# Multilingualism enhances immigration acceptance through increased intergroup quality contact: A proof of concept in New Jersey and Spain 

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#### Abstract

Multilingualism can potentially increase empathy and facilitate contact between a given country's own nationals and immigrants. A proof of concept exercise was conducted with students from the US $(\mathrm{N}=112)$ and Spain $(\mathrm{N}=107)$, and a small nonstudent sample ( $\mathrm{N}=22$ ) also from Spain. The effect of the number of languages spoken on immigration acceptance was assayed in all three samples using a questionnaire based on the European Social Survey, and empathy and contact with immigrants were additionally determined in the Spanish samples. The results showed that multilingual students were significantly more accepting of immigrants than monolinguals in the samples from both the US and Spain. The number of languages spoken was a significant mediator between contact with immigrants and immigration acceptance. Empathy was significantly correlated with the acceptance of immigrants from poor countries, without any apparent connection to the number of languages spoken. The results emphasize the importance of multilingualism in improving crosscultural attitudes by increasing the quality of contact with immigrants. Learning the languages spoken by immigrants could be explored as a method for facilitating positive contact between groups in host societies. © 2023 The Authors. Published by Elsevier B.V. This is an open access article under the CC BY-NC-ND license (http:// creativecommons.org/licenses/by-nc-nd/4.0/).


Keywords: Bilingualism; Empathy; Immigration acceptance; Intergroup contact; Multilingualism

## 1. INTRODUCTION

Although globalization and migration toward wealthy postindustrial economies have become an essential part of the makeup of current states (OECD, 2017), newcomers from less privileged countries are often still considered a threat (Fietkau and Hansen, 2018). Moreover, human diversity may be seen as a threat to dominant ingroups (Scott and Safdar, 2017; Mutz, 2018). The rejection of immigration based on anti-immigrant sentiment is a growing source of conflict in many wealthy countries (e.g., Heath et al., 2019). The rise of nationalism, far-right politics, and populist

[^0]movements across the world promote anti-immigrant discourse in Europe (e.g., Muis and Immerzeel, 2017; Caiani, 2019) and the US (e.g., Pettigrew, 2017; Berlet and Sunshine, 2019). However, migration continues to be a signifier of the era of globalization, migratory shifts occurring as a result of the decrease in the number of prime destination countries (Czaika and de Haas, 2014). People often move to another country escaping from armed conflict and violence (e.g., Conte and Migali, 2019), looking for resources for themselves and their families (e.g., Castelli, 2018) and also motivated by a desire for better opportunities, which is perceived as legitimate in many societies (e.g., Ulbricht, 2019). Therefore, since international migration is impossible to stop, finding resources and strategies to increase the acceptance of immigration seems a necessity to prevent conflict.

Multilingualism is the knowledge and use of multiple languages (Mepham and Martinovic, 2018), and it is closely related to the acceptance of outgroups. From the immigrants' point of view, the advantages of being multilingual in the host country have been widely demonstrated. A few examples across countries and cultures illustrate this point. In Israel, the multilingualism of immigrant teachers is considered capital to promote an appreciation for multilingual education (Putjata, 2019). Maintaining their heritage language in US mainstream school programs in English has helped speakers gain self-confidence and has cognitive and emotional benefits (Seals and Kreeft Peyton, 2017). In Australia, proficiency in both English and ethnic languages facilitates refugee and nonrefugee immigrants' sociocultural and/or psychological adaptation (Buchanan et al., 2018). Multilingualism is a resource for empowering immigrant Filipino mothers in Japan (Takeuchi, 2016). In a review, Harrison et al. (2019) concluded that speaking the language of the host country fluently is crucial for immigrants to succeed in their jobs. In contrast, the loss of bilingual competence caused by avoiding the use of one of the languages, either the heritage language or the majority language, has created anxiety among Turkish immigrants in the Netherlands (Sevinç and Backus, 2019).

Multilingualism is associated with crosscultural attitudes in the host society. Prejudice toward foreigners decreases after learning their language (Wright and Bougie, 2007), potentially due to the association between open-mindedness and multilingualism (Sakuragi, 2006). US students show positive attitudes toward foreign languages that are significantly associated with world-mindedness, which in turn influences attitudes toward culturally different groups (Sakuragi, 2006). Multilingual people accept cultural diversity more easily (Gunesch, 2008). Moreover, the power of bilingual education in overcoming social tensions has been demonstrated in long-term conflicts such as the Pales-tinian-Israeli conflict (e.g., Berger, Benatov, Abu-Raiya, and Tadmor, 2016).

Several factors can explain the facilitating effect of speaking more than one language on outgroup acceptance. First, bilinguals exhibit greater social flexibility (Ikizer and Ramirez-Esparza, 2018). Second, bilinguals have better empathic skills than monolinguals, as demonstrated for different language pairings, such as Serbian-Hungarian (Javor, 2016), Swedish-Finnish (Gasiorek et al., 2019), Spanish-English, and others (see the review in Ramirez-Esparza et al., 2020 ). Empathy is defined as the emotional ability to take someone else's perspective, i.e., to put oneself in the other's shoes (Batson et al., 1997; Galinsky et al., 2005; Myers et al., 2013). It includes a variety of components, such as affective sharing, empathic concern, cognitive empathy, and perspective-taking. The latter is the ability to imagine how others perceive a situation (Decety and Cowell, 2015). Dewaele and Wei (2012) discovered that multilingualism was significantly correlated with cognitive empathy, whereas other biographic traits, such as living abroad and having a bilingual upbringing, were not. Crosscultural empathy is a broader aspect of empathy that implies awareness, understanding, and a recognition of other cultures. It can be developed through the mastery of several languages (Della Chiesa, 2010). Rolbin and Della Chiesa (2010) proposed that, since there are subtle differences in the human brain related to how people empathize with others based on the languages they speak, multilingualism enables a person to empathize with multiple cultural perspectives. This was confirmed in several studies. The degree of crosscultural empathy has been found to be higher in those who speak multiple languages (Dewaele and Stavans, 2014), and multilinguals exhibit a better acceptance of ethnic outgroups (Mepham and Martinovic, 2018).

Although the greater openness and empathy of multilinguals toward outgroups is well-established as a fact, the connection between multilingualism and immigration acceptance has not been explored sufficiently to date. How does multilingualism enhance attitudes toward immigration in practice? It could be through empathy, given that multilinguals have higher empathic skills (e.g., Ramirez-Esparza et al., 2020), and empathic concern predicts a reduction of anti-immigrant attitudes through the process of perspective-taking (e.g., Miklikowska, 2018). The integrative (not just instrumental) motivation to study foreign languages is significantly correlated with the sympathetic understanding of or a reduced social distance to other cultures (Sakuragi, 2008). Empathy is also a direct positive mediator of the recognition of the rights of both involuntary and voluntary migrants (Verkuyten et al., 2018). In the current study, we hypothesize that speaking several languages increases the acceptance of immigrants, not only because multilinguals are empathic but also because multilingualism may facilitate contact between natives and migrants, which is seen as crucial for immigration acceptance (e.g., McLaren, 2003; Weber, 2015). Quality contact with immigrants reduces anti-immigrant attitudes (e.g., Jones and Rutland, 2018). Speaking multiple languages increases the possibility of communication with other groups and enables the type of quality contact required to improve the acceptance of outgroups (Shamloo
et al., 2018). This seemingly logical connection has been little studied. Here we investigate it in samples from different continents and cultures: the US and Spain. The hypothesis is that as multilingualism enables greater exposure to other languages, it will enhance quality contact with immigrants that will, in turn, increase immigration acceptance.

## 2. METHODOLOGY

### 2.1. Samples and survey methods

The Committee of Research Ethics of the Principality of Asturias (Spain) approved this study, referenced 200/17. The EU ethics guide for scientific research (European Commission, 2013) was followed.

The following biographical data were collected: the number of languages spoken (indicating the mother tongue/s), gender, and age. As in the study by Mepham and Martinovic (2018), languages acquired at any age were considered. University students were targeted in the two countries, plus a small additional sample of nonstudents in Spain, to check the consistency of the results in different samples. The sample of nonstudents was recruited using snowball methodology (Berg, 2006), starting in a School of Medicine. Student samples were contacted directly in class with the help of teachers in both Spain and the US.

The characteristics of the samples analyzed are shown in Table 1. The participants selected for this study were not multilingual initially; they were raised as monolingual (all of them indicated having only one mother tongue) and acquired the other languages sequentially.

In Spain, nonstudents $(\mathrm{N}=22)$ —all having Spanish as their mother tongue-spoke a diverse number of languages ranging from 1 to 8 (one person). Bilinguals (defined as those who use two languages or dialects in everyday life, following Grosjean, 2012) represented the largest group ( $38.1 \%$ ), followed by monolinguals ( $28.6 \%$ of all participants), and the rest were multilingual (Table 1). In the university sample, pedagogy students (and not specializing in language) were targeted $(\mathrm{N}=107)$. The number of languages spoken ranged between 1 and 4 in this sample (Table 1). Their native language was Spanish; the majority were bilingual (55\%), about $32 \%$ of the sampled participants were monolingual, and the remaining $13.2 \%$ were multilingual. The languages spoken by bilingual and multilingual participants were English (77.6\%); French (12.1\%); Italian (3.4\%); Portuguese, German, Basque, and Galician (one speaker each).

The participants from the US (New Jersey, NJ) included 122 native speakers of English. Half of the participants were monolingual, and the other half declared having acquired one additional language, either simultaneously or sequentially. They are considered bilingual based on their language practices and uses (Table 1). The bilingual group spoke the following languages aside from English: 2 spoke Hindi, 2 Arabic, 1 Italian, 1 French, and the remaining 55 spoke Spanish.

The participants were given 10 minutes to complete a questionnaire in writing, as described below. The researcher informed the participants briefly about the purpose of the survey, namely, collecting opinions about immigration. In NJ, only items about immigration acceptance were included because the low variability of the number of languages spoken in this sample did not allow for correlational analysis with other variables. As the Spanish sample had a higher variation in the number of languages spoken, we tested the effects of empathy and contact with immigrants within this group. Items for measuring these variables (empathy and contact) were included only in the questionnaires administered in Spain, as well as other filler questions and short media information about Africa that are not reported here. The researchers retain the original handwritten questionnaires in safekeeping.

Table 1
Description of the samples studied. Percentage of females, mean age, percentage of individuals speaking different number of languages. N : sample size; y/o: years old.

|  | Spanish nonstudents | Spanish students | New Jersey participants |
| :--- | :--- | :--- | :--- |
| N | 22 | 107 | 112 |
| $\%$ females | $61.9 \%$ | $65.3 \%$ | Not available |
| Mean age | $25.8 \mathrm{y} / \mathrm{o}$ | $23.9 \mathrm{y} / \mathrm{o}$ | $23.7 \mathrm{y} / \mathrm{o}$ |
| Languages spoken |  |  |  |
| 1 | $28.6 \%$ | $31.7 \%$ | $50 \%$ |
| 2 | $38.1 \%$ | $55.1 \%$ | $50 \%$ |
| 3 | $28.6 \%$ | $12.2 \%$ | - |
| 4 | $0 \%$ | $1 \%$ | - |
| 5 | $4.7 \%$ | $0 \%$ | - |

### 2.2. Variables measured

### 2.2.1. Immigration acceptance

Due to current migratory movements in each country, the questions in Spain referred to African immigrants and those in the US referred to Hispanic immigrants. These immigrant collectives are discriminated against in the countries under study (e.g., Tesfai, 2019, for Spain; Yemane and Fernández-Reino, 2019, for the US). Acceptance of immigrants was measured using a scale of attitudes toward immigration adapted from the European Social Survey (2016), consisting of three items:

How many African/Hispanic people-1) of the most common race in Spain/the US—2) of a different race from the Spanish/US majority-3) living below the poverty line—should Spain/the US allow to live in your city/village? (1 = none to 4 = many). Overall acceptance of immigrants was measured as the mean of the three items. This scale has been validated in a sample of more than 40,000 participants from 21 European countries, including Spain (Heath et al., 2019; sample sizes per country $1,224-3,045$ ).

### 2.2.2. Contact with immigrants

A scale adapted from Voci and Hewstone (2003) and Shamloo et al. (2018) was employed to measure the extent and quality of contact. Quantity was measured from the following items:

How many African immigrants do you know? $(0=$ none to $4=>10)$, and How frequently do you have contact with foreign people? $(0=$ never to $4=$ very frequently $)$. The aggregated measure was the median of the items.

Quality was measured across three items:
When you meet an African immigrant, in general, you find the contact is-1) pleasant-2) cooperative-3) superficial ( $1=$ nothing to $5=$ very much). The quality measure was the median of the three items after inverting "superficial.".

The scale was validated in Italy by Voci and Hewstone (2003) among 310 students and 94 hospital workers and by Shamloo et al. (2018) among 100 participants, giving $\alpha=0.71$ for quantity and $\alpha=0.75$ for quality of contact. In our study, the combined measure of contact was the product of the two constructs [quantity $\times$ quality], as the extent of quality contact facilitates immigration acceptance (Jones and Rutland, 2018).

### 2.2.3. Individual empathy

Subject empathy was measured using the Single Item Trait Empathy Scale (Konrath, Meier, and Bushman, 2018):
To what extent does the following statement describe you: "I am an empathic person"? ( $1=$ Not very true of me to $5=$ Very true of me).

This scale has been validated from seven studies conducted online with college students, with more than 5,000 subjects; it correlates positively with other measures of empathy such as perspective-taking and empathic concern, as well as with openness (Konrath et al., 2018).

### 2.3. Hypotheses tested and statistics

1) Multilingualism will increase immigration acceptance.
2) The three different groups of immigrants considered (of the same race as the majority of the host country, of another race, and from countries below the poverty threshold), will have different acceptance levels if any of the groups are perceived as potentially problematic.
3) More quality contact with immigrants will be a positive mediator between multilingualism and immigration acceptance.
4) Greater empathy toward immigrants will also be a positive mediator of immigration acceptance.

In each of the three samples analyzed, the effect of the languages spoken and the immigrant group were tested using two-way analysis of variance (ANOVA). For the factor "languages spoken," two levels (mono- and bilingual) were considered in the NJ sample, and three levels (mono-, bi-, and multilingual) were considered in the Spanish student and nonstudent samples. The factor "immigrant group" had three levels (same race, different race, poor countries).

Post hoc pairwise comparisons between samples were performed using Student's $t$-test.
Differences between the Spanish samples (two levels: Spanish students and Spanish nonstudents) in terms of acceptance of the three immigrant groups were tested using two-way ANOVA. The factor "multilingualism" was considered (only in two levels: monolingual versus bi/multilingual) because it was significant in the previous analysis. The bilingual and multilingual categories were pooled after determining that they were not significantly different.

To determine if the number of languages spoken facilitates contact with immigrants and increases empathy in the Spanish samples, first, a correlation matrix was constructed with pairwise Pearson's $r$ correlations between variables. To test if multilingualism mediates between contact with immigrants and immigration acceptance, an initial partial correlation was calculated, controlling the effect of the number of languages spoken. Then, regression coefficients a (for the variables contact and number of languages), $b$ (number of languages and immigration acceptance variables), and their standard errors were used to calculate $z$ in the Goodman test, as follows:

$$
z \text {-value }=a \times b / \sqrt{ }\left(b^{2} \times s a^{2}+a^{2} \times s b^{2}-s a^{2} \times s b^{2}\right)
$$

This test establishes whether a variable is a significant mediator between two others, and for samples of $N=100$ ( $\mathrm{N}>100$ in our study), it has a power of 0.87 and 0.95 for medium and large mediation effects, respectively (MacKinnon, Lockwood, Hoffman, West, and Sheets, 2002).

Normality was checked using a Shapiro-Wilk test, and a generalized Breusch-Pagan test was used for homoskedasticity of variances. A standard $p<0.05$ significance threshold was applied with Bonferroni correction when relevant. The SPSS package v. 8 and free PAST software (Hammer et al., 2001; version 3.24 of 2019) were employed.

## 3. RESULTS

The raw data of this study are available in the Mendeley Data repository at http://dx.https://doi.org/10.17632/mpp453xmrd.1. Three samples were analyzed:

### 3.1. Immigration acceptance and multilingualism

Immigration acceptance was high in the Spanish and US samples for all three immigration types considered (Fig. 1). The average was $>3$ for all samples ( $4=$ accept many). The effect of the number of languages spoken was significant in the three samples analyzed. Multilingual respondents were more accepting of immigrants than monolinguals and bilinguals in the Spanish samples (Fig. 1), with the effect of the number of languages spoken being highly significant (Table 2). Highly significant differences in the acceptance of immigrants also occurred between bilinguals and multilinguals in the sample of students $(t=3.68$ with $p=0.0004, \mathrm{t}=3.23$ with $p=0.0003$, and $\mathrm{t}=3.82$ with $p=0.0002$ for immigrants of the same race, a different race, and poor countries, respectively) and in the sample of nonstudents ( $t=3.54$ with $p=0.001$ for both immigrants of the same and a different race, and $t=4.20$ with $p=0.0002$ for immigrants from poor countries). In the US sample, the effect of languages spoken was also significant, with bilingual participants being more accepting of immigrants of all types than monolingual participants (Fig. 1, Table 2).

Considering the three types of immigrants under study, significant differences between immigrant groups arose only in the US sample (Table 2), whereas in the two Spanish samples the factor "immigrant group" was not significant. The US participants accepted significantly fewer immigrants from poor countries (mean acceptance 3.29 [variance 1.22] and 3.11 [variance 1.48] for bilinguals and monolinguals, respectively) than immigrants of the same or different race (respective $t=2.35$ with $p=0.02$ and $t=2.33$ with $p=0.02$ for monolinguals; $t=3.05$ with $p=0.003$ and $t=3.33$ with $p=0.001$ for bilinguals).

Ethnicity did not seem to influence immigration acceptance in our samples. The acceptance of immigrants of the same and different races was similar in every sample (Fig. 1). The difference between immigrants of the same and different races was not significant for the NJ monolinguals (the mean for immigrants of the same race and different races was identical: 3.55 , variances 0.54 and 0.58 , respectively) and for bilinguals (means of 3.82 [variance 0.22] and 3.79 [variance 0.28] for immigrants of the same and different race, respectively, $t=0.377, p=0.71>0.05$, not significant).

### 3.2. Contact with immigrants, multilingualism, and immigration acceptance in the Spanish sample

Potential effects of contact with immigrants on immigration acceptance were analyzed in the Spanish samples. Twoway ANOVAs (Table 3) showed that the two samples were not significantly different in terms of acceptance of immigration $\left(F_{1,110}=0.09,0.23\right.$, and 0.05 for immigrants of the same race, different race, and from poor countries, respectively, all with $p>0.05$, n.s.). However, as expected from a sample-by-sample analysis, differences between monolinguals, bilinguals, and multilinguals were highly significant. As no significant difference was found between the Spanish samples, we merged them $(\mathrm{N}=129)$, thereby increasing the salient statistical power.

Pairwise correlations between the variables measured in the Spanish samples are presented in Table 4. The correlation between quality contact with immigrants (the variable "contact" includes quantity and quality) and immigration


Fig. 1. Mean value (standard error as capped bars) of acceptance of different types of immigrants by participants in the US and Spain samples.

Table 2
Two-way ANOVAs testing the effect of the languages spoken and the different groups of immigrants considered (same race, different race, and from poor countries) in student and nonstudent samples from the US and Spain. Mean square (MS) and F are presented; * $p<0.05$ and $^{* * *} p<0.001$.

| Factor | Sample |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | US participants |  | Spanish students |  | Spanish nonstudents |  |
|  | MS | F | MS | F | MS | F |
| Languages spoken | 4.3 | $\mathrm{F}_{1,330}=5.96^{*}$ | 4.20 | $\mathrm{F}_{2,283}=6.8^{* * *}$ | 10.48 | $\mathrm{F}_{2,51}=29.11^{* * *}$ |
| Immigrant group | 8.69 | $\mathrm{F}_{2,330}=12.04^{* * *}$ | 0.04 | $\mathrm{F}_{2,283}=0.06$ | 0.07 | $\mathrm{F}_{2,51}=0.19$ |
| Interaction | 0.06 | $\mathrm{F}_{2,330}=0.08$ | 0.20 | $\mathrm{F}_{4,283}=0.33$ | 0.18 | $\mathrm{F}_{4,51}=0.51$ |

acceptance was highly significant ( $r=0.28, p=0.002$; Table 4A). The number of languages was significantly correlated with contact with immigrants ( $r=0.25, p=0.007$ ) and with acceptance of immigrants ( $r=0.233, p=0.008$ ).

To corroborate whether the number of languages spoken mediates between contact with immigrants and acceptance of immigrants (i.e., whether it facilitates quality contact with immigrants), we controlled for the variable "number of languages" and found a lower correlation between these two variables, which is not significant after Bonferroni correction ( $r=0.207$ with $p=0.02$, significance threshold after Bonferroni correction of $p=0.016$ ), suggesting that the number of languages is an intervening variable-a mediator or partial mediator between contact with immigrants and immigration acceptance. The linear regression coefficients (Standard Error) of the slope of quality contact versus the number of lan-

Table 3
Two-way ANOVAs testing the effect of the sample (students versus nonstudents) and the languages spoken (mono-, bi-, and multilinguals) on the acceptance of different groups of immigrants in Spain. Mean square (MS) and F are presented; *p < 0.05 and ** $\mathrm{p}<0.01$.

| Factor | Immigrant groups |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Same race |  | Different race |  | Poor countries |  |
|  | MS | F | MS | F | MS | F |
| Sample | 0.04 | $\mathrm{F}_{1,110}=0.09$ | 0.12 | $\mathrm{F}_{1,112}=0.23$ | 0.03 | $\mathrm{F}_{1,112}=0.05$ |
| Languages spoken | 2.94 | $\mathrm{F}_{2,110}=5.66^{* *}$ | 3.28 | $\mathrm{F}_{2,112}=6.08^{* *}$ | 4.69 | $\mathrm{F}_{2,112}=6.97^{* *}$ |
| Interaction | 1.08 | $\mathrm{F}_{2,110}=2.09$ | 1.25 | $\mathrm{F}_{2,112}=2.32$ | 2.38 | $\mathrm{F}_{2,112}=3.53^{*}$ |

Table 4
Pairwise correlations between the variables considered in this study for Spanish participants. Pearson's $r$ and their $p$-values are below and above the diagonal, respectively. A) Acceptance: immigration acceptance as the mean acceptance of the three groups of immigrants considered (same race, different race, and from poor countries). B) Acceptance of the three groups of immigrants considered separately. *: significant after Bonferroni correction.
A)

|  | Languages | Empathy | Immigration acceptance | Contact |
| :--- | :--- | :--- | :--- | :--- |
| Languages |  | 0.856 | 0.008 | 0.007 |
| Empathy | 0.016 |  | 0.149 | 0.103 |
| Immigration acceptance | $0.233^{*}$ | 0.129 |  | 0.003 |
| Contact | $0.25^{*}$ | 0.153 | $0.278^{*}$ |  |


| B) |  |  |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
|  | Languages | Empathy | Contact | Same race | Different race | Poor countries |
| Languages |  | 0.856 | 0.007 | 0.013 | 0.011 | 0.027 |
| Empathy | 0.016 |  | 0.103 | 0.292 | 0.371 | 0.016 |
| Contact | $0.25^{*}$ | 0.153 |  | 0.002 | 0.001 | 0.044 |
| Same race | $0.222^{*}$ | 0.095 | $0.290^{*}$ |  | $3.11 E^{-67}$ | $3.92 E^{-16}$ |
| Different race | $0.225^{*}$ | 0.08 | $0.297^{*}$ | $0.961^{*}$ |  | $6.39 E^{-25}$ |
| Poor countries | 0.196 | $0.213^{*}$ | 0.189 | $0.706^{*}$ | $0.758^{*}$ |  |

guages was 0.042 ( 0.015 ) with $t=2.742$, and that of the slope of the number of languages versus immigration acceptance was $0.232(0.086)$ with $t=2.702$; both with $p<0.05$. The Goodman test was statistically significant $(z=1.993, p=$ $0.04<0.05$ ), confirming the mediation of multilingualism between quality contact and immigration acceptance.

Considering the different types of immigrants separately, both the number of languages spoken and the quality of contact were significantly correlated with immigration of the same race and different races, but not with immigrants from poor countries (Table 4B).

### 3.3. Empathy, multilingualism, and immigration acceptance in the Spanish sample

Empathy was not significantly correlated with any of the other variables (Table 4A), and it stood alone as a possible factor influencing immigration acceptance (Fig. 2). Considering the three groups of immigrants separately (Table 4B), we found a significant correlation between self-reported empathy and the acceptance of immigrants from poor countries ( $r=0.213, p=0.016<0.05$; significant after Bonferroni correction). However, in contrast with the results found for quality contact and multilingualism, correlation coefficients between empathy and the acceptance of immigrants of the same and different race were not significant $(r=0.095$ with $p=0.29>0.05$ and $r=0.08$ with $p=0.37$, respectively, both > 0.05).

## 4. DISCUSSION

This study obtained significant results that could be interpreted as evidence of the contribution of multilingualism to enhancing immigration acceptance (Hypothesis 1), presumably as a mediator of quality contact with immigrants, as will be discussed below. Even though Spain and the US are different cultures and have distinct immigration histories, the


Fig. 2. Relationships between the variables considered in this study, based on correlational mediation analysis. Pearson's $r$ correlation coefficients between variables are shown. In parentheses, $r$ value when controlling the mediator variable (Goodman test with $z=1.993$, $p=0.04<0.05)$. *: significant after Bonferroni correction; n.s., not significant.
trend for a higher acceptance of immigration by multilingual participants was similar in both countries. It was also the same when comparing students and the small group of nonstudents surveyed, reinforcing this finding. A higher acceptance of immigrants appears to be consistent with a higher level of crosscultural empathy and acceptance of outgroups among multilingual people (Dewaele and Stavans, 2014; Mepham and Martinovic, 2018).

Our data in Spain suggest that multilingualism facilitates quality contact with immigrants (Hypothesis 3). This may result in an increase in immigration acceptance, as positive intergroup contact has been consistently reported to be critical in reducing discrimination and enhancing the acceptance of immigrants (e.g., McLaren, 2003; Weber, 2015). When compounded, the results of the correlation and mediation analyses indicated that multilingualism facilitates the acceptance of immigrants at least partially due to increased quality contact (Fig. 2). Based on our data, enhanced opportunities for contact with immigrants and the subsequent development of mutual understanding could be interpreted as a reason why multilingualism increases foreign outgroup acceptance, as suggested from the significant mediation effect between contact and immigration acceptance.

At the same time, many other independent factors influence the acceptance of immigrants. In our study, empathy was positively correlated with the acceptance of immigrants from poor countries (the other two types of immigrants considered here were not significantly correlated with empathy), with no evident connection to the number of languages spoken, thus not supporting Hypothesis 4, which predicted that empathy would act as a mediator between multilingualism and immigration acceptance. The higher empathic skills of multilinguals (Ramirez-Esparza et al., 2019) do not seem to be mediators of immigration acceptance in our study, where multilingualism was not correlated with self-declared empathy. Empathy is independent of multilingualism in the particular case of the Spanish groups in our study. Empathy helps reduce anti-immigrant sentiment and enhances the recognition of immigrants' rights (Miklikowska, 2018; Verkuyten et al., 2018). Our results appear to support this, albeit only concerning immigration from poor countries, perhaps due to compassion or empathic concern-which is considered a component of empathy (Decety and Cowell, 2015).

Other factors such as the higher cognitive and social flexibility of multilingual individuals (not measured in this study) could also potentially explain their higher acceptance of outgroups (lkizer and Ramirez-Esparza, 2018; Mepham and Martinovic, 2018) and intervene in the increase in immigration acceptance by multilingual participants. In conjunction with the facilitation of quality contact, the association between open-mindedness and multilingualism (e.g., Sakuragi, 2006) may also partially explain our results. A person who is more open-minded and more ready to accept immigrants may be more likely to learn other languages. However, in the NJ sample, people enrolled voluntarily in Spanish classes, which demonstrates their similar interest in acquiring new languages or improving their second language proficiency, and still, those who considered themselves bilingual accepted more immigrants than monolinguals. Thus, besides open-mindedness, other factors such as enhancing quality contact or higher social flexibility (Mepham and Martinovic, 2018), are needed to explain our results.

According to Hypothesis 2, the level of acceptance was not the same for all types of immigrants. This was more evident in the US sample. As expected, immigrants from poor countries were accepted less in the US sample, and this was observed within both the monolingual and the bilingual groups. Preference for rich (nonpoor in our study) immigrants is attested in the US (e.g., Hainmueller and Hopkins, 2015), and our results are consistent with this. In the Spanish samples, however, qualitative differences between types of immigrants occurred but were subtle. Empathy was significantly
correlated with the acceptance of immigrants from poor countries but not with other types of immigrants. In contrast, these other types of immigrations were positively correlated with intergroup contact, whereas immigration from poor countries was not (Table 4B). In other words, empathy would be needed to accept poor immigrants, while an improvement in the quality of contact would suffice in increasing the acceptance of nonpoor immigrants. Poor immigrants may be seen as resource-demanding (sharing resources may be seen as a problem); therefore, individuals with high levels of empathic concern would be prone to accept them while others would prefer to allow wealthier immigrants into their country.

This study has some limitations. First, it is based on self-reported elements such as empathy and the number of languages spoken. Although self-reporting is common in psycholinguistic and psychosocial research (e.g., Konrath et al., 2018), the participants' answers cannot be verified against objective scales. Another limitation is the relatively small size of the samples, as well as the fact that two samples consist of students. However, the coincidence of results in the two Spanish samples, one comprising students and the other consisting of nonstudents, would support the validity of their inclusion. Another possible limitation of this study is the age of the participants, with an average of below 30 years in both countries. Young, educated people tend to be more open toward immigration in both Spain (McLaren and Paterson, 2019) and the US (Pew Research Center, 2018). The young age of the Spanish participants could explain the lack of an open preference for rich (or at least nonpoor) immigrants in the Spanish samples, unlike what generally happens in Europe (e.g., Ford and Mellon, 2019). Both mono- and multilingual Spaniards accept a similar level of immigration from poor countries and from other types of immigration (see Fig. 1); however, as explained above, empathy may play a role in their acceptance. Expanding the survey to other ages and population sectors would allow better generalizability of the results. However, the scale employed, taken from the European Social Survey (2016), is pretty basic. Additional questions or an interview may enrich the results with more nuanced details about the participants' opinions toward immigration. Future research should consider the diversity within groups of participants and their possibly different experiences of multicultural, multiethnic environments as potential variables.

As a final remark, we have employed the term "race" because it is used in this way in the European Social Survey (2016) from which our questions were taken. However, we would emphasize that "race" is a social construct because, biologically speaking, racial classifications are inadequate descriptors of genetic diversity. Humans belong to a single race-as an example, the genetic differences between two European descendants can be higher than those between either of them and an Asian descendant (e.g., Tishkoff and Kidd, 2004). Thus, the word "race" is employed here, as it is in the European Social Survey, as a mere descriptor of a minority in the recipient country.

## 5. CONCLUSIONS

This study shows the potential of multilingualism in bridging the differences between migrants and host communities. Through the study of samples from different cultures and societies, we argue that the enhanced quality of contact between migrants and locals, as well as the enhanced empathy and social flexibility that derive from speaking multiple languages, can be capitalized on in creating communities that are more open to immigration. This would help reduce tension between groups and prevent social conflict, enhancing inclusivity and intergroup solidarity.

## Declaration of Competing Interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

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