

**Ethnocultural Diversity of Immigrants' Personal Social Networks, Bicultural Identity  
Integration, and Global Identification**

[Supplementary Online Material]

This supplementary material includes:

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## 1. Participants: Additional Socio-Demographic Characteristics

Table S1

### *Participants' Socio-Demographic Characteristics*

	Ecuador <i>n</i> = 54	Morocco <i>n</i> = 54	Pakistan <i>n</i> = 54	Romania <i>n</i> = 54	Total <i>N</i> = 216
<i>Age (in years)</i>					
Age ( <i>M</i> )	32.00	28.76	29.52	33.80	31.02
Age ( <i>SD</i> )	11.43	10.17	9.81	9.75	10.43
<i>Gender</i>					
Female (%)	55.6	61.1	35.2	59.3	52.8
Male (%)	44.4	38.9	64.8	40.7	47.2
<i>Income</i>					
Less than 500 € per month	37	33.3	22.2	18.5	27.8
From 501 € to 1,000 € per month	27.8	16.7	40.7	20.4	26.4
From 1,001 € to 1,500 € per month	13	24.1	20.4	33.3	22.7
From 1,501 € to 2,000 € per month	11.1	1.9	7.4	11.1	7.9
From 2,001 € to 2,500 € per month	3.7	3.7	3.7	7.4	4.6
More than 2.500 € per month	1.9	7.4	3.7	7.4	5.1
Missing	5.6	13	1.9	1.9	5.6
<i>Education</i>					
No formal education	0	0	1.9	0	0.5
Primary education	7.4	16.7	7.4	18.5	8.3
Lower secondary education	18.5	24.1	24.1	20.4	19.4
Upper secondary education	13	14.8	11.1	33.3	15.3
Incomplete university	40.7	18.5	18.5	11.1	27.8
University degree	9.3	13	7.4	7.4	9.7
Masters or postgraduate degree	11.1	5.6	18.5	7.4	11.1
PhD degree	0	5.6	7.4	0	6.5
Vocational training	0	1.9	3.7	0	1.4
<i>Length of residence</i>					
Years in Spain ( <i>M</i> )	9.52	11.53	9.10	8.86	9.60
Years in Spain ( <i>SD</i> )	2.73	7.46	5.11	3.11	4.73
Years in Catalonia ( <i>M</i> )	9.31	10.43	8.74	8.55	9.16
Years in Catalonia ( <i>SD</i> )	2.94	5.18	5.17	3.25	4.17

More than a quarter of the participants had a family income lower than 500 euro per month (27.8%), another fourth received from 501 to 1,000 euro monthly (26.4%), 22.7%

earned between 1,000 and 1,500 euro, and only 17.6% reached a higher income than 1,500 euro each month (5.6% did not respond). In all, 43.5% of the participants had up to secondary education, 27.8% had incomplete university studies, 27.3% had a university degree, and 1.4% had received vocational training. Please note that we recoded this variable to control for in in path analysis as a continuous measure. That is, as only a small percentage of individuals had vocational training, we merged upper secondary education level with the vocational training category to ensure a normal distribution of educational levels. For detailed socio-demographic characteristics per ethnocultural group, see Table S1. All participants had good working knowledge of one or both host languages (Catalan/Spanish).

To recruit participants for his study, we tapped a diverse list of relevant organizations to maximize representativeness and minimize data dependency. Respondents were also instructed not to invite relatives, friends, or other acquaintances to participate. The data collection took place in individual or small group sessions in the assisting organizations' premises and, in some cases, in the university laboratory. Each participant received monetary compensation (15 €).

## 2. Global Identification Measurement: Additional Information

This measure was created based on previous research (e.g., Benet-Martínez & Haritatos, 2005) to assess participants' feelings of belonging to different cultural communities (the scale asked "Do you identify with (i.e. feel part of) the following cultural communities?"). The first three items allowed participants to rate the strength of their identification with (i.e., how much they identify with/ feel part of) their ethnocultural group (i.e., Ecuadorians, Moroccans, Pakistani and Romanian), and other local identities: Catalan and Spanish cultures. In addition, two items measured participants' identification with global (i.e., international) culture and civic (i.e., city's local institutions, services, and laws) community. Lastly, one (open content) additional scale allowed participants to report additional cultural self-identifications if needed (e.g. their sense of belonging to other ethnocultural groups or combined, emerging "third" cultures). This identification scale was formulated as follows:

### [English version]

Do you identify with (i.e. feel part of) the following cultural communities? Please indicate your degree of identification with these cultures and communities by circling the number that you consider appropriate on this rating scale. Remember that your "best answer" is your sincere and honest answer.

0 = None, 1 = Weak, 2 = Rather weak, 3 = Moderate, 4 = Rather strong, 5 = Strong, 6 = Very strong.

Culture [Romanian / Ecuadorian / Moroccan / Pakistani]

Catalan culture

Spanish culture

Other culture, specify: \_\_\_\_\_

Global, international culture

Civic community \*

\* Civic community: for example, city hall, health coverage system, social services, police, schools, municipal gym, etc.

**[Spanish version]**

¿Se identifica usted con (se siente parte de) las siguientes comunidades culturales? Por favor, indique su grado de identificaci[on con estas culturas y comunidades marcando con un círculo el número que usted considere oportuno en esta escala de valoración. Recuerde que su “mejor respuesta” es su respuesta sincera y honesta.

0 = Nada, 1 = Débil, 2 = Un poc débil, 3 = Medio, 4 = Un poco fuerte 5 = Fuerte, 6 = Muy fuerte.

Cultura [rumana / ecuatoriana / marroquí / pakistaní]

Cultura catalana

Cultura española

Otra cultura, especifique: \_\_\_\_\_

Cultura global, internacional

Comunidad cívica\*

\* Comunidad cívica: por ejemplo, ayuntamiento, sistema de cobertra sanitaria, servicios sociales, policía, escuelas, gimnasio municipal, etc.

### 3. Descriptive Social Network Data

Table S2

*Descriptive Social Network Data*

Number of	Ecuador		Morocco		Pakistan		Romania		Total	
	<i>M</i>	<i>SD</i>								
#strong ties	20.93	3.88	17.52	5.22	18.94	4.95	18.59	3.91	19.00	4.67
#strong coethnic ties	13.52	5.22	10.80	4.52	13.22	5.93	12.44	5.42	12.50	5.36
#strong host national ties	3.59	3.41	4.28	3.56	3.72	3.81	4.76	4.61	4.09	3.88
#strong other ties	3.81	3.31	2.44	2.57	2.00	2.36	1.39	1.77	2.41	2.70
#weak ties	4.07	3.88	7.48	5.22	6.06	4.95	6.41	3.91	6.00	4.67
#weak coethnic ties	1.65	2.06	2.80	2.88	1.78	2.58	1.48	1.83	1.93	2.41
#weak host national ties	1.63	2.44	3.65	3.21	3.09	3.25	3.76	3.17	3.03	3.13
#weak other ties	0.80	1.12	1.04	1.30	1.19	2.03	1.17	1.69	1.05	1.57

#### **4. Preliminary Data Analyses**

Before conducting main analyses, we explored the data to check if some basic assumptions were met.

##### **Missing Data**

First, there were no systematic missing data. Only 2.3% of respondents did not respond to the global identification measure, and less than 1% did not respond to one of the two items included in the BII scale. This few missing at random data was imputed using the FIML method in Mplus.

##### **Outliers**

We calculated Cook's Distance statistic for each participant. We did not identify any influential cases biasing our model. That is, there were no values over 1, which are likely to be significant outliers. We therefore did not remove any cases from the analyses.

##### **Linearity, Multivariate Normality, and Multicollinearity**

We tested if the relationship between the predictors in the model (ethnic diversity variables and BII dimensions) and the outcome (global identification) was linear. We examined scatterplots and found that this assumption had been met. There were no multicollinearity issues in the data (in a regression analysis, VIF scores were well below 10, and tolerance scores above 0.2). The P-P plot for the regression model suggested that the assumption of normality of the residuals was met.

## 5. Bivariate Correlations Between Variables under Study

Table S3

*Bivariate Correlations Between Variables under Study*

	1.	2.	3.	4.	5.	6.
<i>M</i>	2.88	2.45	2.45	0.40	0.28	31.02
<i>SD</i>	1.84	0.87	0.98	0.19	0.25	10.43
1. Global identification	1					
2. Cultural harmony	.22**	1				
3. Cultural blendedness	.16*	.43***	1			
4. Diversity strong ties	.20**	.26***	.27***	1		
5. Diversity weak ties	-.07	.17*	.04	.11	1	
6. Age	.03	.15*	.07	-.05	.03	1
7. Education	.04	.24***	.18**	.18**	.16*	.28***

*Note.*  $N = 211/216$ . Age = Age in years; Education included the following categories: 0 (*no formal education*), 1 (*primary education*), 2 (*lower secondary education*), 3 (*upper secondary education or vocational training*), 4 (*incomplete university degree*), 5 (*a university degree*), 6 (*masters or postgraduate degree*), and 7 (*Ph.D. degree*). Diversity = The probability that two randomly selected contacts are from different ethnic groups (coethnics, host nationals, or others); Strong contacts = Romantic partners, friends, and relatives; Weak contacts = Colleagues from work/school, neighbors, acquaintances, and others. \*  $p < .05$ ; \*\*  $p < .01$ ; \*\*\*  $p < .001$ .

## 6. The Decomposition of Direct and Total Effects in the Path Model: Ethnocultural Diversity, BII, and Global Identification, Including Direct Effects for Covariates

Table S4

*The Decomposition of Direct and Total Effects in the Path Model: Ethnocultural Diversity, BII, and Global Identification (N = 216)*

	<i>B</i>	( <i>SE</i> )	<i>t</i>	<i>p</i>	95% CI [LL, UL]	
<i>Total effects</i>						
Diversity among strong ties on global identification	2.01	(0.65)	3.09	<b>.002</b>	<b>[0.74,</b>	<b>3.29]</b>
Diversity among weak ties on global identification	-0.69	(0.50)	-1.38	.167	[-1.67,	0.29]
<i>Direct effects</i>						
Diversity among strong ties on harmony	1.00	(0.29)	3.41	<b>.001</b>	<b>[0.42,</b>	<b>1.57]</b>
Diversity among weak ties on harmony	0.40	(0.22)	1.78	.075	[-0.04,	0.84]
Diversity among strong ties on blendedness	1.28	(0.34)	3.81	<b>&lt;.001</b>	<b>[0.62,</b>	<b>1.94]</b>
Diversity among weak ties on blendedness	-0.05	(0.26)	-0.21	.835	[-0.56,	0.45]
BII harmony on global identification	0.39	(0.16)	2.44	.015	[0.08,	0.70]
BII blendedness on global identification	0.09	(0.14)	0.61	.541	[-0.19,	0.36]
Diversity among strong ties on global identification	1.51	(0.67)	2.27	<b>.023</b>	<b>[0.21,</b>	<b>2.82]</b>
Diversity among weak ties on global identification	-0.84	(0.49)	-1.70	.089	[-1.81,	0.13]
<i>Direct effects (covariates)</i>						
Age on global identification	0.00	(0.01)	0.19	.851	[-0.02,	0.03]
Education level on global identification	-0.02	(0.08)	-0.28	.781	[-0.17,	0.13]
Age on harmony	0.01	(0.01)	1.70	.090	[0.00,	0.02]
Education level on harmony	0.08	(0.04)	2.24	<b>.025</b>	<b>[0.01,</b>	<b>0.15]</b>
Age on blendedness	0.00	(0.01)	0.64	.521	[-0.01,	0.02]
Education level on blendedness	0.07	(0.04)	1.78	.076	[-0.01,	0.15]

*Note.* Age = Age in years; Education included the following categories: 0 (*no formal education*), 1 (*primary education*), 2 (*lower secondary education*), 3 (*upper secondary education or vocational training*), 4 (*incomplete university degree*), 5 (*a university degree*), 6 (*masters or postgraduate degree*), and 7 (*Ph.D. degree*). Non standardized regression

coefficients are shown. *SE* = Standard error; *CI* = Confidence interval; *LL* = Lower limit; *UL* = Upper limit. Diversity = The probability that two randomly selected contacts are from different ethnic groups (coethnics, host nationals, or others); Strong contacts = Romantic partners, friends, and relatives; Weak contacts = Colleagues from work/school, neighbors, acquaintances, and others.