The majority's perceptions about adaptation to the host society of different immigrant groups: The distinct role of warmth and threat

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ABSTRACT

The main objective of this research was to show that majority members differ in their perceptions of different immigrant groups as regards their warmth, competence, similarity, and triggered threat, and that these differences might explain why majority members vary in their perception of adaptation and the perceived need to adapt for different immigrant groups. Particularly, the study aimed to test the distinct role of stereotypes (especially the warmth dimension) and perceived threat (especially realistic threat) in predicting the majority's perception of adaptation and the need for immigrants to adapt. Spanish participants ($N = 307$) responded to a questionnaire assessing Moroccan, Romanian, and Ecuadorian immigrants, reporting their perceptions of adaptation and the need for immigrants to adapt to the host society, on two dimensions of stereotypes (warmth and competence), perceived (realistic and symbolic) threat, and intergroup similarity. Results showed that the majority's perceptions about immigrants were specific to the immigrant target assessed. The psychosocial variables that predicted perception of adaptation and need to adapt differed depending on the immigrant target assessed, although warmth generally predicted perception of adaptation, and perceived threat generally predicted need to adapt. Accordingly, warmth was found to be a mediator in predicting perception of adaptation, whereas perceived realistic threat was a mediator when predicting the need to adapt. Intergroup similarity was a reliable mediator in both perception of adaptation and need to adapt. Overall, warmth seemed to be more closely related with acculturation perceptions, whereas perceived threat was more related with acculturation preferences.

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1. Introduction

Immigration has been a vital topic of research as scholars search to understand why immigration goes more smoothly for some groups than for others. And with good reason, a United Nations report on World Population Policies estimated that there were 214 million international immigrants in 2010, and that the most likely destinations for immigrants over the next 40 years include the U.S., Canada, the U.K., Spain, Italy, Germany, Australia and France in that order (UN report on World Population Policies, 2010). Clearly it is critical that these governments find solutions for successful integration of these newcomers. This study focused on the majority's perception of adaptation, a factor that is critical in determining the ultimate success of the immigrant's adjustment to the new society.

The goal of this research was to demonstrate that majority members differed in their perceptions of different immigrant groups as regards their warmth, competence, intergroup similarity, and perceived threat. In addition, we suggest that these differences may explain why majority members varied in their perception of adaptation and the perceived need to adapt of these immigrant groups. Based on previous research about acculturation preferences (Bourhis, Moïse, Perreault, & Senécal, 1997; Navas et al., 2004; Navas & Rojas, 2010; Piontkowski, Florack, Hölker, & Obdrzálek, 2000), we expected that majority members would differ not only in their perception of adaptation and their need to adapt to the host society when assessing different immigrant groups, but also in their stereotypes (Lee & Fiske, 2006), perceived threat, and perceived similarity (Rohmann, Piontkowski, & Van Randenborgh, 2008) toward different immigrant targets.

Furthermore, the study attempted to test the possible differential impact of stereotypes (compared to perceived threat and similarity) when predicting the majority's perception of adaptation and the need for immigrants to adapt to the host society. Regarding this specific goal, which builds on literature about stereotypes (Stereotype Content Model, SCM; Cuddy, Fiske, & Glick, 2008; Fiske, Cuddy, Glick, & Xu, 2002; Fiske, Xu, Cuddy, & Glick, 1999) and about intergroup threat perception (e.g., Esses, Jackson, Nolan, & Armstrong, 1999; Stephan, Renfro, Esses, Stephan, & Martin, 2005), some specific predictions were made: stereotypes (particularly the warmth dimension) may be more relevant to the majority's perception of immigrants' adaptation, whereas perceived threat may be more relevant when predicting need to adapt. Accordingly, we hypothesized that the majority's stereotypes (specially warmth) about different immigrant targets would explain the variation in their perception of immigrants' adaptation, whereas their perceived threat would explain the majority's different need to adapt for different immigrant groups.

This research will enable us to better grasp the majority's perceptions toward minority groups in order to understand and predict the future intercultural relationships in a multicultural context.

2. The majority's acculturation preferences for different immigrant targets

Majority members of the host society hold a clear partiality in their acceptance of different immigrant groups (Berry & Kalin, 1995; Hagendoorn, 1993). Research shows a preference by majority members for contact with some outgroups more than with others (for a review see Hagendoorn, 1995; Owen, Eisner, & McFaul, 1981).

Accordingly, the majority's acculturation preferences would not be homogeneous for different immigrant groups, but specific to the immigrant target assessed by majority members. A key contribution of the Interactive Acculturation Model ([IAM], Bourhis et al., 1997) is the idea that the majority's acculturation preferences for an immigrant may differ depending on the national origin of the immigrant group considered. As Montreuil and Bourhis (2001) highlight, flexible acculturation orientations such as 'integration' or 'individualism' would be more desirable for 'valued' immigrants (e.g., French; whose language and culture are similar to the ingroup), whereas less receptive acculturation orientations such as 'segregation' or 'exclusion' would be preferred for 'devalued' immigrants (e.g., Haitians, Arabs-Moslems; for whom majority members already have negative stereotypes or whose culture and religion are perceived as being considerably different from the ingroup). This idea has received empirical support in some studies (i.e., Bourhis & Dayan, 2004; Montreuil & Bourhis, 2001; Montreuil, Bourhis, & Vanbeselaere, 2004).

Along these same lines, the works of Piontkowski and collaborators (Piontkowski et al., 2000; Rohmann et al., 2008) also found that the majority' acculturation preferences varied depending on the origin of the immigrant target considered. In particular, they discovered that Germans were more in favor of 'integrating' Italian immigrants, whereas the option of 'assimilation' was preferred for Turkish immigrants (Rohmann et al., 2008).

Likewise, in the Relative Acculturation Extend Model ([RAEM], Navas et al., 2005), the ethno-cultural origin of minorities in acculturation processes is highlighted, demonstrating that the majority's opinion varies as a function of the immigrant collective being assessed. The results of these studies, carried out in various places of Spain, show that majority members make more demands and require more changes from the Maghrebians (i.e., immigrants from Morocco and Algeria) than from the sub-Saharan collective (immigrants from Senegal, Guinea, Mali, etc.), because the latter are allowed to keep part of their culture ('integration' option), whereas the Maghrebians are called on to abandon their customs to adapt to those of the hosts ('assimilation'). These results are consistent with the fact that majority members value Maghrebians less than sub-Saharans. Additionally, manifest and subtle prejudice is higher toward Maghrebians than toward sub-Saharans. Spanish people also

feel more threat and rejection toward Maghrebians than toward sub-Saharans, and they feel less positive emotions and more negative emotions toward Maghrebians (Navas et al., 2004).

3. Different perceptions for different immigrant targets

Several psychosocial variables are also be deemed to vary depending on the particular immigrant group assessed. To begin with, it is known that people hold qualitatively different beliefs about various social groups (i.e., Cuddy et al., 2008; Devine & Elliot, 1995; Fiske et al., 2002, 1999; Madon et al., 2001). Particularly, the majority's stereotypes are not consistent for all immigrant groups, but depend on the immigrant target assessed (Lee & Fiske, 2006).

The SCM (Cuddy et al., 2008; Fiske et al., 2002, 1999) suggests that all social groups are assessed according to two basic dimensions of stereotypes: warmth and competence. The dimension of *warmth* helps anticipate the intentions of others, and includes characteristics such as friendly, well-intentioned, trustworthy, warm, good-natured, and sincere. The dimension of *competence* refers to the capacity of others to achieve their intentions and goals, and includes characteristics like intelligent, confident, capable, efficient, skillful, and competent.

Lee and Fiske (2006) applied the SCM specifically to the perception of immigrants in the USA, showing that when additional information was provided about key group aspects (i.e., nationality, ethnicity, and socioeconomic status), majority members valued immigrant groups differently and made specific attributions about each one of them according to the dimensions of warmth and competence. Their results showed that African, Latin American, and Mexican immigrants were rated the lowest in competence, as well as not rated very high in warmth in comparison to other groups. The Italian and Irish immigrants were perceived less competent than the ingroup, but higher in warmth, whereas immigrants from the Middle East, Eastern Europe, France and Vietnam were rated as moderate in competence and low in warmth. Lastly, Asian immigrants were rated as high in competence and low in warmth. Other studies have also confirmed that majority members have different stereotypes about different immigrant targets (López-Rodríguez, Cuadrado, & Navas, 2013; Volpato & Durante, 2010).

This specificity of the intergroup ratings as a function of the ethno-cultural origin of the immigrant group assessed can be observed in other psychosocial variables, such as the perception of threat and perceived intergroup similarity (Rohmann et al., 2008) as well. Particularly, Moroccan immigrants are perceived by Spanish people to trigger more realistic and symbolic threat than Ecuadorian immigrants, and this perceived threat is negatively related to perceived intergroup similarity (Navas, Cuadrado, & López-Rodríguez, 2012).

4. Predicting the majority's perception of immigrants' adaptation and perceived need to adapt: the distinct role of warmth and threat

Related to the specificity of the immigrant target assessed, Piontkowski et al. (2000) showed that the majority's acculturation preferences for different cultural groups cannot be predicted by a uniform pattern of variables, but instead, a specific combination of them is required for each cultural target. In fact, the variables that best discriminate the preferred acculturation attitudes of Germans differ depending on whether they are rating Turks or Yugoslavs. Recent studies in the Spanish context (Navas et al., 2004; Navas & Rojas, 2010) also confirm that the variables that discriminate between the diverse acculturation attitudes preferred by majority members differ as a function of the immigrant targets considered (Maghrebians vs. sub-Saharans; Romanians vs. Ecuadorians).

In addition to the specificity of variables when predicting the majority's acculturation preferences for immigrants, Piontkowski et al. (2000, p. 1) also recognizes that "there are some variables which are important throughout" the cultural groups assessed, such as the expected outcome, intergroup bias, and perceived similarity. The literature suggests that two variables, stereotypes (e.g., Maisonneuve & Testé, 2007) and perceived threat (e.g., Esses et al., 1999; Stephan et al., 2005), are closely related with the majority's acculturation perceptions and preferences. Majority members tend to assess immigrants who adopt the host culture as warmer and more competent than those who do not, whereas immigrants who maintain their original culture are assessed less warm than those who abandon it (Maisonneuve & Testé, 2007). A recent study suggests that the majority's acculturation perceptions about immigrants predict their acculturation preferences for these immigrants through stereotypes and perceived threat (López-Rodríguez, Zagefka, Navas, & Cuadrado, 2014).

Moreover, warmth judgments have been recognized as primary, and to "carry more weight in affective and behavioral reactions" than competence judgments. Likewise, information about the warmth dimension "is more cognitively accessible, more sought-after by perceivers, more predictive, and more heavily weighted in evaluative judgments". The explanation lies in its function: another's good or bad intentions matter very much for survival from an evolutionary perspective (Cuddy et al., 2008, p. 89).

According to this theoretical foundation, we hypothesized that stereotypes would be important when predicting the majority's perception of immigrants' adaptation due to stereotype dimensions are fundamental in social perception (Cuddy et al., 2008; Fiske et al., 2002). Specifically, warmth, due to its primacy (this dimension seems to be essential in evaluative judgments), should be a predictor of the majority's perception of adaptation across all immigrant targets. Alternately,

perceived threat was not expected to be a central predictor for perception of adaptation but a good predictor for need to adapt.

Regarding the relationship between acculturation attitudes and perceived threat, the literature has largely shown that a high perception of threat is related to more negative attitudes toward minority groups, and immigration in general (e.g., Esses et al., 1999; Stephan et al., 2005), and less support for multiculturalism (Ward & Masgoret, 2006). Likewise, threat has been shown to mediate the relationship between acculturation perceptions (i.e., perceived adaptation, perceived maintenance, and perceived contact) and support for multiculturalism, also suggesting that higher threat is associated with less support for multiculturalism (Tip et al., 2012). Recently, it has also been found that perceived threat mediates the link between stereotypes and acculturation preferences, confirming that positive stereotypes about immigrants decrease perceived threat, which in turn, influence the majority's acculturation preferences (López-Rodríguez et al., 2014). This finding may suggest that perceived threat seems to have a more primary role than stereotypes when shaping the majority's acculturation preferences. The explanation may be that perceived threat triggers fear in majority members, and a good tool to reduce fear is to make the source of this fear adapt to the host culture, producing a perception of a safer environment for majority groups.

Based on these empirical findings, we hypothesized that perceived threat would be an important predictor of the perceived need for immigrants to adapt, due to the prescriptive character of this variable. To summarize, whereas stereotypes may be more important for predicting perception of adaptation, perceived threat would be more relevant for acculturation preferences as to how much a group needs to adapt to the host culture.

5. The present study

This study is focused on the majority's acculturation perspective. However, it did not measure acculturation in a classical way (four categories; e.g., Berry, 1997; Bourhis et al., 1997), instead we followed recent recommendations (Brown & Zagefka, 2011; Rudmin, 2003; Rudmin & Ahmadzadeh, 2001; Van Acker & Vanbeselaere, 2011, 2012), which have suggested the dimensions underlying acculturation preferences and perceptions (i.e., cultural adaptation and maintenance) should be assessed separately. To maintain a focus to this study, the current paper is centered on the majority members' perceptions about immigrants' adaptation to the new host society, measuring two main dimensions from this perspective. The first dimension is labeled 'perception of adaptation to the host culture', and it is related to the majority members' perceptions about whether or not immigrants have adapted to the host society. Simultaneously, we have introduced a new acculturation dimension that has barely been addressed in the literature: 'Perceived need to adapt to the host culture'. This last dimension highlights the perception that majority members have about immigrants' obligation (or duty) to adapt to the host culture.

Given these considerations, the general goal of this work was to show that majority members differed in their perceptions of different immigrant groups as regards their warmth, competence, intergroup similarity and perceived threat; and that these differences might explain why majority members varied in their perception of adaptation and the perceived need to adapt for different immigrant groups.

First of all, the study aimed to assess if the majority's acculturation orientations (i.e., 'perception of adaptation to the host culture', and 'perceived need to adapt to the host culture') and several psychosocial variables (i.e., stereotypes, perceived threat, and intergroup similarity) varied according to the immigrant groups particularly assessed (Moroccans, Romanians, and Ecuadorians). Based on previous research (López-Rodríguez et al., 2013; Navas et al., 2012, 2004; Navas & Rojas, 2010), we expected that Moroccan immigrants would be rated as the lowest on variables related to positive intergroup relationships (perception of adaptation to the host society, warmth and competence, and intergroup similarity) and as the highest on variables indicating negative intergroup relationships (high perception of threat and high need to adapt) compared to the other two groups (Ecuadorian and Romanian immigrants). Minor differences were expected between the majority's perceptions about Romanians and Ecuadorians.

To date, the psychosocial variables included in this study have not been treated conjointly in one study. Therefore, another specific goal of the study was to establish which combination of these psychosocial variables better explains the majority's perceptions, and whether there are differences as a function of the immigrant target assessed. Although we expected that, in general, the psychosocial variables that predict the majority's perception of adaptation and need to adapt would differ depending on the immigrant target assessed, some findings were expected to be confirmed throughout the immigrant targets. Stereotypes (especially warmth) were expected to be more relevant in predicting the majority's perceptions of immigrants' adaptation, whereas perceived threat was expected to be more pertinent in predicting the majority's need for immigrants to adapt.

Finally, given that both acculturation perceptions and psychosocial variables varied according to the immigrant target assessed, it was expected that the psychosocial variables explained the differences in the majority's adaptation perceptions. Particularly, it was expected that the majority's stereotypes (especially warmth) about different immigrants to explain the variation in their perception of immigrants' adaptation, whereas their perceived threat to explain the majority's different need to adapt for different immigrant groups. These findings would confirm the distinct role of warmth and threat when predicting the majority's adaptation perceptions and preferences.

Regarding perceived intergroup similarity, Osch and Breugelmans (2012) have proposed that perceived intergroup differences may work as an organizing principle for intercultural and acculturation attitudes, showing that those minority groups who were perceived "by majority members as being more different from themselves received less support for

multiculturalism, were seen as more threatening, were stereotyped as less warm and competent, were seen to adopt mainstream culture less and to maintain ethnic culture more" (p. 1). Thus, this variable is hypothesized to mediate when predicting both the majority's adaptation perceptions and preferences.

5.1. The study context

The investigation was carried out in a southern area of Spain (Almeria), characterized by large populations of immigrants of diverse origins due to geopolitical situation and economic tradition. The region is ideal for majority–minority relationships research for two reasons. Firstly, Almeria has become the "gateway" for immigrants coming to Europe from Africa. And secondly, immigration has grown in Almeria vigorously since the 90's due, mainly, to a growing need for labor in hothouse agriculture and construction.

According to data from the National Institute of Statistics (INE, 2013), on the general population of Almeria, 22% of the total inhabitants of this geographic area are foreign (including immigrants with a registry certificate or a residence card according to the General Secretary of Immigration and Migration; Secretaría General de Inmigración y Emigración, 2013), a statistic that reveals its multicultural nature. Of all the immigrant groups that coexist in this area, the most numerous are Moroccan (7.26% of the general population), Romanian (5.36%), and Ecuadorian (1.07%) origin. Spanish people also perceive subjectively that these groups are the most numerous in Spain. A recent study (López-Rodríguez et al., 2013) revealed that a sample of 148 Spanish participants believe that the most numerous groups of immigrants which live in Spain are Moroccan (estimated at 52.70% of participants), Romanian (47.97%), and Ecuadorian immigrants (32.43%).

Theoretically, one possible explanation for the differing perceptions of specific groups based on the immigrants' ethnocultural origin may be found in the features and historical aspects of those immigrant groups. The immigrant groups selected for this study differ on several aspects (e.g., their language, their religion, their culture and customs, the relationship between their original country and Spain). Moroccan immigrants come from Africa, speak diverse Arabic dialects, most of them are Muslims, and they have been present in Spain for many years (historically during eight centuries, and Moroccans were the first immigrant group to arrive in the region). Alternatively, Romanian immigrants come from East Europe and they have been European Union members (like Spain) since 2007. They speak the Romanian language, most of them are orthodox, and they have lived in Spain for fewer years in comparison to Moroccans. Finally, Ecuadorian immigrants come from South America, speak the Spanish language, most of them are catholic (like Spaniards), and have come to Spain only recently. Recent research carried out in Spain (Rodríguez-Pérez, Delgado, Betancor, Leyens, & Vaes, 2011) has confirmed that these immigrant groups may be differentiated on several variables (e.g., perceived similarity). All of these differences may be related to the majority' perceptions, and justify differences in the psychosocial variables.

6. Method

6.1. Participants

Participants included 307 Spaniards that resided in a southern province of Spain. We used a convenience sample including students and non-students. Participants were required to be over the age of eighteen years old and have Spanish nationality. *Immigrant target* was a between-subjects variable. Participants completed a questionnaire in which they expressed their opinion about one immigrant target: 115 participants about Moroccan target (MT), 89 about Romanian target (RT), and 103 about Ecuadorian target (ET). The age of the participants ranged between 17 and 71 years, mean age around 35 years in the three groups of the study (MT: $M = 36.41$, $SD = 14.09$; RT: $M = 34.91$, $SD = 14.72$; ET: $M = 33.61$, $SD = 13.33$). With regard to sex, there was a majority of women in all the groups (61.7, 65.2, and 58.3% in MT, RT, and ET, respectively). With regard to educational level, more than one half of the sample had University studies (51.3, 50.6, and 60.2% of MT, RT, and ET, respectively). Regarding occupation, about 40% (48.2%, 37.1%, and 46.6% of MT, RT, and ET, respectively) were employed, 38.2% were students, 10.5% reported they were homemakers, only 2.3% were retired, and finally, only 2% indicated they were unemployed. With regard to religion, most participants reported being catholic (75.4% of MT, 64% of RT, and 65.7% of ET), although most of them claimed not to practice their religion (39.3% of RT and 42.6. of ET) or had little practice (35.1% of MT).

6.2. Instruments

The variables included in the study and the instruments designed to measure them are described below.

6.2.1. The majority's perceptions about immigrants' adaptation to the host society: perception of adaptation and perceived need to adapt to host society

These measures were designed to determine the degree to which participants (majority members) believed that immigrants from a specific immigrant target group, had adapted to the host culture, and the extent to which they thought immigrants should do so. To measure these variables, two questions were formulated for each of six areas: "To what extent do you think (Moroccan/Romanian/Ecuadorian) immigrants have adapted to the Spanish culture in the following aspects?" (work, consumer habits and household economy, social relationships, family relationships, religious practices and beliefs, and ways of thinking), and "To what extent do you think (Moroccan/Romanian/Ecuadorian) immigrants should adapt to the

Spanish culture in the following aspects?" (on the same six areas). The response options in both cases ranged between 1 (*not at all*) and 5 (*very much*). The six areas were averaged for both questions. The reliability analyses revealed that both Perception of Adaptation (α = .85) and Perceived Need to Adapt to Host Society (α = .79) had an adequate internal consistency.

6.2.2. Stereotypes: warmth and competence

The majority's stereotypes toward immigrants were measured using a scale adapted from Fiske et al. (2002, Study 2) made up of 12 traits divided into two dimensions: warmth and competence. Participants were asked "To what extend do you think each trait describes (Moroccan/Romanian/Ecuadorian) people?" They rated their responses on a 5-point scale, ranging from 1 (*not at all*) to 5 (*very much*). An exploratory factor analysis revealed that the total scale was subdivided into two main factors, which corresponded to the warmth and competence dimensions.[4] Both warmth (α = .93) and competence (α = .81) showed an adequate internal consistency.

6.2.3. Perceived threat

This variable measured the majority's perceived threat from immigrants in different life areas (job, religious practices and beliefs, values and beliefs in your community, educational system, safety, health, and access to the healthcare system). The scale was comprised of 7 items with a brief description of each one, created by the researchers of this study, on the basis of realistic and symbolic dimensions (Stephan et al., 2002; Stephan, Ybarra, Martinez, Schwarzwald, & Tur-Kaspa, 1998). Participants were asked "To what extent do you feel the following aspects of your personal life are put at risk because of (Moroccan/Romanian/Ecuadorian) immigrants?" (above-mentioned spheres). They rated their responses on a 5-point scale, ranging from 1 (*not at all*) to 5 (*very much*). An exploratory factor analysis revealed that the total scale was subdivided into two main factors, which corresponded to realistic and symbolic threat.[5] Whereas realistic threat (which included items related to threat to job, safety, health, and access to the healthcare system) showed an adequate internal consistency (α = .77), symbolic threat (with items related to threat to religious beliefs and values) showed a lower internal consistency (α = .63).

6.2.4. Perceived intergroup similarity

This variable measured the majority's perception of similarity or difference between ingroup and outgroup. Participants were asked how similar (Moroccan/Romanian/Ecuadorian) people were compared to the Spanish people in different aspects. Each one of these items corresponds to different life areas (e.g., work, social and family relationships, religion). Response options in all cases ranged between 1 (*very different*) and 5 (*very similar*). A total perceived intergroup similarity score was extracted by averaging the scores in all the areas, and this final measure showed an adequate internal consistency (α = .84).

Lastly, we measured socio-demographic variables, common in psychosocial research, such as age, sex, educational level, and main occupational activity of the participants.

6.3. Procedure

Questionnaires were distributed by the experimenters and trained assistants. The study had a convenience sample including psychology students from the University of Almeria and people from their family or social environment who voluntarily wished to participate. Participants were randomly assigned to questionnaires, which differed based on the target group assessed (Moroccans, Romanians, or Ecuadorians). After filling out the questionnaire, participants were thanked for their participation and debriefed. All aspects of the study were in line with APA ethical guidelines.

7. Results

7.1. Different perceptions when assessing different immigrant targets

ANOVAs showed that, as expected, the majority's perceptions of adaptation and their stereotypes, perceived threat, and similarity varied depending on the immigrant target assessed.

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[4] The measures of sample adequacy revealed a good fit to the data (*KMO* = .92; Bartlett's sphericity test: χ^2 = 2216.26, *p* < .001), which indicates that the scale was factorizable. Factor analysis with varimax rotation yielded two factors with Eigenvalues higher than 1, which explained 66.23% of the total variance. The first factor explained 40.06% of the variance, and was made up of the following characteristics: friendly, well-intentioned, trustworthy, warm, good-natured and sincere, thus constituting the dimension of Warmth. The second factor explained 26.17% of the variance and was made up of the following characteristics: intelligent, confident, capable, efficient and skillful, thus constituting the dimension of Competence. The characteristic Competent was eliminated from the subsequent analyses because it had the same loading on both factors.

[5] The measures of sample adequacy revealed a good fit to the data (*KMO* = .81; Bartlett's sphericity test: χ^2 = 665.19, *p* < .001), which indicates that the scale was factorizable. Factor analysis with varimax rotation yielded two factors with Eigenvalues higher than 1, which explained 63.59% of the total variance. The first factor explained 37.95% of the variance, and was made up of the following characteristics: threat to job, safety, health, and access to the healthcare system. Due to the elements that make up this factor, we called it Realistic Threat. The second factor explained 25.64% of the variance, and was made up of the following characteristics: threat to religious practices and beliefs, and threat to values and beliefs in your community, so it was called Symbolic Threat. Educational System Threat had the same loading on both factors so it was eliminated from the scale for the subsequent analyses.

Table 1

Means and standard deviations of the perception of adaptation, perceived need to adapt, and predictor variables (MT, RT, and ET).

	MT			RT			ET		
	n	*M*	*SD*	*n*	*M*	*SD*	*n*	*M*	*SD*
Perception of adaptation	107	2.19$_a$	.82	85	2.72$_b$	.73	98	3.00$_c$	.74
Need to adapt	107	3.77$_a$	.74	85	3.53$_b$	.77	98	3.56$_b$	.81
Warmth	115	2.53$_a$	.85	89	2.78$_b$	.85	103	3.27$_c$	.73
Competence	115	3.19$_a$	.83	89	3.49$_b$	.74	103	3.36$_{ab}$	.63
Realistic threat	115	2.64$_a$	1.02	89	2.39$_b$	.90	103	2.19$_b$	.73
Symbolic threat	115	1.80$_a$	.97	89	1.68$_a$	1.01	103	1.58$_a$	.69
Intergroup similarity	115	1.90$_a$	.55	89	2.66$_b$	.76	103	2.88$_b$	.77

Note: The values of *M* are mean scores in a 5-point scale ranging from 1 (lowest score in the variable) to 5 (highest score in the variable). Subscripts indicate which means in the rows are significantly different by pairwise comparisons.

7.1.1. Perception of adaptation and perceived need to adapt to the host society

A repeated measures analysis, with Immigrant Target as between factor, and the Adaptation as within factor with two levels (perception of adaptation and need to adapt), was conducted. The analysis revealed a main effect of the within factor Adaptation, $F(1, 287) = 211.41$, $p < .001$, $\eta_p^2 = .42$. Participants believed that immigrants should adapt ($M = 3.63$, $SD = .78$) more than what they have already adapted to the host country ($M = 2.62$, $SD = .84$). An interaction between the adaptation orientations (perception and need to adapt) and the immigrant target assessed was found, $F(2, 287) = 21.97$, $p < .001$, $\eta_p^2 = .13$. Regarding the majority's perception of adaptation, pairwise comparisons between means revealed that Moroccan immigrants were perceived as adapting significantly less than Romanians ($p < .001$) and Ecuadorians ($p < .001$), and Romanians less than Ecuadorian immigrants ($p = .016$) (see Table 1). Regarding need to adapt, pairwise comparisons revealed that participants thought that Moroccan immigrants should adapt to the host country more than Romanians ($p = .030$) and Ecuadorians should do ($p = .051$). No differences on need of adaptation were found between Romanian and Ecuadorian targets ($p = .775$).

7.1.2. Stereotypes

A new repeated measures analysis, this time with Immigrant Target as between factor and Stereotypes as within factor with two levels (warmth and competence dimensions), was conducted. This analysis revealed a main effect of the within factor Stereotypes, $F(1, 304) = 139.98$, $p < .001$, $\eta_p^2 = .31$. Participants perceived that overall immigrants were less warm ($M = 2.85$, $SD = .87$) than competent people ($M = 3.33$, $SD = .75$). An interaction between the stereotypes (warmth and competence) and the immigrant target assessed was found, $F(2, 304) = 24.49$, $p < .001$, $\eta_p^2 = .14$. Pairwise comparisons between means revealed that Moroccan immigrants were perceived less warm than Romanians ($p = .029$) and Ecuadorians ($p < .001$), and Romanians less warm than Ecuadorian immigrants ($p < .001$). Participants also perceived that Moroccan immigrants were less competent than Romanians ($p = .004$), whereas no other statistically significant differences were found in this variable between neither the Moroccan and the Ecuadorian targets ($p = .105$), nor the Romanian and the Ecuadorian targets ($p = .205$) (see Table 1).

7.1.3. Perceived threat

A new repeated measures analysis, this time with Immigrant Target still as between factor and Perceived Threat as within factor with two levels (realistic and symbolic), was conducted. This analysis revealed a main effect of the within factor Perceived Threat, $F(1, 304) = 151.61$, $p < .001$, $\eta_p^2 = .33$. Participants perceived that overall immigrants trigger more realistic threat ($M = 2.41$, $SD = .92$) than symbolic threat ($M = 1.69$, $SD = .90$). Univariate contrasts showed significant differences in the perception of realistic threat depending on the immigrant target assessed, $F(2, 304) = 6.95$, $p = .001$, $\eta_p^2 = .04$ (see Table 1), but not in the perception of symbolic threat, $F(2, 304) = 1.74$, $p = .178$. Pairwise comparisons showed that participants felt more realistic threat from Moroccan immigrants than from Romanians ($p = .048$) and Ecuadorians ($p = .001$), but there was no significant difference between perceptions about Romanians and Ecuadorians ($p = .124$).

7.1.4. Perceived intergroup similarity

An ANOVA was conducted with Immigrant Target as independent variable and Perceived Intergroup Similarity as dependent variable. The analysis showed that participants perceived some immigrant targets as being more similar to their own group than others, $F(2, 304) = 60.28$, $p < .001$, $\eta_p^2 = .28$ (see Table 1). A posteriori contrasts (*Bonferroni* tests) revealed that Moroccan immigrants were perceived less similar to the ingroup than Romanians ($p < .001$) and Ecuadorians ($p < .001$), whereas the latter two groups were perceived equally similar to the ingroup ($p = .096$).

7.2. Predictors of the majority's perceptions of immigrants' adaptation and need to adapt to the host society

The second goal of the study was to establish which combination of psychosocial variables (warmth, competence, realistic threat, symbolic threat, or intergroup similarity) better predicted the perception of adaptation and the perceived need for

Table 2
Correlations between perception of adaptation, need to adapt, and psychosocial variables of the study.

	1	2	3	4	5	6	7
Moroccan target							
1. Perception of adaptation	1	−.05	.53**	.57**	.40**	−.14	−.09
2. Need to adapt		1	−.35**	−.27**	−.39**	.26**	.20*
3. Warmth			1	.61**	.53**	−.46**	−.29**
4. Competence				1	.46**	−.36**	−.23*
5. Intergroup similarity					1	−.33**	−.04
6. Realistic threat						1	.44**
7. Symbolic threat							1
Romanian target							
1. Perception of adaptation	1	−.08	.58**	.45**	.51**	−.30**	.03
2. Need to adapt		1	−.13	−.18	−.08	.28**	−.01
3. Warmth			1	.59**	.43**	−.45**	−.18
4. Competence				1	.26*	−.35**	−.17
5. Intergroup similarity					1	−.26*	−.16
6. Realistic threat						1	.23*
7. Symbolic threat							1
Ecuadorian target							
1. Perception of adaptation	1	−.19	.59**	.48**	.59**	−.44**	−.37**
2. Need to adapt		1	−.25*	−.24*	−.29**	.31**	.19
3. Warmth			1	.49**	.47**	−.48**	−.39**
4. Competence				1	.36**	−.39**	−.16
5. Intergroup similarity					1	−.53**	−.26**
6. Realistic threat						1	.40**
7. Symbolic threat							1

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

immigrants to adapt to the host society. To explore how all variables were related we carried out correlation analyses between perception of adaptation, need to adapt, and the psychosocial variables of the study (see Table 2).

As perception of adaptation and need to adapt were not related, it was not necessary to control for each other in multiple stepwise regressions analyses. Furthermore, warmth and perceived threat, the main predictive variables we have hypothesized, were tested to be different concepts (only moderately related each other).

In order to explore which combination of psychosocial variables was more predictive of the majority's perceptions about immigrants' adaptation, all psychosocial predictors were included in multiple linear regression analyses. No particular models were specified a priori. The results of the multiple linear regression analyses obtained for each group are shown in Tables 3 and 4.

With regard to the perception of adaptation (see Table 3), the results of the multiple linear regression for Group MT showed that the model made up of competence, warmth, and realistic threat was the best predictor of this variable. For Group RT, the model that best predicted the perception of adaptation was made up of warmth and intergroup similarity. The regression for Group ET showed that the model that included similarity, warmth, and competence best predicted the perception of adaptation for this target.

With regard to the perceived need to adapt (Table 4), the results of the multiple linear regressions showed that for Group MT warmth and similarity were significant predictors of this variable. For Groups RT and ET, only perceived realistic threat was a significant predictor of the perceived need to adapt.

7.2.1. Overall discussion about predictors of the majority's perceptions about adaptation to the host society

As predicted, these findings showed a specific pattern in which warmth was a consistent predictor in the majority's perceptions of the adaptation of Moroccan, Ecuadorian, and Romanian immigrants. This result is in agreement with the SCM, which suggests that warmth is essential in evaluative judgments and valued by perceivers (Cuddy et al., 2008).

Intergroup similarity was also an important variable in predicting the majority's perception of adaptation of Ecuadorian and Romanian immigrants. This result is not surprising since, on the one hand, Ecuadorians are similar to participants in some important aspects, such as language, and Romanians are similar to Spanish people in that both are Europeans. Perceived realistic threat was a clear predictor of the majority's perception of adaptation of Moroccan immigrants. This probably occurred because Moroccans elicit a high perception of threat in Spanish people (Navas et al., 2012). This threat is related to the nature of the perceptions of Spanish people when assessing this immigrant group on their adaptation to the host culture.

Regarding the need to adapt, some predictions were confirmed, but an interesting unexpected result also occurred. It was hypothesized that perceived realistic threat would be an important predictor of the majority's need for immigrants to adapt to the host culture. For the Ecuadorian and Romanian targets, threat was confirmed to be more relevant than stereotypes.

Table 3

Results of the multiple linear regression analyses of the predictor variables of the perception of adaptation in MT, RT, and ET.

Predictor variables	MT		
	b	SE	β
Step 1			
Competence	.57	.08	.57[***]
Step 2			
Competence	.39	.10	.38[***]
Warmth	.28	.09	.29[**]
Step 3			
Competence	.41	.10	.40[***]
Warmth	.35	.10	.36[**]
Realistic threat	.15	.07	.18[*]

R^2 = .32 for Step 1; ΔR^2 = .05 for Step 2; ΔR^2 = .02 for Step 3 (ps = .041).

Predictor variables	RT		
	b	SE	β
Step 1			
Warmth	.50	.08	.58[***]
Step 2			
Warmth	.37	.08	.43[***]
Similarity	.30	.09	.31[**]

R^2 = .33 for Step 1; ΔR^2 = .08 for Step 2 (ps = .001).

Predictor variables	ET		
	b	SE	β
Step 1			
Similarity	.57	.08	.59[***]
Step 2			
Similarity	.40	.08	.41[***]
Warmth	.41	.08	.40[***]
Step 3			
Similarity	.37	.08	.38[***]
Warmth	.32	.09	.31[***]
Competence	.25	.10	.21[*]

R^2 = .35 for Step 1; ΔR^2 = .13 for Step 2; ΔR^2 = .03 for Step 3 (ps = .013).

Note: b represents a nonstandardized regression coefficient.

[*] p < .05.
[**] p < .01.
[***] p < .001.

However, a different pattern occurred for the Moroccan target: warmth and intergroup similarity were the two variables that predicted the majority's need for Moroccans to adapt to the host culture. This result was surprising since it did not support our prediction. Nevertheless, we can argue that Moroccans elicit a more symbolic conflict (related to lack of similarity) for Spanish people, whereas Ecuadorians and Romanians elicit a more realistic conflict. Even if, in this study, there were no group differences in symbolic threat, a recent study conducted in Spain has showed that Moroccans elicited more symbolic threat than Romanians and Ecuadorians (Navas et al., 2012). For this reason, intergroup similarity and warmth (which includes important moral traits) are more relevant for Spanish people when deciding what they want Moroccans to do. However, in this study, symbolic threat was not predictive in any case for any target group.

7.3. Mediation analyses

Results presented earlier have revealed that participants differ in their perceptions and preferences for different immigrant groups. In order to understand if the differences in perception of adaptation and need to adapt for different immigrant targets depended on the previous psychosocial variables, some mediation models were carried out. Since our predictor variable was multicategorical with three levels (Moroccan Target, Romanian Target, and Ecuadorian Target), we used the MEDIATE macros for SPSS (see Hayes & Preacher, 2013), which allows us to estimate indirect effects in a mediation model with a multicategorical independent variable.

Our main interest was to compare the Romanian target and the Ecuadorian target with the Moroccan target (as reference group), since previous results had shown that the main differences were with this target group, and previous studies have confirmed that Moroccans are the most devalued immigrant target in Spain. In a first step, we used simple indicator coding:

Table 4
Results of the multiple linear regression analyses of the predictor variables of immigrants' perceived need to adapt in MT, RT, and ET.

Predictor variables	MT		
	b	SE	β
Step 1			
Similarity	−.55	.12	−.39***
Step 2			
Similarity	−.41	.14	−.29**
Warmth	−.18	.09	−.20*

$R^2 = .15$ for Step 1; $\Delta R^2 = .03$ for Step 2 ($ps = .045$).

Predictor variables	RT		
	b	SE	β
Step 1			
Realistic threat	.24	.09	.28**

$R^2 = .08$, $p = .008$

Predictor variables	ET		
	b	SE	β
Step 1			
Realistic threat	.35	.11	.31**

$R^2 = .10$, $p = .002$

Note: b represents a nonstandardized regression coefficient.
* $p < .05$.
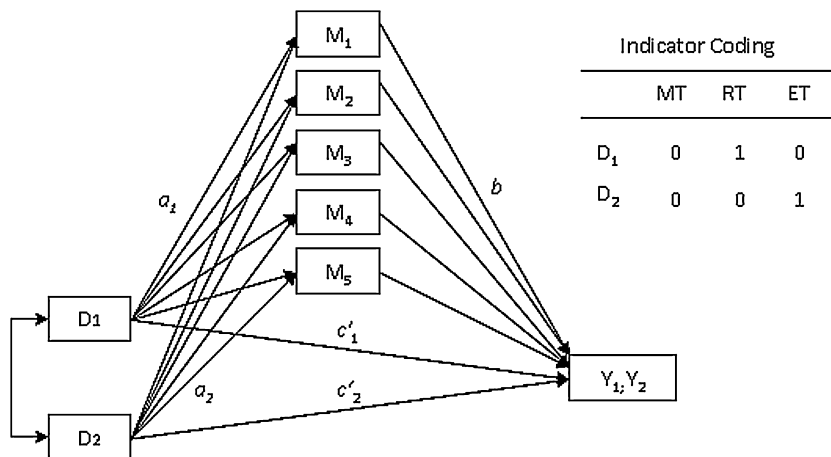** $p < .01$.
*** $p < .001$.

Fig. 1. Multiple mediation model resulting from indicator coding. *Note*: D_1 codes the Romanian target (vs. Moroccan target); D_2 codes the Ecuadorian target (vs. Moroccan target); Y_1, perception of adaptation; Y_2, need to adapt; M_1, warmth; M_2, competence; M_3, similarity; M_4, realistic threat; M_5, symbolic threat. Diagram adapted from Hayes & Preacher (2013).

D_1 codes the Romanian Target, D_2 codes the Ecuadorian Target and, finally, the Moroccan target (the most devalued group) functions as the reference group and received a code of 0 on D_1 and D_2.

Two multiple mediation models with mediators operating in parallel were defined (see Fig. 1) with the psychosocial variables (M) (i.e., warmth, competence, intergroup similarity, realistic threat, and symbolic threat) as potential mediators of D_1 and D_2 on the perception of adaptation (Y_1) and need to adapt (Y_2) separately.[6]

As shown in Table 5 (see a_1, a_2, and C_1, C_2), these analyses confirmed that the majority's perceptions about Romanian and Ecuadorian immigrants were generally more positive (and less negative in the case of realistic threat and need to adapt) compared to those who assessed Moroccan immigrants (the reference group in this analysis).

[6] Seventeen cases were deleted for these analyses due to missing data in the predicted variables.

Table 5
Estimated coefficients and standard errors (estimated in MEDIATE) using indicator coding.

Outcome		M_1 Coeff. (s.e.)	M_2 Coeff. (s.e.)	M_3 Coeff. (s.e.)	M_4 Coeff. (s.e.)	M_5 Coeff. (s.e.)		Y_1 Coeff. (s.e.)	Y_2 Coeff. (s.e.)		Y_1 Coeff. (s.e.)	Y_2 Coeff. (s.e.)
D_1	a_1	.26* (.12)	.35** (.10)	.76*** (.10)	−.25† (.13)	−.13 (.13)	C_1	.53*** (.11)	−.24* (.11)	c'_1	.14 (.09)	−.05 (.12)
D_2	a_2	.75*** (.11)	.19† (.10)	.94*** (.09)	−.43*** (.12)	−.22 (.12)	C_2	.80*** (.11)	−.21* (.11)	c'_2	.27* (.10)	.06 (.12)
D_3	a_3	.49*** (.12)	−.16 (.11)	.17 (.10)	−.18 (.13)	−.09 (.13)	C_3	.28* (.11)	.03 (.11)	c'_3	.13 (.09)	.10 (.11)
M_1										b	.30*** (.06)	−.06 (.07)
M_2										b	.27*** (.06)	−.08 (.07)
M_3										b	.30*** (.06)	−.15* (.07)
M_4										b	.04 (.05)	.16** (.06)
M_5										b	.02 (.04)	−.01 (.05)

Note: D_1 codes the Romanian target (vs. Moroccan target); D_2 codes the Ecuadorian target (vs. Moroccan target); D_3 codes the Ecuadorian target (vs. Romanian target). Y_1, perception of adaptation; Y_2, need to adapt; M_1, warmth; M_2, competence; M_3, similarity; M_4, realistic threat; M_5, symbolic threat.
* $p < .05$.
** $p < .01$.
*** $p < .001$.
† $p < .06$.

Holding condition constant, those who assessed immigrants as warmer, more competent, and similar also perceived that immigrants were more adapted to the host society (see *b* in Table 5). However, those participants who perceive immigrants as less similar and more threatening (realistic threat), have also a major need for immigrants to adapt to the host society.

Several relative indirect effects were found. On one hand, three psychosocial variables were identified as mediators when predicting perception of adaptation: warmth, competence and similarity. The relative indirect effects of D_1 on perception of adaptation were: through warmth, $a_1b = .08$ (CI 95%: .0114, .1784); through competence, $a_1b = .09$ (CI 95%: .0352, .1847); and through similarity, $a_1b = .23$ (CI 95%: .1293, .3447). The relative indirect effects of D_2 on perception of adaptation were: through warmth, $a_2b = .23$ (CI 95%: .1327, .3640); through competence, $a_2b = .05$ (CI 95%: .0003, .1197); and through similarity, $a_2b = .28$ (CI 95%: .1598, .4214). Since the confidence interval did not straddle zero, the relative indirect effects were deemed statistically different from zero. These findings meant that, compared to those participants who assessed Moroccan immigrants, those who assessed Romanian and Ecuadorian immigrants perceived that these immigrants were more adapted to the host country as a result of their greater perception of warmth, competence, and similarity. No indirect effects were found through realistic threat, and the effects regarding symbolic threat could not be interpreted since the assumption of homogeneity was violated for this variable ($p = .02$).

On the other hand, realistic threat was the main mediator when predicting the need to adapt. The relative indirect effects of D_1 on need to adapt through realistic threat was $a_1b = -.04$ (CI 95%: −.1212, −.0007), and the relative indirect effects of D_2 on need to adapt through realistic threat was $a_2b = -.07$ (CI 95%: −.1521, −.0156). Since the confidence interval did not straddle zero, the relative indirect effects were deemed statistically different from zero. Compared to those participants who assessed Moroccan immigrants, those who assessed Romanian and Ecuadorian immigrants perceived that these immigrants should adapt less to the host country as a result of their less perception of realistic threat. Moreover, similarity was also a mediator only for D_1, $a_1b = -.11$ (CI 95%: −.2505, −.0005), but not for D_2. Namely, participants thought that Romanian immigrants should adapt less than Moroccans immigrants as a result of perceiving the Romanian immigrants more similar. No indirect effects were found through other variables.

Although our main interest was to compare the Romanian and Ecuadorian targets with the Moroccan target (as reference group), we also explored if the minor differences found between the Romanian and Ecuadorian targets were mediated by some of these psychosocial variables. With this purpose, new analyses were carried out, this time with Romanian target as the reference group. Then, the so-called D_3 codes the Ecuadorian target, this time compared to the Romanian target. As shown in Table 5, participants perceived that Ecuadorian immigrants were warmer than Romanians (see M_1, a_3), which increased their perception of adaptation to the host society. Actually, D_3 had an indirect effect on perception of adaptation through perceived warmth, $a_3b = .15$ (CI 95%: .0705, .2678). Namely, participants thought that Ecuadorian immigrants were more adapted to the host society as a result that they were perceived warmer than Romanian immigrants. Since no differences between Ecuadorian and Romanian targets were found in other psychosocial variables, no other indirect effects were found.

8. Discussion

In an increasingly multicultural context, it is essential to study the perceptions and attitudes displayed by majority groups toward ever-growing immigrant groups. Research in this area helps us understand intergroup relations, as well as generate solutions, which promote and enrich the coexistence of groups of diverse cultural origins.

8.1. Different perceptions when assessing different immigrant targets

The current study examined more deeply the majority's attitudes in a sample of Spaniards toward three distinct minority groups (Moroccans, Romanians, and Ecuadorians). Results clearly confirmed our initial hypotheses: the majority's perception of whether or not the immigrants have adapted to the host society and the perceived need for immigrants to adapt to the host society depended on the particular immigrant target assessed. These results support both the IAM (Bourhis et al., 1997) and the RAEM (Navas et al., 2005), which propose that majority members' acculturation orientations are sensitive to the immigrant target considered. These findings differ from previous work in that the current study included the dimensions of perception of adaptation to the host society and the perceived need for immigrants to adapt to the host society (instead of the classical combination of acculturation dimensions) in order to explore different acculturation options. Even, considering this change in dimensions, the importance of the immigrant target assessed was very evident. The present study showed that the Moroccan target was the group rated lowest in the adaptation process by the majority members of this study.

Secondly, it was confirmed that other important psychosocial variables such as stereotypes, perceived threat, and intergroup similarity also varied depending on the immigrant target assessed. Our data showed that the Moroccan target, in comparison to the Romanian and the Ecuadorian target, was perceived as lower in warmth, more threatening, and less similar from the ingroup. Therefore, as hypothesized, Moroccans generally received lower ratings on the variables related to positive intergroup relationships (e.g., high perception of adaptation, high warmth, high intergroup similarity) and the highest scores on variables that indicate negative intergroup relationships (e.g., high perception of realistic threat, high need to adapt).

These results are in agreement with those obtained in previous studies carried out in different countries and cultural contexts (i.e., Berry & Kalin, 1995; Hagendoorn, 1993, 1995; Owen et al., 1981). That is, they confirm that immigrants of Arab or Islamic origin are the lowest rated outgroups, from whom people desire a greater social distance and about whom the

most negative stereotypes are held. Likewise, in accordance with the studies of Montreuil and Bourhis (2001), in our study, the 'devalued' immigrants (in our case, the Moroccan target) are rated the worst, in comparison to other 'valued' groups (such as the Ecuadorian or the Romanian targets).

With regard to stereotypes, it is interesting to note that our data qualify the results found by Lee and Fiske (2006) in their study of the perception of diverse immigrant groups in the USA. Although the groups included in our investigation are not identical to the above-mentioned ones in the study of Lee and Fiske, our data indicate that, in the Spanish context, there are different stereotyped perceptions toward comparable groups. Thus, the Ecuadorian target – comparable to the Latin Americans in the study of Lee and Fiske – was perceived warmer than the Moroccan and Romanian targets.

8.2. Predictor variables of the perception of adaptation and the perceived need to adapt

The second goal of this study was to establish which psychosocial variables (i.e., warmth, competence, perceived threat, and intergroup similarity) better explain (or might be considered antecedents of) the majority's perceptions about adaptation, and whether there were differences/similarities depending on the immigrant target assessed.

The results of the regression analyses revealed several important issues in this sense. Firstly, the variables that predict the majority's perception of adaptation and perceived need for immigrants to adapt were different depending on the immigrant target assessed. This idea is supported by studies such as those of Piontkowski et al. (2000), which show that there is no uniform pattern of variables to predict the acculturation attitudes of different cultural groups, but rather a specific combination of variables for each target is required. Similarly, research conducted by Navas et al. (2004) and Navas and Rojas (2010) found that the variables that predict the preference for a certain acculturation attitude are different depending on the immigrant target considered.

Secondly, there were three main psychosocial variables – albeit a different combination for each immigrant target – which predicted a certain perception about the adaptation of each specific group: stereotypes (in their two dimensions warmth and competence), perceived realistic threat, and intergroup similarity. In the case of the participants who rated the Moroccan target, their perception of Moroccan immigrants as being warm (i.e., trustworthy, well-intentioned, sincere) and competent (i.e., intelligent, skillful), and not feeling threatened by them in aspects such as work, personal safety, health or the access to the healthcare system were the variables that best predict the perception that they have adapted to the host society. However, the need for them to adapt was best predicted by considering them as lacking in warmth (i.e., people whom one cannot trust, not very friendly) and different from the ingroup in diverse areas of the culture (i.e., family relationships, religious practices and beliefs, and ways of thinking).

In the group who rated the Romanians, warmth and perceived intergroup similarity were good predictors of the perception of Romanian immigrant adaptation to the host society, whereas realistic threat was the only variable that predicted the need for this collective to adapt to the Spanish society. Findings for those participants rating the Ecuadorian target were identical to those of the Romanians, except that, in this case, in addition to warmth and perceived similarity, competence also predicted the perception of adaptation to the Spanish society.

Another interesting finding of this study is that the variables that predicted the perception of adaptation for each immigrant target were different from the ones that predicted the need to adapt. In our opinion, this indicates that, once immigrants have moved into the host societies, some psychosocial variables are more important than others in the majority's perceptions and demands concerning the adaptation process of each immigrant target. Thus, it seems that the stereotyped image of each immigrant group, as well as the perceived similarity to the ingroup, are important variables in the majority's perception that the immigrants have adapted to our society. That is, if they are perceived as being warm and/or competent (well-intentioned, intelligent, etc.) and similar to the ingroup, then they are perceived as having adapted. However, threat to instrumental aspects like work, health, or personal safety is much more important in the majority's perception of the need for the immigrants to adapt to the host societies. That is, the higher the perceived threat, the greater the perceived need to adapt. Only the group of participants that rated the Moroccan target did not follow this pattern; realistic threat was an important variable in the perception of their adaptation, and stereotypes (specifically warmth dimension) and their perceived similarity were important in the need for them to adapt. Once again, this result indicates that the Moroccan target – probably because of the negativity with which it is rated in all the variables of the study in comparison to the other groups – elicits more extreme perceptions and demands for adaptation.

8.3. Mediation analyses

The mediation analyses confirmed some insights provided by the previous analyses. Compared to those participants who assessed Moroccan immigrants, those who assessed Romanian and Ecuadorian immigrants perceived that they were more adapted to the host country as a result of their greater perception of warmth, competence, and similarity about these immigrants, which in turn increased their perception of adaptation. Likewise, participants thought that Ecuadorian immigrants were more adapted to the host society than Romanians as a result of their greater perception of warmth. Finally, majority members who assessed Romanian and Ecuadorian immigrants perceived that these immigrants should adapt less to the host country than Moroccans as a result of their lower perception of realistic threat, which in turn decreased their necessity of adaptation. Moreover, majority members thought that Romanian immigrants should adapt less than Moroccans immigrants as a result of perceiving Romanian immigrants more similar, which in turn reduced the need for Romanian

immigrants to adapt. As we can see, the majority's stereotypes (specially warmth) and perceived similarity about different immigrants explained the variation in their perception of immigrants' adaptation, whereas their perceived threat explained the majority's different need to adapt for different immigrant groups.

According to Osch and Breugelmans (2012), perceived intergroup similarity may work as an organizing principle for intercultural and acculturation attitudes. The mediation analyses confirmed the relevant role of intergroup similarity when predicting both perception of adaptation and need to adapt (when comparing some immigrant groups), whereas only warmth was important for perception of adaptation, and realistic threat for need to adapt.

8.4. Conclusions

In general, the main hypotheses of the study were confirmed: warmth, due to its primary role for social perception, was an essential predictor of the majority's perception of adaptation across all target groups. Perceived realistic threat, meanwhile, was more important when predicting the majority's need for Ecuadorian and Romanian targets to adapt. However, warmth and intergroup similarity were more predictive of the majority's need for Moroccans to adapt to the host culture. But more important, warmth was a relevant variable when explaining the different majority's perception of adaptation about different immigrants, whereas perceived realistic threat was a relevant variable when explaining the different majority's need to adapt for different immigrants. Intergroup similarity was an important variable when explaining both perception of adaptation and need to adapt.

These results make a contribution to the understanding of why majority members differed in their perception of adaptation and the perceived need to adapt for different immigrant groups. Our findings revealed the important role of psychosocial variables such as warmth and perceived threat in intergroup attitudes, and the high specificity of majority members' perceptions and attitudes in multicultural contexts.

Acknowledgements

References

Berry, J. W. (1997). Immigration, acculturation and adaptation. *Applied Psychology*, *46*, 5–68. http://dx.doi.org/10.1080/026999497378467

Berry, J. W., & Kalin, R. (1995). Multicultural and ethnic attitudes in Canada. *Canadian Journal of Behavioral Science*, *27*, 301–320. http://dx.doi.org/10.1037/0008-400X.27.3.301

Bourhis, R. Y., & Dayan, J. (2004). Acculturation orientations towards Israeli Arabs and Jewish immigrants in Israel. *International Journal of Psychology*, *39*, 118–131. http://dx.doi.org/10.1080/00207590344000358

Bourhis, R. Y., Moïse, L. C., Perreault, S., & Senécal, S. (1997). Towards an interactive acculturation model: A social psychological approach. *International Journal of Psychology*, *32*, 369–386. http://dx.doi.org/10.1080/002075997400629

Brown, R., & Zagefka, H. (2011). The dynamics of acculturation: An intergroup perspective. In J. Olson, & M. P. Zanna (Eds.), *Advances in experimental social psychology* (vol. 44) (pp. 129–184). San Diego, CA: Academic Press.

Cuddy, A. J. C., Fiske, S. T., & Glick, P. (2008). Warmth and competence as universal dimensions of social perception: The Stereotype Content Model and the BIAS Map. In M. P. Zanna (Ed.), *Advances in experimental social psychology* (pp. 61–149). New York, NY: Academic Press.

Department of Economic and Social Affairs, Population Division. (2010). *World population policies 2009*. New York: United Nations.

Devine, P. G., & Elliot, A. J. (1995). Are racial stereotypes really fading? The Princeton trilogy revisited. *Personality and Social Psychology Bulletin*, *11*, 1139–1150. http://dx.doi.org/10.1177/01461672952111002

Esses, V. M., Jackson, L. M., Nolan, J. M., & Armstrong, T. L. (1999). Economic threat and attitudes toward immigrants. In L. Driedger, & S. S. Halli (Eds.), *Immigrant Canada: Demographic, economic, and social challenges* (pp. 212–229). Toronto: University of Toronto Press.

Fiske, S. T., Cuddy, A. J. C., Glick, P., & Xu, J. (2002). A model of (often mixed) stereotype content: Competence and warmth respectively follow from perceived status and competition. *Journal of Personality and Social Psychology*, *82*, 878–902. http://dx.doi.org/10.1037//0022-3514.82.6.878

Fiske, S. T., Xu, J., Cuddy, A. J. C., & Glick, P. (1999). (Dis)respecting versus (dis)liking: Status and interdependence predict ambivalent stereotypes of competence and warmth. *Journal of Social Issues*, *55*, 473–491. http://dx.doi.org/10.1111/0022-4537.00128

Hagendoorn, L. (1993). Ethnic categorisation and outgroup exclusion. *Ethnic and Racial Studies*, *16*, 26–51. http://dx.doi.org/10.1080/01419870.1993.9993771

Hagendoorn, L. (1995). Intergroup biases in multiple group systems: The perception of ethnic hierarchies. In W. Stroebe, & M. Hewstone (Eds.), *European review of social psychology* (pp. 199–228). Chichester, UK: John Wiley.

Hayes, A. F., & Preacher, K. J. (2013). Statistical mediation analysis with a multicategorical independent variable. *British Journal of Mathematical and Statistical Psychology*, http://dx.doi.org/10.1111/bmsp.12028

INE. (2013). *Cifras de población a 1 de enero de 2013. Resultados provisionales* [Population figures from 1st January 2013. Provisional Findings]. Retrieved from the website of National Institute of Statistics: http://www.ine.es/jaxi/tabla.do?path=/t20/p321/serie/l0/&file=03005.px&type=pcaxis&L=0

Lee, T. L., & Fiske, S. T. (2006). Not an out group, not yet an in group: Immigrants in the Stereotype Content Model. *International Journal of Intercultural Relations*, *30*, 751–768. http://dx.doi.org/10.1016/j.ijintrel.2006.06.005

López-Rodríguez, L., Cuadrado, I., & Navas, M. (2013). Aplicación extendida del Modelo del Contenido de los Estereotipos (MCE) hacia tres grupos de inmigrantes en España [Extended application of the Stereotype Content Model (SCM) towards three immigrant groups in Spain]. *Estudios de Psicología*, *34*, 197–208. http://dx.doi.org/10.1174/021093913806751375

López-Rodríguez, L., Zagefka, H., Navas, M., & Cuadrado, I. (2014). Explaining majority members' acculturation preferences for minority members: A mediation model. *International Journal of Intercultural Relations*, *38*, 36–46. http://dx.doi.org/10.1016/j.ijintrel.2013.07.001

Madon, S., Guyll, M., Aboufadel, K., Montiel, E., Smith, A., Palumbo, P., et al. (2001). Ethnic and national stereotypes: The Princeton trilogy revisited and revised. *Personality and Social Psychology Bulletin*, *27*, 996–1010. http://dx.doi.org/10.1177/0146167201278007

Maisonneuve, Ch., & Testé, B. (2007). Acculturation preferences of a host community: The effects of immigrant acculturation strategies on evaluations and impression formation. *International Journal of Intercultural Relations*, *31*, 669–688. http://dx.doi.org/10.1016/j.ijintrel.2007.06.001

Montreuil, A., & Bourhis, R. Y. (2001). Majority acculturation orientations toward valued and devalued immigrants. *Journal of Cross-Cultural Psychology*, *32*, 698–719. http://dx.doi.org/10.1177/0022022101032006004

Montreuil, A., Bourhis, R. Y., & Vanbeselaere, N. (2004). Perceived threat and host community acculturation orientations toward immigrants: Comparing Flemings in Belgium and Francophones in Quebec. *Canadian Ethnic Studies*, *36*, 113–135.

Navas, M., Cuadrado, I., & López-Rodríguez. (2012). Escala de Percepción de Amenaza Exogrupal (EPAE): fiabilidad y evidencias de validez [Outgroup threat perception scale: Reliability and validity evidences]. *Psicothema*, *24*, 477–482.

Navas, M. S., García, M. C., Sánchez, J., Rojas, A. J., Pumares, P., & Fernández, J. S. (2005). Relative Acculturation Extended Model: New contributions with regard to the study of acculturation. *International Journal of Intercultural Relations*, *29*, 21–37. http://dx.doi.org/10.1016/j.ijintrel.2005.04.001

Navas, M. S., Pumares, P., Sánchez, J., García, M. C., Rojas, A. J., Cuadrado, I., et al. (2004). (*Acculturation strategies and attitudes: The immigrants' and the natives' perspectives in Almería*) *Estrategias y actitudes de aculturación: la perspectiva de los inmigrantes y de los autóctonos en Almería*. Sevilla: Consejería de Gobernación (Junta de Andalucía).

Navas, M. S., & Rojas, A. J. (Coords.). (2010). (*Application of the Relative Acculturation Extended Model (RAEM) to new collectives of immigrants in Andalusia: Romanians and Ecuadorians*) *Aplicación del Modelo Ampliado de Aculturación Relativa (MAAR) a nuevos colectivos de inmigrantes en Andalucía: rumanos y ecuatorianos*. Sevilla: Consejería de Empleo (Junta de Andalucía).

Osch, Y. M. J. van, & Breugelmans, S. M. (2012). Perceived intergroup difference as an organizing principle of intercultural attitudes and acculturation attitudes. *Journal of Cross-Cultural Psychology*, *43*, 801–821. http://dx.doi.org/10.1177/0022022111407688

Owen, C., Eisner, H., & McFaul, T. (1981). A half-century of social distance research: National replication of the Bogardus studies. *Sociology and Social Research*, *66*, 80–98.

Piontkowski, U., Florack, A., Hölker, P., & Obdrzálek, P. (2000). Predicting acculturation attitudes of dominant and non-dominant groups. *International Journal of Intercultural Relations*, *24*, 1–26. http://dx.doi.org/10.1016/S0147-1767(99)00020-6

Rodríguez-Pérez, A., Delgado, N., Betancor, V., Leyens, J. Ph., & Vaes, J. (2011). Infra-humanization of outgroups throughout the world. The role of similarity, intergroup friendship, knowledge of the outgroup and status. *Anales de Psicología*, *27*, 679–687.

Rohmann, A., Piontkowski, U., & Van Randenborgh, A. (2008). When attitudes do not fit: Discordance of acculturation attitudes as an antecedent of intergroup threat. *Personality and Social Psychology Bulletin*, *34*, 337–352. http://dx.doi.org/10.1177/0146167207311197

Rudmin, F. W. (2003). Critical history of the acculturation psychology of assimilation, separation, integration, and marginalization. *Review of General Psychology*, *7*, 3–37.

Rudmin, F. W., & Ahmadzadeh, V. (2001). Psychometric critique of acculturation psychology: The case of Iranian migrants in Norway. *Scandinavian Journal of Psychology*, *42*, 41–56.

Secretaría General de Inmigración y Emigración. (2013). *Extranjeros con certificado de registro o tarjeta de residencia en vigor*. Retrieved from the website of Secretaría General de Inmigración y Emigración: http://extranjeros.empleo.gob.es/es/Estadisticas/operaciones/con-certificado/

Stephan, W. G., Boniecki, K. A., Ybarra, O., Bettencourt, A., Ervin, K. S., Jackson, L. A., et al. (2002). The role of threats in the racial attitudes of Blacks and Whites. *Personality and Social Psychology Bulletin*, *28*, 1242–1254.

Stephan, W. G., Renfro, C. L., Esses, V. M., Stephan, C. W., & Martin, T. (2005). The effects of feeling threatened on attitudes toward immigrants. *International Journal of Intercultural Relations*, *29*, 1–19.

Stephan, W. G., Ybarra, O., Martinez, M., Schwarwald, J., & Tur-Kaspa, M. (1998). Prejudice toward immigrants to Spain and Israel: An integrated threat theory analysis. *Journal of Cross-Cultural Psychology*, *29*, 559–576.

Tip, L., Zagefka, H., Gonzalez, R., Brown, R., Cinnirella, M., & Na, X. (2012). Is support for multiculturalism threatened by . . . threat itself? *International Journal of Intercultural Relations*, *36*, 22–30. http://dx.doi.org/10.1016/j.ijintrel.2012.09.011

Van Acker, K., & Vanbeselaere, N. (2011). Bringing together acculturation theory and intergroup contact theory: Predictors of Flemings' expectations of Turks' acculturation behavior. *International Journal of Intercultural Relations*, *35*, 334–345.

Van Acker, K., & Vanbeselaere, N. (2012). Heritage culture maintenance precludes host culture adoption and vice versa. *Group Processes & Intergroup Relations*, *15*, 133–145.

Volpato, C., & Durante, F. (2010). Tra paternalismo e disprezzo: Gli stereotipi dei gruppi immigrati in Italia. In B. Mazzara (a cura di), *L'incontro interculturale: Forme, processi, percorsi* [The intercultural encounter: Shapes, processes, pathways] (pp. 85–96). Milano: Unicopli.

Ward, C., & Masgoret, A. M. (2006). An integrated model of attitudes toward immigrants. *International Journal of Intercultural Relations*, *30*, 671–682.