“A matter of trust”: Perception of morality increases willingness to help through positive emotions

Isabel Cuadrado,1 Lucía López-Rodríguez1 and Andreea A. Constantin1

Abstract
Moroccans are still the lowest rated immigrants in Spain. This research analyses the relationships between different dimensions of stereotypes (i.e., morality, sociability, and competence), positive emotions, and facilitation behavioural tendencies between Spaniards and Moroccans. Specifically, this work aims to explore whether the three stereotype dimensions play distinct roles in predicting helping behavioural tendencies through emotions, with a focus on the distinctive role of morality. Three studies are presented. In Study 1, Spanish adolescents assessed Moroccan immigrants. Study 2 considered the minority perspective by analysing Moroccans’ stereotypes, emotions, and behavioural tendencies toward Spaniards. Study 3 experimentally tested the effect of the stereotype dimensions on positive emotions and facilitation behavioural tendencies in a sample of Spaniards. The results showed a consistent pattern: perceived morality always indirectly predicted facilitation behavioural tendencies through positive emotions, regardless of the perspective analysed (i.e., majority/minority), age of participants (i.e., adults/adolescents), or design (i.e., correlational/experimental).

Keywords
facilitation tendencies, morality, positive emotions, Spanish–Moroccan relations, stereotypes

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Intergroup stereotyping is a key element of intergroup relations. In fact, the emotions people feel and behaviours they direct toward members of outgroups are influenced in large part by stereotypes. In multicultural societies, the study of these processes becomes very relevant, whether the evaluated persons belong to minority (e.g., immigrants) or majority (i.e., host majority population) groups. This type of examination makes it possible to further our knowledge of how to improve interethnic relations.

Some countries, such as Spain, have received important migratory flows in the last two decades, and coexistence of persons of different

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ethnocultural origins has, therefore, become common. At the present time, Moroccans make up the most numerous group of immigrants in this country (Instituto Nacional de Estadística [INE], 2018). Their integration has been difficult from the beginning. Spaniards point to cultural peculiarities of Moroccans in different social areas as a justification of their negative attitudes toward them, while Moroccans emphasize systematic difficulties found for opening mosques and social rejection of women wearing the hijab (Fernández, 2015). This is just a brief example of the complex dynamics that characterize Moroccan–Spanish relations. In this vein, the literature has demonstrated that Moroccans systematically receive worse evaluations from Spaniards than do Romanians and Ecuadorians (López-Rodríguez, Cuadrado, & Navas, 2013; Navas, Cuadrado, & López-Rodríguez, 2012).

The general purpose of this research was to identify the process by which members of the majority (native Spaniards) and minority (Moroccan immigrants) population are willing to help each other. Although the prominent role of perceived morality in intergroup attitudes has been well documented, we do not have enough information about the role of emotions in this process; three studies were conducted with this purpose. In order to increase replicability, we recruited Spanish participants of different ages (i.e., adolescents in Study 1 and adults in Study 3); we took both majority (Studies 1 and 3) and minority (Study 2) perspectives; and we used correlational (Studies 1 and 2) and experimental (Study 3) methodologies. We focused on positive emotions as the mechanism by which positive stereotypes (especially regarding moral traits) can motivate willingness to help the outgroup.

Why Should We Study the Positive Side of Intergroup Relations?

Research has traditionally focused on the analysis of uniformly negative responses (i.e., negative attitudes) of the majority population toward members of ethnic minorities. However, new perspectives such as positive psychology (Seligman & Csikszentmihalyi, 2000) urge researchers to also focus on positive aspects. Along this line, Gable and Haidt (2005) state that by focusing on negative aspects, we have learned “How to bring people up from negative eight to zero . . . [but not] how people rise from zero to eight” (p. 103).

Recent studies on intergroup relations also emphasize the importance of considering both negative and positive attitudes in predicting behaviours toward outgroups. For example, Pittinsky, Rosenthal, and Montoya (2011) demonstrated that both types of attitudes were functionally independent constructs, and that positive attitudes compared to negative ones were better predictors of positive behaviour intentions toward Latino and African American minority groups. Similarly, a study conducted in Spain revealed the power of positive emotions of native adults to predict their positive behavioural tendencies toward Moroccans (López-Rodríguez, Cuadrado, & Navas, 2016). Therefore, eliciting positive emotions toward outgroups might be more effective than reducing negative ones in order to promote helping tendencies.

This work broadens the perspective that has traditionally predominated in research by specifically looking into positive stereotypes, emotions, and intergroup behaviours in the study of relations between the Spanish majority and a relevant ethnic minority in this country: Moroccan immigrants.

Intergroup Stereotyping: The Importance of Morality

Numerous studies have shown the existence of two fundamental content dimensions which underlie group and interpersonal social judgments and even self-perception (see Abele & Wojciszke, 2014). In research on stereotypes, specifically from the perspective of the stereotype content model (SCM; Cuddy, Fiske, & Glick, 2008; Fiske, Cuddy, Glick, & Xu, 2002), these dimensions are called warmth and competence. Basically, warmth refers to the perceived intentions of groups or their members toward us (e.g.,
whether they are sincere, affectionate), while competence refers to whether they are perceived as capable of acting on those intentions (e.g., whether they are efficient, intelligent).

The two-dimensional proposal of the SCM has been reinterpreted based on studies by Leach, Ellemers, and Barreto (2007). These authors found that warmth consists of two differentiated dimensions, morality and sociability, and that the traits of morality were distinguishable from those of sociability and competence when evaluating the ingroup. According to Brambilla and Leach (2014, p. 398),

Sociability pertains to being benevolent to people in ways that facilitate affective relations with them (e.g., friendliness, likeability, kindness), morality refers to being benevolent to people in ways that facilitate correct and principled relations with them (e.g., honesty, trustworthiness, sincerity).

Based on research by Leach et al. (2007), many studies have demonstrated the primacy of morality over sociability and competence in different stages of impression formation (e.g., Brambilla, Rusconi, Sacchi, & Cherubini, 2011; Landy, Piazza, & Goodwin, 2016). It has also been demonstrated that perceived morality plays a more significant role than the other two dimensions in forming impressions, evaluating, and reacting to outgroups (e.g., Brambilla, Hewstone, & Colucci, 2013; Brambilla, Sacchi, Pagliaro, & Ellemers, 2013; Brambilla, Sacchi, Rusconi, Cherubini, & Yzerbyt, 2012; López-Rodríguez et al., 2013).

Summarizing, as suggested by Leach, Bilali, and Pagliaro (2015), perceptions of outgroup morality should be distinguished from those of outgroup sociability. In fact, the demonstrated importance of warmth in social perception (Cuddy et al., 2008) could be better explained by the primacy of morality over sociability. Its prominence is due to its being closely linked to the essential judgment of whether another party’s intentions are beneficial or harmful (Brambilla & Leach, 2014).

### Stereotypes and Intergroup Emotions

The SCM (Fiske et al., 2002) predicts that different combinations of perceived warmth and competence elicit particular patterns of emotions. Groups evaluated as high on these stereotype dimensions generate positive emotions (labelled as admiration in this model). From the SCM (Fiske et al., 2002) and other perspectives such as the intergroup emotions theory (IET; Smith, 1993; for a recent review, see Mackie & Smith, 2018; Smith & Mackie, 2016), emotions depend on relational appraisals (i.e., What does a social group mean for us in terms of harm or benefits for our well-being?). In this sense, “stereotypes may feed into appraisals” (Smith & Mackie, 2016, p. 420). A group can be seen as immoral and insincere, which could lead to it being appraised as a potential threat to the ingroup. Since morality content is central for judging an outgroup’s intentions, the role of morality will be more prominent than the role played by sociability and competence in promoting positive intergroup relations.

In sum, although the relation between stereotypes and emotions is not unidirectional but multidirectional, the SCM (Fiske et al., 2002) and IET (Mackie & Smith, 2018; Smith & Mackie, 2016) understand stereotypes as a source of information that helps to construct appraisals about groups. In this sense, stereotypes can be related to emotions, but we posit that not all dimensions of stereotypes will be associated with emotions in the same way. As morality has a more important role than sociability and competence in the way we evaluate others, this dimension should work as a more powerful source of information for appraisals (and therefore, it will be more related with emotions) than the others two dimensions.

Especially relevant to our work are previous studies (e.g., Brambilla, Sacchi, et al., 2013; Brambilla et al., 2012; Parker & Janoff-Bulman, 2013; Todorov, Said, Oosterhof, & Engell, 2011; Willis & Todorov, 2006) showing the close relationship between morality and perceived outgroup threat. For example, Brambilla and colleagues’ (Brambilla, Sacchi, et al., 2013; Brambilla et al.,
research shows the mediating role of perceived threat in explaining the primacy of moral traits in ingroup and outgroup social perception. In the present research, we analyse if the same prominent role of morality in negative affect can be replicated for positive affect, as well as its relation with helping behavioural tendencies.

Intergroup Emotions and Behaviours

The literature has consistently revealed that emotions more strongly and directly relate to behaviour than cognitions (e.g., Cuddy, Fiske, & Glick, 2007; Dovidio, Brigham, Johnson, & Gaertner, 1996; Stangor, Sullivan, & Ford, 1991; Talaska, Fiske, & Chaiken, 2008), and that emotions mediate the stereotype–behavioural tendencies relationship (Cuddy et al., 2007, 2008; Mackie, Devos, & Smith, 2000; Mackie, Smith, & Ray, 2008).

Focusing on the behaviours that concern us here (i.e., positively valenced behaviours), from the the perspective of the Bias Map (Cuddy et al., 2007, 2008), it has been demonstrated that stereotypes of warmth elicit active facilitation behaviours (i.e., those directed explicitly at benefiting the outgroup), while perceived competence predicted passive facilitation behaviours (actions that benefit the outgroup as a consequence of an association or cooperation established to achieve the ingroup’s own goals). However, this pattern has not been tested for sociability and morality as differentiated dimensions of warmth.

Cuddy et al. (2007) also confirmed that positive emotions lead to active and passive facilitation. In other words, people tend to act in benefit of others, either actively or passively, when they experience positive emotions toward them. In this vein, Sweetman, Spears, Livingstone, and Manstead (2013) experimentally showed the important role that positive emotions have in predicting intergroup helping, deference, and cultural learning behaviours toward immigrants.

All these results have been obtained through correlational studies in which the target groups were not immigrants (Cuddy et al., 2007, Study 1), and experimental studies where the target was a fictitious ethnic group expected to immigrate to the United States (Cuddy et al., 2007, Studies 2 and 3) or to the UK (Sweetman et al., 2013, Study 2) in the near future.

The Present Research

As we have showed, most of the studies reviewed have focused on the majority population’s evaluation of minority groups (i.e., host majority population members assessing immigrants), and have been carried out with adult populations. There are no studies with Moroccan immigrants evaluating the majority group on the three stereotypical dimensions. Actually, studies of the attitudes of ethnic minorities members towards members of the majority population are scarce (e.g., Conley, Rabinowitz, & Matsick, 2016; Johnson & Lecci, 2003). Similarly, the adolescent perspective has been understudied from the stereotype content approach.

In order to extend our understanding of how to improve relations between the Spanish majority population and the Moroccan immigrant minority, we carried out three separate studies aiming to cover some of the gaps in the literature, as well as to extend previous findings by focusing on the personal perspective of the perceiver (as opposed to the societal perspective considered in previous studies), and by considering sociability and morality as two differentiated dimensions of warmth.

In the first study (correlational), Spanish adolescents assessed members of the Moroccan immigrant minority. In the second study, also correlational, Moroccan immigrants evaluated members of the majority population (Spaniards) on the variables of interest. Finally, the relationships between the variables analysed were experimentally examined in a third study. The three stereotype dimensions were manipulated and their effect on positive emotions and facilitation behaviours were studied from the perspective of the majority population.

The more novel and important aim of our work is to gather evidence to confirm that the effect of morality on helping
behavioural tendencies is not independent of positive emotions. We posit that whereas other dimensions of stereotypes might have an independent effect on action tendencies, morality will influence behaviour only through its effect on emotions. A clear implication of this idea, as some authors have suggested (Esses & Dovidio, 2002; Smith & Mackie, 2016), is that emotion regulation approaches may be more effective for improving intergroup relations than interventions exclusively focused on stereotypes of morality, as morality would only affect action tendencies through emotions. Three hypotheses are derived from the literature review:

H1: Positive emotions will mediate the relation between the two components of warmth (morality and sociability) and active facilitation tendencies, whereas competence will be related to passive facilitation tendencies.

H2: The dimension of morality will have a clearer and more consistent effect on positive emotions.

H3: The effect of morality on facilitation action tendencies will never be independent of emotions.

We will also examine, in an exploratory fashion, the relations of morality and sociability with passive facilitation tendencies, as well as between competence and active facilitation tendencies.

Study 1
Adolescence is a developmental stage characterized by important psychological and social changes, such as a broader use of moral principles, a better understanding of group dynamics and intergroup relations, and a stronger orientation toward interpersonal relationships. Furthermore, throughout this stage, stereotypes, emotions, and behaviours toward outgroups consolidate before finally becoming entrenched in adulthood (Rutland & Killen, 2015).

This study focused on Spanish adolescents’ evaluations of Moroccan immigrants on the three stereotype dimensions of morality, sociability, and competence; on these adolescents’ positive emotions; and on their active and passive facilitation behavioural tendencies toward the minority group.

Our main aim was to investigate whether adolescents’ intergroup emotions would mediate the relationship between the stereotypes (especially morality) they hold about Moroccan immigrants and their helping tendencies toward them.

Method
Participants. Convenience samples were used to recruit participants in high schools. All of them resided in a city in southern Spain characterized by a high influx of immigrants and attended local public high schools. One hundred and fourteen Spanish-origin adolescents (63 girls; 55.3%) volunteered to participate in this study. Participants’ age ranged from 14 to 18 years (M = 15.37, SD = 1.08).

Instruments. Participants were asked to answer a questionnaire comprised of the following measures.

Stereotypes. Stereotypes were assessed with nine items adapted to the Spanish context by López-Rodríguez et al. (2013) from Leach et al. (2007). Participants were asked to answer to items such as, “Think about Moroccan immigrants and tell us to what extent you think these traits describe them” (likeable, friendly, and warm, for the sociability dimension; α = .81; honest, sincere, and trustworthy, for the morality dimension; α = .86; competent, intelligent, and skillful, for the competence dimension; α = .66).

Positive emotions. The eight positive emotions assessed were adapted to the Spanish context by Cuadrado, López-Rodríguez, and Navas (2016) from Fiske et al. (2002). Participants were asked to “Think of Moroccan immigrants and tell us the extent to which you feel or have felt the following emotions about them” (security, comfort, admiration, fondness, understanding, respect, pride, inspiration; α = .89).
Behavioural tendencies. To measure this variable, we adapted six items (three for active facilitation tendencies, \( \alpha = .79 \); and three for passive facilitation tendencies, \( \alpha = .79 \)) from the Interpersonal Behavioural Tendencies Scale developed by López-Rodríguez, Cuadrado, and Navas (2017) based on definitions by Cuddy et al. (2007, 2008). Participants were asked to report their willingness to behave in a certain way toward a Moroccan immigrant (active facilitation [AF]): “Help him/her in an emergency,” “Defend him/her if someone tries to take advantage of him/her”; passive facilitation [PF]: “Share a car to save money,” “Share living quarters with him/her to save money”; “Collaborate in a school project in order to improve your academic results”).

All items of the questionnaire were measured on a 5-point Likert scale (1 = not at all, 5 = very much).

Procedure. The previous measures were included in a more extensive questionnaire administered by the researchers. The school board and counselling team were informed about the study’s objectives and procedure for their approval, and the required consent was obtained before data collection. The questionnaire was administered in groups in classrooms during school hours and in the presence of a teacher. Participation was voluntary and anonymous. No economic compensation was offered. The study was approved by the University of Almería’s Ethics Committee.

Data analysis. First, descriptive statistics and correlations (Pearson’s \( r \)) were calculated for all the variables in the study. Second, mediation analyses were performed with the PROCESS macro for SPSS Version 3.0 (Hayes, 2017) to test the mediating role of positive emotions (M) between each stereotyped dimension (X) and behavioural tendencies (Y). Percentile bootstrap confidence intervals based on 5,000 samples were used to estimate significant effects.

Results

Descriptive analysis. Means, standard deviations, and correlations of all measured variables are displayed in Table 1. A one-way, three-level, within-participants ANOVA showed differences between the stereotyped dimensions attributed to Moroccans, \( F(2, 226) = 30.92, p < .001, \eta^2_p = .22 \). Pairwise comparisons with Bonferroni tests revealed that adolescents thought Moroccan immigrants were less moral than sociable \( (p < .001) \) and competent \( (p < .001) \), and less sociable than competent \( (p = .003) \). Moreover, their behaviour tended more toward active than passive facilitation, \( \tau(113) = 10.62, p < .001 \), Cohen’s \( d = 0.99 \). They also felt weak positive emotions toward Moroccan immigrants (the mean score was significantly lower than the theoretical mean on the response scale \([3]) \), \( \tau(113) = -4.68, p < .001 \), Cohen’s \( d = -0.44 \). The pattern of correlations showed that the different stereotype dimensions, positive emotions, and facilitation behavioural tendencies were significantly and positively related.¹

Emotions mediating between stereotypes and behavioural tendencies. We carried out several simple mediation analyses using OLS (ordinary least squares) path analysis, which showed the following results.²

Perceived morality was positively related to positive emotions, \( B = 0.69, SE = 0.09, \tau(12) = 8.00, p < .001 \), and positive emotions were positively related to both AF, \( B = 0.38, SE = 0.10, \tau(111) = 3.97, p < .001 \), and PF, \( B = 0.85, SE = 0.13, \tau(111) = 6.64, p < .001 \). A percentile bootstrap confidence interval for the indirect effect of perceived morality on AF, \( B = 0.33, SE = 0.09 \), based on 5,000 bootstraps was entirely above zero, 95% CI \([0.17, 0.51]) \); the same effect was found on PF, \( B = 0.54, SE = 0.09, 95\% CI \([0.37, 0.71]) \), confirming the mediating role of positive emotions in this process. There was no evidence that perceived morality was related to facilitation behavioural tendencies, regardless of its effect on positive emotions, as the direct effect was not significant for either AF, \( B = 0.16, SE = 0.10, \tau(112) = 1.30, p = .20, 95\% CI \([-0.07, 0.32]) \), or PF, \( B = -0.01, SE = 0.13, \tau(112) = -0.10, p = .92, 95\% CI \([-0.27, 0.25]) \). The alternative models (with emotions as predictor and morality as mediator) were not significant for either AF, \( B = 0.11, SE = 0.08, 95\% CI \([-0.06, 0.27]) \), or PF, \( B = -0.01,
SE = 0.08, 95% CI [−0.16, 0.15]. Even if no causal assumption can be made with a correlational design, we can discard both alternative sequences.

Perceived sociability was positively related to positive emotions, B = 0.71, SE = 0.07, t(112) = 10.09, p < .001, and positive emotions were positively related to both AF, B = 0.24, SE = 0.11, t(111) = 2.19, p = .03, and PF, B = 0.77, SE = 0.15, t(111) = 5.05, p < .001. Sociability indirectly predicted both AF, B = 0.21, SE = 0.09, 95% CI [0.03, 0.40], and PF, B = 0.50, SE = 0.10, 95% CI [0.34, 0.68], through positive emotions. The direct effect of competence on PF was not significant, B = 0.02, SE = 0.13, t(112) = 0.15, p = .883, 95% CI [−0.25, 0.29]. On the other hand, the direct effect was significant on AF, B = 0.26, SE = 0.10, t(112) = 2.15, p = .034, 95% CI [0.02, 0.40]. The alternative model (with emotions as predictor and competence as mediator) was not supported for PF, B = 0.01, SE = 0.06, 95% CI [−0.10, 0.13]. Therefore, we can discard this alternative sequence. Furthermore, this alternative model was significant for AF, B = 0.12, SE = 0.06, 95% CI [0.02, 0.25]. Thus, the data are inconclusive about the specific sequence for competence on active facilitation.

**Discussion**

This study aimed to analyse the mediating role of adolescents’ intergroup positive emotions in the relation between their stereotypes and their behavioural tendencies toward Moroccans, in order to test the different role of each stereotype dimension in this process.

The results showed that the content of adolescents’ stereotypes about Moroccan immigrants includes competence first, followed by sociability, with morality as the dimension least attributed to them. These youngsters also stated that they did not feel strong positive emotions toward Moroccans (in keeping with contemporary models of prejudice, such as subtle prejudice; Pettigrew & Meertens, 1995), and showed
more active facilitation tendencies toward them than passive. These findings roughly replicate those found when the participant sample consisted of members of the adult majority population (López-Rodríguez et al., 2013, 2016).

The mediating role of emotions (Mackie et al., 2000; Mackie et al., 2008) in the relation between stereotypes and behaviour was confirmed with adolescents for the dimension of morality in the case of active facilitation, and for competence in the case of passive facilitation (similar to what Cuddy et al. [2007] found for the dimensions of warmth and competence). These findings support H1.

Although the indirect effect sizes for morality and sociability on active facilitation were both low, the effect of morality (0.33) was slightly higher than the effect of sociability (0.21), and there was also a direct effect of sociability on active facilitation regardless of emotions. Moreover, the mediation of emotions for sociability was not clear since both sequences (stereotypes–emotions–tendencies and emotions–stereotypes–tendencies) were supported. Therefore, H1 was not confirmed for sociability.

Altogether, these results show the differential role of morality and sociability in predicting adolescents’ active helping tendencies toward Moroccan immigrants. Morality, unlike sociability, seems to require emotions as catalysts to generate positive active behaviours toward members of this ethnic minority. Furthermore, the role of morality in the process studied, unlike the role of sociability, is in line with the postulates of important psychosocial theories (Cuddy et al., 2007, 2008; Mackie et al., 2000; Mackie et al., 2008) and with our predictions (H2 and H3).

Moreover, we found that both morality and sociability predict passive facilitation tendencies through positive emotions. The model according to which competence predicts active facilitation through positive emotions is not supported, since both direct effect and alternative model were confirmed.

In summary, we found support for the mediation role of positive emotions in the relation between morality and both active and passive facilitation tendencies. Likewise, positive emotions mediate between competence (and sociability) and passive facilitation tendencies. These results will be addressed along with those of the other studies in the General Discussion section.

The variables analysed as well as their specific relationships have been understudied from the minority perspective. We, therefore, replicated this study with Moroccan immigrants in Spain targeting the majority group (Spaniards).

Study 2

This study analysed the differences in stereotype dimensions as predictors of facilitation behavioural tendencies and the role of positive emotions as mediators in this process with a sample of Moroccan immigrants assessing Spaniards.

Method

Participants. One hundred and three Moroccans (69.6% male) volunteered to participate in this study. Participants’ age ranged from 18 to 65 years ($M = 31.19, SD = 11.69$). All of them had been living in Spain for over 10 years ($M = 11.41, SD = 6.78$) and arrived when they were about 20 years old ($M = 19.80, SD = 12.21$).

Instruments. Moroccans were asked to answer a questionnaire comprised of the following measures.

Stereotypes. This variable was assessed with 18 items adapted to the Spanish context by Cuadrado et al. (2016) from Brambilla et al. (2011) and Fiske et al. (2002). Participants were asked to answer to items such as, “Think about Spaniards and tell us to what extent do you think these traits describe them” (likeable, friendly, warm, kind, helpful, and good-tempered, for the sociability dimension; $\alpha = .85$; honest, sincere, trustworthy, respectful, well-intentioned, and righteous, for the morality dimension; $\alpha = .80$; competent, intelligent, skilful, capable, self-confident, and efficient, for the competence dimension; $\alpha = .83$).
Cuadrado et al.

Positive emotions. We used eight positive emotions adapted to the Spanish context by Cuadrado et al. (2016) from Fiske et al. (2002). Participants were asked to “Think of Spaniards and tell us the extent to which you feel or have felt the following emotions about them” (security, comfort, admiration, fondness, understanding, respect, pride, and inspiration; $\alpha = .81$).

Behavioural tendencies. To measure behavioural tendencies, we adapted six items (three for active facilitation tendencies, $\alpha = .79$, and three for passive facilitation tendencies, $\alpha = .75$) from the Interpersonal Behavioural Tendencies Scale developed by López-Rodríguez et al. (2017). The items were comparable to those used in Study 1. Participants were asked to indicate their willingness to behave in a certain way toward a Spaniard.

All items were measured using a Likert scale ranging from 1 (not at all) to 5 (very much).

Procedure. We contacted various NGOs (nongovernmental organizations) for access to immigrants, who voluntarily participated in the study. The aforementioned scales were included in a more extensive questionnaire that was administered by the researchers and their trained assistants. No economic compensation was offered to the participants. The University of Almería’s Ethics Committee approved the study.

Data analysis. The data was analysed following the same statistical processing as in Study 1.

Results

Descriptive analysis. Means, standard deviations, and correlations of all measured variables are displayed in Table 2. The within-participants ANOVA did not show differences between the stereotype dimensions attributed to Spaniards by Moroccans, $F(2, 204) = 1.50, p = .225, \eta^2_p = .02$. Thus, the Moroccan immigrants’ evaluation of Spaniards was similar in terms of competence, sociability, and morality, according to pairwise comparisons (all $ps > .05$). The scores were significantly above the mean (3; $p < .001$ in all cases) on the response scale in the three stereotype dimensions, in positive emotions, and in both types of behavioural tendencies. Moroccan active facilitation behavioural tendencies toward Spaniards were higher than passive facilitation tendencies, $t(103) = 5.24, p < .001$, Cohen’s $d = 0.52$. The correlations repeated the pattern found with the adolescent sample. That is, all the variables analysed were significantly and positively related.

Emotions mediating between stereotypes and behavioural tendencies. Simple mediation analyses showed the following results. Perceived morality was positively related to positive emotions, $B = 0.55, SE = 0.09, t(98) = 6.39, p < .001$, and positive emotions were positively related to both AF, $B = 0.61, SE = 0.12, t(97) = 5.28, p < .001$, and PF, $B = 0.66, SE = 0.14, t(97) = 4.88, p < .001$. Morality indirectly predicted both AF, $B = 0.41, SE = 0.09, 95\% CI [0.25, 0.61]$, and PF, $B = 0.39, SE = 0.09, 95\% CI [0.22, 0.59]$, confirming the mediation role of positive emotions in this

Table 2. Descriptive statistics and correlations between variables in Study 2.

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<tbody>
<tr>
<td>1. Morality</td>
<td>3.41</td>
<td>0.75</td>
<td>-</td>
<td>.75**</td>
<td>.74**</td>
<td>.59**</td>
<td>.42**</td>
<td>.45**</td>
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<tr>
<td>2. Sociability</td>
<td>3.51</td>
<td>0.71</td>
<td>-</td>
<td>-</td>
<td>.66**</td>
<td>.62**</td>
<td>.50**</td>
<td>.54**</td>
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<td>3. Competence</td>
<td>3.45</td>
<td>0.73</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>.56**</td>
<td>.42**</td>
<td>.36**</td>
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<tr>
<td>4. Positive emotions</td>
<td>3.39</td>
<td>0.71</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>.59**</td>
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<tr>
<td>5. Active facilitation</td>
<td>4.24</td>
<td>0.80</td>
<td>-</td>
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<td>6. Passive facilitation</td>
<td>3.88</td>
<td>0.93</td>
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Note. Scores range from 1 (not at all) to 5 (very much). **$p < .01$. 

Emotions mediating between stereotypes and behavioural tendencies. Simple mediation analyses showed the following results. Perceived morality was positively related to positive emotions, $B = 0.55, SE = 0.09, t(98) = 6.39, p < .001$, and positive emotions were positively related to both AF, $B = 0.61, SE = 0.12, t(97) = 5.28, p < .001$, and PF, $B = 0.66, SE = 0.14, t(97) = 4.88, p < .001$. Morality indirectly predicted both AF, $B = 0.41, SE = 0.09, 95\% CI [0.25, 0.61]$, and PF, $B = 0.39, SE = 0.09, 95\% CI [0.22, 0.59]$, confirming the mediation role of positive emotions in this
process. There was no evidence that perceived morality was related to facilitation behavioural tendencies, regardless of its effect on positive emotions, as the direct effect was not significant for either AF, $B = 0.15, SE = 0.11, t(98) = 1.08, p = .283, 95\% \text{ CI} [-0.10, 0.34]$, or PF, $B = 0.24, SE = 0.13, t(98) = 1.76, p = .08, 95\% \text{ CI} [-0.03, 0.47]$. The alternative models (with emotions as predictor and morality as mediator) were not supported for either AF, $B = 0.09, SE = 0.09, 95\% \text{ CI} [-0.07, 0.26]$, or PF, $B = 0.15, SE = 0.08, 95\% \text{ CI} [-0.01, 0.30]$.

Perceived sociability was positively related to positive emotions, $B = 0.62, SE = 0.08, t(98) = 7.31, p < .001$, and positive emotions were positively related to both AF, $B = 0.53, SE = 0.13, t(97) = 3.99, p = .001$, and PF, $B = 0.55, SE = 0.14, t(97) = 3.87, p < .001$. Sociability indirectly predicted both AF, $B = 0.41, SE = 0.10, 95\% \text{ CI} [0.22, 0.60]$, and PF, $B = 0.36, SE = 0.09, 95\% \text{ CI} [0.18, 0.54]$, through positive emotions. The direct effect was not significant for AF, $B = 0.31, SE = 0.14, t(98) = 1.81, p = .07, 95\% \text{ CI} [-0.02, 0.52]$. However, the direct effect was significant for PF, $B = 0.45, SE = 0.14, t(98) = 3.10, p = .003, 95\% \text{ CI} [0.15, 0.69]$. In addition, the alternative models (with emotions as predictor and sociability as mediator) were significant for both AF, $B = 0.19, SE = 0.10, 95\% \text{ CI} [0.01, 0.41]$, and PF, $B = 0.27, SE = 0.09, 95\% \text{ CI} [0.13, 0.47]$.

As in Study 1 regarding active facilitation, the predicted model cannot be confirmed for sociability either for active or for passive facilitation, since both sequences (predicted and alternative) were supported.

Finally, perceived competence was positively related to positive emotions, $B = 0.53, SE = 0.09, t(98) = 6.00, p < .001$, and positive emotions were positively related to both PF, $B = 0.75, SE = 0.14, t(97) = 5.51, p < .001$, and AF, $B = 0.60, SE = 0.11, t(97) = 5.31, p < .001$. Competence indirectly predicted both PF, $B = 0.43, SE = 0.09, 95\% \text{ CI} [0.27, 0.61]$, and AF, $B = 0.39, SE = 0.08, 95\% \text{ CI} [0.24, 0.55]$, through positive emotions. The direct effect was not significant for either PF, $B = 0.08, SE = 0.13, t(98) = 0.61, p = .545, 95\% \text{ CI} [-0.18, 0.34]$, or AF, $B = 0.18, SE = 0.11, t(98) = 1.36, p = .177, 95\% \text{ CI} [-0.07, 0.36]$. The alternative models (with emotions as predictor and competence as mediator) were not supported for either PF, $B = 0.05, SE = 0.08, 95\% \text{ CI} [-0.09, 0.22]$, or AF, $B = 0.10, SE = 0.08, 95\% \text{ CI} [-0.03, 0.29]$. Therefore, we can discard the alternative sequences.

**Discussion**

This study aimed to confirm whether the mediating role of intergroup positive emotions in the relation between stereotypes about outgroups and the behavioural tendencies toward their members would be replicated in a minority sample, with a focus on the distinctive role of morality.

First, the results showed that when Moroccan immigrants evaluated Spaniards, they did not make distinctions between stereotype dimensions. These results contradict those found in numerous studies conducted in various countries (including Spain) from the majority perspective (e.g., Cuddy et al., 2009; Fiske et al., 2002; López-Rodríguez et al., 2013). Therefore, future studies with other minority groups should confirm whether this absence of variability in the content of stereotypes is characteristic of minority groups’ evaluations of majority groups. Furthermore, evaluation was rather positive on all the variables measured and, in line with the findings of Study 1 and previous studies conducted with majority populations (e.g., López-Rodríguez et al., 2016, Study 1), the intention of performing active facilitation behaviours toward the outgroup was stronger than that related to passive facilitation behaviours. These positive results may be due to the fact that we exclusively used explicit measures administered by majority group members. Therefore, future studies carried out with implicit measures administered by minority group members must confirm current findings.

Again, the mediating role of emotions in the relation between the morality and competence stereotypes and facilitation behaviours was confirmed (Cuddy et al., 2007, 2008; Mackie et al., 2000; Mackie et al., 2008). Specifically, the effects
of morality and competence on active and passive facilitation behaviours are indirect through positive emotions. These findings support H1. Moreover, effects of morality on passive behaviour (as in Study 1) and of competence on active behaviour (unlike Study 1) were also found.

Although the indirect effect sizes of all the stereotype dimensions on facilitation tendencies (active and passive) through positive emotions were very similar (around 0.40), the alternative models with sociability mediating the relation between emotions and behaviours (emotions–stereotypes–tendencies) were also supported. Therefore, the data are inconclusive about the directionality of this process; thus H1 is not supported for sociability. This aspect is further addressed considering all the studies in the General Discussion section.

As in the previous study, these results show the differential role of morality and sociability traits. That is, according to these findings, when Moroccan immigrants perceive Spanish people as moral, this motivates willingness to help them due to the positive emotions inspired by perceived morality. This is not the case with sociability, which is not in line with the postulates of important psychosocial theories such as intergroup emotions theory (Mackie et al., 2002; Mackie et al., 2008) or the bias map (Cuddy et al., 2007, 2008).

In summary, we only replicated Study 1’s findings about the mediating role of positive emotions in the relation between morality and both active and passive facilitation tendencies.

After exploring the pattern of results on the stereotype–emotion–behaviour link from perspectives understudied in the literature, we conducted the last study examining this relationship experimentally.

**Study 3**

Although the findings of the two first studies show a consistent pattern regarding morality, clear causal assumptions cannot be made because they were correlational studies. Thus, to confirm the causal relationships of the process analysed, we performed an experimental study in which we manipulated morality, sociability, and competence of Moroccan immigrants to examine their effect on positive emotions and on active and passive facilitation behavioural tendencies in a sample of adult native Spaniards. As far as we know, no studies have analysed this relationship experimentally, distinguishing between morality and sociability in the evaluation of a specific minority outgroup. This again allows us to explore the differential role of stereotype dimensions as predictors of helping tendencies through positive emotions.

**Method**

**Participants.** Two hundred and forty-eight Spanish students (183 female) with a mean age of 23.56 (SD = 6.54) volunteered to participate in this study.

**Materials and procedure.** We designed a 2 (sociability: high vs. low) × 2 (morality: high vs. low) × 2 (competence: high vs. low) between-participants experiment. Participants were randomly assigned to one of the eight conditions. To manipulate morality, sociability, and competence, we used nine traits (honest, sincere, trustworthy, warm, friendly, kind, intelligent, competent, and skilful) that have been used in prior research (Brambilla et al., 2012; Leach et al., 2007) and proven to be balanced in terms of favourability.

First, participants read the results of a fictitious study in which, depending on the experimental condition, Moroccan and Ecuadorian immigrants were described as high (vs. low) in sociability, high (vs. low) in morality, and high (vs. low) in competence. Participants read the following text:

More and more immigrants are crossing Spanish borders in search of a better future. The origins of these people are very diverse, but the two most numerous groups in our country are Moroccans and Ecuadorians. Therefore, several studies have been conducted in Spanish universities to investigate how these groups are assessed by Spaniards.
In general, studies’ results reveal that they are considered kind, friendly, and warm to others/unkind, unfriendly, and cold to others. Those interviewed also emphasized that Moroccan and Ecuadorian immigrants are sincere, honest, and can be trusted/false, dishonest, and cannot be trusted.

Finally, Spaniards think that Ecuadorians and Moroccans are intelligent as well as competent and skilful in the jobs they perform/ignorant, incompetent, and unskilful.

Next, as an attention check, participants were asked to write three words related to the text they had just read. Later, participants were asked to fill out questionnaires with the following measures.

Positive emotions. We used eight positive emotions items adapted to the Spanish context by Cuadrado et al. (2016) from Fiske et al. (2002). Participants were asked to “Remember the text you just read (in which Moroccan and Ecuadorian immigrants were described as friendly, warm, sincere, honest, intelligent, and competent/unfriendly, cold, false, dishonest, ignorant, and incompetent). Think about these people and tell us the extent to which you feel the following emotions about them” (security, comfort, admiration, fondness, understanding, respect, pride, and inspiration; $\alpha = .88$). Participants responded on a 5-point Likert-type scale ($1 = \text{not at all}$, $5 = \text{very much}$).

Behavioural tendencies. To measure behavioural tendencies, we selected six items (three for active facilitation tendencies, $\alpha = .76$, and three for passive facilitation tendencies, $\alpha = .90$) from the Interpersonal Behavioural Tendencies Scale developed by López-Rodríguez et al. (2017). The items were comparable to those used in Studies 1 and 2. Participants were asked to “Remember the text you just read (in which Moroccan and Ecuadorian immigrants were described as friendly, warm, sincere, honest, intelligent, and competent/unfriendly, cold, false, dishonest, ignorant, and incompetent). Think about these people and tell us the extent to which you would be willing to do the following actions” (actions were the same as those listed in Study 1 except for the last one, which in this case was “Start a business with him/her”). The response scale ranged between $1$ (not at all) and $5$ (very much).

Finally, we included three items to check the effectiveness of our experimental manipulation. Participants rated the extent to which Moroccan immigrants were, according to the text they read, moral, sociable, and competent on a 5-point scale ($1 = \text{not at all}$, $5 = \text{very much}$).

Data collection was carried out using the online Qualtrics Survey Panel Services. The study was approved by the University of Almería’s Ethics Committee.

Data analysis. In order to evaluate the effect of the manipulated stereotype dimensions (morality, sociability, and competence) on emotions and behaviours, several three-way ANOVAs were performed with the stereotype dimensions as independent variables, and positive emotions, active facilitation, and passive facilitation as dependent variables. Then, mediation analyses were performed with the PROCESS macro for SPSS Version 3.0 (Hayes, 2017) to analyse the mediating role of emotions in the relation between stereotype dimensions and behavioural tendencies.

Results

Manipulation check. Participants rated Moroccan immigrants as more sociable in the high-sociability condition ($M = 3.80$, $SD = 0.89$) than in the low-sociability condition ($M = 1.88$, $SD = 0.72$), $F(1, 247) = 342.15, p < .001, \eta^2_p = .58$; more moral in the high-morality condition ($M = 3.42$, $SD = 0.91$) than in the low-morality condition ($M = 2.18$, $SD = 1.01$), $F(1, 247) = 103.91, p < .001, \eta^2_p = .30$; and more competent in the condition of high competence ($M = 4.10$, $SD = 0.86$) than in the low-competence condition ($M = 2.03$, $SD = 1.06$), $F(1, 247) = 286.84, p < .001, \eta^2_p = .54$.

Effect of stereotypes on emotions and behavioural tendencies. Descriptive statistics of the variables analysed based on manipulation of the three stereotype dimensions are displayed in Table 3.
Only the manipulation of the morality stereotype dimension had a main effect on positive emotions toward Moroccan immigrants, \( F(1, 240) = 5.56, p = .019, \eta^2_p = .02 \). Participants felt more positive emotions toward Moroccan immigrants when they were described as moral (\( M = 2.72, SD = 0.79 \)) than when they were described as immoral (\( M = 2.50, SD = 0.73 \)), regardless of the other two dimensions (two-way and three-way interactions were not significant). Manipulation of morality did not directly affect AF, \( F(1, 240) = 1.97, p = .16, \eta^2_p = .01 \), or PF toward Moroccan immigrants, \( F(1, 240) = 2.88, p = .091, \eta^2_p = .01 \).

The manipulation of sociability had only a main effect on AF toward Moroccans, \( F(1, 240) = 4.48, p = .035, \eta^2_p = .02 \). Participants tended to report more active facilitation tendencies when Moroccan immigrants were presented as sociable (\( M = 4.29, SD = 0.66 \)) than as unsociable (\( M = 4.10, SD = 0.75 \)).

The manipulation of the competence stereotype dimension had no effect on positive emotions or helping behavioural tendencies toward Moroccan immigrants. Neither were there any interaction effects of the stereotype dimensions on any of the dependent variables (all \( ps > .05 \)).

**Emotions mediating between morality and behavioural tendencies.** As mediation does not require “evidence of simple association between X and Y as a precondition” (see Hayes, 2013, p. 88), a specific simple mediation model (5,000 bootstraps) was calculated with manipulation of morality (the only stereotype dimension that had effect on emotions) as the predictor variable (X; coded 0 = low, 1 = high), the other two stereotype dimensions as covariates (control variables), positive emotions as a mediator (M), and active facilitation behavioural tendencies as the criterion variable (Y).

A simple mediation analysis conducted using OLS path analysis showed that the manipulation of morality indirectly influenced AF through its effect on positive emotions. As shown in Figure 1, when Moroccans were presented as moral, participants reported more positive emotions toward them than when Moroccans were presented as immoral, and more positive emotions were related to stronger tendencies to AF toward Moroccan immigrants. A percentile bootstrap confidence interval for the indirect effect based on 5,000 bootstrap samples was entirely above zero, confirming the mediating role of positive emotions in this process. Similar findings were obtained regarding passive facilitation tendencies (see Figure 2). Once again, there was no evidence that manipulation of morality influenced facilitation behaviour regardless of its effect on positive emotions, as the direct effect was not significant for either AF, \( B = 0.03, SE = 0.08, t(244) = 0.22, p = .823, 95\% CI [−0.14, 0.18] \), or PF, \( B = 0.003, SE = 0.11, t(244) = 0.03, p = .973, 95\% CI [−0.22, 0.23] \).

**Discussion**

This study aimed at analysing the effect of the manipulation of stereotype dimensions about
Moroccans on adult Spaniards’ positive emotions and helping behavioural tendencies toward them.

The results showed that the manipulation of morality was the only dimension that indirectly affected facilitation tendencies toward Moroccans through positive emotions. When Moroccan immigrants were described as moral (vs. immoral), participants’ active and passive facilitation tendencies toward this group increased through an increase in their positive emotions toward them. The absence of any direct effect shows that there is no evidence that morality increases facilitation tendencies regardless of its effect on positive emotions.

This contrasts with the effect of sociability, which increased active facilitation behaviours directly, but had no effect on positive emotions. Again, these results confirm that these two dimensions must be approached separately, as recommended by many other authors (e.g., Brambilla & Leach, 2014). The competence dimension had no effect on emotions or on helping Moroccan immigrants.

These results show the primary role of morality and sociability traits over competence. The heavier weight of judgments of warmth over those of competence on affective and behavioural responses demonstrated in numerous other studies (e.g., Cuddy et al., 2008) is therefore confirmed.

Furthermore, the results once more reveal the differential performance of morality and sociability traits. Only in the first case it was experimentally confirmed that the effect on helping tendencies toward Moroccan immigrants was through the increase in positive emotions toward this minority group. Therefore, only the results related to the morality stereotype dimension confirm the role of emotions as mediators between stereotypes and behavioural tendencies (Cuddy et al., 2007, 2008; Mackie et al., 2000; Mackie et al., 2008), as well as H1, H2, and H3.

As a possible limitation of this study it should be noted that participants evaluated Ecuadorian and Moroccan immigrants (valued vs. devalued group) at the same time. Nevertheless, as we have indicated, manipulating stereotype dimensions did not cause any effect on positive emotions or behavioural tendencies toward Ecuadorians. Therefore, future studies should replicate our results manipulating only stereotype dimensions about Moroccans. Moreover, further studies could also analyse whether valued groups are not affected by this experimental manipulation.

**General Discussion**

This research aimed to provide more in-depth information on the process by which helping behavioural tendencies between members of majority (Spaniards) and minority (Moroccan immigrants) groups originate, considering the role of stereotypes and emotions. Three studies were
conducted attempting to cover some gaps in the literature. The stereotype–emotion–behaviour link in interethnic relations has not been specifically tested in adolescents (Study 1) or from the minority perspective (Study 2), neither has it been approached analysing the differential role of sociability and morality. Neither has this link been experimentally tested distinguishing between these two stereotype dimensions or using Moroccan immigrants as the target group (Study 3).

The results consistently show that perceived outgroup morality indirectly increases facilitation behavioural tendencies through positive emotions felt toward outgroup members. This pattern is replicated in all three studies, regardless of the perspective analysed (majority vs. minority), participants’ age (adult vs. adolescents), or study design (correlational vs. experimental), confirming, in general, our predictions (H1, H2, H3). In the correlational studies, the alternative sequence (emotions–stereotypes–tendencies) was not supported, and the process was replicated in the experimental study only with moral traits.

The role of the other two stereotype dimensions was more inconsistent throughout the three studies. In the case of sociability, the analyses of the mediating role of emotions in the relation between stereotypes and behaviours on active facilitation in Study 1, and on active and passive facilitation in Study 2 were inconclusive because the alternative models (with stereotypes mediating between emotions and behavioural tendencies) were also confirmed (see Hayes, 2017). That is, for this dimension, a controversial bidirectional relation with emotions was found in three of the four mediations of the correlational studies. Accordingly, the possibility of reciprocal causation might be discussed, as the multidirectionality of these processes has been defended by appraisal theories of emotions (Mackie & Smith, 2018; Smith & Mackie, 2016). However, we found (Study 3) that the manipulation of sociability had no effect on positive emotions, but had a direct effect on active facilitation without the necessity of emotions. This different pattern for morality and sociability, with morality having an evident dependence on emotions and sociability having a direct effect on active facilitation, reinforces the idea that they are two distinct dimensions that have different outcomes for intergroup relations.

The different findings, especially those from the experimental study, suggest that perceived morality can translate into a powerful and very informative appraisal of others (i.e., whether we can trust or not), whereas sociability might be more directly related to approaching and interacting with others. Previous studies (Brambilla et al., 2012) have shown that perceived threat was only affected by the manipulation of morality, but not by sociability, and that the effect of moral traits on group evaluations was mediated by the perception of threat. Thus, there is theoretical support for the claim that perceived morality is related to emotions, and that moral traits are deeply related to perceived threat. Sociability, on the other hand, is a dimension highly connected with relatedness, helping, and spending time with others. Future studies should analyse the reasons why morality seems more dependent on emotions than sociability.

Regarding competence, although in the correlational studies this dimension showed its indirect influence on passive facilitation behaviour (Study 1) and on active and passive facilitation behaviour (Study 2), its effect disappeared when the relationship was analysed experimentally.

These results, therefore, demonstrate once more the distinctive role of the morality dimension compared to sociability and competence in social judgments (e.g., Brambilla & Leach, 2014). When Spaniards perceive Moroccan immigrants as moral people, they tend to help them as a result of the positive emotions raised by the perception of moral traits. Accordingly, mass media, schools, and socializing agents in general must pay attention to the moral traits and values they ascribe to Moroccan immigrants and then conveyed to society. The same happens (and must be considered) when the perspective is reversed—when Moroccan immigrants assess Spaniards.

Another interesting aspect of the studies presented here is the similarity in the findings whether the evaluators were adolescents or members of the minority groups. This warrants more
research on the issues analysed to be conducted from these perspectives, even more so considering the clear gaps identified in the literature. Stangor (2016), commenting on social psychology findings on stereotyping, prejudice, and discrimination, emphasizes the need for complementing lab studies (with university student samples) with studies in natural settings, studying samples in their everyday life contexts, especially in schools. Studies 1 and 2 of the present research fulfill this requirement.

Although, as mentioned, our focus was on the “positive side” of intergroup relations, future research should look into whether the role of morality is replicated when the “negative side” of these relations is considered (e.g., negative behaviours and emotions, beyond perceived threat). Moreover, the emphasis in this research is in line with current perspectives. Recent studies have shown that “eliciting positive emotions toward out-groups is more effective than reducing negative emotions” (López-Rodríguez et al., 2016, p. 415), and that behaviours triggered by positive emotions have long-term beneficial effects, unlike behaviours in response to negative emotions, which are immediate (see Fredrickson, 2013, for a review).

The discussion can also be extended to other specific dimensions of emotions. In our studies, we used an index composed of several positive emotions, following the SCM (Fiske et al., 2002) and the bias map (Cuddy et al., 2007). Future research should distinguish and analyse the role of different emotional dimensions (e.g., security vs. admiration) in the stereotype–emotion–behaviour link to examine possible differences between morality, sociability, and competence. Accordingly, new measures of emotions that could capture different dimensions of both positive and negative emotions could be developed and used in order to better understand distinct patterns of relationships for different stereotype dimensions.

**Conclusions**

It is essential to know what leads members of some groups to help members of other groups. In this respect, our work has shown the consistent role of morality over and above the rest of the stereotype dimensions in predicting helping tendencies through positive emotions. Since emotion regulation is more effective for improving intergroup relations than interventions exclusively focused on stereotypes (Esses & Dovidio, 2002; Smith & Mackie, 2016), our contribution suggests interesting avenues for future interventions.

Our findings not only confirm but also extend previous studies, and reveal that perceiving others as honest, sincere, and trustworthy is fundamental for improving intergroup relations, as this leads to helping outgroup members through positive emotions toward them.

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**Notes**

1. Although morality and sociability were highly correlated, the three-factor structure has been supported in previous research (Brambilla et al., 2012; Leach et al., 2007; López-Rodríguez et al., 2013). A confirmatory factor analysis (CFA) performed with EQS 6.2 software (Bentler, 2000–2008) confirmed that the three-factor model yielded a good fit to the data, S–Bχ²(24, 114) = 22.60, p = .002; SRMR = .05; CFI = 1.00; RMSEA < .001.

2. Partially standardized coefficients are used to report direct and indirect effects in the three studies.

3. Once again, the CFA analysis proved that the three-factor model yielded an acceptable fit to the data, S–Bχ²(132, 83) = 172.28, p = .01; SRMR = .08; CFI = .93; RMSEA = .06.

4. As studies have consistently demonstrated that Moroccans are perceived negatively by Spanish adults, while Ecuadorians are perceived positively
(López-Rodríguez et al., 2013, 2016, 2017; Navas et al., 2012), we wanted to investigate whether emotions and positive behavioural tendencies toward these two groups would be affected differently depending on the manipulation of stereotype dimensions. The order in which the stereotype dimensions were presented and the group evaluated was counterbalanced; analyses showed that the order had no effect on the outcome. Manipulation of the stereotype dimensions did not cause any main or interaction effects on positive emotions or behavioural tendencies toward Ecuadorian immigrants. The different pattern of results found in relation to Moroccans could be explained by the positive perceptions that Spaniards have of Ecuadorians. It is also possible that the notably higher presence of Moroccans than Ecuadorians in the study area could have generated a more homogeneous image of Ecuadorians in Spaniards and diminished the credibility of the experimental manipulation with this group. The lack of impact of the manipulation could also be due to self-presentation biases that would have made it easier for participants to improve a negative stereotype than to undermine a positive one. An interesting avenue to explore in further studies would be to analyse if stereotypes about valued groups are less sensitive to experimental manipulation. Explaining these findings is outside the scope of our study. Therefore, the results presented in what follows refer to Moroccans.

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