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Perceived intergroup competition and adolescents' behavioural intentions toward minorities: the role of threat, stereotypes and emotions

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Abstract
The main purpose of this study was to analyse the effect of perceived intergroup competition on majority adolescents' behavioural intentions toward two relevant immigrant groups in the Spanish context, Ecuadorians and Moroccans. We proposed an integrative path model in which perceived intergroup competition led to perception of outgroup threat, which in turn affected warmth stereotypes (morality and sociability). Perceived warmth further fostered positive and negative emotions, which in turn predicted facilitative and harmful interpersonal behavioural tendencies. Following a between subject design, participants (N = 231, M_{age} = 15.39, SD = 1.09) evaluated Moroccans (n = 114) or Ecuadorians (n = 117) on the examined variables. Results indicate that Ecuadorians were perceived as more moral and sociable and elicited less negative emotions than Moroccans. The model had a good fit for both groups. Perceived intergroup competition predicted perceived outgroup threat which, in turn, fostered perceived morality and sociability. Only perceived morality predicted both positive and negative emotions, whereas sociability elicited only positive emotions. Finally, facilitation intentions were predicted by both positive and negative emotions, while harm intentions were triggered only by negative ones. Results highlight the distinctive role of morality for intergroup relations during adolescence and extend previous literature regarding perceived intergroup competition, stereotype content, emotions and perceived outgroup threat.

Keywords Perceived intergroup competition · Behavioural intentions · Adolescents · Perceived outgroup threat · Morality · Immigrants

During the last 20 years, Spain has gone from being an emigrant sending to an immigrant receiving country. National reports (Fernández et al. 2015) regarding attitudes toward immigrants show that a relatively high percentage of Spaniards considers that immigrants take away jobs from the host majority (58%), contribute to wages lowering (76%) and take advantage of the free healthcare assistance (43%). Furthermore, national data on hate crimes reveal racism and xenophobia as their main motives (Spanish Ministry of Internal Affairs 2016). Thus, perceived intergroup competition and negative interpersonal behaviours are evident in these intergroup relations.

This research aims at studying how perceived intergroup competition relates to Spaniards' behavioural intentions toward members of different ethnic minority groups. In this regard, we propose an integrative path model to examine the role of perceived outgroup threat, stereotypes and emotions in this process. We focus on adolescents, since this developmental stage represents a person's transition to adulthood, when prejudiced attitudes become rigid and resistant to change (Rutland and Killen 2015). Furthermore, adolescents have broader socio-cognitive abilities compared to children (e.g., moral reasoning, understanding of social norms, perception of social threats; Killen et al. 2011) and more cognitive flexibility compared to adults (Hart and Carlo 2005). Thus, adolescence is an ideal stage to cope with prejudice and to promote harmonious intergroup relationships. To achieve our purpose, it is important to analyse adolescents' social

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perception and the psychosocial variables (variables that consider the interaction between psychological and social factors) that shape it.

Perceived Intergroup Competition and Intergroup Attitudes

The relation between perceived intergroup competition and prejudiced attitudes has been widely shown. Scholars (Campbell 1965; Sherif et al. 1961) have identified perceived intergroup competition as an important cause of intergroup conflict and of negative intergroup attitudes and behaviours. In this vein, Esses et al. (1998) found that, under intergroup competition conditions, undergraduate natives manifested negative attitudes toward a fictitious immigrant group and toward immigrants and immigration in general.

Additionally, recent approaches identify several factors such as perceived outgroup threat (Stephan et al. 2009, 2016) and stereotypes (Cuddy et al. 2008), that likely intervene in the process linking intergroup competition[1] with attitudes and behaviours toward outgroups (Esses et al. 2010).

Perceived intergroup competition is considered an antecedent of the perception of threat, which in turn affects the beliefs and emotions about, and the behaviours directed toward outgroups (Stephan et al. 2009, 2016). Likewise, Fiske et al. (2002) showed that intergroup competition determines the way people evaluate the warmth (e.g., kindness, trustworthiness) of others individuals or outgroups. Specifically, competitive social targets are considered cold while non-competitive ones are qualified as warm.

Stereotypes: the Stereotype-Behaviour Link

Two core dimensions of social perception are widely acknowledged (Abele and Wojciszke 2007). In the framework of stereotypes, Fiske et al. (2002) refer to these dimensions as warmth (e.g., friendly, trustworthy) and competence (e.g., intelligent, competent). Warmth's evaluations follow from the perceived competitiveness of a social target and allow perceivers to determine the nature of others' intentions in terms of threats or opportunities. Detecting a potential threat is more relevant for the survival than knowing others' capacity to achieve their goals, ergo, their competence. Therefore, evaluations of warmth take primacy over those of competence (Cuddy et al. 2008).

Furthermore, warmth encompasses two differentiated dimensions: sociability and morality (Brambilla et al. 2011; Leach et al. 2007). Sociability comprises traits such as friendliness and likeability whereas morality refers to the perceived correctness (honesty, sincerity, trustworthiness) of the target and it has been shown to be fundamental for both ingroup's (Leach et al. 2007) and outgroup's evaluations (e.g., López-Rodríguez et al. 2013). Work done in this regard has proved the differential and primary impact of morality in shaping attitudes and prejudice toward outgroups. Morality has proved to be a better predictor, compared to sociability and/or competence, of outgroup' global evaluations (Brambilla et al. 2012), as well as of behavioural intentions (Brambilla et al. 2013). Consequently, we will study how intergroup competition relates to morality and sociability as independent subdimensions of warmth, a perspective not yet analysed.

Several lines of research (Cuddy et al. 2007, 2008; Mackie et al. 2000) have linked specific cognitive appraisals with intergroup emotions and behaviours toward outgroups. For example, Mackie et al. (2000) showed the mediating role of emotions between cognitive appraisals and behavioural intentions. According to these authors, cognitive appraisals of different social targets elicit specific emotions which in turn prompt distinct behavioural intentions. This was meta-analytically confirmed by Talaska et al. (2008) which also found that emotions were stronger predictors of interethnic discriminatory behaviour compared to cognitive evaluations.

Most of the aforementioned studies have mainly focused on intergroup behaviour. However, some scholars (e.g., Cuddy et al. 2007; López-Rodríguez et al. 2017) point out the need to investigate interpersonal behaviour toward outgroups. In their work, Cuddy et al. (2007) combine the valence (facilitation or harm) and the intensity (active or passive) of the behaviour and identify four types of behavioural intentions toward outgroups. These authors confirm that warmth's evaluations, stemmed from perceived intergroup competition, predict active behaviours through emotions.

In this study, we will focus on active interpersonal behavioural tendencies of facilitation and harm. Whereas active facilitation (AF) implies helping others, active harm (AH) involves attacking them. In summary, we will analyse the role played by warmth stereotypes and emotions in the intergroup competition-behavioural tendencies link. We extend the current literature as we account for the differentiated role of morality and sociability in this relationship and by focusing on interpersonal behavioural tendencies as an outcome. Additionally, we consider the role of perceived outgroup threat in this process.

Perceived Outgroup Threat

Intergroup threat theory (ITT) identifies distinct antecedents of perceived outgroup threat, among them, situational factors such as intergroup competition (Stephan et al. 2009).

[1] Throughout the manuscript both terms, perceived intergroup competition and intergroup competition will be used interchangeably as referring to perceived intergroup competition construct.

However, research on the effect of this type of factors on perceived outgroup threat at the group level are scarce (Stephan et al. 2016). The relation of intergroup competition with perceived outgroup threat has been explored indirectly in some studies. For example, Butz and Yogeeswaran (2011), manipulating the perception of economic threat, found that this type of realistic threat increased the levels of prejudice only toward groups perceived as competitive. The present work explores the relation between intergroup competition and perceived threat at group level.

ITT also states that the perception of outgroup threat may lead to cognitive, affective, and behavioural responses toward the threatening outgroup. Several studies have shown that perceived outgroup threat can act as an antecedent of stereotypes. For example, Curşeu et al. (2007) found that negative stereotypes mediated the positive relations of realistic and symbolic threat with prejudice, measured as social distance.

However, other studies showed that perceived threat was triggered by stereotypes. In this vein, Maddux et al. (2008) found that positive and negative stereotypes associated with the Asian American minority group elicited realistic threat, which in turn led to negative emotions and attitudes toward them. Going one step further, Brambilla et al. (2012, 2013) showed the mediating role of perceived outgroup threat between morality and outgroup global evaluation, measured as emotional response, as well as between morality and behavioural intentions. However, these authors do not consider separately positive and negative emotions, or different types of behavioural intentions.

Accounting for these findings, we aim at analysing the role of perceived outgroup threat in the intergroup competition-interpersonal behavioural intentions link considering both standpoints: stereotypes as the outcome of perceived threat and perceived threat as the outcome of stereotypes.

Thus, regarding perceived outgroup threat we expand prior research by addressing the relation with a relevant situational factor at group level –intergroup competition–, a line of work in which studies are rather scarce. We also explore the position, as antecedent or consequent of stereotypes, in which the perceived outgroup threat acts in the examined process. Although previous studies have tested ITT premises with adolescent samples (e.g., Vedder et al. 2016), to our knowledge, the model we propose has not yet been studied with adolescents.

To sum up, the existent literature evidences the following points: (1) the perceived intergroup competition influences attitudes and behaviours toward outgroups, and more specifically determines the perceived warmth of the outgroups; (2) the stereotype content of warmth affects active behavioural intentions toward the outgroups (helping and harming); (3) the stereotype content of warmth encompasses the sub-dimensions of morality and sociability; (4) morality has a primary role in social perception; (5) the effect of the stereotype content on behavioural intentions is mediated by the emotions elicited by the outgroups; (6) the perceived threat can act as an antecedent or a consequent of the stereotypes attributed to the outgroups.

Intergroup Attitudes during Adolescence

Current developmental theories (e.g., Rutland et al. 2010) associate the emergence and evolution of prejudiced attitudes through childhood and adolescence with affective and social cognitive development emphasising the role of social context and intergroup relations in this process. Accordingly, some scholars have proved that children's and adolescents' intergroup attitudes and behaviours are sensitive to psychosocial variables such as intergroup competition or perceived threat (Abrams et al. 2015; Nesdale et al. 2005). In this line, the seminal work of Sherif et al. (1961) showed the negative effect of intergroup competition on children's intergroup attitudes and behaviours. Likewise, Abrams et al. (2015) found that with age intergroup competition not only had a stronger negative relation with children's prosociality but there was also a carryover effect of reduced prosociality in following non-competitive situations. Furthermore, some studies (Vedder et al. 2016) developed with Dutch adolescents have shown that the perceived outgroup threat from the Muslims was positively related to and mediated the effect of several distal variables (e.g., intergroup contact, multiculturalism, ingroup identification) on the prejudice manifested toward this group.

Regarding stereotype content, some studies have also found that adolescents' stereotype content of different social groups (e.g., women subtypes, fat people, old people) mirrors adults' evaluations (e.g., Cuadrado and López-Turrillo 2014; Durante et al. 2014; Vauclair et al. 2018) and influence their helping behaviours toward outgroup members (Sierksma et al. 2018).

However, these studies do not concretely consider the specific content of adolescents' stereotypes of morality and sociability about particular ethnic outgroups. Furthermore, to our knowledge, no prior study with adolescents examined how contextual factors such as perceived intergroup competition, specific stereotype content, emotions and behaviour toward ethnic outgroups are related to each other.

Therefore we propose and test an integrative path model to systematically analyse the relation of perceived intergroup competition with adolescents' behavioural intentions considering the role played by the stereotype content of morality and sociability, the emotions and the perceived outgroup threat in this relationship.

The Present Study

The general aim of this study was to examine Spanish adolescents' stereotype content, emotions and behavioural intentions toward two immigrant groups, as well as the intergroup competition and the outgroup threat perceived from these two groups.

The immigrant groups were the Ecuadorian target group (ET) and the Moroccan target group (MT), the two main non-EU immigrants groups in Spain (INE 2017). Previous research targeting these groups (López-Rodríguez et al. 2013; Navas et al. 2012) found that for Spanish adults, Ecuadorians are the most valued group whereas Moroccans are the most devalued and threating group. Furthermore, although Ecuadorians were perceived as significantly more moral than Moroccans, sociability was the stereotype dimension defining this group.

Prejudiced attitudes can be considered as shared beliefs based on intergroup repertories that shape people's view of the social world (Teichman 2016). In a similar vein, developmental intergroup theory (Bigler and Liben 2007) posits that children learn stereotypes and prejudice through explicit mechanisms (e.g., labels used by adults) as well as through implicit ones. Consequently, we expected adolescents to evaluate Ecuadorians more favourably on the measured variables compared to Moroccans (H1).

Our main goal, based on intergroup relations research, was to analyse the effect of perceived intergroup competition on native adolescents' behavioural intentions toward the target immigrant groups. Accounting for literature on stereotypes, perceived outgroup threat and intergroup emotions, we proposed a model that considered the role in this relation of these three relevant psychosocial variables.

Specifically, we predict that perceived intergroup competition will be positively related to the perceived outgroup threat, which in turn will be negatively related to the perceived warmth (morality or sociability) of each target group. Lower warmth (morality or sociability) will elicit less positive emotions and more negative emotions, which in turn will diminish Spanish adolescents' AF intentions and will intensify adolescents' AH intentions (H2). We further expect the model to be independent of the evaluated target (H3). Considering literature on the primacy of morality in social perception, we expect morality to have a more important predictor role in the model compared to sociability (H4).

In the proposed model (Fig. 1), stereotypes follow the perceived outgroup threat, however, the inconsistent findings regarding the relation between stereotypes and perceived threat suggest a possible alternative relation: stereotypes foster perceived threat. We will also explore this alternative pattern of association.

In sum, we basically tried to answer the following question: How perceived intergroup competition affects adolescents' behavioural intentions, and what role do important psychosocial variables, such as, perceived outgroup threat, stereotype content and emotions, play in it?

Method

Participants and Procedure

Spanish adolescents in a 14 to 18 age range ($N = 231$, $M_{age} = 15.39$, $SD = 1.09$) participated in this study. A between-subject design was used. The ET group was evaluated by 117 participants (59% girls), and 114 (55.3% girls) evaluated the MT group. The adolescents were students of three local high schools located in middle class neighbourhood. Although the Local Committee of Education approved the study, the high-schools were not compelled to grant us access, thus the high-schools were incidentally selected and were those that granted us access. The adolescents were randomly assigned to answer one of the two questionnaires, which were identical except for the evaluated target group. The participation was anonymous and voluntary, both the students' parents and the students being allowed to refuse to participate. The questionnaire was administrated to the participants in their classrooms during regular school hours in the presence of a teacher.

Materials

The perceived intergroup competition was measured with three items adapted from Cuadrado et al. (2016) based on Fiske et al. (2002). Participants had to express their agreement (1 = *totally disagree*; 5 = *totally agree*) with three affirmations designed in terms of zero-sum negative economic interdependence (e.g., The more power the (target group) have, the less power people like me are likely to have).

Warmth (morality and sociability) was assessed with six items adapted from Fiske et al. (2002) and Leach et al. (2007) by López-Rodríguez et al. (2013). For the morality content, participants had to indicate how honest, sincere and trustworthy they considered the evaluated group. For the sociability content, adolescents had to indicate how likeable, warm and friendly they considered the target group.

Emotions were measured using a scale of 20 items adapted to Spanish by Cuadrado et al. (2016) from Fiske et al. (2002). Participants had to rate to what extent did they feel eight positive emotions (admiration, understanding, respect, comfort, fondness, pride, inspiration and security) and 12 negative emotions (disappointment, fear, unease, anger, disgust, hatred, frustration, resentment, contempt, tension, shame and anxiety) toward the target group.

Interpersonal behavioural intentions were evaluated with six items from the Interpersonal Behavioural Tendencies

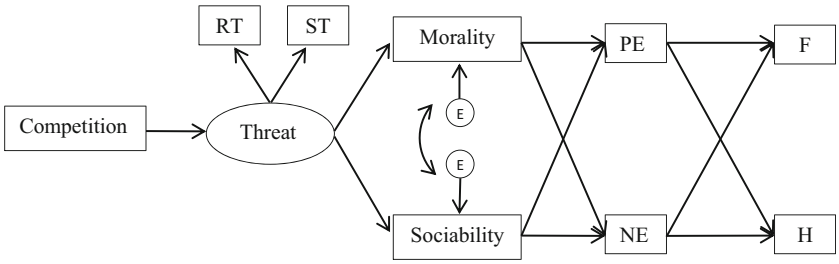

Fig. 1 Initial theoretical mediation model. ST: Symbolic Threat; RT: Realistic Threat; PE: Positive Emotions; NE: Negative Emotions; F: Facilitation Intentions; H: Harm Intentions

Scale developed by López-Rodríguez et al. (2017) starting from Cuddy et al. (2007, 2008) definitions; three for AF tendencies (e.g., Help him/her if he/she needs it) and three for AH tendencies (e.g., Attack him/her).

Outgroup threat perception was evaluated using the outgroup threat perception scale (OTPS) developed by Navas et al. (2012) on the basis of Stephan and Renfro (2002). This scale evaluates symbolic threat (4 items) and realistic threat (9 items) perceptions.

Ratings for warmth, emotions, behavioural intentions and outgroup threat were recorded on a five-point Likert scale (1 = *not at all*; 5 = *very much*).

Data Analysis

The internal consistency of the variables was analysed using Cronbach's *alpha* coefficient.

To evaluate intergroup differences (H1), a MANOVA was performed considering the immigrant group as the independent variable and all the variables of the proposed model as dependent variables. Homoscedasticity assumption was checked through Levene's test ($p > .05$, for all cases).

To test the proposed pattern of relationships between variables, a theoretical path model (see Fig. 1) was defined using the EQS. 6.2 program (Bentler 2005). This model was examined in each group. Goodness of fit of the models was assessed through the robust Comparative Fit Index (RCFI), the Satorra–Bentler scaled χ^2 statistic,[2] the Root Mean Squared Error of Approximation (RMSEA) and Standardized Root Mean Square Residuals (SRMR). Values of the RCFI of 0.95 and higher are considered preferable and indicative of the model good fit (Hu and Bentler 1999). RMSEA values below .08 show a good fit of the hypothesised model to the observed data (MacCallum et al. 1996). Similarly, SRMR values below .08 are indicative of the model good fit (Hu and Bentler 1999).

Cross-group differences of structural parameters were addressed through multiple-sample analysis comparing two-nested model, an unconstrained baseline model, and a model with equality constraints specified for all paths between the groups.

Results

Intergroup Differences

The MANOVA revealed a significant effect of the target group on the outcome variables, Pillai's Trace = .17, $F(11, 219) = 4$, $p < .001$, $\eta_p^2 = .17$. Subsequent univariate analysis showed that the Ecuadorians were perceived to be more moral, $F(1, 229) = 7.79$, $p = .006$, $\eta_p^2 = .03$, and more sociable, $F(1, 229) = 19.94$, $p < .001$, $\eta_p^2 = .08$, than the Moroccans. Adolescents also reported feeling more negative emotions toward the Moroccans, $F(1, 229) = 4.36$, $p = .04$, $\eta_p^2 = .02$, than toward the Ecuadorians. These results support H1. Means, standard deviations, internal consistency values and bivariate correlations between variables are presented in Table 1.

Path Model Analysis

The proposed model (Fig. 1) analysed the effect of the perceived intergroup competition (observed variable) on two interpersonal behavioural tendencies –facilitation and harm (observed variables)– through a sequence of three mediator variables. Perceived intergroup competition predicted the latent factor of perceived threat[3] which, in turn, predicted the morality and sociability assigned to each group. The perceived morality and sociability fostered positive and negative emotions, which in turn affected facilitation and harm intentions. Following Preacher and Hayes (2008) recommendations, morality's and sociability's errors were allowed to covary in the proposed path model.

For both groups, we first determined a baseline fully mediated model. This initial model had a poor fit for both groups: ET, S-B$\chi^2(22, 117) = 40.57$, $p < .01$, RCFI = .92,

[2] Mardia's normalized coefficient revealed that our data presented multivariate kurtosis as for both groups and in all cases its value exceeded 5.00 (Bentler 2005). In this case, both robust CFI and Satorra–Bentler scaled χ^2 statistic are preferred to ML estimates (Curran et al. 1996).

[3] The results of the CFA analysis for the two dimensional model of outgroup threat had a bad fit in both groups: ET, S-Bχ2(64, 115) = 207.71, $p < .01$, RCFI = .79, RMSEA = .14 (.12, .16), SRMR = .09; MT, SBχ2(64, 113) = 155.38, $p < .01$, RCFI = .87, RMSEA = .11 (.09, .13), SRMR = .08. Given the high correlation between realistic and symbolic threat (see Table 1), both observed variables were allowed to load on this latent factor in order to account for the shared variance.

Table 1 Reliability coefficients, means and standard deviations, and correlations between the measured variables

	1	2	3	4	5	6	7	8	9
M	3.02	2.08	2.61	3.18	3.67	2.68	1.47	3.98	1.15
SD	.93	.83	.89	.70	.78	.71	.54	.76	.49
α	.73	.75	.90	.75	.78	.86	.88	.68	.80
1. Competition	–	.28**	.51**	−.48**	−.35**	−.40**	.28**	−.32**	.09
2. Symbolic Threat	.21*	–	.73**	−.28**	−.23*	−.14	.37**	−.22*	.08
3. Realistic Threat	.43**	.60**	–	−.45**	−.39**	−.38**	.42**	−.37**	.13
4. Morality	−.21*	−.18	−.33**	–	.64**	.54**	−.45**	.37**	−.18*
5. Sociability	−.25**	−.18	−.24*	.70**	–	.53**	−.28**	.43**	.01
6. Positive Emotions	−.37**	−.10	−.31**	.66**	.70**	–	−.28**	.56**	−.13
7. Negative Emotions	.24**	.34**	.36**	−.45**	−.42**	−.34**	–	−.40**	.62**
8. Facilitation Intentions	−.14	−.19*	−.34**	.42**	.54**	.51**	−.43**	–	−.27**
9. Harm Intentions	.01	−.15	.15	−.21*	−.18	−.03	.37**	−.36**	–
M	2.87	2.23	2.64	2.90	3.19	2.62	1.63	3.99	1.12
SD	1.08	.90	.99	.83	.86	.86	.63	.70	.43
α	.72	.77	.92	.87	.82	.89	.88	.79	.76

Note. Data for Ecuadorian target group are shown in the upper right section. The lower left section shows data for Moroccan target group
*$p \leq .05$; **$p \leq .01$

RMSEA = .09 (.04, .13), SRMR = .10; MT, S-B$\chi^2(22, 114) = 49.59$, $p < .01$, RCFI = .90, RMSEA = .11 (.07, .14), SRMR = .10. For each group, the Lagrange Multiplier Tests (LM Test) suggested to add two more paths. Thus, for the ET we respecified the model adding a direct path from competition to morality and from perceived threat to negative emotions. This latter direct path was also suggested and imposed for the MT. However, in this group, the second direct path was from perceived competition to positive emotions. Additionally, for both samples Wald Test results suggested to drop the sociability –negative emotions path and also the positive emotions–harm intentions path. The suggested modifications were conceptually meaningful; therefore the model for each sample was respecified accordingly. These respecifications yielded an important improvement in model's fit: ET, S-B$\chi^2(22, 117) = 26.22$, $p > .05$, RCFI = .98, RMSEA = .04 (.00, .09), SRMR = .07; MT, S-B$\chi^2(22, 114) = 37.13$, $p < .05$, RCFI = .94, RMSEA = .08 (.00, .12), SRMR = .06.

Multiple Samples Comparison

We further examined the cross-group structural invariance of the resulting model through a multiple samples analysis.

For this purpose, we tested a model in which the specific direct paths of each sample were modelled along with the common paths of the two samples. This approach allowed us to assess if these specific direct paths were significantly different between the two groups. No constraints were imposed at this stage. Goodness of fit indices were adequate: S-Bχ^2 (42, 231) = 58.07, $p > .05$, RCFI = .97, RMSEA = .06 (.00, .09), SRMR = .06. The estimated path coefficients were in line with the predicted direction for both samples. However, H2 was only partially confirmed since for each sample two paths were implemented and two paths were dropped (see Fig. 2). Several significant indirect effects emerged for each sample. Intergroup competition had an indirect negative effect on morality and sociability through threat in both samples. Intergroup competition had an indirect negative effect on positive emotions and a positive indirect effect on negative emotions, but only for the Ecuadorian sample. Intergroup competition also had an indirect negative effect on AF on both samples and a positive indirect effect on AH intentions toward Ecuadorians only.

For both samples, the perceived outgroup threat had an indirect negative effect on positive emotions and AF and a positive indirect effect on AH. No indirect effects were found on negative emotions in any of the two samples.

Morality indirectly and positively predicted AF for both samples and had an indirect negative effect on AH toward Moroccans only. Sociability only had an indirect effect on AF intentions in both samples. Standardised coefficients of all indirect effects are presented in Table 2.

Next, equality constraints were imposed to the multisample analysis. All paths were constrained to be equal across the two samples. Thus, 13 equality constraints were specified and correctly imposed. This model also generated good fit indices: S-B$\chi^2(55, 231) = 71.62$, $p > .05$, RCFI = .97, RMSEA = .05 (.00, .08), SRMR = .08. The LM Test revealed that no equality constraints were violated. Univariate and cumulative multivariate tests indicated that constraints were reasonable ($p > .05$). Thus, the magnitude of the specific direct

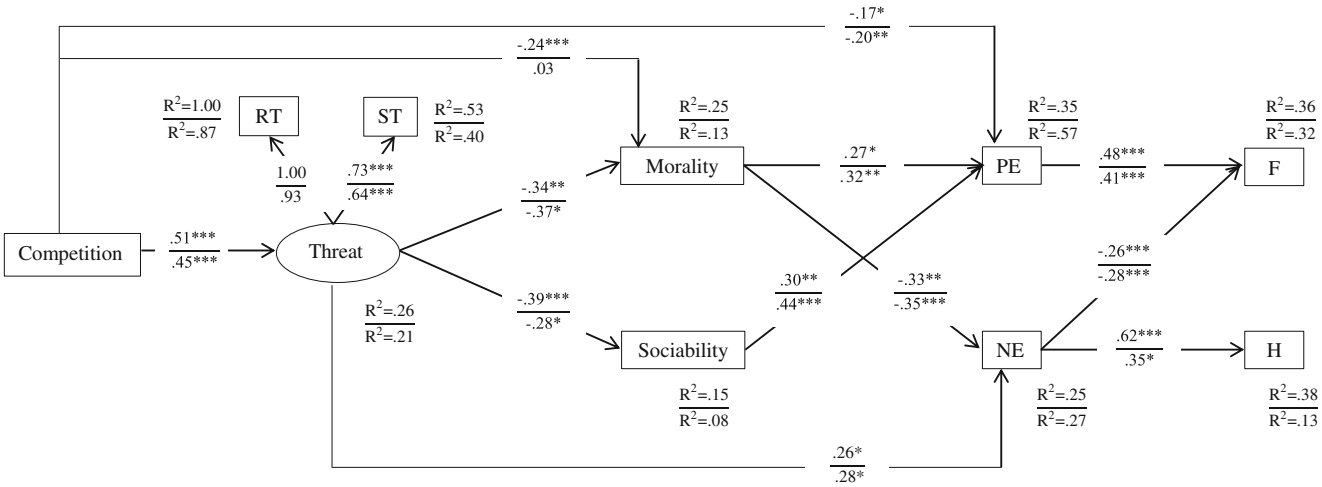

Fig. 2 Multiple samples path model. Ecuadorian target group (above)/ Moroccan target group (below). All regression coefficients are standardised. ST: Symbolic Threat; RT: Realistic Threat; PE: Positive Emotions; NE: Negative Emotions; F: Facilitation Intentions; H: Harm Intentions. Morality and Sociability errors are allowed to correlate (r = .55/.68). *$p \leq .05$; **$p \leq .01$; ***$p \leq .001$

paths and of the common paths was not significantly different between the two samples.[4] These results indicate that the modelled process is practically invariant across the two samples and this way H3 is confirmed.

Finally, our results confirm partially our expectation regarding the primary role of morality (H4), given that for both samples sociability proved to be a moderately better predictor than morality for positive emotions. However, only morality significantly predicted both positive and negative emotions, while sociability had no effect on negative emotions (see Fig. 2).

Alternative Models

Whether perceived outgroup threat acts as an antecedent or as a consequent of stereotypes is still an opened question. Thus, we examined alternative models in which perceived outgroup threat was predicted by stereotype content. We followed the same steps as we did with the main models. First, we specified the theoretical model for each sample. These models proved to have a poor fit to the data: ET, S-B$\chi^2(23, 117) = 57.72$, $p < .01$, RCFI = .84, RMSEA = .11 (.08, .15), SRMR = .14; MT, S-B$\chi^2(23, 114) = 102.103$, $p < .001$, RCFI = .70, RMSEA = .17 (.14, .21), SRMR = .12. The LM test informed of several direct effects that could contribute to the improvement of the model in both samples, but the predicted fit indices had inadequate values: ET, RCFI = .93, RMSEA = .08; MT, RCFI = .78, RMSEA = .15. These findings indicate that perceived outgroup threat acts as an antecedent of the stereotype content dimensions in the process linking intergroup competition with interpersonal behavioural intentions.

In sum, the path mediated model had a good fit and a similar structure across samples. In general lines, the mediating process represented the expected associations between variables. Moreover, only the morality dimension was involved in the underlying process of both AF and AH intentions, whereas sociability only affected AF intentions.

Discussion

Our main purpose was to examine the relation between adolescents' perceived intergroup competition and their interpersonal behavioural intentions toward two different immigrant groups: Ecuadorians and Moroccans. Concretely, we explored the role played by perceived outgroup threat, warmth stereotypes and emotions in this link.

To achieve this goal, we first examined adolescents' evaluations for both target groups on the studied variables. Results supported our expectations concerning intergroup differences. Just like Spanish adults (López-Rodríguez et al. 2013), adolescents considered Ecuadorians more moral and sociable compared to Moroccans. Adolescent also felt less negative emotions toward Ecuadorians than toward Moroccans, although, unlike Spanish adults (López-Rodríguez et al. 2016), adolescents did not feel more positive emotions toward Ecuadorians than toward Moroccans. In general lines, adolescents' perceptions mirrored adults' perceptions. Similar findings have been encountered considering other outgroups (e.g., Cuadrado and López-Turrillo 2014 with female subtypes). Recent developmental research on stereotype content (Roussous and Dunham 2016) evidenced age differences in

[4] The LM test revealed that the equality constraint imposed for the path between intergroup competition and morality was significant ($p < .05$). This result indicates that this path parameter may have different magnitude for each sample. Thus, we performed a multiple sample analysis in which no equality constraints were imposed for this path. This model also generated good fit indices: S-B$\chi^2(54, 231) = 68.40$, $p > .05$, RCFI = .97, RMSEA = .05 (.00, .08), SRMR = .08.

Table 2 Indirect effects of the unconstrained multi-sample model

Criterion variable	RT	ST	Morality	Sociability	PE	NE	F	H
Ecuadorian Target (ET) Predictors:								
Intergroup competition	.51***	.37***	−.17**	−.20***	−.17**	.27***	−.23***	.17**
Outgroup Threat	–	–	–	–	−.21**	.11	−.20***	.23**
Morality	–	–	–	–	–	–	.21**	−.20
Sociability	–	–	–	–	–	–	.14**	–
Moroccan Target (MT) Predictors:								
Intergroup competition	.42***	.29**	−.17*	−.13*	−.10	.17	−.17**	.06
Outgroup Threat	–	–	–	–	−.24*	.13	−.21**	.14*
Morality	–	–	–	–	–	–	.23***	−.13*
Sociability	–	–	–	–	–	–	.18**	–

Note. All coefficients are standardised. RT: Realistic Threat, ST: Symbolic Threat, PE: Positive Emotions, NE: Negative Emotions, F: Facilitation Intentions, H: Harm Intentions

*$p \leq .05$; **$p \leq .01$; ***$p \leq .001$

the way stereotype content dimensions are considered to evaluate outgroups, warmth being treated as independent of competence evaluations from the age of 10 years old. These data seem to indicate that the salience of each stereotype content dimensions for the evaluation of social targets changes from childhood to adulthood, adolescents' use and evaluations highly resembling those of adults. Future research should test whether our results would be replicated with children.

Second, we analysed a path-mediated model considering the perceived threat, warmth stereotypes and emotions as mediators of the link between the perceived intergroup competition and two types of interpersonal behavioural intentions–active facilitation and active harm. The model was tested separately in each sample. Although some conceptually meaningful modifications were made to the initial model in order to improve its fit, the expected pattern of relationships was broadly corroborated. Thus, the mediating processes represented the associations between the variables, all the mediator variables playing a role in this process. In line with previous research (Cuddy et al. 2007; Kervyn et al. 2015; Stephan et al. 2009), our findings show, in a sample of adolescents, that the specific characteristics of intergroup relations and social context are related to their beliefs and emotions toward outgroup's members, which in turn impact on the behavioural intentions directed toward them.

For both target groups, intergroup competition led adolescents to consider immigrant groups as less moral and less sociable. This relation was partially mediated by perceived outgroup threat. In turn, lower levels of both perceived morality and sociability elicited less positive emotions, while only lower levels of perceived morality predicted more negative emotions. Positive emotions were also negatively predicted by the perceived intergroup competition, whereas negative emotions were positively predicted by the perceived threat. Less positive emotions and more negative emotions decreased facilitation intention. Finally, harm intentions were positively predicted only by negative emotions. Even though some of the added direct paths were specific for each group, our results indicate that they were of equivalent magnitude. Thus, as expected, the pattern of relations of the proposed model was invariant across groups. The model worked equally well in both samples, with the examined variables fitting well together in a coherent framework.

Regarding the role of different stereotype content in the process linking intergroup competition and interpersonal behavioural intentions, our findings showed that sociability was moderately more important than morality, but only when predicting positive emotions. Relatedness is a fundamental human basic need (Baumeister and Leary 1995), its satisfaction promoting a myriad of positive consequences for human beings. The literature (e.g., Brown and Larson 2009) acknowledges that during adolescence the contact with different groups is increased, and adolescents' social relations become more complex. Adolescents also become more autonomous and start to relate to and rely more on their peers instead of their family. During this stage, peer relations become more salient and interpersonal relations and socialization acquire greater importance (Brown and Larson 2009). Thus, it is possible that this feature of adolescence may explain the results obtained regarding sociability.

However, morality affected both positive and negative emotions, which in turn predicted both facilitation and harm intentions toward the target group. Taken together, our findings indicate that only the morality content can simultaneously increase positive emotions and decrease negative ones, which in turn will favour facilitation intentions while diminishing intentions of harm.

Theoretically, our results confirm the importance of distinguishing between morality and sociability in outgroup's evaluation, supporting previous research (e.g., Brambilla and

Leach 2014; Brambilla et al. 2011; Cuadrado et al. 2016; Leach et al. 2007; López-Rodríguez et al. 2013) that outlined the distinctive role played by morality (vs. sociability) in social perception. They are also in keeping with previous studies (e.g., Killen and Rizzo 2014) showing that adolescents account for moral considerations when reasoning about outgroups.

As for the mediating role of emotion, in general, our results are also in line with previous research (Cuddy et al. 2007, 2008; Mackie et al. 2000). For both target groups, positive emotions mediated stereotypes' effect on facilitation behavioural intentions. Similarly, for both groups, negative emotions mediated stereotypes' effect on facilitation intentions. Negative emotions mediated the effect of morality on harm behavioural intentions only for the MT group.

Finally, our findings support the role of the perceived outgroup threat as an antecedent of stereotypes as in both groups perceived threat mediated the effect of intergroup competition on morality. This result is supported by the current literature since work developed in this vein evidenced that the nature of intergroup relations (e.g., intergroup competition, intergroup conflict) involves a threat content which will affect stereotypes about outgroups (Curşeu et al. 2007; Stephan et al. 2002).

Limitations and Implications of the Present Study

Although the mediating model is based on solid theoretical grounds, and alternatives models were tested, our work has several limitations. In our study, we only contemplated the warmth sub-dimensions as the literature has identified perceived intergroup competition, the main antecedent of our model, as the main predictor of the warmth dimension. Given that prior research on stereotype content usually considers the competence dimension along with morality and sociability, future studies should evaluate and incorporate this dimension into the analysis. Relatedly, we focus on perceived intergroup competition. Measuring actual intergroup competition and including this variable into the analysis would provide a fine-grained perspective regarding the interplay of these two variables and their effects on attitudes toward ethnic outgroups. Furthermore, future research should also consider the relation of perceived intergroup competition with other relevant variables for interethnic relations during childhood and adolescence (e.g., ethnic identity).

The design of our study is cross-sectional. Examining the model using a longitudinal design would help to enhance our knowledge about the stability or the changes that the proposed pattern of relationships may experience in time. Likewise, the model should be confirmed using experimental methods. Finally, our study was developed with adolescents and contemplated only the majority's perspective regarding two immigrant groups. Including other immigrant groups into the analysis and also examining the minority's perspective would be recommended in order to enhance the validity of the model.

Even though we keep in mind the limitations of our study, we consider that these findings advance our knowledge of intergroup relations during adolescence in several ways. First, our findings add perceived intergroup competition at the list of situational factors that are related to adolescents' intergroup attitudes and provide insight into how it affects behavioural intentions. Second, our work is the first study that examines adolescents' morality and sociability stereotype content toward ethnic minority groups and evidences the distinct role played by morality (vs. sociability), threat perception and emotions on interpersonal behavioural intentions. Third, to our knowledge, this study is the first one that integrates and jointly examines situational variables, stereotype content, perceived threat, emotions and behavioural intentions in adolescents.

Finally, our findings have important implications from an applied standpoint. Our findings suggest that adolescents are sensitive to contextual factors and that this type of factors influences their behavioural intentions toward members of different outgroups. Furthermore, it seems that adolescents' social perception of relevant outgroups from their social context reflects the way these groups are perceived in society. This could further indicate a certain level of cultural transmission. Although changing society's view or the information transmitted to the adolescents is not easy, changing the way adolescents interpret that information could be more approachable. One way in which this could be accomplished is by providing actual data regarding levels of real intergroup competition that could disconfirm their perceptions. In this line, policy makers ought to consider the important role of perceived intergroup competition, especially when the media places a great emphasis on this perceived and often non-existent form of competition.

Likewise, the meta-analysis performed by Beelmann and Heinemann (2014) regarding the results of the prejudice reduction intervention programs evidenced that the cognitive and the behavioural dimension of the intergroup attitudes were easier to influence compared to the emotional one. In this regard, our findings provide useful information concerning what type of cognitive content should address intervention programs. Concretely, our results suggest that in order to simultaneously reduce harmful intentions and foster helpful ones toward immigrant groups, the intervention programs should attend native adolescents' beliefs regarding immigrants' morality.

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Data Availability The datasets generated during and/or analysed during the current study are available from the corresponding author on reasonable request.

Compliance with Ethical Standards

Conflict of Interest The authors declare that they have no conflict of interest.

Ethical Approval All procedures performed in studies involving human participants were in accordance with the ethical standards of the institutional and/or national research committee and with the 1964 Helsinki declaration and its later amendments or comparable ethical standards.

Informed Consent Informed consent was obtained from all individual participants (and their parents for minors) included in the study.

References

Abele, A. E., & Wojciszke, B. (2007). Agency and communion from the perspective of self versus others. *Journal of Personality and Social Psychology, 9*, 751–763. https://doi.org/10.1037/0022-3514.93.5.751.

Abrams, D., Van de Vyver, J., Pelletier, J., & Cameron, L. (2015). Children's prosocial behavioural intentions towards outgroup members. *British Journal of Developmental Psychology, 33*, 277–294. https://doi.org/10.1111/bjdp.12085.

Baumeister, R., & Leary, M. (1995). The need to belong: Desire for interpersonal attachments as a fundamental human motivation. *Psychological Bulletin, 117*, 497–529. https://doi.org/10.1037/0033-2909.117.3.497.

Beelmann, A., & Heinemann, K. S. (2014). Preventing prejudice and improving intergroup attitudes: A meta-analysis of child and adolescent training programs. *Journal of Applied Developmental Psychology, 35*, 10–24. https://doi.org/10.1016/j.appdev.2013.11.002.

Bentler, P. M. (2005). *EQS 6 structural equations program manual*. Encino: Multivariate Software www.mvsoft.com.

Bigler, R. S., & Liben, L. S. (2007). Developmental intergroup theory: Explaining and reducing Children's social stereotyping and prejudice. *Current Directions in Psychological Science, 16*, 162–166. https://doi.org/10.1111/j.1467-8721.2007.00496.x.

Brambilla, M., & Leach, C. W. (2014). On the importance of being moral: The distinctive role of morality in social judgment. *Social Cognition, 32*, 397–408. https://doi.org/10.1521/soco.2014.32.4.397.

Brambilla, M., Rusconi, P., Sacchi, S., & Cherubini, P. (2011). Looking for honesty: The primary role of morality (vs. sociability and competence) in information gathering. *European Journal of Social Psychology, 41*, 135–143. https://doi.org/10.1002/ejsp.744.

Brambilla, M., Sacchi, S., Rusconi, P., Cherubini, P., & Yzerbyt, V. Y. (2012). You want to give a good impression? Be honest! Moral traits dominate group impression formation. *British Journal of Social Psychology, 51*, 149–166. https://doi.org/10.1111/j.2044-8309.2010.02011.x.

Brambilla, M., Sacchi, S., Pagliaro, S., & Ellemers, N. (2013). Morality and intergroup relations: Threats to safety and group image predict the desire to interact with outgroup and ingroup members. *Journal of Experimental Social Psychology, 49*, 811–821. https://doi.org/10.1016/j.jesp.2013.04.005.

Brown, B. B., & Larson, J. (2009). Peer relationships in adolescence. In R. M. Lerner & L. Steinberg (Eds.), *Handbook of adolescent psychology: Contextual influences on adolescent development* (pp. 74–103). Hoboken: John Wiley & Sons Inc.

Butz, D. A., & Yogeeswaran, K. (2011). A new threat in the air: Macroeconomic threat increases prejudice against Asian Americans. *Journal of Experimental Social Psychology, 47*, 22–27. https://doi.org/10.1016/j.jesp.2010.07.014.

Campbell, D. T. (1965). Ethnocentrism and other altruistic motives. In D. Levine (Ed.), *Nebraska Symposium on Motivation* (Vol. 13, pp. 228–311). Lincoln: University of Nebraska Press.

Cuadrado, I., & López-Turrillo, E. (2014). What do adolescents think and feel about the different female subtypes? An application of the stereotype content model (SCM). *International Journal of Social Psychology, 29*, 235–264. https://doi.org/10.1080/02134748.2014.918823.

Cuadrado, I., López-Rodríguez, L., & Navas, M. (2016). La perspectiva de la minoría: Estereotipos y emociones entre grupos inmigrantes [*The minority perspective: stereotypes and emotions between immigrants groups*]. *Anales de Psicología, 32*, 535–544. https://doi.org/10.6018/analesps.32.2.205341.

Cuddy, A. J. C., Fiske, S. T., & Glick, P. (2007). The BIAS map: Behaviors from intergroup affect and stereotypes. *Journal of Personality and Social Psychology, 92*, 631–648. https://doi.org/10.1037/0022-3514.92.4.631.

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). San Diego: Academic Press.

Curran, P. J., West, S. G., & Finch, J. F. (1996). The robustness of test statistics to nonnormality and specification error in confirmatory factor analysis. *Psychological Methods, 1*, 16–29.

Curşeu, P. L., Stoop, R., & Schalk, R. (2007). Prejudice toward immigrant workers among Dutch employees: Integrated threat theory revisited. *European Journal of Social Psychology, 37*, 125–140. https://doi.org/10.1002/ejsp.331.

Durante, F., Fasola, M., Mari, S., & Mazzola, F. (2014). Children' s attitudes and stereotype content toward thin, average-weight, and overweight peers. *SAGE Open, 4*, 1–11. https://doi.org/10.1177/2158244014534697.

Esses, V. M., Jackson, L. M., & Armstrong, T. L. (1998). Intergroup competition and attitudes toward immigrants and immigration: An instrumental model of group conflict. *Journal of Social Issues, 54*, 699–724. https://doi.org/10.1111/j.1540-4560.1998.tb01244.x.

Esses, V. M., Jackson, L. M., & BennettAbuAyyash, C. (2010). Intergroup competition. In J. F. Dovidio, M. Hewstone, P. Glick, & V. M. Esses (Eds.), *The Sage handbook of prejudice, stereotyping, and discrimination* (pp. 225–240). London: Sage.

Fernández, M., Valbuena, C., & Caro, R. (2015). *Evolución del racismo, la xenofobia y otras formas de intolerancia en España. Informe-resumen.[the evolution of racism, xenophobia and others types of intolerance. Resumed report]* Madrid: OBERAXE, Ministerio de Empleo y Seguridad Social. Retrieved from http://www.empleo.gob.es/oberaxe/ficheros/documentos/InfCortoRacismoVsCortaInternet.pdf.

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. https://doi.org/10.1037/0022-3514.82.6.878.

Hart, D., & Carlo, G. (2005). Moral development in adolescence. *Journal of Research on Adolescence, 15*, 223–233. https://doi.org/10.1111/j.1532-7795.2005.00094.x.

Hu, L. T., & Bentler, P. M. (1999). Cutoff criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives. *Structural Equation Modeling, 6*, 1–55. https://doi.org/10.1080/10705519909540118.

INE (2017). *Cifras de población a 1 de enero de 2017. Estadística de Migraciones [Population figures at 1st of January 2017. Migration Statistics].* Retrieved from http://www.ine.es/prensa/cp_2017_p.pdf.

Kervyn, N., Fiske, S., & Yzerbyt, V. (2015). Forecasting the primary dimensions of social perception. Symbolic and realistic threats together predict warmth in the stereotype content model. *Social Psychology, 46*, 36–45. https://doi.org/10.1027/1864-9335/a000219.

Killen, M., & Rizzo, M. T. (2014). Morality, intentionality, and intergroup attitudes. *Behaviour, 151*(2–3), 337–359.

Killen, M., Rutland, A., & Ruck, M. D. (2011). Promoting Equity, Tolerance, and Justice in Childhood and commentaries. *Social Policy Report, 25*, 1–33. https://doi.org/10.1002/j.2379-3988.2011.tb00069.x.

Leach, C. W., Ellemers, N., & Barreto, M. (2007). Group virtue: The importance of morality (vs. competence and sociability) in the positive evaluation of in-groups. *Journal of Personality and Social Psychology, 93*, 234–249. https://doi.org/10.1037/0022-3514.93.2.234.

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. https://doi.org/10.1174/021093913806751375.

López-Rodríguez, L., Cuadrado, I., & Navas, M. (2016). Acculturation preferences and behavioural tendencies between majority and minority groups: The mediating role of emotions. *European Journal of Social Psychology, 46*, 401–417. https://doi.org/10.1002/ejsp.2181.

López-Rodríguez, L., Cuadrado, I., & Navas, M. (2017). I will help you because we are similar: Quality of contact mediates the effect of perceived similarity on facilitative behaviour towards immigrants. *International Journal of Psychology, 52*, 273–282. https://doi.org/10.1002/ijop.12212.

MacCallum, R. C., Browne, M. W., & Sugawara, H. M. (1996). Power analysis and determination of sample size for covariance structure modeling. *Psychological Methods, 1*, 130–149. https://doi.org/10.1037/1082-989X.1.2.130.

Mackie, D. M., Devos, T., & Smith, E. R. (2000). Intergroup emotions: Explaining offensive action tendencies in an intergroup context. *Journal of Personality and Social Psychology, 79*, 602–616. https://doi.org/10.1037/0022-3514.79.4.602.

Maddux, W. W., Galinsky, A. D., Cuddy, A. J. C., & Polifroni, M. (2008). When being a model minority is good . . . And bad: Realistic threat explains negativity toward Asian Americans. *Personality and Social Psychology Bulletin, 34*, 74–89. https://doi.org/10.1177/0146167207309195.

Navas, M., Cuadrado, I., & López-Rodríguez, L. (2012). Fiabilidad y evidencias de validez de la Escala de Percepción de Amenaza Exogrupal (EPAE) [Reliability and validity evidence of the Outgroup Threat Perception Scale (OTPS)]. *Psicothema, 24*, 477–482.

Nesdale, D., Maass, A., Durkin, K., & Griffiths, J. (2005). Group norms, threat, and children's racial prejudice. *Child Development, 76*, 652–663. https://doi.org/10.1111/j.1467-8624.2005.00869.x.

Preacher, K., & Hayes, A. (2008). Asymptotic and resampling strategies for assessing and comparing indirect effects in multiple mediator models. *Behavior Research Methods, 40*, 879–891. https://doi.org/10.3758/BRM.40.3.879.

Rutland, A., & Killen, M. (2015). A developmental science approach to reducing prejudice and social exclusion: Intergroup processes, social-cognitive development, and moral reasoning. *Social Issues and Policy Review, 9*, 121–154. https://doi.org/10.1111/sipr.12012.

Rutland, A., Killen, M., & Abrams, D. (2010). A new social-cognitive developmental perspective on prejudice: The interplay between morality and group identity. *Perspectives on Psychological Science, 5*, 279–291. https://doi.org/10.1177/1745691610369468.

Sherif, M., Harvey, O. J., White, B. J., Hood, W. R., & Sherif, C. W. (1961). *Intergroup conflict and cooperation: The Robber's Cave experiment*. Norman: University of Oklahoma.

Sierksma, J., Lansu, T. A. M., Karremans, J. C., & Bijlstra, G. (2018). Children's helping behavior in an ethnic intergroup context: Evidence for outgroup helping. *Developmental Psychology, 54*, 916–928. https://doi.org/10.1037/dev0000478.

Spanish Ministry of Internal Affairs (2016). *Informe sobre la evolución de los incidentes relacionados con los delitos de odio en España [Report on the evolution of hate crimes incidents in Spain]*. Retrieved from http://www.interior.gob.es/documents/10180/5791067/ESTUDIO+INCIDENTES+DELITOS+DE+ODIO+2016.pdf/c5ef4121-ae02-4368-ac1b-ce5cc7e731c2

Stephan, W. G., & Renfro, C. L. (2002). The role of threat in intergroup relations. In D. M. Mackie & E. R. Smith (Eds.), *From prejudice to intergroup emotions. Differentiated reactions to social groups* (pp. 191–207). New York: Psychology Press.

Stephan, W. G., Boniecki, K. A., Ybarra, O., Bettencourt, A., Ervin, K. S., Jackson, L. A., Renfro, C. L. (2002). The role of threats in the racial attitudes of Blacks and Whites. *Personality and Social Psychology Bulletin, 28*, 1242–1254. https://doi.org/10.1177/01461672022812009.

Stephan, W., Ybarra, O., & Rios Morrison, K. (2009). Intergroup threat theory. In T. D. Nelson (Ed.), *Handbook of prejudice, stereotyping and discrimination* (pp. 43–55). New York: Psychology Press.

Stephan, W., Ybarra, O., & Rios Morrison, K. (2016). Intergroup threat theory. In T. D. Nelson (Ed.), *Handbook of prejudice, stereotyping and discrimination* (2nd ed., pp. 255–273). New York: Psychology Press.

Talaska, C. A., Fiske, S. T., & Chaiken, S. (2008). Legitimating racial discrimination: Emotions, not beliefs, best predict discrimination in a meta-analysis. *Social Justice Research, 21*, 263–396. https://doi.org/10.1007/s11211-008-0071-2.

Teichman, Y. (2016). Stereotypes and prejudice in conflict: A developmental perspective. In K. Sharvit & E. Halperin (Eds.), *A social psychology perspective on the Israeli-Palestinian conflict* (pp. 17–30). New York: Springer. https://doi.org/10.1007/978-3-319-24841-7_2.

Vauclair, C. M., Borges Rodrigues, R., Marques, S., Esteves, C. S., Cunha, F., & Gerardo, F. (2018). Doddering but dear… even in the eyes of young children? Age stereotyping and prejudice in childhood and adolescence. *International Journal of Psychology, 53*, 63–70. https://doi.org/10.1002/ijop.12430.

Vedder, P., Wenink, E., & van Geel, M. (2016). Explaining negative outgroup attitudes between native Dutch and Muslim youth in the Netherlands using the integrated threat theory. *International Journal of Intercultural Relations, 53*, 54–64. https://doi.org/10.1016/j.ijintrel.2016.05.001.

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