation	*Varimax-Rotated Principal Factor*					Original Spanish (Castilian) Terms
		E	*A*	*C*	*N*	*O*	
154	Gloomy	**65**	07	–08	06	–02	*Mustia, apagada*
135	Isolated	**64**	00	–06	04	05	*Aislada, sola*
250	Dull	**62**	20	–12	00	–15	*Amuermada, aburrida*
160	Asocial	**61**	01	–08	–04	05	*Asocial, poco social*
2	Somber	**59**	–02	–06	10	04	*Sombria, triste*
199	Shy	**55**	28	00	11	–11	*Cortada, tímida*
14	Lethargic	**53**	19	–09	00	–17	*Parada, pasmada*
265	Jocular	**–57**	08	–13	–07	03	*Jocosa, chistosa*
121	Side-splitting	**–60**	01	–08	–03	04	*Trinchante, que te parte de la risa*
102	Charming	**–62**	05	–01	00	05	*Sandunguera, con gracía y salero*
115	Cheerful	**–63**	20	10	–15	–07	*Alegre*
217	Funny	**–64**	11	–08	–07	05	*Cómica, divertida*
60	Good-natured	02	**64**	05	05	–07	*Bonachona, dócil*
30	Good-hearted	03	**63**	10	00	01	*Buenaza, buena persona*
24	Patient	16	**57**	24	–15	00	*Paciente, tolerante*
62	Down-to-earth	05	**54**	13	–05	–17	*Sencilla, poco afectada*
55	Unpretentious	07	**51**	19	–04	–02	*Llana, sencilla*
270	Kind	–21	**43**	18	–03	–05	*Amable*
207	Obliging	–15	**39**	18	05	–04	*Complaciente, servicial*
172	Vindictive	01	**–38**	00	00	–13	*Revanchista, vengativa*
263	Unyielding	–06	**–39**	04	–11	02	*Peleadora, discutidora*
169	Quarrelsome	14	**–40**	05	–08	–15	*Cuadrada, inflexible*
201	Tyrannical	–09	**–43**	04	–03	–10	*Tirana, dominante*
227	Irascible	02	**–45**	–14	19	–05	*Colérica, que se enfada fácilmente*

TABLE 3   Continued

Variable Number	Abbreviated English translation	Varimax-Rotated Principal Factor					Original Spanish (Castilian) Terms
		E	A	C	N	O	
252	Reflective	22	14	**56**	–04	00	*Reflexiva, analítica*
187	Well-balanced	–04	28	**54**	–26	–15	*Equilibrada, estable*
54	Orderly	–03	09	**50**	–02	–10	*Ordenada*
292	Reasonable	04	17	**49**	–16	00	*Razonable, lógica*
212	Has balanced life	–06	08	**47**	–14	–03	*Repartible, que se sabe distribuir*
149	Sensible	05	13	**44**	–06	–03	*Cuerda, juiciosa*
138	Competent	–23	00	**37**	–11	11	*Diestra, hábil*
233	Lazy	16	12	**–32**	–07	–12	*Perezosa, vaga*
16	Unrestrained	02	–04	**–39**	03	04	*Inmoderada, que hace excesos*
119	Sloppy	14	02	**–40**	00	–08	*Chapucera*
11	Fickle	03	–05	**–45**	07	06	*Volátil, incostante*
140	Impulsive	–16	–08	**–49**	07	–03	*Atolondrada, precipitada*
141	Easily disquieted	13	03	–18	**67**	–05	*Trastornable, fácil de inquietar*
145	Restless	03	00	–10	**67**	–05	*Agitable, intranquila*
155	Sensitive	14	11	–03	**52**	00	*Afectable, sensible*
112	Easy to startle	–17	–04	–06	**41**	–05	*Saltadiza, sobresaltable*
259	Afflicted	**30**	03	–04	**40**	–01	*Consumida, afligida*
139	Feels guilty	22	03	–00	**39**	–02	*Culpable, con remordimientos*
279	Confused	**35**	08	**–33**	**36**	04	*Confusa, desconcertada*
103	Worried	**30**	–03	09	**34**	01	*Preocupada*
288	Fearful	16	17	–18	**33**	–21	*Cagada, miedosa*
91	Indecisive	**31**	16	–29	**32**	–06	*Vacilante*, indecisa
240	Anxious	–05	–16	–07	**31**	00	*Ansiosa, nerviosa*
66	Imperturbable	09	06	22	**–45**	09	*Impávida, imperturbable*
173	Outlandish	00	–01	–23	–13	**48**	*Pintoresca, extravagante*
124	Likes to travel	–13	03	–08	–10	**46**	*Nómada, con alma viajera*

		E	A	C	N	O	
189	Creative	–25	03	22	–09	**45**	*Creativa, inventiva*
170	Mystical	23	01	01	14	**45**	*Ascética, mística*
285	Inventive	–26	–04	15	–11	**44**	*Inventora, ocurrente*
117	Eccentric	–02	–04	–22	–12	**43**	*Estrafalaria, excéntrica*
163	Romantic	20	06	06	20	**42**	*Platónica, idealista*
70	Bohemian	10	03	–11	01	**41**	*Bohemia*
51	Worldly	–24	04	06	–13	**37**	*Viajera, aventurera*
295	International	–14	03	13	–09	**34**	*Internacional*
87	Philosophical	19	07	05	17	**30**	*Existencialista, filosófica*
239	Conventional	23	21	16	06	**–38**	*Convencional, poco original*

NOTE: *N* = 444 Spaniards (cross-validation sample). All loadings multiplied by 100; loadings .30 or larger are set in bold. E = Extraversion; A = Agreeableness; C = Conscientiousness; N = Neuroticism; O = Openness.

TABLE 4:   Convergent-Discriminant Correlations Between the Quasi-Indigenous and Imported (Big Five Inventory) Spanish Big Five Scales

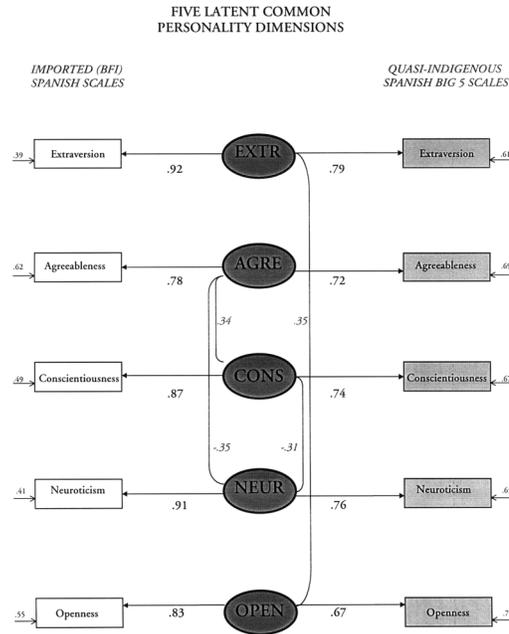| *Imported Scales* | Quasi-Indigenous Scales | | | | |
	E	*A*	*C*	*N*	*O*
Extraversion (E)	**.77**	−.08	.04	−.22	.18
Agreeableness (A)	.18	**.65**	.31	−.13	.02
Conscientiousness (C)	.12	.09	**.70**	−.20	−.03
Neuroticism (N)	−.22	−.27	**−.35**	**.70**	−.05
Openness (O)	**.31**	.00	.18	−.14	**.54**

NOTE: $N = 444$ Spaniards (cross-validation sample). Correlations greater than .30 are in boldface. Correlations between corresponding dimensions (validity coefficients) are shown on the diagonal in italics.

emotional expressivity for Extraversion, good nature for Agreeableness, and unconventionality, worldliness, and spirituality for Openness.

OVERLAP BETWEEN THE QUASI-INDIGENOUS AND IMPORTED SCALES

The differences in content representation reported in the previous section raise the question of how much overlap there is between the newly created quasi-indigenous Castilian Big Five marker scales and the imported scales. In other words, do people who score high (or low) on a particular imported Big Five scale also tend to score high (or low) on the same indigenous Big Five scale? To address this question, correlations between these two sets of scales were computed in the cross-validation sample; these multitrait, multimethod correlations are reported in Table 4. The size of the convergence correlations on the diagonal (mean = .67) clearly contrasts with the average off-diagonal discriminant correlations (mean = .15), suggesting considerable convergent and discriminant validity across the two instruments.[5]

A question to bear in mind when evaluating the convergent and discriminant correlations reported in Table 4 is the extent to which they reflect shared measurement error, shared meaningful (i.e., conceptual) variance, or both (John & Benet-Martínez, 2000). One way to address this issue is to explore the latent structure of the variance shared by the quasi-indigenous and imported scales via confirmatory factor analysis (CFA). Using the cross-validation sample, a structural model representing five personality factors common to both the quasi-indigenous and imported scales was tested. In this model (depicted in Figure 1), loadings on the hypothesized common dimension were freely estimated, and loadings on the other dimensions constrained to zero; correlations among the latent factors were also freely estimated.[6] This model fit the data well, $\chi^2(35, N = 447) = 152.74$, $p < .001$, (Bentler's, 1990) Comparative Fit Index (CFI) = .92. The resulting parameter estimates (factor loadings and intercorrelations) are all shown in Figure 1. These estimates suggest two major conclusions that

Figure 1: *N* **= 444 Spaniards (cross-validation sample). Common Latent Structure of the Quasi-Indigenous and Imported (Big Five Inventory) Spanish Big Five Scales.**
NOTE: EXTR = Extraversion; AGRE = Agreeableness; CONS = Conscientiousness; NEUR = Neuroticism; OPEN = Openness.

are consistent with the preceding analyses. First, all 10 scales had substantial loadings on the hypothesized latent five factors (although loadings for the quasi-indigenous marker scales were a bit lower), thus supporting the conclusion that five latent personality factors representing the Big Five capture the major sources of variance in both the quasi- indigenous and imported scales. Second, the factor intercorrelations remained low even when disattenuated for unreliability by CFA: only 4 (out of 10) correlations exceeded .30. All in all, these results suggest considerable convergent and discriminant validity between the newly developed quasi-indigenous Castilian Big Five scales and the imported Spanish Big Five scales.

DISCUSSION

The main aim of the present study was to identify a manageable set of indigenous Spanish (Castilian) personality descriptors that would allow researchers to measure the Big Five using local, culturally relevant terms. Using a split-sample cross-validation procedure, 60 indigenous Castilian Big Five markers were identified based on their high correlations with Spanish BFI scales (John et al.,

1991). These markers defined reliable, quasi-indigenous Big Five scales and a clear five-factor structure that univocally represented the Big Five. A distinctive quality of this quasi-indigenous Spanish Big Five structure was the salience of the following personality elements: humor and social/emotional engagement (in Extraversion), good nature (in Agreeableness), and unconventionality, worldliness, and spirituality (in Openness)—all three personality domains that also have high visibility in indigenous Spanish personality taxonomies (Benet-Martínez, 1999).

How should the specific salience of the earlier described personality elements in the quasi-indigenous five-factor structure be interpreted? One could view this salience as mainly an artifact of the overrepresentation that terms denoting humor, social/emotional engagement, good nature, unconventionality, worldliness, and spirituality may have in the Castilian personality lexicon. In addition, one could view the salience of these personality elements in the factor structure as a reflection of the cultural relevance these dispositions may have in the Spanish culture. Note that these two views are complementary because cultural differences in the psychological relevance of particular personality domains are likely to be related to differences in linguistic content representation (Goldberg, 1992). We would like to make a more specific argument and suggest that the ubiquity of terms denoting humor, social/emotional engagement, good nature, unconventionality, worldliness, and spirituality in the quasi-indigenous Spanish structure may have resulted from a mixture of methodological and substantive factors, which we outline next.

As explained in the Method section, the original pool of 299 indigenous Castilian terms from which the Big Five markers were selected was compiled using a stratified sampling method, a technique that combines pure random and purposive sampling (McCready, 1996). This sampling method led to a large set of Castilian personality descriptors that can be seen as (a) representative of the entire Spanish personality lexicon and therefore (b) reflective of the different linguistic representation that certain personality aspects may have in the Spanish lexicon—probably due to a mixture of biological, historical, and sociocultural factors (Osgood & Tzeng, 1990; Sanchez, 1996).[7] From this list of 299 indigenous personality descriptors, Big Five markers were selected exclusively on the basis of correlation size; that is, no effort was made to ensure a particular content representation (e.g., representing all well-known facets within each Big Five dimension, filtering out terms denoting similar dispositions). Consequently, because only 12 markers per dimension were chosen and terms with similar meaning were accepted, each factor ended up being defined only in terms of two or three different content areas. What kinds of areas emerged? The two or three Spanish-defined personality domains with the highest cooccurrence with the behaviors and dispositions represented in the imported Big Five dimensions. What determined the number of markers for each area? The relative representation of these areas in the original set of 299 indigenous Castilian markers. A conclusion that derives from these arguments is, therefore,

that the salience of humor, social/emotional engagement, good nature, unconventionality, worldliness, and spirituality in the quasi-indigenous Big Five structure may in fact be reflective of both the particular salience these dispositions have in the personality processes of Spaniards and the particular weight these areas have in the Spanish personality lexicon.

Along with the content specificity found in some of the quasi-indigenous Castilian Big Five scales, we also found a great degree of overlap between the imported and quasi-indigenous scales, as suggested by the correlational and confirmatory factor analyses: Five latent personality factors representing the Big Five reliably predicted most of the variance in both types of scales. These results provide strong evidence for the construct validity of the newly developed quasi-indigenous Castilian Big Five scales. The 60 quasi-indigenous Castilian personality descriptors then offer a reliable and factorially valid way to measure the Big Five personality dimensions in Spanish. These descriptors can be used as an alternative to imported personality measures when the goal is to measure the Big Five domain with indigenous terms (rather than translations) and when one does not need to measure all the facets of the Big Five.

The construct validity of the quasi-indigenous scales speaks to the usefulness of this instrument to measure the Big Five but does not tell us much about its predictive validity. Future research needs to examine the power of the quasi-indigenous Castilian Big Five scales (relative to other existing Spanish personality instruments) to predict important personality-related life outcomes such as self-esteem, well-being, or relationship satisfaction. More importantly, however, future studies should carry on the ultimate test of these scales' unique value: assessing the relative power (compared to imported measures) of the quasi-indigenous Castilian Big Five scales to predict Spanish culture-specific dispositions, attitudes, and behaviors such as *simpatía*, familialism, emotional expressiveness, or flexible time orientation.

From a methodological perspective, the study reported here broadens traditional imposed-etic and emic cross-cultural methodology by introducing a new midlevel approach that allows researchers to identify quasi-indigenous constructs, that is, measuring imported models (i.e., the Big Five) with stimuli that are sensitive to the particularities of a specific cultural and linguistic context. Or as we say in Spain, an approach that allows cross-cultural researchers to *matar dos pajaros de un tiro* (kill two birds with one stone).

NOTES

1. See Benet-Martínez (1999) for examples of marker items and a detailed description of each of the seven indigenous Spanish dimensions.

2. The complete list of Spanish adjectival phrases with their English translations are available from the author (although see Benet-Martínez & Waller, 1997, for a large sample of this list).

3. A complete description of the items and detailed psychometric information (e.g., reliabilities, means and standard deviations, factor loadings, and cross-language factor convergences) for both the Spanish and the English versions of the Fig Five Inventory (BFI) can be found in Benet-Martínez and John (1998).

4. Possible gender and language (Catalan vs. Castilian as language spoken at home) differences were also tested with paired t tests. These tests revealed no language effects on any of the five quasi-indigenous scales but did detect several significant gender differences: Women had higher scores than men on the Extraversion and Neuroticism indigenous scales and on the Agreeableness and Neuroticism imported scales.

5. Also noteworthy is the presence of three sizable off-diagonal correlations that seem to parallel the pattern of within-scale intercorrelations reported in Table 2: between the quasi-indigenous Extraversion and imported Openness (.31) scales and between the quasi-indigenous Conscientious-ness and the imported Agreeableness (.31) and Neuroticism (–.35) scales. None of these correla-tions, however, approach the magnitude of the validity correlations in the diagonal.

6. Many different indices are available to assess the degree to which a hypothesized model is consistent with observed data. A significant chi-square indicates that the covariance matrix derived from the theoretical model deviates significantly from the observed covariance matrix. The chi-square statistic is highly dependent on sample size, however, so it can be significant even for models that fit the data well (Bentler, 1990). Another index is the Comparative Fit Index (CFI) (Bentler, 1990), which ranges from 0 to 1 and is relatively independent from sample size. The rule of thumb (Bentler, 1990) is that a CFI of .90 or greater indicates that the specified model fits the data well.

7. The uneven representation of the Big Five factors and facets among the original set of 299 indigenous Castilian personality descriptors is quite obvious when one looks at Table 1 from Benet-Martínez and Waller's (1997) study.

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