



Perspective-taking to reduce prejudice: A Colombian field study

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PERSPECTIVE-TAKING TO REDUCE PREJUDICE

Abstract

The present study investigated whether perspective taking could positively affect Colombians' evaluations of and behavioral intentions towards Venezuelan refugees. Another aim of this project was to explore mediators of perspective-taking, namely increased empathy and trust as well as reduced anxiety (Aberson & Haag, 2007; Tam et al., 2009). The results show that our intervention was not significant but higher self-reported levels in perspective-taking lead to more positive explicit evaluations and marginally more positive behavioral intentions. This effect was mediated by empathy but the link to explicit evaluations was mediated by trust and anxiety as well. Still, besides empathy, no mediators are well established in the scientific literature. Future studies should try to replicate the discovered role of trust and anxiety in perspective-taking as well as find other mediators that clarify how perspective-taking works. Knowledge on the mechanism should help to improve perspective-taking interventions in future studies. Our study shows that individual differences in perspective-taking play a significant role in reducing prejudice towards out-group members so inducing higher levels of perspective-taking might help in spreading more positive views on immigrants, refugees, and foreigners.

Keywords: prejudice, perspective-taking, intergroup conflict, Colombian, Venezuelan

PERSPECTIVE-TAKING TO REDUCE PREJUDICE

Perspective-taking to reduce prejudice: A Colombian field study

Colombia and Venezuela have a close relationship as they even used to be one country (until 1830) but their area saw a lot of conflict as different parties fought for power. Currently, the Venezuelan mass migration into Colombia is posing a multitude of perceived potential threats to locals, especially the working class, as Venezuelans are willing to work for far lower wages (Boothroyd-Rojas, 2017). This incident is likely to worsen their relationship, perhaps especially because Colombians already had more negative stereotypes about Venezuelans than about other neighboring countries (e.g. Ecuadorians; Salazar & Marin, 1977). Recently, Jozef Merkx, the Representative to Colombia, United Nations High Commissioner on Refugees, reported on the Colombians' current opinion about Venezuelans that "[t]here is quite a bit of solidarity, however there are also a lot of worries," as "[t]here are expressions of xenophobia, discrimination, and prejudice" (Boothroyd-Rojas, 2017).

To combat discrimination, the government has launched campaigns such as "Somos Panas Colombia," roughly translated "We are friends, Colombia," which seeks to inspire compassion in Colombians by sharing the personal stories of refugees. Such a campaign is thought to lead to a more positive view of the Venezuelan refugees and is inspired by a technique with a growing scientific foundation, namely perspective-taking (e.g. Dovidio et al., 2004; Galinsky & Moskowitz, 2000; Todd & Galinsky, 2014; Vescio, Sechrist, & Paolucci, 2003).

Perspective-taking, which is the idea to actively consider an out-group member's mental states (Todd & Galinsky, 2014), is based on research explaining the strain that a threat, like the Venezuelan migrant crisis, is putting on the relationship between two groups (e.g. Colombians and Venezuelans). According to Self-categorization theory, it is inevitable for humans to classify

PERSPECTIVE-TAKING TO REDUCE PREJUDICE

some people as one's in-group and others as one's outgroup (Haslam, 1997). This natural distinction already tends to lead to differential treatment of out-group members due to relative deprivation (i.e. resources being limited) and social advantages gained by being a member of a more highly regarded group. Additionally, based on intergroup threat theory (Stephan & Stephan, 2017), prevalent xenophobia is to be predicted in light of an increased out-group threat such as the Venezuelan mass migration into Colombia. In such crises, relative deprivation is intensified and, thus, it is of an even bigger advantage to be part of a group with increased access to resources.

Perspective-taking has been conceived from the idea to nudge this heightened competitiveness into a focus on cooperation, of which many are in need during crises. Indeed, perspective-taking has been shown to improve explicit and implicit evaluations as well as behavioral intentions towards the out-group. For instance, Batson et al. (1997) demonstrated that inducing perspective-taking can help to improve evaluations of even murderers for at least 1-2 weeks. Thus, people felt more positive about murderers after taking their perspective compared to those staying objective while reading stories about murderers. This finding paints the picture of perspective-taking as a very powerful technique because murderers are a group of people with a terribly negative reputation. If it has an effect on our views of murderers, then the effect on more moderately negatively perceived groups might be even stronger. Indeed, a study by Clore and Jeffery (1972) showed that inducing perspective-taking, by having participants move around in a wheelchair on campus for 20 minutes, leads to more positive evaluations of disabled people at least as long as 4 months after the experiment (compared to those asked to walk around on campus).

PERSPECTIVE-TAKING TO REDUCE PREJUDICE

Still, while various lab studies have demonstrated that motivating perspective taking can help in reducing prejudice towards outgroup members (Todd & Galinsky, 2014), field research on this topic is scarce (Paluck, 2010). The few existing field studies (Bruneau & Saxe, 2012; Paluck, 2010; Vorauer & Sasaki, 2009) illustrate the importance to study this in the field more thoroughly, as some contextual factors may complicate the effectiveness of perspective-taking. For instance, Vorauer and Sasaki (2009) found no effect of perspective-taking (manipulated via the instructions to stay empathetic instead of objective when watching a video on the living conditions of Native Americans) on White Americans' view of Native Americans, which the researchers explained as due to the anticipation to be blamed for their power relations. In another study, Bruneau and Saxe (2012) manipulated perspective-taking by having participants write a response to a short essay about living conditions for out-group members in the host country (written by an out-group participant recruited earlier). They found the same lack of effect for the relationship between Israeli and Palestinians (presumably due to their long-standing conflict). Thus, the present study aimed to investigate one specific context, namely the Venezuelan mass migration into Colombia, by studying the influence of perspective-taking on Colombians' evaluations of and behavioral intentions towards Venezuelan refugees. Needless to say, society could immensely profit from finding out more about ways to live more harmoniously with each other.

In addition to the question *if* perspective taking can reduce negative evaluations and behavioral intentions, the second goal of the study was to expand knowledge about *how* perspective-taking works. Firstly, when people consider an out-group member's thoughts, it may be more likely that they realize with what that person is struggling and also feel their distress.

PERSPECTIVE-TAKING TO REDUCE PREJUDICE

Consistent with this reasoning, and as predicted by the empathy-altruism hypothesis, empathy has been shown to mediate the effect of perspective-taking on out-group evaluations (Todd & Galinsky, 2014).

Secondly, as one's thoughts have been redirected away from one's own feelings and onto the other's feelings, perspective-taking may lead to fewer expectations of negative outcomes from an interaction with the out-group member. "Trust implies the expectation that others will not exploit one's vulnerability and the belief that others will attempt to cooperate" (Kramer & Carnevale, 2003) and is, thus, likely also a mediating variable explaining the benefits of perspective taking. Many studies on intergroup reconciliation and positive approach tendencies (e.g. Gonzalez et al, 2011; Tam et al., 2009) have shown that personal closeness can be increased by trust and the overarching idea behind perspective-taking is that people feel closer to the out-group member after considering his or her position in life.

Thirdly, seen as the counterpart to trust and empathy, anxiety of a closer relationship with an out-group (Fiske et al., 2004) may be another critical emotion involved in the process. People focus on reducing anxiety from threats before attempting to take an out-group member's perspective, which means anxiety might lower the effectiveness of perspective taking (Aberson & Haag, 2007). Also, anxiety is generally an established predictor of relationship quality between groups (Bizman, & Yinon, 2001; Stephan et al., 2002). For instance, higher quantity and quality of contact with French people is related to more positive evaluations of them and less intergroup anxiety by British people (Brown et al., 2001). Hence, anxiety likely plays a mediating role in improving intergroup relations using perspective-taking as well.

Present Research

PERSPECTIVE-TAKING TO REDUCE PREJUDICE

The current research examines whether these three potential mechanisms (empathy, trust, and anxiety) explain the effect that a perspective-taking intervention has on prejudice.

Accordingly, the hypothesis was that the induction of perspective taking will lead to more positive explicit evaluations of and behavioral intentions (to donate) towards the Venezuelan refugees (by the Colombians) via increased empathy and trust as well as reduced anxiety (see Figure 1). This hypothesized model will be tested in Colombia but, before data collection, we decided to run a Pilot Study to test the perspective-taking intervention and the items used in the questionnaire, and to provide preliminary support for the theorized model. The Pilot Study was conducted in the Netherlands and the questionnaire was constructed to ask about perceptions of Middle Eastern refugees. Also, in the perspective-taking intervention, participants were asked to write about a day in the life of a Middle Eastern refugee living in the participant's country of origin. Following the Pilot study, the intervention and questionnaire were adjusted to the Colombian setting. Despite this adjustment, the Pilot Study was a useful necessity because the questionnaire and intervention had never been used before since it has been created specifically for this study and the Pilot Study tested at least a very similar questionnaire and intervention.

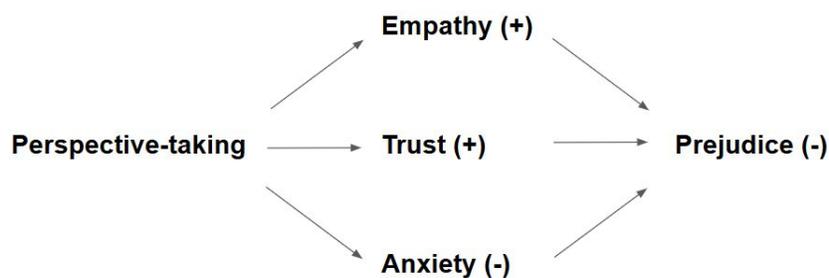


Figure 1. Hypothesized model.

Method: Pilot Study

Participants and Design

PERSPECTIVE-TAKING TO REDUCE PREJUDICE

The aim was to have a sample of 128 participants as determined based on a power of 0.8 for a medium effect size ($f = .25$), which is in line with other studies on perspective-taking (e.g. Bruneau & Saxe, 2012; Vorauer & Sasaki, 2009). Due to time constraints that were preregistered as a stopping rule, this aim was not reached but we collected data from 116 participants (88 female) using the university's research participation system (SONA) with the prerequisite of German ($N = 49$) or Dutch nationality ($N = 55$), the locally, most prevalent nationalities, in order to keep the sample more homogeneous (see Table 1 for an overview of the descriptive statistics). Completing the whole procedure took about 15 minutes and they were compensated with course credit.

Table 1
Descriptive statistics of the Pilot Study sample

Categorical measures	<i>n</i>	%
Condition		
Experimental	54	51.9
Control	50	48.1
Gender		
Male	16	15.4
Female	88	84.6
Nationality		
German	49	47.1
Dutch	55	52.9
Continuous measures	<i>M</i>	<i>SD</i>
National identification	3.78	1.50

The present study has a between-subject design with Manipulation (Perspective-taking vs Control) as the independent variable and the mean rating on the explicit evaluations and the behavioral intentions (to donate to help Middle Eastern refugees) as the two dependent variables. In addition, we included three mediators, namely trust, empathy, and anxiety. Prior to data

PERSPECTIVE-TAKING TO REDUCE PREJUDICE

collection, we preregistered the design, sample size, hypotheses, and data analysis of the study on Open Science Framework (<https://osf.io/d2qwn>).

Procedure and Materials

Filling out a consent form, the participants were introduced to the study as an experiment testing how people construct detailed life events of somebody else (see Galinsky and Ku (2004) for a similar procedure). Then, they were given a small news update, the manipulation, and the questionnaire. In the first part, all participants were introduced to a news update explaining the situation of the Middle Eastern migrant crisis on a very basic level because we wanted to ensure that every participant is at least aware of the migrant crisis. In the second part, half of the participants were asked to “write about a day in the life of a Middle Eastern refugee.” (Perspective-taking condition; i.e. “take their perspective and go through the typical day in their shoes, as if you were that person. Really try to put yourself in their position, not describing it from an outsiders' perspective but as if you were the refugee (how would you feel, what would you think, what would you do)”). The other half of the participants were asked to “write about a day in the life of a person of [their] nationality.” (Control condition). They were told to “objectively describe what happens over the typical day of an average person of [their] nationality” to discourage perspective-taking (Todd & Galinsky, 2014).

Finally, in part three, they were asked to rate statements about empathy (Batson et al., 1997; three items, e.g. “I am moved when thinking about Middle Eastern refugees.”, Cronbach’s alpha = .62 based on two items after excluding one highly skewed item), trust (Nadler & Liviatan, 2006; three items, e.g. “I do not believe Middle Eastern refugees have good intentions.”, Cronbach’s alpha = .70), anxiety (Harwood et al., 2005; three items, e.g. “I feel

PERSPECTIVE-TAKING TO REDUCE PREJUDICE

relaxed when interacting with a Middle Eastern refugee.”, Cronbach’s alpha = .78), explicit evaluations of Middle Eastern refugees (Bruneau & Saxe, 2012; two items, e.g. “Middle Eastern refugees tend to be pleasant people.”, Cronbach’s alpha = .65) and prosocial behavioral intentions towards them (Bruneau & Saxe, 2012; one item, i.e. “If I was asked to donate to a charity to help Middle Eastern refugees, I would.”). Also, participants completed a manipulation check item (Davis, 1983; i.e. “I try to understand Venezuelan refugees better by imagining how things look from their perspective.”), and a few control variables (i.e. nationality, national identification, and gender). All the statements were in randomized order (that was the same for each participant) and rated on a 7-point Likert scale ranging from Strongly Disagree to Strongly Agree.

Results: Pilot Study

Seven participants had technical errors and 5 were outliers (+3 *SDs* on an explicit evaluation item, the manipulation check item, a trust item, and two empathy items, respectively) and were excluded to result in a total of 104 participants used for analysis. As mentioned above, one empathy item was skewed and, thus, excluded from the creation of the empathy variable but the rest of the data was normally distributed. On average, participants had quite low scores on anxiety ($M = 2.20$, $SD = 1.19$), quite high scores on explicit evaluations ($M = 4.23$, $SD = .91$), self-reported perspective-taking ($M = 4.69$, $SD = 1.07$), and empathy ($M = 4.63$, $SD = .81$), and they were ambivalent on trust ($M = 3.64$, $SD = .51$) and behavioral intentions ($M = 3.48$, $SD = 1.40$).

First, we analyzed the effectiveness of the perspective-taking intervention on the manipulation check. Subsequently, we analyzed the direct effect of the intervention on the

PERSPECTIVE-TAKING TO REDUCE PREJUDICE

mediators and DVs. Finally, we analyzed the hypothesized mediation model before exploring the direct effects of self-reported perspective-taking (the manipulation check) on the mediators and dependent variables and, then, running the same mediation model with the self-reported perspective-taking levels as predictor.

Confirmatory Analyses

The intervention did not prove significant as the manipulation check showed no difference between conditions, $t(102) = .66, p = .51$. The intervention also did not have any effect on the mediators (trust: $t(102) = .99, p = .32$; empathy: $t(102) = .55, p = .59$, anxiety: $t(102) = -.67, p = .51$) or the DVs (explicit evaluations: $t(102) = .39, p = .70$; behavioral intentions: $t(102) = .08, p = .94$). To test the hypothesized mediation model, we performed a mediated linear regression model analysis (type 4) using the PROCESS macro for SPSS (Hayes, 2012). While the direct effect of the intervention on behavioral intentions ($\beta = .02, p = .90$) was not significant and the overall model was not either ($p = .36$), the direct effect of the intervention on explicit evaluations of Middle Eastern refugees ($\beta = .04, p = .81$) was not significant even though the overall model was ($p < .001$). The intervention had no effect so we rejected our hypothesis but the rest of the model might be related to the dependent variables, which warranted additional analyses.

Exploratory Analyses

Actually, the manipulation check showed a direct effect on the mediators (trust: $t(102) = 2.01, p = .05$; empathy: $t(102) = 5.20, p < .001$, anxiety: $t(102) = -1.86, p = .07$) and DVs (explicit evaluations: $t(102) = 3.37, p < .001$; behavioral intentions: $t(102) = 2.27, p = .03$). People who reported higher levels of perspective-taking had higher levels of trust and empathy

PERSPECTIVE-TAKING TO REDUCE PREJUDICE

as well as reduced levels of anxiety, evaluated Middle Eastern refugees more positively, and showed more positive behavioral intentions (to donate) towards them. Hence, we continued the analysis with the manipulation check as the individual difference measure of self-reported perspective-taking tendencies predicting the target variables.

In the mediation model, the direct effect of self-reported perspective-taking on behavioral intentions towards Middle Eastern refugees ($\beta = .17, p = .17$) was no longer significant. The direct effect of the mediators, anxiety ($\beta = .05, p = .66$), empathy ($\beta = .07, p = .55$), and trust ($\beta = .13, p = .20$), on behavioral intentions was also not significant. Overall, the model was not significant, either ($p = .14$). In sum, behavioral intentions were not affected by any variable except self-reported perspective-taking (only without including the other predictors).

In the mediation model for explicit evaluations of Middle Eastern refugees, the direct effect of self-reported perspective-taking ($\beta = .09, p = .36$) was not significant anymore, either. However, the direct effect of the mediators, anxiety ($\beta = -.36, p < .001$), empathy ($\beta = .29, p < .001$), and trust ($\beta = .16, p = .08$), on explicit evaluations was significant (see Figure 2 for the model). Also, the mediated effect of perspective-taking via empathy was significant (as the 95% confidence interval did not contain 0) but not via trust or anxiety. Overall, the model was significant ($p < .001$) and explained 37.3% of the explicit evaluations (R^2). Additionally, it did not suffer from multicollinearity (all VIF scores between 1 and 2) and showed a gender effect, namely more positive explicit evaluations of Middle Eastern refugees by women than men, $\beta = .21, p = .002$. However, nationality (German or Dutch) and national identification were not significant predictors.

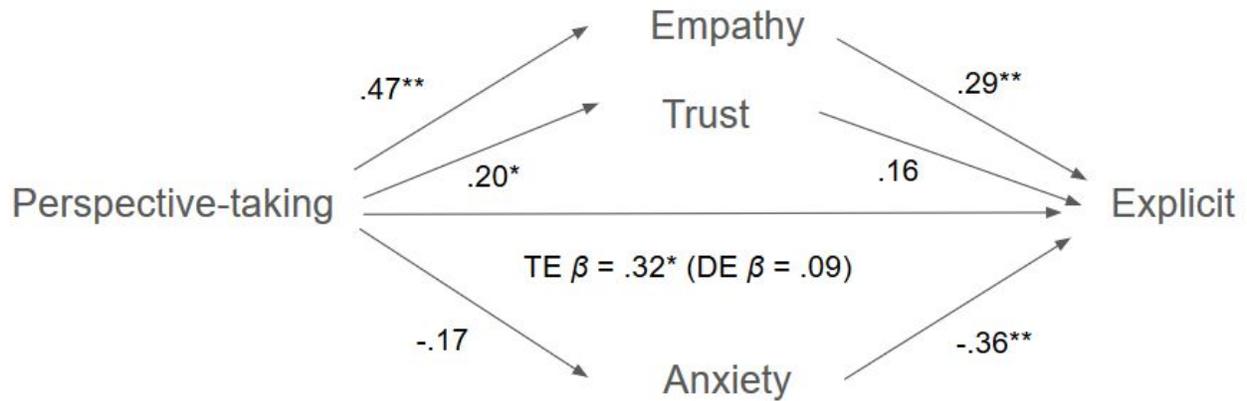


Figure 2. Model of Pilot study results

Note. ** $p < .001$; * $p < .05$

Discussion: Pilot Study

We can conclude that our perspective-taking intervention did not work and reject our hypothesis. Therefore, we made changes to the instructions of the intervention to strengthen the effect (i.e. “take the perspective of a Venezuelan refugee, and describe a typical day, as if you were that person. Please try to step in his or her shoes, perhaps realizing that there are always two sides to every story or problem. Please write down anything you might experience as a refugee (how would you feel, what would you think and do on a daily basis) when you put yourself in the shoes of a refugee.”).

However, self-reported levels of perspective-taking appeared as a significant predictor of the mediators and DVs. Hence, we added a second manipulation check item to increase the reliability of that measure. Accordingly, we also added a secondary hypothesis to the main study that higher levels of perspective taking will lead to more positive explicit evaluations of and

PERSPECTIVE-TAKING TO REDUCE PREJUDICE

behavioral intentions towards the Venezuelan refugees (by the Colombians) via increased empathy and trust as well as reduced anxiety.

Overall, participants were relatively empathetic, free of intergroup anxiety, taking the perspective of Middle Eastern refugees, and evaluating them rather positively. One could argue that this might be due to the social desirability of general societal norms and task demands to be friendly towards others. However, that wouldn't explain the ambivalence on trust and behavioral intentions (of a donation) towards the refugees. Since we don't have comparative measures on participants' views of their own in-group, we can't discuss if they felt even more positively about their in-group. It's possible that there is still a difference in attitude despite the overall highly positive views (except for trust and behavioral intentions).

Furthermore, we concluded that the model including self-reported perspective-taking was not predictive of behavioral intentions towards Middle Eastern refugees (only when self-reported perspective-taking was by itself). Past research has vast amounts of evidence for the existence of an attitude-behavior gap (e.g. Stodolska, 2005). People find it harder to adjust their behavior than their thoughts. Hence, changing one's attitudes with perspective-taking is likely easier than one's behavior, or even behavioral intentions. Similarly, empathy, anxiety, and trust might be more related to explicit evaluations of Middle Eastern refugees because it's more likely for reduced anxiety and increased trust and empathy to adjust one's thoughts than one's behavior.

The model was, however, predictive of explicit evaluations of Middle Eastern refugees. Trust, empathy, and anxiety were significant predictors while self-reported perspective-taking was again only when by itself (not including the other variables from the model). Also, the mediation of self-reported perspective-taking via empathy was significant. Trust and anxiety

PERSPECTIVE-TAKING TO REDUCE PREJUDICE

were significant predictors of explicit evaluations of Middle Eastern refugees but not mediating self-reported perspective-taking. Hence, one could conclude that self-reported perspective-taking has an effect on the explicit evaluations that is different from the effect that trust and anxiety have on them. If that is the case, it might be helpful to have prejudice-reduction interventions incorporating all three concepts.

Among the control variables, gender was the only significant predictor with women having more positive evaluations of Middle Eastern refugees. Surprisingly, national identification was not significant even though previous research frequently finds higher national identification to be related to anti-immigration attitudes (e.g. Mummendey, Klink, & Brown, 2001). Since there is no apparent difference in the strength of anti-immigration attitudes between Dutch and Germans, nationality was not expected to be significant and it was not.

Finally, we replaced a highly skewed empathy item (as we had to exclude it from the creation of the empathy variable, see above). Also, a few control variables were added as they might reveal important individual differences in how people react to the politically charged situation (i.e the Venezuelan mass migration). Region of origin was added because the local political climate and, especially, the proximity to the Venezuelan border might increase or lower the effectiveness of perspective-taking as people might experience the impact of the mass migration by the refugees to a stronger extent. Age was added because it's a common individual difference factor in political opinion surveys (Chandler, & Tsai, 2001). Hence, perspective-taking might have a different impact on younger people due to different perceptions of the Venezuelan mass migration. Also, income was added because surveys regularly find that, for example, poor citizens are more threatened by the type of workers entering their country

PERSPECTIVE-TAKING TO REDUCE PREJUDICE

(usually working class) and, thus, have a stronger anti-immigration attitude (Palmer, 1996).

Finally, as students were expected to be the majority of our participants, student status was added as a control variable to differentiate between students and the rest of the sample.

Method: Main Study

Participants and Design

The participants were Colombians recruited in the city centre of Bogota and on campus of the partnering Los Andes University. In order to have a comparative, more homogeneous student sample, the aim was to have 128 participants from both locations (again, as determined based on a power of 0.8 for a medium effect size ($f = .25$), which is in line with other studies on perspective-taking (e.g. Bruneau & Saxe, 2012; Vorauer & Sasaki, 2009)). In the end, we collected data from 272 participants (expecting a small exclusion rate similar to the pilot study) and excluded 18 cases including missing values to result in a total of 254 participants (115 female) used for analysis (see See Table 2 for an overview of the descriptive statistics). Again, completing the whole procedure took about 15 minutes but, this time, they were compensated with a piece of candy. Also, the study design was the same as for the Pilot Study (see above). Prior to data collection, we again preregistered the design, sample size, hypotheses, and data analysis of the study on Open Science Framework (<https://osf.io/fq498>).

Table 2
Descriptive statistics of the Main Study sample

Categorical measures	<i>n</i>	%
Condition		
Experimental	148	58.3
Control	106	41.7
Gender		
Male	137	53.9

PERSPECTIVE-TAKING TO REDUCE PREJUDICE

Female	115	45.3
Other	2	.8
Student status		
Yes	194	76.4
No	60	23.6
Age		
18-25	178	70.1
26-35	38	15.0
36-45	19	7.5
46-55	3	1.2
56+	16	6.3
Income bracket		
1 (poorest)	6	2.4
2	50	19.7
3	100	39.4
4	62	24.4
5	29	11.4
6 (richest)	7	2.8
Region of origin		
Andes	212	83.5
Caribbean	14	5.5
Orinoquia	16	6.3
Amazon	4	1.6
Pacific	7	2.8
Insular	1	.4
Continuous measures	<i>M</i>	<i>SD</i>
National identification	5.08	1.94

Procedure and Materials

Same as before, filling out a consent form, the participants were introduced to the study as an experiment testing how people construct detailed life events of somebody else (see Galinsky and Ku (2004) for a similar procedure). Then, they were given the small news update (adjusted to talk about Venezuelan refugees) as well as the updated manipulation and questionnaire (empathy: Cronbach's alpha = .72 after excluding one item due to a relatively low alpha (.66); trust: Cronbach's alpha = .66 after excluding one item due to a low alpha (.54); anxiety: Cronbach's alpha = .80; explicit evaluations: Cronbach's alpha = .77; manipulation

PERSPECTIVE-TAKING TO REDUCE PREJUDICE

check: Cronbach's alpha = .80). Again, all the statements were in a randomized order (that was the same for each participant) and rated on a 7-point Likert scale ranging from Strongly Disagree to Strongly Agree.

Results: Main Study

There were no outliers ($+3$ *SDs*) and the data was normally distributed. On average, participants had quite low scores on anxiety ($M = 2.92$, $SD = 1.43$) and quite high scores on explicit evaluations ($M = 5.07$, $SD = 1.34$), behavioral intentions ($M = 4.74$, $SD = 1.92$), self-reported perspective-taking ($M = 5.56$, $SD = 1.40$), trust ($M = 4.93$, $SD = 1.32$), and empathy ($M = 5.17$, $SD = 1.38$).

First, we analyzed the effectiveness of the perspective-taking intervention on the manipulation check and its effect on the mediators and DVs, again. Then, we continued to investigate the mediation model from the first hypothesis before checking the effect of self-reported perspective-taking on the mediators and DVs. Subsequently, we tested the secondary hypothesis involving the mediation model with self-reported perspective-taking as IV. Finally, we ran follow-up tests on the control variables and we checked alternative mediation models.

Confirmatory Analyses

Again, the perspective-taking intervention did not prove significant as the manipulation check showed no difference between conditions, $t(252) = -.73$, $p = .47$. As in the pilot study, the intervention also did not have any effect on the mediators (trust: $t(252) = -1.08$, $p = .28$; empathy: $t(252) = -.70$, $p = .49$, anxiety: $t(252) = 1.23$, $p = .22$) or the DVs (explicit evaluations: $t(252) = .26$, $p = .78$; behavioral intentions: $t(252) = -.10$, $p = .92$). To test the hypothesized

PERSPECTIVE-TAKING TO REDUCE PREJUDICE

mediation model, we again performed a mediated linear regression model analysis (type 4) using the PROCESS macro for SPSS (Hayes, 2012). While the direct effect of the intervention on behavioral intentions towards Venezuelan refugees was not significant ($\beta = -.03, p = .79$), the overall model was ($p < .001$). Similarly, the direct effect of the intervention on explicit evaluations of Venezuelan refugees was not significant ($\beta = .04, p = .60$) even though the overall model was ($p < .001$). The intervention, thus, had no effect so we rejected our first hypothesis.

However, self-reported perspective-taking (the manipulation check) again showed a direct effect on the mediators (trust: $t(252) = 8.03, p < .001$; empathy: $t(252) = 15.49, p < .001$, anxiety: $t(252) = -9.04, p < .001$) and DVs (explicit evaluations: $t(252) = 12.21, p < .001$; behavioral intentions: $t(252) = 7.88, p < .001$). In the mediation model, the direct effect of self-reported perspective-taking on behavioral intentions was no longer significant ($\beta = .14, p = .14$). Also, the direct effect of anxiety ($\beta = -.04, p = .56$) and trust ($\beta = -.03, p = .67$) on behavioral intentions towards Venezuelan refugees was not significant, either, but the direct effect of empathy ($\beta = .43, p < .001$) on behavioral intentions was. Not only that but the mediated effect of self-reported perspective-taking via empathy was significant, too (as the 95% confidence interval did not contain 0; $\beta = .30$). Overall, the model was significant ($p < .001$) but it explained only 29.1% of the behavioral intentions (R^2), which is less than the effect size of empathy. In sum, behavioral intentions were not affected by any variable except empathy (and self-reported perspective-taking but only without including the other predictors).

In the mediation model for explicit evaluations of Venezuelan refugees, the direct effect of self-reported perspective-taking ($\beta = .14, p = .01$) was significant, even though the effect size is the same as for behavioral intentions. The direct effect of all the mediators, anxiety ($\beta = -.25, p$

PERSPECTIVE-TAKING TO REDUCE PREJUDICE

< .001), empathy ($\beta = .24, p < .001$), and trust ($\beta = .40, p < .001$), on explicit evaluations of Venezuelan refugees was also significant (see Figure 3 for the model). Again, not only that but the mediated effect of perspective-taking via empathy, trust, and anxiety (respectively) was significant (as the 95% confidence interval did not contain 0). Overall, the model was significant ($p < .001$) and explained 69.4% of the explicit evaluations (R^2). Additionally, the model did not suffer from multicollinearity (all VIF scores between 1 and 2).

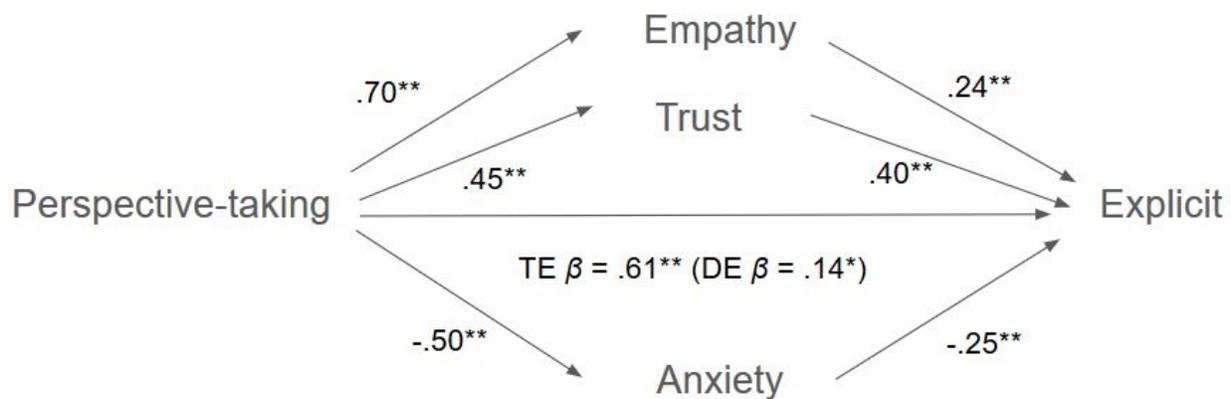


Figure 3. Model of Main Study results

Note. ** $p < .001$; * $p < .05$

Exploratory Analyses

Also, there were no meaningful effects by the control variables in the mediated linear regression model. However, running separate ANOVAs on the control variables, national identification ($\eta^2 = .04, p = .03$), income bracket ($\eta^2 = .09, p < .001$), age ($\eta^2 = .10, p < .001$), and student status ($\eta^2 = .10, p < .001$) revealed a significant direct effect on explicit evaluations. Younger people (e.g. students), wealthier people, and, surprisingly, people that identify *more* with their country showed more positive evaluations of the Venezuelan refugees.

PERSPECTIVE-TAKING TO REDUCE PREJUDICE

Finally, we also analyzed alternative models to explain our results. For instance, it's plausible that empathy predicts self-reported perspective-taking, which is mediated by the explicit evaluations of Venezuelan refugees, trust and anxiety (see Figure 4 for the model). Indeed, empathy ($\beta = .53, p < .001$) as well as all the mediators, explicit evaluations ($\beta = .21, p = .01$) and anxiety ($\beta = -.19, p = .003$), except for trust ($\beta = -.08, p = .22$) significantly predicted self-reported perspective-taking. The effect of empathy on self-reported perspective-taking was even mediated by the explicit evaluations of Venezuelan refugees and anxiety, respectively (as the 95% confidence interval did not contain 0). Overall, the model was significant and explained 55.1% of the self-reported perspective-taking levels (R^2).

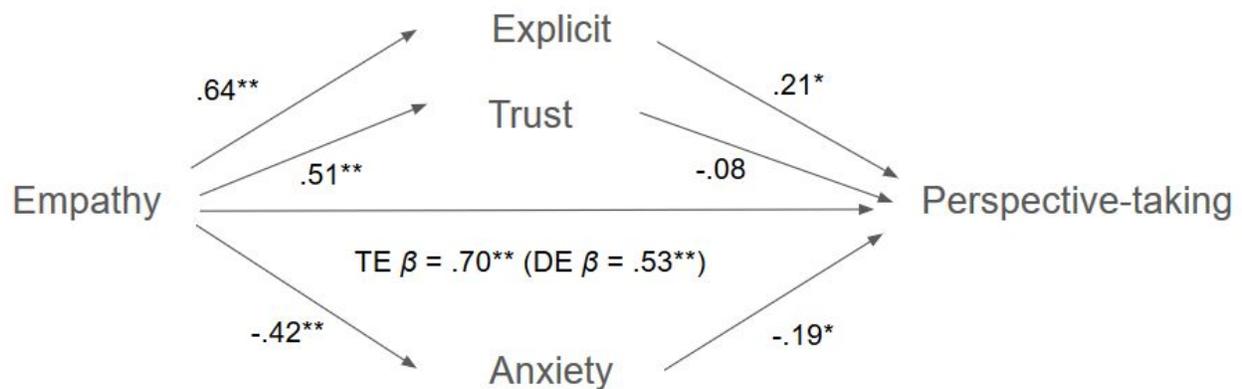


Figure 4. Alternative model 1.

Note. $**p < .001$; $*p < .05$

Another possibility is that the explicit evaluations are the main predictor of trust and their relationship is mediated by perspective-taking, empathy and trust (see Figure 5 for the model). The results show that explicit evaluations of Venezuelan refugees ($\beta = .56, p < .001$) and anxiety ($\beta = -.23, p < .001$) significantly predicted trust but self-reported perspective-taking ($\beta = -.08, p = .21$) and empathy ($\beta = .11, p = .12$) did not. Anxiety even significantly mediated the effect of the

PERSPECTIVE-TAKING TO REDUCE PREJUDICE

explicit evaluations on trust (as the 95% confidence interval did not contain 0). Overall, the model was significant and explained 56.7% of trust (R^2).

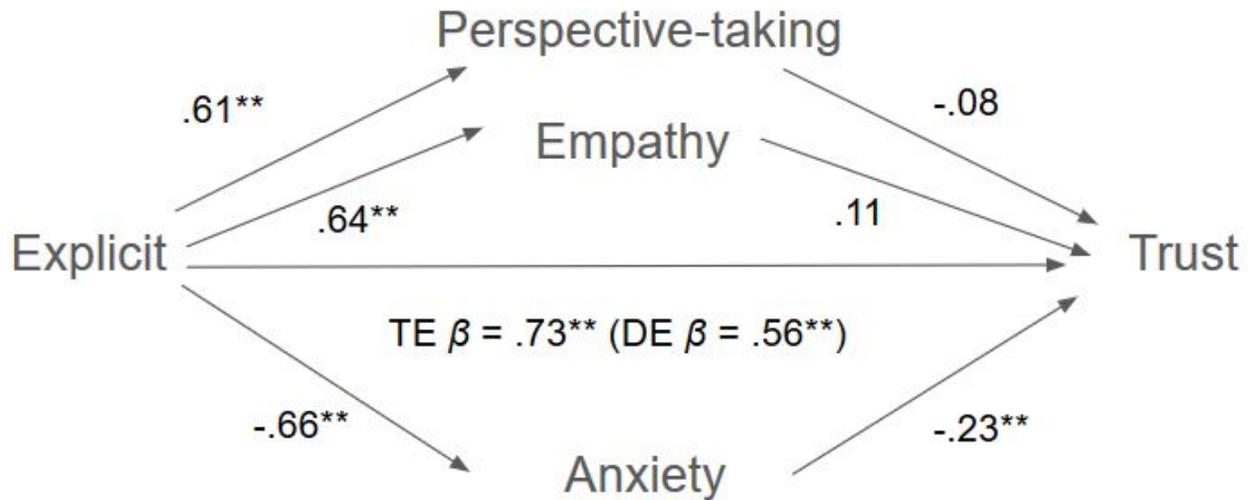


Figure 5. Alternative model 2.

Note. $^{**}p < .001$; $^{*}p < .05$

Actually, anxiety might be the more appropriate predictor of empathy with their relationship being mediated by perspective-taking, the explicit evaluations, and trust (see Figure 6 for the model). Based on the findings, explicit evaluations of Venezuelan refugees ($\beta = .33, p < .001$) and self-reported perspective-taking ($\beta = .50, p < .001$) significantly predicted empathy but anxiety ($\beta = .11, p = .09$) and trust ($\beta = .11, p = .12$) did not. The explicit evaluations and self-reported perspective-taking, respectively, even significantly mediated the effect of anxiety on empathy (as the 95% confidence interval did not contain 0). Overall, the model was significant and explained 57.3% of trust (R^2).

PERSPECTIVE-TAKING TO REDUCE PREJUDICE

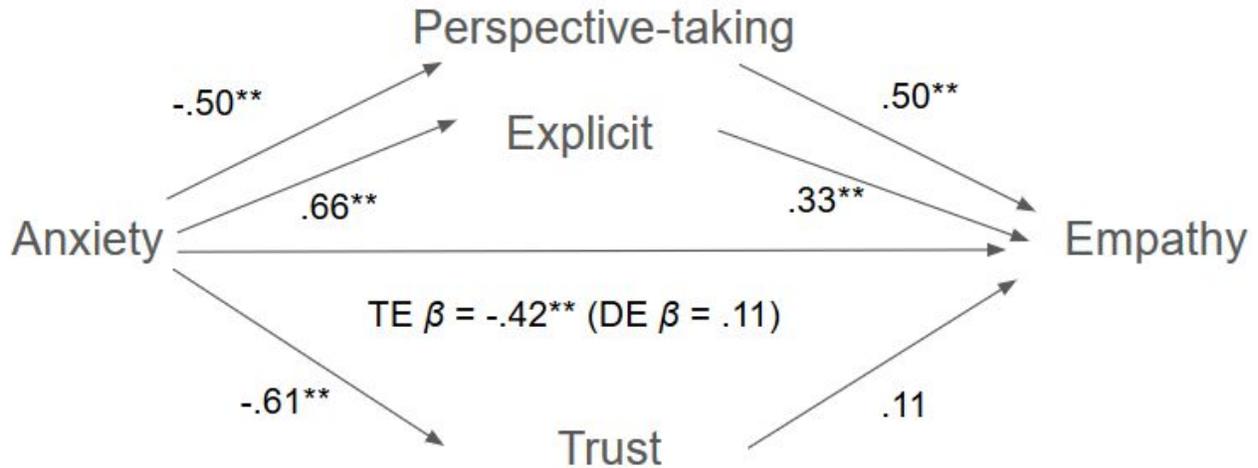


Figure 6. Alternative model 3.

Note. $**p < .001$; $*p < .05$

Lastly, it's also possible that anxiety is predicted by perspective-taking and their relationship is mediated by empathy, trust, and the explicit evaluations of Venezuelan refugees (see Figure 7 for the model). Indeed, self-reported perspective-taking ($\beta = -.21$, $p = .002$) and all the mediators, trust ($\beta = -.27$, $p = .001$) and explicit evaluations of Venezuelan refugees ($\beta = -.42$, $p < .001$), except empathy ($\beta = .13$, $p = .08$) significantly predicted anxiety. The explicit evaluations and trust, respectively, even significantly mediated the effect of self-reported perspective-taking on anxiety (as the 95% confidence interval did not contain 0). Overall, the model was significant and explained 48.7% of trust (R^2).

PERSPECTIVE-TAKING TO REDUCE PREJUDICE

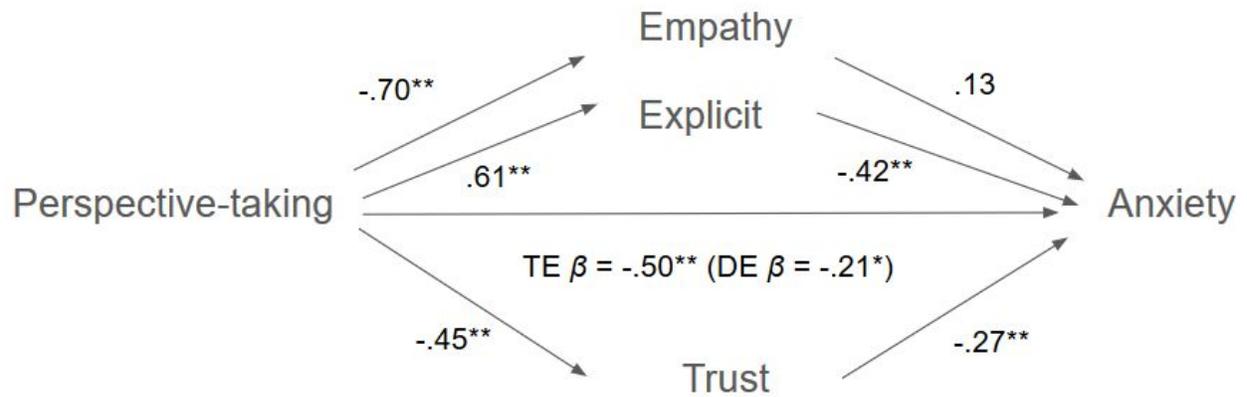


Figure 7. Alternative model 4.

Note. $**p < .001$; $*p < .05$

General Discussion

The present study aimed to test the prediction that perspective-taking is effective at reducing people's prejudice towards out-group members in a real life context beyond the laboratory. This goal was actualized by collaborating with Los Andes University in Bogota, Colombia, because the Venezuelan mass migration into Colombia poses an intergroup threat between Venezuelans and Colombians (Stephan & Stephan, 2017), which gives rise to a good sample to study techniques (potentially) reducing group conflict.

As the results illustrate, we did not manage to manipulate perspective-taking successfully in the pilot conducted in the Netherlands nor in the main study in Colombia. Still, individual differences in perspective-taking showed that doing so might help to reduce prejudice, even in a real-life setting as in the main study. The results show that people that practiced more perspective-taking had more positive evaluations of refugees, trusted them more, and felt less anxious and more empathetic towards them. However, since our manipulation was not successful, the question about how to stimulate perspective-taking still remains. An effective

PERSPECTIVE-TAKING TO REDUCE PREJUDICE

perspective-taking intervention still needs to be developed in future studies in order to fulfill the scientific requirement of validating an effect in the field before using it on a policy level (Todd & Galinsky, 2014). Since the pilot study used a perspective-taking intervention very similar to the ones successful in laboratory studies but that was not effective, these manipulations do not seem recommendable in the field either. As the significant mediation of trust and anxiety shows, it might be a good idea to stimulate trust and anxiety as part of the perspective-taking intervention.

Although our first hypothesis about the effect of perspective-taking was thus rejected, we still partially confirmed our secondary hypothesis that individual differences in self-reported perspective-taking reduces explicit evaluations and behavioral intentions via empathy, trust, and anxiety. Specifically, explicit prejudice was reduced by self-reported perspective-taking via empathy, trust, and anxiety, respectively. Self-reported perspective-taking predicted more positive explicit evaluations of Venezuelan refugees directly (within the model) but the effect was also mediated by each hypothesized mediator. In the Pilot Study, however, only empathy was significantly mediating the relationship between the explicit evaluations and self-reported perspective-taking. It should be noted, though, that this difference might be primarily due to the sample size that is twice as big in the Main Study.

Behavioral intentions, on the other hand, were only affected by empathy directly within the model and directly by self-reported perspective-taking when leaving out the mediators. Also, as mentioned earlier, past research has vast amounts of evidence for the existence of an attitude-behavior gap (e.g. Stodolska, 2005) that explains how changing one's attitudes with perspective-taking is likely easier than one's behavior, or even behavioral intentions. Hence,

PERSPECTIVE-TAKING TO REDUCE PREJUDICE

future research should look specifically at the attitude-behavior gap to see if there are additional conditions that need to be met for perspective-taking to reduce prejudiced behavior.

A secondary aim of this study was to elaborate on the mechanism and nature of perspective-taking (i.e. how it operates). The results reveal that, while the effect of empathy was very similar in both studies, anxiety was much more important for Dutch and German participants (Pilot Study) and trust was much more important for Colombians (Main Study). Previous work already demonstrated that increased empathetic concern underlies the effect of perspective-taking on explicit evaluations, for instance of murderers and homeless people (Batson et al., 1997). Hence, empathy was reaffirmed as a consistent factor elicited by perspective-taking (Todd & Galinsky, 2014) while the discrepancy between the pilot and the main study in regards to anxiety and trust signals context effects. The expression of anxiety might be less accepted in the Colombian culture (Markus & Kitayama, 1991) so that there is no self-report of anxiety that an intervention could reduce in order to improve a relationship (i.e. it's not an explicit factor in this setting but still maybe an implicit one). Considering crime rates in Colombia compared to the Netherlands (Gaviria, 2000), trust could play an essential role in building a positive relationship in the Colombian context while Europeans might easily trust others. Future studies should continue to test different cultural settings to build on these potential nuances of how perspective-taking operates.

Although established in other research areas on relationship building (e.g. Aberson & Haag, 2007; Fiske et al., 2004; Gonzalez et al, 2011; Tam et al., 2009), the present study is the first to link anxiety and trust to perspective-taking, which justifies the need for replication. Adding trust and anxiety as mediators improved the model prediction of explicit evaluations in

PERSPECTIVE-TAKING TO REDUCE PREJUDICE

the pilot as well as the main study. This suggests that trust and anxiety have a significant contribution in perspective-taking. However, since a third of the variance of the explicit evaluations of Venezuelan refugees was not explained by the model, there might still be important factors missing from the mechanism behind perspective-taking. Therefore, future research should analyze not only trust and anxiety but also additional variables (e.g. anger, mood).

Furthermore, we explored alternative models that could reveal other mechanisms explaining the results. We found all of the tested models (see Figures 4, 5, 6, and 7) to be significant, which means that there is no way of determining the direction of the influence that the variables have on each other. However, our hypothesized model was the one with the highest explained variance (R^2) while the alternative models were about equal and our model was the only where all of the mediating paths between IV and DV were significant. Still, this uncertainty regarding the exact model shows that all of these concepts (trust, empathy, anxiety, perspective-taking, and explicit evaluations) are closely related, which means that all of their aspects should be induced in interventions promoting prosocial attitudes and behaviors (towards out-group members).

On average, participants were relatively empathetic, trusting, free of intergroup anxiety, taking the perspective of Venezuelan refugees, harboring good behavioral intentions, and evaluating them rather positively. One could argue that this might be due to the social desirability of general societal norms and task demands to be friendly towards others. Since we don't have comparative measures on participants' views of their own in-group, we can't discuss

PERSPECTIVE-TAKING TO REDUCE PREJUDICE

if they felt even more positively about their in-group. It's possible that there is still a difference in attitude despite the overall highly positive views.

Regarding the control variables, no consistent picture emerged. The pilot study suggests a stronger effect of perspective-taking on women, although the more positive explicit evaluations by women might be a pre-existing condition with no relation to perspective-taking. Future studies should aim at establishing a baseline before running the experiment in order to be able to distinguish such findings.

The main study did not show the same gender effect but a small tendency for younger and wealthier people (e.g. students) as well as people identifying *more* with their country to have more positive evaluations of out-group members (which is strange as sympathy with outsiders is usually associated with *less* identification with their country (e.g. Mummendey, Klink, & Brown, 2001)). However, the latter might also just be specific for the main study as they might sympathize more with people being forced in such a situation (mostly) by their government/country. People identifying more with their country might have stronger reactions to failures of government and, thus, more sympathy for individuals suffering that fate. Since the levels of national identification were on average higher in the Colombian sample compared to the Pilot sample, we also have some weak support for this explanation.

On the other hand, people are leaning more and more against immigration as they grow older (Calahorrano, 2013), so our finding of more positive evaluations of Venezuelan refugees by younger participants was to be expected. At the same time, wealthier individuals face fewer threats from immigrants that tend to be part of the working class (Palmer, 1996). Hence, it also makes sense for them to have more positive evaluations of the Venezuelan refugees. As students

PERSPECTIVE-TAKING TO REDUCE PREJUDICE

tend to be young and from a higher income bracket, it fits these findings that students were also more inclined to a positive view of the refugees.

Conclusion

This study is one of just a few perspective-taking field studies (Bruneau & Saxe, 2012; Paluck, 2010; Vorauer & Sasaki, 2009) and it had a very appropriate as well as large sample due to the immediacy of the intergroup threat in Colombia (i.e. the Venezuelan mass migration). Given the vast amount of laboratory studies on perspective-taking (see Todd and Galinsky (2014) for a review) and the usefulness of reducing group conflict in light of the rise of globalization (Borghesi & Vercelli, 2003), the need for more field studies is evident. Another strength of this study is that it's the first to introduce trust and anxiety to the perspective-taking research and to show its mediating role in predicting explicit evaluations of refugees.

One weakness, however, was that the questionnaire was rather small and, thus, the number of items per variable also varied only between one and three. On the other hand, finding a successful intervention might be the biggest hurdle to overcome in this endeavor but increasing our knowledge on the mechanism behind perspective-taking should eventually lead to an effective intervention. Future studies should try not to use a cross-sectional design such as in this study in order to have stronger evidence for causality (in case of significant results).

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