Overcoming empathy failures to improve trust: Experimental evidence from Colombia *

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Abstract

In the last few years, Colombia has faced a wave of over four million migrants entering the country from Venezuela. This adds to internally displaced people (IDPs), victims of the civil conflict, former combatants of the FARC and paramilitaries that have rejoined civilian life.

When inequalities in social environments are substantial, they affect the quality of social interactions and economic outcomes. Although trust is understood as key for development, little is known about the role of trust in the presence of conflict between groups and inequality. Trust may succeed in overcoming collective action problems only if beliefs about out group members' willingness or ability to integrate with the in group members are present, prejudice is reduced and empathy improved.

We implement a lab-in-the-field experiment with a representative sample in the main Colombian regions to measure Colombian citizens' prosocial behavior (i.e. altruism, trust, and preferences for redistribution) towards four groups: Venezuelan migrants, former combatants, internally displaced people and the very poor.

The aim of this study is twofold. First, we explore the role of trust within a specific society with persistent inequality and empathy barriers between groups. Second, we show the benefits of interventions based on social psychology insights on improving trust.

Our behavioral informed intervention is a 5-minute media intervention we created from interviews we conducted with Venezuelans and Colombians in a slum in Bogotá. A second media intervention was created by Bruneau, Casas, Hameiri, and Kteily (2022) and uses interviews with FARC ex-combatants in a Colombian demobilization camp and non-FARC Colombians in neighboring communities. The videos are not a priming mechanism but an informative and learning one that reduces psychosocial barriers. We show that exposure to the media interventions made participants more prosocial towards both FARC ex-combatants and migrants. Participants that viewed the video with the Venezuelan migrants were not only more prosocial towards them but also towards IDPs and the very poor.

JEL classification: A13, C72, C90, D91

Keywords: lab in the field experiments, media, other-regarding preferences, altruism, trust, post-conflict, dehumanization

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1 Introduction

In this article we study the impact of watching videos that portray the experiences of Venezuelan migrants and former FARC combatants integrating into Colombian society via personal interviews, on Colombian residents' empathy, altruism, trust and preferences for redistribution in favor of these two groups. Our main results show that these videos do have an effect in making people more altruistic and trusting of migrants and ex-combatants. They show that a short media based intervention can change people's perceptions of members of out-groups, see that they are more alike than they thought and behave more pro-socially towards them.

Trust, a person's belief that another person or institution will act consistently with their expectations of positive behavior (OECD, 2017), is low and falling in Latin America and the Caribbean (LAC). This study considers Colombia, where interpersonal trust is low and decreasing: 5% say it is prudent not to trust people you meet for the first time (Mendez., 2019).

A key factor of social and economic development associated with trust and other social preferences (i.e those concerns for the well-being of others and desires to uphold ethical norms.) is pro-social behavior. An individual behaves pro-socially in order to help others -including herself- to achieve a common good. Social preferences reduce social inefficiency in the absence of complete contracts (Arrow, 1970; Becker, 1976; Akerlof, 1984) and thus are the key to solve social dilemmas and coordination failures (Ostrom, 1990), in which the uncoordinated actions of individuals result in an outcome that is Pareto inefficient. In addition, civic engagement and preferences for redistribution are key to political development and inter group conflict.

This project introduces a mechanism that explains trust and other social preferences. The mechanism is how individuals relate to each other. Empathy among citizens has become a key factor for building social capital (Bauer and Freitag, 2018). We also measure underlying cognitive processing behind pro-social judgments with movement tracking (finger and mouse). This allows us to measure implicit biases, otherwise hidden from traditional survey responses, and whether this implicit/automatic processing is affected by our media intervention. This study is of a rare kind. We integrate surveys, economic games, social neuroscientific and cognitive processing measures. We extend the work of Bruneau, Hameiri, Moore-Berg, and Kteily (2021) and by integrating these measures we further the knowledge of migration studies that aim to go beyond traditional measures and analysis. The sample used is part of the World Values Survey - Values in Crisis project, such that in future articles we will be able to compare responses related to the Covid-19 pandemic with our own surveys and the participants' behavior in the economic games.

People predisposed toward an emotion are more prejudiced toward groups that are likely to be associated with that emotion (Tapias, Glaser, Keltner, Vasquez, and Wickens, 2007). These sentiments can turn into hostility toward migrants (Hangartner, Dinas, Marbach, Matakos, and Xefteris, 2019; Orosz, Bruneau, Tropp, Sebestyén, Tóth-Király, and Bőthe, 2018). Latinobarometro (2018) survey asked whether the arrival of immigrants to the country had been beneficial or harmful to respondents and their families. In Colombia more

than 80% of the population claimed that Venezuelan immigration had a negative impact on them. Also, in a Gallup poll, the proportion of Colombian respondents who said they agree with the government's policy of welcoming Venezuelans fell by 14% from May to June 2019.

Venezuela's migrant crisis is the largest in Latin American history. Worldwide, it is now second only to that of Syria (UNHCR, 2019). About seven million Venezuelans have left the country, 2.5 million of those live in Colombia, and most of the rest live in other Latin American countries.[1]. Colombia now hosts the largest number of migrants, and most of those that left Venezuela have done so through Colombia, to stay or en route to other destinations.

The Colombian government created the *Permiso Especial de Permanencia (PEP)* in 2017. This program grants migrants regular migratory status, a work permit to access formal jobs and access to private services and the possibility to access social safety net programs Ibanez, Moya, Shieber, Rozo, and Urbina (2022).By 2022 more than two million Venezuelan migrants have the PEP permit [2]. That new immigrants are engaged in relatively low-skilled jobs makes Colombians suspect that desperate Venezuelans are willing to work for less than the minimum wage, steal their jobs and increase insecurity in an economy with rising unemployment.

Motivation

How do refugee immigrants shape the attitudes, policy preferences and pro-social behaviors of Colombian citizens? Why do we know so little about the impact of refugee immigration on preferences for redistribution, trust and behaviors of locals? In order to answer this an option is to conduct surveys in areas with varying levels of refugee exposure. Usually, migrants' unsuccessful attempts to elicit citizens' generosity confirm negative beliefs about them and cause a division among migrants and citizens.

In this context, our aim is intended to generate evidence on the mechanisms that increase trust, measured with a set of lab-in-the-field experiments and a survey. We will study one possible mechanism: empathy, using a representative sample of individuals in Colombia. We are interested in studying how Colombians respond to Venezuelan migrants and ex-combatants and determine whether there are varying values of trust and find possible ways to mitigate these different effects. Our contribution uses translational science as a means to create context sensitive interventions as a result of the collaboration between scientists, artists and key actors involved in the situation under study (Casas and Hameiri (Casas and Hameiri) and Moore-Berg, Hameiri, and Bruneau (2021)).

Our main motivation comes from the implications of trust on public policies that help these two vulnerable groups. What is most relevant here is how the median voter behaves towards migrants and ex-combatants. We expect that our small scale intervention will contribute to the most policy-relevant, multilateral entities and NGOs that look to build up and improve trust and prosocial behavior as a solution that promotes self governance in LAC in the short term. The policies approved and implemented to help these groups will depend on how citizens in Colombia, and other receiving countries, see the migrants and how much

[1] https://www.r4v.info/en retrieved on June 7, 2023
[2] Idem

they want their taxes to be used to help them. Understanding how these preferences for income distribution are determined will help policymakers to integrate out-group individuals and promote a more inclusive community.

To summarize our results, we find that participants become more pro-social not only towards the group of the video they watched but, in some cases, they also become more pro-social towards the members of the other groups. In the dictator game our results show that watching the migrants (ex-combatants) video makes participants not only more altruistic towards migrants (ex-combatants) but also towards the other groups of participants, including internally displaced persons (IDPs) and control individuals. In the trust game we find that participants who watched the ex-FARC video transfer more to both ex-combatants and migrants; while those that were shown the migrants video transfer more to the migrants as well as members of all the other groups (ex-combatants, IDPs and control individuals). In the games where we studied preferences for redistribution we also find that participants are more likely to redistribute in favor of migrants (ex-combatants) when they were shown the migrants video.

In what follows we explain our contributions to the literature on social norms, trust, empathy and preferences for redistribution. Then, we present the experimental design and treatments in section 3; and in section 4, how we will measure trust, altruism and preferences for redistribution towards migrants and ex combatants. Section 5 explains the effects of media on social preferences, section 6 presents the main results and section 7 concludes.

2 Literature

i Stereotypes, social norms and discrimination towards migrants.

Hostility toward migrants can be explained by two possible mechanisms. The first one is exposure to refugees arrivals (Hangartner et al., 2019), the closer is the distance between natives and migrants, there will be more hostility. This result was obtained with residents of Greek islands who are directly exposed to the refugee crisis. They show statistically and politically meaningful effects on exclusionary attitudes: anti-immigrant and anti-asylum seekers. Also, the citizens were less likely to donate than respondents on unexposed islands.

The countries in South America that most reject the arrival of immigrants from Venezuela are precisely those that are geographically and culturally the closest to them, according to results from Latinobarómetro. The Latinobarometro (2018) and Latinobarometro (2020) surveys asked respondents whether they thought that the arrival of immigrants to the country was beneficial or harmful for them and their families. In 2018 respondents in Colombia were the ones most likely in South America to say the arrival of immigrants was harmful for them, with 89.3% of respondents saying this, followed by people in Ecuador (86.4%) and Perú (81.2%). In 2020 respondents were given the option to say immigration did not affect them, 79.7% of people in Colombia answered that immigration was harmful for them and 10.4% said it did not affect them. They were also asked whether immigration of Venezuelans was something positive or negative. In Colombia, 78.6% of respondents answered that the arrival of Venezuelans is something negative, only topped by respondents in Ecuador and

Perú. This could be explained in part by the fact that Colombia has received the largest share of Venezuelan migrants.

In line with the second view, prejudices against migrant people, (Orosz et al., 2018) surveyed Hungarian participants on what they commonly hear about the Roma people from family members. They found specific types of normative sentiments expressing dehumanization, threat and violence. These sentiments were those that most strongly predicted anti-refugee prejudice by information of their family environment. It shows us that prejudice could be given by external information or mistaken stereotypes. That was the case of Germany, where (Keita, Renault, and Valette, 2021) took advantage of a natural experiment about a radical change in local media reporting on crime; they found that systematically mentioning the origin of criminals, especially when the perpetrators were locals, significantly reduced locals' concerns about immigration. This information could help us to understand stereotypes caused by the framing of the information.

For that, we use videos to educate people about the situations of migrants and ex combatants. The video is not a priming mechanism but an informative and learning one (i.e. edutainment) where the participant is learning. The content of the video will determine if rejection or anti-social behavior are generated. We are going further than Burnham, McCabe, and Smith (2000), since we are not priming participants with labels but using a video that has been designed rigorously with elements from the literature on empathy and conflict.

In addition, it has been shown that showing a short film with some enthusiastic substance before a survey is the best method for initiating a particular feeling (Gilet, 2008; Westermann, Spies, Stahl, and Hesse, 1996). On experimentally-induced emotions Boyce, Czajkowski, Hanley, Noussair, Townsend, Tucker, et al. (2015) implemented a choice experiment in a laboratory setting. In each of three conditions participants were asked to watch a collection of short film clips (approximately 6-7 minutes in length) of the same valence. The film clips were selected in order to elicit two incidental emotions, sadness and happiness, prior to making decisions relating to the environment. They found that there are not statistically significant decisions made using these videos, even though the films do influence the participants' emotional states.

ii Trust

This project introduces two mechanisms that explain trust and other social preferences. The first mechanism is how individuals relate to each other. Empathy among citizens has become a key factor for building social capital (Bauer and Freitag, 2018), and is positively related to prosocial behavior (Williams, O'Driscoll, and Moore, 2014). The second mechanism contributes to the discussion of measurement methods of prosocial behavior. Traditionally, trust has been measured with surveys and economic experiments.

ii.1 Empathy

As stated by (Konrath, Falk, Fuhrel-Forbis, Liu, Swain, Tolman, Cunningham, and Walton, 2015), empathy is very difficult to define and measure; the scholarly literature on it is full of different conceptualizations and rationalizations of it. Scholars have used the term loosely to apply it to personality traits, emotional responses, cognitive states or abilities, and hypothetical responses to situations (Ibid). As a reference point we use the definition of empathy provided by (Decety and Lamm, 2006), because it encompasses the broad literature in which empathy involves a focus on and concern for others' perspectives and feelings.

The fact that empathy motivates prosocial behavior and inhibits aggressive behavior is one of the reasons that it is so highly valued in society (Borman, Penner, Allen, and Motowidlo, 2001; Jolliffe and Farrington, 2004). As Konrath et al. (2015) argue, there are different kinds of prosocial behaviors. Some are more closely tied to empathic activation (e.g. helping others who are in distress) while others are more peripheral forms of prosocial behavior (e.g. cooperation with others) that nevertheless have been found to be correlated with empathy (Batson and Moran, 1999). An important part of empathy is the ability to trust and be trusted.

As Bagdasarov, Connelly, and Johnson (2019) stress in their literature review most researchers agree that empathy involves both affective and cognitive components, with many discussing empathy in terms of emotional ability, capacity, or skill. The authors recognize the role of affect in empathy and follow Wondra and Ellsworth (2015) in not isolating it from theories of emotion. Additionally, their literature review shows that empathy can: help facilitate mutual trust (Bass, 1960; Mahsud, Yukl, and Prussia, 2010); help reconciliation efforts (Nadler and Liviatan, 2006) ; function to regulate others' negative emotions, boosting positive affect and enhancing interpersonal relationships, demonstrating that agents who regulate a target's emotions enjoy higher perceptions of trust and friendship (Niven, Holman, and Totterdell, 2012).

Bagdasarov et al. (2019) also review the clinical and counseling literature which provides additional support for our proposition that empathy positively affects trust: as empathy has a "healing and growth-enhancing" effect, suggesting the value of empathy in mitigating negative affect (Barrett-Lennard, 1981); clients increased trust and gratitude toward the therapists as a result of empathy (Bachelor, 1988). Bagdasarov et al. (2019) argue that these studies suggest that empathy allows the receiver to experience relief and positive affect as a result of feeling understood, which may translate into facilitating trust repair.

Most importantly, and given the context of our research, evidence shows that an out-group's expression of empathy for an in-group's suffering resulted in increased willingness to reconcile on the part of the in-group. This finding, however, was only true in cases where trust between parties was high. When trust was low, an opposite effect was observed (Nadler and Liviatan, 2006). In a recent experimental paper, Bagdasarov et al. (2019) find evidence that supports their predictions regarding empathic capabilities and trust repair.

ii.2 Social Trust

Social trust refers to trust in human targets, and it is important because it stimulates cooperation between individuals. It could be affected by the cultural co-evolution theory of institutions that shows weak institutions and cultural heritage that violate the rules will not only have direct adverse economic consequences, but may also damage the internal honesty of individuals, which is essential to the smooth operation of society. These results were given by an index of the Prevalence of Rule Violations (PRV) based on country-level data of corruption, tax evasion, and fraud compared to a measure of intrinsic honesty in an anonymous die-rolling experiment (Gächter and Schulz, 2016).

In Colombia, where the Corruption Perception Index is 39 percent (2020), the Confidence Index that shows trust in NGOs, companies, government and media is 48 percent and with a history of 50 years of violence, makes people vulnerable to no trust. Even though, according to (Cárdenas, Chong, Ñopo, Horowitz, and Lederman, 2009) when the conditions in a group were conducive to trusting others, they were also conducive to contributing to a public good. Also, Latin Americans are willing to trust others, and that trust is reciprocated with trustworthiness. Only a small fraction of people would confirm the prediction that rational agents will prefer to free ride on the provision of public goods by others.

The experiment that Cárdenas et al. (2009) made consisted of an individual decision to cooperate with a group based on the expectations of the behavior group. These expectations or predictions are the key determinants of economic decision-making, far more important than the individual's social demographics. If people are based only on brief observations and the availability of very basic data about group demographics, they can predict the behavior of other people in the room to a certain extent, which means that individuals will indeed pay attention and be group-oriented.

Differences in group identity can cause a decrease in interpersonal trust levels (Chen and Li, 2009); lower trust towards immigrants and between people of different ethnic groups (Fershtman and Gneezy, 2001; Cameron, Erkal, Gangadharan, and Zhang, 2015; Cox and Orman, 2015). Dinesen, Schaeffer, and Sønderskov (2020) did a meta-analysis that produces an overall meta-estimate based on the individual studies, examining the relationship between ethnic diversity and social trust. They find a small but statistically significant negative relationship between ethnic diversity and social trust across all studies. Nevertheless, this negative relation can be overcome where guidance for interaction or explicit incentives for cooperation were given. Condra and Linardi (2019) studied with a lab-in-the-field experiment, the relation between ethnically diverse people in a context of post conflict society, Afghanistan. They used contact between them and found that out-group altruism was decreasing in time among those who did not speak the out-group's language, suggesting that this contact highlights differences in descent-based attributes and increases in-group identification. This mechanism leads to in-group bias in casual, everyday interactions in a post conflict society with implications for studying the nature of ethnic bias in political and economic behavior.

We don't include an ethnic aspect to our research because we assume that linguistic, religious, cultural, and phenotypic characteristics are very similar across the target groups.

Instead, we want to see how citizens trust migrants and ex-combatants, taking into account availability of very basic data taking into account meta-analysis of individual socio-economic characteristics, individual perceptions of trust, empathy and malleability. Further, there is plenty of literature that shows that contact or communication affect prejudicial and discriminatory attitudes toward groups (Ben-Ner, List, Putterman, and Samek, 2015; Condra and Linardi, 2019), but we are not interested in this kind of interactions because our intervention is virtual.

On laboratory experiments on trust, we highlight the job of Gandelman and Lamé (2021) where Uruguayans participated on a lab experiment to elicit trust levels towards immigrants (particularly Venezuelan and Cuban) and whether allowing for a little communication of writing messages to see if it could help to diminish any such differences. They found no significant difference between the amount sent to Uruguayans and foreigners in general and no significant effect in the amount sent by players 1 with limited communication. Also, the control questions about general trust, interpersonal trust and institutional trust are not correlated between any measure of institutional trust and in-game trust.

iii Preferences for redistribution

The conjecture that perceived determinants of success (i.e. whether poverty results from laziness or bad luck) affect the support for redistribution (Fong, 2001; Krawczyk, 2010). For that, people may prefer more redistribution to the poor if they believe that poverty is caused by circumstances beyond their control, so that if they believe that the poor are lazy they will prefer less redistribution than if they think they are just unlucky. Also, if people think that society offers equal opportunities they are also more averse to redistribution (Alesina and La Ferrara, 2005).

Using a third party redistribution game, which will be explained deeply on the methodology, Grimalda, Farina, and Schmidt (2018) analyzes how preferences for redistribution depend on characteristics of recipients by a survey of representative German population in three dimensions: age, gender and region. They systematically vary information about receivers who are either asylum seekers, economic immigrants or a member from the German population. Characteristics also vary along the education and engaging in voluntary community work. They found discrimination against both asylum seekers and economic migrants of residence. Redistribution increases while discrimination decreases if the recipient engages in voluntary work. Being educated only increases redistribution if the recipient is an asylum seeker.

Another game third-party redistribution, which varies the initial income inequality between the players, as well as the personal cost of the decision to effect an equal outcome, allows them to estimate the trade-offs between self-interest and a desire for fairness in redistributive decision-making. Piraino and Ryan (2018) show that the willingness to redistribute increases with the initial pay inequality and decreases with the personal cost to redistribute. The source of inequality makes a difference, with the willingness to redistribute in the lottery treatment being considerably higher. They also show that at high levels of inequality the

source matters less, redistribution can significantly decrease pay inequality, especially when deemed unfair, but self-interest is a significant limiting factor.

Grimalda et al. (2018) also reports that immigration affects social cohesion. If social cohesion will decrease with the increase of immigration, then the social contract formulated so far will be under pressure because the willingness to redistribute will be affected and is likely to decrease. The difference between immigrants and natives is the belief that immigrants have a lower level of education and/or a lower propensity to contribute to society. This difference caused by beliefs can be classified as statistical discrimination. Conversely, differences between locals and immigrants that are unrelated to characteristics can be interpreted as evidence of discrimination based on taste.

Exploring this relation of redistribution between natives and refugees, Rodriguez Chatruc and Rozo (2021) research altruism, trust, attitudes toward migrants, perspective-taking, and empathy by assigning 850 locals to one of two online games: i) an online game that immerses natives in refugee life decisions. The user takes on the character of a female Venezuelan migrant in this game. The player reads the migrant's history, receives messages from her relatives and friends, writes notes to her family, and, most crucially, makes decisions in the migrant's place during the 20 to 40 minute game. ii) a true-life documentary about the refugee migration process to assess redistribution. The film highlights the perils and challenges of Venezuelan immigrants fleeing a serious humanitarian situation who cross the border into Colombia on foot. The personal stories of immigrant men, women, and children, as well as humanitarian workers, who have left everything behind in Venezuela and braved the grueling immigration procedure, are told in this film. Forced immigration is depicted in the film as separating families. Many parents emigrate to find a better future for their children. The video is 6 minutes and 39 seconds long.

Both treatments substantially improved generosity and trust toward migrants, according to Rodriguez Chatruc and Rozo (2021). In comparison to the control group, treatment participants made larger charitable donations to an organization that aids migrants and expressed stronger support for policies that aid migrants. Furthermore, both treatments successfully lowered anti-immigrant bias.

iv Contribution

The study will contribute to our understanding of the determinants of trust in LAC, Colombia in particular, and the mechanisms that promote or discourage interpersonal trust and/or trust among citizens and/or social cohesion and collective action. Despite the wealth of research on microfoundations of social capital, this project works on some central questions that remain unanswered and are presented as the following research objectives.

First, although LAC is one of the lowest-trust regions in the world, there is little research that focuses on the sources and consequences of low trust in the region, nor on the reasons for the recent and precipitous declines in trust. This project introduces two mechanisms that may explain the low levels of social preferences: empathy and heuristics.

Second, research on interventions and policies that might increase trust is incipient. Aside from replicating previous studies and methods, we will implement two small-scale interventions to improve prosocial behavior and increase interpersonal trust. The first one is an improvement in empathy levels among citizens towards the target groups (ex combatants and Venezuelan migrants). The second one aims to tackle behavioral biases to promote a change in responses and behavior by providing additional time and effort that delays an automatic response regarding individual trust. Both interventions are considered as behavioral informed solutions that have been successful in other settings in the field and contribute to the solutions of collective action problems that are well-documented both theoretically and experimentally (i.e. in the lab). Given that levels of trust in Colombia appear to be some of the lowest in Latin America, if these interventions prove useful in increasing trust amongst participants, the results could be scaled up or adapted to have an impact on a larger share of the population.

Third, we are taking into account the most relevant economic, political and social issue in LAC that is shaping the social and political structures as well as determining trust and social capital in the region: the Venezuelan migrant crisis. We expect that our two small scale interventions would contribute to the most policy-relevant, scalable interventions for LAC in the short term. The policies approved and implemented to help these migrants will depend on how citizens in Colombia, and other receiving countries, view the migrants and how much they want their taxes to be used to help them.

Fourth, the identification strategy will allow for examination of causal effects in the trust and social capital literature in the field. We are also collecting lab-in-the-field experimental measures of social preferences and preferences towards redistribution and survey measures related to civic and political participation.

Finally, this study will also allow us to measure what has happened with the levels of trust in Latin America in the last ten years using lab-in-the-field economic experiments. We will replicate the experiments implemented by Cárdenas et al. (2009). This will give us a better idea of the evolution of trust in Colombia than other available sources, such as Latinobarómetro.

3 Experimental design

We provide evidence on the possible mechanisms that increase trust, measured with a set of lab-in-the-field experiments and a survey. We use a representative sample of individuals in different regions of Colombia. We are interested in studying Colombians' social preferences towards Venezuelan migrants and ex combatants.

i Targeted groups (stakeholders)

We examined behavior among Colombian citizens towards four particular groups: Venezuelan migrants, ex combatants, internally displaced people, and the poor. The poor will be a subset of the control group and allow us to control for socioeconomic status, since the

migrants and ex combatants are amongst the poorest in the country. Venezuelan migrants and the internally displaced are both groups of migrants but the first are foreigners and newcomers and the second are citizens. Ex-combatants and the internally displaced are both connected through Colombia's civil conflict, which caused the displacement.

Venezuela's migrant crisis is the largest in Latin American history. Worldwide, it is now second only to that of Syria (UNHCR, 2019). Colombia now hosts the largest number of migrants—1.4 million, up from about 300,000 just two years ago. Another 710,000 Venezuelans traveled through Colombian territory in 2018 in transit to other destinations farther south (OAS, 2019). By mid-2019, Colombian authorities had issued some type of formal documentation to about 52 percent of Venezuelans in the country, with 46 percent of them receiving temporary residence permits that allow them to work, get health care, and enroll their children in schools. Not that long ago, millions of Colombians sought refuge in Venezuela, during Colombia's decades of internal armed conflict. In recent interviews in Bogotá in shelters, health clinics, bus stations, and other facilities, Venezuelan migrants spoke of ordinary citizens offering acts of kindness, from food for their children to rides for those making the long journey on foot. Yet public opinion shows signs of hardening. In a Gallup poll, the proportion of Colombian respondents who said they agree with the government's policy of welcoming Venezuelans fell by 14 percent from May to June of 2019.

Images of Venezuelans sleeping in streets, parks, and other public places are stoking negative sentiments in citizens. Although evidence shows that immigration does not depress wages in the long term, that does not stop many Colombians from suspecting that desperate Venezuelans willing to work for less than the minimum wage are stealing their jobs and increasing insecurity. Colombia has become the lab where it is possible to find the best media intervention that could reduce xenophobia and induce empathy towards Venezuelans.

A fundamental challenge faced by countries beset by internal conflict is how to successfully end the conflict and reincorporate ex-combatants so that the conflict will not recur. In Colombia, more than 60 years of conflict have claimed the lives of more than 250,000 people and displaced over 7 million. In 2016, the Colombian government and the FARC leadership negotiated a peace treaty, which the Colombian people narrowly rejected in a referendum, leaving the country on the brink of peace. The deal was later renegotiated and approved by Congress. This study aims to build on novel, evidence-based intervention strategies that could build social cohesion and promote trust and collective action by directly addressing the gap between the Colombian public and ex combatants.

In Colombia, 19.6 % of the population was poor in 2018, according to DANE's multidimensional poverty measures, up from 17.8 % in 2016. Social capital and generalized trust are fundamental in sustaining a welfare state, for example, by promoting support for redistributive policies that would benefit the poorest members of a society. Trust can also help to solve the free-rider problem inherent in the basis of a welfare state, with a large number of contributors, and universal entitlement of services and public goods (Borisova, Govorun, Ivanov, and Levina, 2018).

There has been a robust institutional effort made by the Colombian State since the internal displacement crisis that positioned Colombia as the country with the highest numbers of

internal displaced population (up to 7.7 million IDPs according to the UNHCR). This effort has effectively improved the conditions of a vast number of families and individuals that were benefited by the National Displacement Attention System that has been operating for more than 25 years. Additionally, the stabilization of services allows new displaced families to be swiftly supported by a wide set of services that include health, psycho-social attention, education, jobs and family support through two of the biggest social programs in the country. Data from the World Values Survey between 1997-2019 shows a positive shift regarding the possibility of having a victim of violence or an internally displaced person as a neighbor. These data among other every day trends, seem to reflect the positive integration of displaced populations after several decades of robust institutional investment in welfare programs, the great support of international aid and the work done by local NGO's, and the internally displaced leaders that have shifted the narrative and the reality for most part of the internally displaced Colombian families.

ii Our Behavioral intervention

Treated participants watched a video about Venezuelan migrants (TR) or ex-combatants (TE) talking about their experiences in Colombian society, as well as other stakeholders, such as authorities or local population, reflecting about the migration or reintegration processes. The video intervention is aimed towards increasing empathy towards the target groups and we examine whether it improves trust and prosocial behavior towards them. Empathy levels among certain groups are positively related to prosocial behavior (Williams et al., 2014).

For treatment 1, named TE, participants were exposed to a short video that presents ex-combatants as similar to the controls. This video has already been produced and used in a study Emile Bruneau (2022), with a positive effect on empathy levels by the participants.

The Peace and Conflict Neuroscience Lab at the University of Pennsylvania surveyed a representative sample of Colombians between 2018 and 2020 to determine the psychological factors most strongly associated with opposition to re-integration of FARC ex-combatants and opposition to peace. They identified a number of psychological factors that were independently associated with opposition to integration and peace, including the highest levels of blatant dehumanization that have been measured to date (in any country, and towards any target group). Then, they partnered with a Colombian film company and interviewed FARC members at a demobilization camp, as well as Colombians living in the neighboring villages, police tasked with maintaining the cordon around the camp, and members of NGOs who worked in the camp. From these interviews, they created a handful of videos that highlighted expressions, perceptions and anecdotes – expressed by FARC and non-FARC – that directly countered the psychological impediments to peace **?**. Bruneau et al. (2022) conducted a randomized controlled study of the effect of watching the videos on attitudes towards FARC members, and support for peace. They found that those who viewed a video that featured both FARC and non-FARC challenging the commonly held perception that FARC members are unwilling and unable to integrate into Colombian society ("FARC integration") reported significantly less dehumanization, greater empathy, and increased support for peace, relative to Colombians who did not watch the video. We use

Emile Bruneau (2022)'s video intervention to observe whether changes in empathy translate into improvements in trust and prosocial behaviors towards ex-combatants. The theory of change draws on the empirical evidence that a brief exposition to a video that combines positive personal history confirming prosociality of ex combatants and social proof from civilians, public officers and members of the Armed Forces has positive effects reducing dehumanization and increasing support for the peace process even after 3 months. We extend on this work by replicating the intervention design to the context of Venezuelan migrants. Our work is different from other intervention designs such as Rodriguez Chatruc and Rozo (2021), especially given our tailor-made content design that follows evidence based insights to build our videos.

For treatment 2, named TR, participants are exposed to a short video that presents migrants as similar to the controls reproducing the persuasion techniques that informed Emile Bruneau (2022) video intervention. We partnered with the same film company that produced the ExFarc video. We visited a slum in Bogotá where we invited migrants to participate in the video.

We did not aim to study how to improve empathy levels towards the poor. We expect the video to increase empathy, which is a positive driver of trust. We expect to see that the video will increase trust across people from different groups. We are going further than Burnham et al. (2000), since we are not priming participants with labels but using a video that has been designed rigorously with elements from the literature on empathy and conflict. We also differ from Ben-Ner and Putterman (2009) as we are aware of how difficult it is to enforce contracts in developing countries and the current context of already low levels of trust in Colombia.

In addition, the finding that trust and trustworthiness erode over time by Burnham et al. (2000) is consistent with any state-dependent other regarding preference where there is no reinforcement of the incentive (i.e. communication as in Ben-Ner and Putterman (2009)) or intervention. In our study, we are not using an external priming to improve trust, instead our aim is that our participants will learn about the out-group and realize that they are alike. We assume that the video won't change trust as a state-dependent preference but as an endogenous preference.

Our intervention provides information and learning (i.e. edutainment). The content of the video will determine if rejection or anti-social behavior are generated. The videos are evidence-based tools to transform meta-perceptions in a way that psycho-social barriers are reduced (Emile Bruneau, 2022).

In inter group conflict situations, people develop cognitive and affective biases about the outgroup, hindering reconciliation. But even strongly held intergroup biases are mutable. Positive contact between groups can improve intergroup attitudes and behavior even after prolonged violent conflict. Media-based interventions can extend such benefits beyond those willing and able to engage directly with out groups. Amid a context marred by generations of violence and propaganda, we first identified the psychological perceptions most associated with opposition to reconciliation, and then targeted them with a variety of film-based interventions. Our research is based in a process of interventions focused on

Colombia, where the 2016 peace deal with the FARC guerrilla group—promising to end a 60-year internal conflict—has faced a number of significant challenges, risking relapse. In the case of the Venezuelan migrants we replicate our interventions from targeted interviews we conducted alongside local filmmakers with FARC ex-combatants and their non-FARC Colombian neighbors in a rural demobilization camp Emile Bruneau (2022). We use measures that highlight the effectiveness of an intervention that reduced cognitive perceptions of FARC ex-combatants as unwilling and unable to change, precipitating an increase in support for peace and re-integration. Our research uses a framework that identifies and reduces impediments to peace among the civilians ultimately responsible for reconciling with and re-integrating ex-combatants following internal conflicts. We base our research on a successful intervention that confirms that exposure to a media intervention developed in collaboration between scientists and filmmakers reduces psychological barriers to peace among a populace riven by generations of violent internal conflict. Adapting a bottom-up paradigm used in research on persuasion in the context of health, we identified a prime psychological target for intervention that was commonly held among non-FARC Colombians and closely associated with opposition to peace: The belief that members of an out group are unwilling and unable to integrate into Colombian society. Building on a literature highlighting the benefits of parasocial contact, we created two videos that provided Colombians—most of whom have never directly interacted with members of FARC or migrants—with information highlighting demobilized FARC members' and Venezuelan migrants' strong desire and demonstrated ability to integrate. We combined this with corroborating perspectives from in group members highlighting their own experiences and observations.

Results from previous studies confirmed the effectiveness of this intervention. We expect that exposure to this video reduces dehumanization of FARC ex-combatants and migrants, increases support for peace and integration policies among Colombians. Confidence in the robustness of the intervention is bolstered by the fact that its effects persisted 10-12 weeks post-exposure, and were broadly replicated in independent samples of Colombians. Our research is supported in evidence that the intervention changes behavior—significantly increasing donations to an organization that promotes the re-integration of FARC ex-combatants—and increased expressed willingness to hire ex-FARC job applicants, a critical aspect of a successful and sustainable peace.

Research on conflict resolution has emphasized the value both of changing cognitive beliefs about an "enemy" outgroup and of intervening to improve affect and increase empathy. Our intervention builds on prior work on the importance of cognitive beliefs about malleability by targeting the specific belief that FARC members and migrants are willing and able to change, and we therefore expected our intervention to exert its effects primarily through this cognitive mechanism. Still, media interventions inherently include a mixture of content, and even interventions targeting specific beliefs might actually work for reasons beyond those presumed to be manipulated. We provide theoretical support for the mechanism we posit: we use evidence that confirms the effects of the focal FARC-Integration video are significantly mediated by reductions in the belief that FARC members are unwilling and unable to change, even when controlling for alternate mediation pathways via increased empathy and reduced prejudice. Additionally, our intervention strategy and design departs from previous efforts such as Rodriguez Chatruc and Rozo (2021) by developing a systematic

translational science design, as a means to create context sensitive interventions as a result of the collaboration between scientists, artists and key actors involved in the situation under study (Moore-Berg et al. (2021), Casas and Hameiri (Casas and Hameiri))

iii An Experimental Session

All experimental tasks were conducted with random and anonymous partners to keep confidentiality. Subjects knew the identity group of their counterparts Cárdenas, Candelo, Gaviria, Polanía, and Sethi (2008); Glaeser, Laibson, Scheinkman, and Soutter (2000). The only salient feature was if player 2 was an ex-combatant, a refugee, a displaced person, a poor person or control. In addition, the poor are a subset of the control group, as mentioned before (see Table 6 . Decisions in the DG and Table 7 Summary of the games.) Since we are not implementing all possible pairs of subjects of different subgroups but only one group (control) paired with 4 subgroups, we have enough observations to control for the identity group. That is, we will have members of the control group play against other members of the control group (that may or may not be poor), migrants and ex-combatants. We don´t capture how migrants and ex-combatants react to Colombians, poor Colombians, other migrants or ex-combatants. Since our main motivation comes from the implications of trust on public policies that help these two vulnerable groups what is most relevant here is how the median voter (a Colombian citizen in this case) behaves towards Venezuelan migrants and ex-combatants.

The participants playing as player 1 knew the identity group of whom they were playing against. The other player's identity was revealed in a subtle way, together with other characteristics, such as education levels and socioeconomic status (summarized in the "estrato" concept).

4 Measuring trust, altruism towards migrants and preferences for redistribution

i The Panel

The survey and experiments were done online, in partnership with Invamer. The participants are a sample drawn from the World Values Survey -Values in Crisis- panel. This panel has been surveyed twice during the Covid-19 pandemic, with questions related to how values have been affected by the pandemic and the measures implemented to mitigate it. Ours is the experimental round of the survey and we have 839 participants, out of a possible sample of ~ 1518.

In Table 10 we can see the main characteristics of the panel data, from the dataset. Bogotá represents the 18.26% with 105 participants of the total data, followed by Cali, Medellín and Cartagena with 44 (7.65%), 26 (4.52%) and 24 (4.17%) respectively. In summary we have a total of 575 that participants in the sample. On the other hand we have 55.5% of

female representation which means 319 surveys were answered by women and 256 surveys answered by men.

Additionally, most of the surveyed population is within the age range between 26 and 35 with 25.9%. However, as seen in the Table 10, it is a fairly homogeneous sample among all age ranges. Finally the socioeconomic status of respondents is concentrated in stratum 2 and 3, adding more than 481 (66.2%) of the total sample, the socioeconomic levels with the least participation are stratum 5 and 6 with 34 (5.9%) and 13 (2.3%) respectively.

ii Economic games

We use economic experiments and surveys in the field to measure trust. These instruments have been replicated in the experimental economics literature on trust and have also been widely applied in the field. We replicated the experiments and surveys in Cárdenas et al. (2009); Almås, Cappelen, and Tungodden (2020). The survey collected individual socioeconomic characteristics, individual perceptions of trust and questions from the World Values survey. An additional survey, focused on empathy, dehumanization, prejudice and meta perceptions was also implemented.

Individual Experimental sessions were implemented online and there was no risk that the composition of the experimental session would affect individual decisions (Condra and Linardi, 2019).

An experimental session had the following stages and activities (See table 8 in appendix):

- Introduction and informed consent
- Intervention: treatment 1 or 2 or control 1 or 2.
  A control group will watch a neutral video, another control group will watch no video at all
- Experiment 1. Dictator game (Cardenas et al 2009)
- Experiment 2. Trust game (Cardenas et al 2008)
- Experiment 3. Distribution game (Almas et al. 2019) with luck
- Experiment 4. Distribution game (Almas et al. 2019) with merit
- Survey 1. Socioeconomic characteristics
- Survey 2.
  Dehumanization and empathy survey
  Socioeconomic characteristics
  Survey experimental measures on trust, reciprocity and altruism
- Disclosure of Payment amount
- Payment (one week later)

The dictator game (DG) and the trust game (TG) follow Cárdenas et al. (2009) and Cárdenas et al. (2008). The distribution game is the Third-Party Redistribution Game (TRG). It is designed in order to measure preferences for income redistribution by the controls towards migrants or ex combatants. We aim to study whether preferences for redistribution could be alleviated by solving empathy failures among the groups. The basic game is based on the Third-party allocator Almås et al. (2020): the initial distribution of earnings is the same, one worker (i.e. control) has earned all the money, and the other worker has earned nothing (10 USD, 0 USD). The task of the spectator is to determine whether to redistribute some of the initial earnings from the worker with 10 USD to the worker with 0 USD, where the treatments only differ with respect to who is the worker with 0 USD: an ex-combatant, a refugee, the poorest or control. This particular game is a simpler design than Grimalda, Detlefsen, and Schütt (2019) and Krawczyk (2010) where earnings are allocated according to luck or performance in a previous task, and yet, our design provides a demand and supply for redistribution across groups. We prefer a simpler game given the education levels of our participants.

iii Mouse/Finger tracking

We will measure change in social biases by analyzing reaching traces in a touch tablet in the control and treatment group. This paper will not analyze these results, a future paper will do it. Movement data towards choice targets can reveal hidden cognitive states (Song and Nakayama, 2009). Of interest, movement patterns can reveal implicit gender, racial, and other social biases (Freeman, Dale, and Farmer, 2011). For instance, Wojnowicz, Ferguson, Dale, and Spivey (2009) asked university students in the US to report if they liked or disliked various categories, say fruits, babies, rats, others. They reported their answer by moving the mouse cursor from a starting position at the bottom of the screen to one of two targets on the left (like) and right (dislike), counterbalanced. The critical categories were black people and white people. Even though participants responded like for both, the movement was less confident for black people, suggesting a hidden bias, invisible to the researchers if they had relied on the discrete choices.

As a methodological innovation we will report traditional measures in this literature (Hehman, Stolier, and Freeman, 2015), including mean velocity towards the final choice, curvature of the trajectory (relative to a straight path), variability of coordinates, end positions, initial heading direction, and changes of mind during the movement. These measures provide a general approximation for the strength of internal cognitive representations supporting the overt judgments observed in the economic games, dehumanization, metadehumanization, metaperceptions, empathy, and collective blame measures.

Participants used different devices. Some used mobile devices while others desktops or laptops. This project is pioneering such variability in input devices when recording dynamic measures of movement in a large scale survey. This novelty requires special attention to standardize each of the measurements. Our empirical approach was to ask all participants to start with 10 initial training trials where we directed their movement to a mandatory position on screen. We will use this forced movement as reference for each subject. This is

an standardization across participants, under the assumption that under a forced instruction participants will move as they usually do in their devices when they know a priori where to move. That being said, and given the novelty of dealing with variability in input devices, we will explore other possible data-driven standardisation (e.g. to the max. velocity of each subject across all questions that recorded finger/mouse movements).

We analyze movement metrics (MM) with the following linear regression. For each game, our vector of outcome variables (MM_{ij}) contains the participant i's movement metric in the decision j.

$$MM_{ij} = a_k D_k^j + \beta X_i + \gamma^m T_i^m + \epsilon_{ij} \tag{1}$$

D_j^k: is a vector of indicator functions that indicates whether the interaction is with a poor participant, a migrant, an ex-combatant, or a displaced person k = (poor, migrant, exFarc, displaced).

T_m^i: indicates which media treatment m=(migrant, exFarc, tourism, none) was assigned to the participant

X_i: is a vector of individual characteristics

The parameter γ^m measures the extent that the media treatment affected motor-cognitive computations supporting participant's altruistic, trust, and re distributive choices made in the tasks. Also, how the media treatment modulated motor-cognitive output when making overt dehumanization, empathy, and collective blame judgments.

iv Dehumanization, prejudice and metaperceptions

Other psychological complementary measures regarding ingroup-outgroup dynamics may be included using the five drivers of conflict identified by Emile Bruneau and the Peace and Conflict Neuroscience Lab at the University of Pennsylvania. Such measures may include: dehumanization (Kteily, Bruneau, Waytz, and Cotterill, 2015; Bruneau and Kteily, 2017; Kteily and Bruneau, 2017a; Kteily, Hodson, and Bruneau, 2016; Kteily and Bruneau, 2017b), blatant dehumanization (i.e., direct and overt denial of another's status as fully human) (Capozza, Di Bernardo, and Falvo, 2017; Bastian, Denson, and Haslam, 2013; Kteily et al., 2015; Bruneau, Jacoby, Kteily, and Saxe, 2018), prejudice (Kteily et al., 2016, 2015; Bruneau and Kteily, 2017; Kteily and Bruneau, 2017a,b; Jardina and Piston, 2021; Petsko, Lei, Kunst, Bruneau, and Kteily, 2021; Haddock, Zanna, and Esses, 1993), empathy, meta-perceptions (i.e. people's actions toward a competitive outgroup can be motivated not only by their perceptions of the outgroup, but also by how they think the outgroup perceives the ingroup) (Moore-Berg, Ankori-Karlinsky, Hameiri, and Bruneau, 2020; Kteily et al., 2016; Kteily and Bruneau, 2017a), collective blame (Bruneau, Kteily, and Falk, 2018; Bruneau, Kteily, and Urbiola, 2020; Gallardo, Hameiri, Moore-Berg, and Bruneau, 0), and malleability (Wohl, Cohen-Chen, Halperin, Caouette, Hayes, and Hornsey, 2015).

v Survey on trust and socieconomic characteristics

We obtained information regarding some intrinsic characteristics of individuals towards society in general, ex-combatants, migrants and the poor. Our survey on sociodemographic characteristics will describe how these variables differ or not across perceptions towards different subgroups.

The table 11 show us characteristics like gender, age, education, occupation, employment situation, number of children in the home, number of family members in the home, monthly household income, stratum, city of residence, city of origin, sector of work, type of dwelling, ages of the children in the home, head of household, Sisben that is a Colombia's classification system which enables the government to identify low-income people and benefit them with Social Programs, and their own perception about their social class.

5 Effect of media on other-regarding preferences

i Identification Strategy

Our identification strategy is twofold. First, we have a wave of experimental and survey data collection for all treatment groups. Every participant is randomly allocated into a treatment. Participants make experimental decisions, answer the survey and be exposed to the randomized treatment. Second, we have control and treatment groups for each intervention and we will compare behavior towards the poor and IDPs and Ex-Farc and Venezuelan migrants. Our analysis uses both a within subject (preferences towards the poor vs towards the migrants, for example) and a between subject (no video vs. migrant video, for example) design.

We will estimate prosocial preferences (DG, TG, IDG) by exploiting within-subject variation in the data. For each game, our vector of outcome variables (Y_{ij}) contains the participant's prosocial preference, i.e. the amount sent by player 1, i, in the decision, j, where j=(1,2,3,4). Our linear regression model is the following:

$$Y_{ij} = a_k D_k^j + \beta X_i + \gamma^m T_i^m + \epsilon_{ij} \tag{2}$$

D_j^k: Is a vector of indicator functions that indicates whether the interaction is with a control, a poor participant, a migrant, an ex-combatant, or a displaced person k=(C12, C2, E,R,D)

T_m^i: indicates which treatment m=(no video, neutral video, TE, TR) was assigned to the participant.

X_i: is a vector of individual characteristics. Also includes questions related with dehumanization, meta-dehumanization, empathy and collective blame measurements. (See appendix)

Main Hypothesis:

H1: Citizens will be less prosocial when interacting with a refugee or an ex combatant ($H_0 : \alpha^R \geq 0; H_a : \alpha^R < 0$ and $H_0 : \alpha^E \geq 0; H_a : \alpha^E < 0$)

H2: In the baseline, in the economic games, citizens will be more prosocial after treatment ($H_0 : \gamma^m \geq 0; H_a : \gamma^m < 0 \ \forall m$)

Additionally, the type of data and the way experiments were run, allows us to go deeper in the coefficient analysis. By including an additional interaction in Equation 2 between D_j^k and T_m^i we can see if the video treatments are influencing the decision of the participants based on the protagonist of the treatment; we will see if the video that increases trust in migrants has greater effects on the decisions of its members, the same with ex-combatants. The equation for this specification is as follows:

$$Y_{ij} = a_k D_k^j + \gamma^m T_i^m + \delta^n (D_k^j * T_i^m) + \epsilon_{ij} + \varphi_{ij} \tag{3}$$

In this case the parameter that will give us the heterogeneous effects coefficient is δ^n, the φ_{ij} parameter is a fixed effects control by participant.

ii Validity of the experiment

We use a representative sample of inhabitants of Colombia and expect that the actual sample of participants fulfills this. In addition, our participants are non-students. Internal validity is not a problem in within-subjects design. For our between subjects design, we will examine that the sample is balanced between treatments and control and that the parallel trends assumption is correct.

During the implementation process, we will make sure our sample is balanced. Our assumed attrition rate is consistent with previous studies and also we expect that the online procedure will reduce the attrition rate. In case of a higher rate of attrition, we will use bootstrapped results.

6 Results

In these results we are focusing on the between-subjects effects, the within-subjects analysis is left for another article. We are also only focusing on the results of the economics games. There are very rich results to analyze from the dehumanization survey, the trust and sociodemographic survey and the empathy survey that we will study in a future article.

The media-based treatment was successful in promoting participants' prosocial behaviors. Table 1 reveals that in general, across all actors, the videos increased participants' transfers in the dictator game. Importantly, the videos modified transfers to the target populations. The migrant video (TR) had a positive effect in the number of tokens that participants gave to the 2nd player. Similarly with the Ex-Farc video (TE). An interesting effect was that the migrant video was stronger when the 2nd player was also a migrant (column 5, Table

1). The specificity of the effect was also present for the ex-FARC video when the 2nd player was an ex-FARC, but less noticeable (column 4, Table 1). Being exposed to other's life experiences, through personal recorded interviews, increased altruistic monetary transfers in the dictator game. Participants who watched the neutral video also responded positively and transferred more player 2, with all the actors pooled or for specific groups.

Table 1: Dictator Game

VARIABLES	(1) All_Actors DG	(2) C12 DG	(3) D DG	(4) E DG	(5) R DG
T = 1, neutral video	0.053***	0.023	0.039*	0.078***	0.073***
	(0.016)	(0.016)	(0.020)	(0.021)	(0.020)
T = 2, TE	0.059***	0.031*	0.027	0.109***	0.068***
	(0.016)	(0.017)	(0.021)	(0.022)	(0.021)
T = 3, TR	0.084***	0.047***	0.038*	0.091***	0.161***
	(0.016)	(0.016)	(0.020)	(0.021)	(0.020)
Constant	0.427***	0.425***	0.526***	0.373***	0.383***
	(0.011)	(0.011)	(0.014)	(0.015)	(0.014)
Observations	3,355	838	839	839	839
R-squared	0.035	0.011	0.006	0.035	0.071
Number of ID	839	838	839	839	839

Standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Note: The five columns shows the Dictator Game results applying Random effects Models using between regression estimators, The Dependent variable is the percentage distribution of the participant over five tokens. The treatment variable represent the video shown to the participant that corresponds to control(neutral video), ExFarc(TE) or Migrants(TR). All the coefficients are read against non video shown.Column 1 contains the total sample, Column 2,3,4 and 5 restricts the sample to each of the actors that interacts with the participant:None(C12),Displaced(D),ExFarc(E)and Migrant(R)
Fuente: (Invamer,2022)

Table 2 shows the effect of the videos in the trust game. When all actors are pooled we see that both the Ex-FARC (TE) and the migrant (TR) videos lead to more tokens being transferred to the second player. The coefficient for the migrants' video is significant at 1% and is more than twice that of the ex-FARC video, whose coefficient is significant at 5%. In this case we do not see any effect of the control video on the amount of tokens transferred by the participants, with all the actors pooled or for specific groups. We do find that the migrants video (TR) has a positive effect on the amount of tokens transferred not only to Venezuelan migrants but also to Ex-FARC, IDPs and control individuals. The biggest effect of the video is on transfers to Venezuelan migrants, as expected. In the case of the Ex-FARC video it also has a positive effect on transfers to all actors and a larger effect when the second player was an ex-combatant. Based on this, being exposed to the life experiences of ex-combatants and migrants increased the viewers' levels of trust in people in general and especially in members of these two groups.

The other two games played by the participants were the redistribution game with luck, where the player given the tokens is chosen randomly; and the redistribution game with

merit, where one player gets to perform a task and is paid for that, and player 1 can choose to redistribute from the person that was paid to the one that was not. These games are meant to study participants' preferences for redistribution, and in both cases the choice of whether to redistribute does not affect player 1. The results are shown in tables 3 and 4. In both cases we find that the videos had a significant effect on participants, leading them to redistribute in favor of the members of the vulnerable groups.

In the case of the redistribution game with luck (Table 3) the migrant video (TR) had a bigger impact on redistributing in favor of the migrants, followed by the ex-combatants. The ex-FARC video (TE) had an impact only in favor of redistributing in favor of ex-combatants.

In the case of the redistribution game with merit (Table 4) the two treatment videos had a positive effect in increasing the redistribution in favor of the person without tokens. The control video only has a significant effect in the case of redistributing in favor of migrants, and the coefficient is significant at the 10% level. The migrant video (TR) had a positive effect in favor of more redistribution for ex-combatants and migrants, with a larger coefficient for migrants. In the case of the ex-FARC (TE) video, we find that watching it led to more redistribution in favor of ex-combatants mainly, but also Venezuelan migrants.

The results from the four games are shown using a random effects model and without including any controls from the sociodemographic or other surveys. The next step in the analysis should be including these controls and doing the within-subjects analysis.

The appendix includes tables 18, 19, 20, 21 where we implement a different specification. Instead of running separate regressions for each type of player 2, we run a single regression but control for the type of actor (migrant, ex-FARC, IDP, control), the type of video (ex-FARC or migrants), and interact each type of video with the type of player 2. We show the results with and without socioeconomic controls. The results from those estimations are consistent with what we found in the main estimations.

Table 5 shows the median (z-score) values of corrected velocities of the trajectories (see an example trajectory in Fig. 6.1). We corrected velocities by subtracting from each participant's velocity their median value. This accounts for different input devices, such as tablets, cell phones, and desktops. Then we computed z-scores, separately for each participant, due to the different screen sizes. We will continue exploring the rich dataset of movement trajectories, but Table 5 seems to indicate that the videos had an effect on the decision-making process. A preliminary random effects regression ($corrected\_vel_{task} \sim treatment$) revealed that the exfarc video slowed down participants in the dictator game ($\beta = -0.20, p = 0.028$) and allocation with effort ($\beta = -0.29, p < 0.01$) while the migrant video had an effect in velocity in the allocation with effort game ($\beta = -0.20, p = 0.025$). Also, the overall negative effect on velocity of the videos in the other tasks (Table 5) indicates the possibility that the videos affected the overall decision-making process.

Table 2: Trust Game

VARIABLES	(1) All_Actors TG	(2) C12 TG	(3) D TG	(4) E TG	(5) R TG
T = 1, neutral video	0.009	0.008	0.019	0.017	-0.009
	(0.020)	(0.023)	(0.022)	(0.027)	(0.026)
T = 2, TE	0.029	0.021	0.002	0.080***	0.012
	(0.020)	(0.024)	(0.023)	(0.028)	(0.027)
T = 3, TR	0.085***	0.053**	0.047**	0.090***	0.149***
	(0.020)	(0.023)	(0.022)	(0.027)	(0.026)
Constant	0.591***	0.578***	0.694***	0.530***	0.563***
	(0.014)	(0.016)	(0.016)	(0.019)	(0.018)
Observations	3,356	839	839	839	839
R-squared	0.026	0.007	0.007	0.019	0.053
Number of ID	839	839	839	839	839

Standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Note: The five columns shows the Trust Game results applying Random effects Models using between regression estimators, The Dependent variable is the percentage distribution of the participant over three tokens. The treatment variable represent the video shown to the participant that corresponds to control(neutral video), ExFarc(TE) or Migrants(TR). All the coefficients are read against non video shown.Column 1 contains the total sample, Column 2,3,4 and 5 restricts the sample to each of the actors that interacts with the participant:None(C12),Displaced(D),ExFarc(E)and Migrant(R)
Fuente: (Invamer,2022)

Table 3: Third-Party Redistribution Game with Luck

VARIABLES	(1) All_Actors TRGL	(2) C12_C12 TRGL	(3) D_C12 TRGL	(4) E_C12 TRGL	(5) R_C12 TRGL	(6) C12_D TRGL	(7) C12_E TRGL	(8) C12_R TRGL
T = 1, neutral	-0.007	0.008	-0.029	-0.050***	-0.015	-0.005	0.019	0.023
	(0.012)	(0.015)	(0.018)	(0.018)	(0.018)	(0.017)	(0.019)	(0.019)
T = 2, TE	-0.002	-0.010	-0.031	-0.025	-0.027	0.008	0.055***	0.016
	(0.013)	(0.016)	(0.019)	(0.019)	(0.019)	(0.018)	(0.020)	(0.020)
T = 3, TR	0.014	0.006	-0.020	-0.011	-0.017	0.023	0.044**	0.074***
	(0.012)	(0.015)	(0.018)	(0.018)	(0.018)	(0.017)	(0.019)	(0.019)
Constant	0.460***	0.446***	0.455***	0.483***	0.466***	0.529***	0.411***	0.428***
	(0.008)	(0.010)	(0.012)	(0.012)	(0.013)	(0.012)	(0.013)	(0.013)
Observations	5,873	839	839	839	839	839	839	839
R-squared	0.004	0.002	0.004	0.010	0.002	0.003	0.011	0.019
Number of ID	839	839	839	839	839	839	839	839

Standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Note: The Eight columns shows the Allocation Game results applying Random effects Models using between regression estimators, The Dependent variable is the percentage distribution of the participant over five tokens. The treatment variables represent the video shown to the participant like control(tourism), Ex-Farc or Migrants) All the coefficients are read against non video shown.Column 1 contains the total sample, Column 2,3,4,5,6,7 and 8 restricts the sample to each of pairs of actors that interacts with the participant:None(C12),Displaced(D),ExFarc(E)and Migrant(R) *Fuente*: (Invamer,2022)

Table 4: Third-Party Redistribution Game with Merit

VARIABLES	(1) All_Actors TRGM	(2) C12_C12 TRGM	(3) C12_D TRGM	(4) C12_E TRGM	(5) C12_R TRGM
T = 1, neutral video	0.020	-0.001	0.010	0.028	0.041*
	(0.020)	(0.022)	(0.022)	(0.022)	(0.022)
T = 2, TE	0.040*	0.023	0.030	0.062***	0.044*
	(0.020)	(0.023)	(0.023)	(0.023)	(0.023)
T = 3, TR	0.052***	0.023	0.035	0.054**	0.096***
	(0.020)	(0.022)	(0.022)	(0.022)	(0.022)
Constant	0.299***	0.292***	0.357***	0.267***	0.280***
	(0.014)	(0.016)	(0.015)	(0.015)	(0.015)
Observations	3,356	839	839	839	839
R-squared	0.010	0.002	0.004	0.012	0.022
Number of ID	839	839	839	839	839

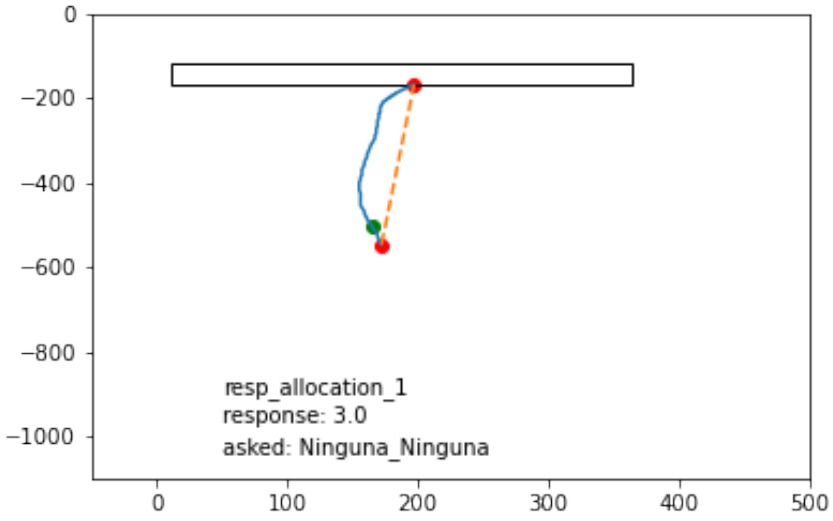
Standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Note: The five columns shows the Allocation B Game results applying Random effects Models using between regression estimators, The Dependent variable is the percentage distribution of the participant over five tokens. The treatment variable represent the video shown to the participant like control(tourism), Ex-Farc or Migrants) All the coefficients are read against non video shown.Column 1 contains the total sample, Column 2,3,4 and 5 restricts the sample to each of the pairs of actors that interacts with the participant:None(C12),Displaced(D),ExFarc(E)and Migrant(R) *Fuente*: (Invamer,2022)

Table 5: Corrected velocity (median z-scores)

	None	Neutral	Exfarc	Migrants
Dictator	-0.40	-0.43	-0.68	-0.51
Trust	-0.26	-0.18	-0.35	-0.17
Allocation	-0.24	-0.33	-0.26	-0.32
Allocation B	0.10	0.01	-0.07	-0.02
Dehumanization	-0.18	-0.07	-0.15	-0.16

Figure 6.1: Example trajectory. Dashed line: straight-path; Blue line: observed trajectory; red dots: starting and end points; green dot: exit the starting region; top rectangle: response bar



7 Conclusion

We study trust by citizens towards migrants and ex combatants. In the context of the 2016 Peace Accord and the big inflow of migrants it is very pertinent to consider ways that could help to integrate these two groups into Colombian society. We expect that the results from this study will help to elucidate possible ways through which interpersonal trust can be increased and improved in a society with low levels of trust and where mistrust towards migrants, ex-combatants and the poor is prevalent.

The COVID crisis meant that many migrants and informal workers lost their jobs and other options to make a living. The situation has led to an increase, at least based on anecdotal evidence, in xenophobia and rejection of migrants. Our study became more relevant as there are more vulnerable people who need help now, so resources have become relatively scarcer and support for measures that specifically help Venezuelan migrants and former combatants might have decreased. So, it is key to study how much Colombians trust these two groups and also each other. Since our study is connected to the Colombian Values in a Crisis our further steps will involve understanding the effects of the pandemic on these and other key measures.

The focus in this study on the Venezuelan refugee crisis will help to provide key lessons for how to address citizens' decreasing support for the welcoming of migrants. This rejection of migrants is not an isolated event and is not particular to Colombia but to other LAC countries as well as members of the European Union. Finding ways to promote trust towards migrants and decrease xenophobia is essential to addressing the crisis and helping migrants and the countries that are receiving them.

Our behavioral-informed intervention is designed to inform policy makers, multilateral entities and NGOs that look to build up and improve trust and prosocial behavior as a solution that promotes self-governance. The measurement methods we use allow us to compare our results with studies that measure inter-group hostility, prosocial behavior in the field in LAC and preferences for redistribution in countries that are facing a refugee crisis.

The results shown here are just the first step of the analysis of the very rich data that we collected, from the surveys and from tracking participants mouse/finger movements. The next steps of this study will involve delving deeper into the statistical analysis of the games and the surveys.

Appendix

A Tables

Table 6: Decisions in the DG

Player 1	Player2	Number of decisions
Control	Control	
	SES 1 or 2 from Control	4
	Internally displaced person	
	Ex-combatant or Venezuelan migrant	

Note: Control = Any citizen from a sample of participants; SES = socioeconomic status; DG = Dictator game.

Table 7: Games Summary

Games	DG	TG	IDG
Other-regarding preference	Altruism	Trust	Fairness
Total observations	2700	5400	5400
Players onvolved in the game	1,2	1,2	1,2,3
Maximum social efficienfy US $	10	12	10
Predicction for the offers by player 1, self-regarding maximizing players	0	0	0

Note: US $1 =COL $3319 (11/04/2019,www.oanda.com). DG=Dictator game; UG=Ultimatum game;TG=Trust game; IDG = income distribution game

Table 8: Experimental design of a session - baseline

Player 1 (sender)	**N**	**Treatment**	**Number of decisions**							
			Games							**Total**
			DG	**TG**	**AG1**	**AL2**	**S1**	**S2**	**SE***	
C12	229	-	4	4	7	4	Y	Y	Y	19
	214	C	4	4	7	4	Y	Y	Y	19
	182	TE	4	4	7	4	Y	Y	Y	19
	214	TR	4	4	7	4	Y	Y	Y	19
Total	839									

Note: C12=Control (poor (C1) or no poor (C2)); TE=Video Ex-combatants; TR=Video Venezuelan migrants; S1: Survey socioeconomic characteristics, C= control video, Games (DG=Dictator game, TG=Trust Game, AG1=Income Distribution Game with Luck, AG2=Income Distribution Game with Merit, S2: survey on trust measures, SE*: adapted empathy survey.

Table 9: Timeline of an experimental session for the main sample (Colombian citizens)

Phase	Recruitment $0	Treatment video, treatment survey or control video	Games	S1	S2	SE	Payment

Note: The treatment (videos or behavioral biases) will come before the games. Players will receive their payment after the end of a session. Invamer was in charge of making payments. The payment is equivalent to twice the minimum daily wage in Colombia.

Table 10: Data Panel Main Characteristics

Municipality	**surveys**	**% surveys**	**Gender**	**surveys**	**% surveys**
Bogotá D.C.	150	17.9%	Male	387	46%
Antioquia	147	17.5%	Female	451	54%
Valle del Cauca	89	10.6%	**Age Range**	**surveys**	**% surveys**
Cundinamarca	52	6.2%	18-25	99	11.8%
Atlántico	35	4.2%	26-35	227	27.1%
Santander	34	4.1%	36-45	176	21.0%
Bolívar	31	3.7%	46-55	139	16.6%
Magdalena	31	3.7%	56+	198	23.6%
Nariño	25	3.0%	**Economic Stratum**	**surveys**	**% surveys**
Norte de Santander	24	2.9%	Stratum 1	83	9.9%
Córdoba	23	2.7%	Stratum 2	213	25.4%
Sucre	22	2.6%	Stratum 3	317	37.8%
Boyacá	21	2.5%	Stratum 4	135	16.1%
Tolima	21	2.5%	Stratum 5	62	7.4%
Rest of Colombia	134	16.0%	Stratum 6	25	3.0%
Total	839	100%	I do not know	4	0.5%

Fuente: (Invamer,2022)

Table 11: Sociodemographic statistics

	N	Mean	SD	Min	Max
Female=1	838	0.54	0.50	0	1
Socioeconomic Stratum	835	2.95	1.17	1	6
Year of birth	839	1,979.35	14.75	1940	2003
Sisben	379	2.37	1.16	1	6
Family Members	839	3.52	1.59	1	12
Children(13-17 years old) live in your household	755	0.26	0.62	0	10
Children(0-12 years old) live in your household	760	0.48	0.73	0	4
Have you donated money in the last month?	831	0.48	0.50	0	1
Volunteered time in the last month?	831	0.18	0.38	0	1
Support by family or friends	831	0.95	0.22	0	1
Helped to a stranger	831	0.80	0.40	0	1
Helped another person	831	0.90	0.30	0	1
Safe feeling living area	831	0.39	0.49	0	1
Money robery in the week	831	0.43	0.50	0	1
I am good at math.	835	6.48	2.74	1	10
I guess people have only the best of intentions.	834	5.67	2.33	1	10
When someone does a favor for me, I am willing to return it.	837	8.62	1.97	1	10

Note: In this table we can see the Sociodemographic characteristics of the total sample of participants *Fuente*: (Invamer,2022)

Table 12: Preferences and Experience Survey

	N	Mean	SD	Min	Max
Give up something to gain greater benefits in the future?	839	7.10	2.49	1	10
Punish someone who treats you unfairly	837	5.16	2.86	1	10
Punish someone who treats others unfairly	838	5.74	2.82	1	10
Make donations without expecting anything in return?	839	7.97	2.34	1	10
I suppose the ex-FARC combatants have the best of intentions.	837	4.73	2.57	1	10
I guess Venezuelan migrants have the best of intentions.	838	4.96	2.40	1	10
I suppose displaced by violence have the best of intentions.	837	6.48	2.37	1	10
I suppose poor have only the best of intentions.	837	5.84	2.48	1	10
Contact with Venezuelans in Colombia	838	5.01	1.69	1	7
Contact with displaced people by violence	838	3.84	1.96	1	7
Contact with FARC excombatants	839	1.96	1.45	1	7
Contact with the Poor	838	5.68	1.48	1	7
Pleasant Experience with Venezuelans in Colombia	839	4.47	1.77	1	7
Pleasant experience with displaced people by violence	838	4.54	2.01	1	7
Pleasant experience with FARC excombatants	839	2.57	2.00	1	7
Pleasant experience the Poor	839	5.53	1.52	1	7
Unpleasant experience with Venezuelans in Colombia	834	3.06	1.87	1	7
Unpleasant experience with displaced people by violence	835	1.95	1.46	1	7
Unpleasant experience with FARC excombatants	832	1.93	1.59	1	7
Unpleasant experience with the Poor	836	2.32	1.55	1	7

Note: In this table we can see the Sociodemographic characteristics of the total sample of participants *Fuente*: (Invamer,2022)

Table 13: Actors' Perspectives

	N	Mean	SD	Min	Max
How refined and cultured are Colombians?	839	56.53	20.39	0	100
How rational and logic are Colombians?	839	62.35	19.89	.1706485	100
How Primitive are Colombians?	839	43.75	25.23	0	100
How aggresive and wild are Colombians?	839	47.24	26.03	0	100
How refined and cultured are Ex combatants of FARC?	839	38.02	23.30	0	100
How rational and logic are Ex combatants of FARC?	839	47.48	24.49	0	100
How Primitive are Excombatants of FARC?	839	46.71	26.24	0	100
How aggresive and wild are Ex combatants of FARC?	839	54.46	27.77	0	100
How refined and cultured are Venezuelan Migrants?	839	44.42	21.84	0	100
How rational are Venezuelan Migrants?	839	51.93	21.57	0	100
How Primitive are Venezuelan Migrants?	839	41.41	23.74	0	100
How aggresive and wild are Venezuelan Migrants?	839	49.77	26.24	0	100

Note: In this table we can see the Actor Perspectives from the total sample of participants *Fuente*: (Invamer,2022)

Table 14: Conflict Beliefs and Common Beliefs Survey

	N	Mean	SD	Min	Max
Reincorporate excombatants would make society less secure	822	36.68	30.26	0	100
integrate venezuelan migrants in Colombia threatens the economy	823	50.25	31.97	0	100
Integrate venezuelan migrants would make harder to get a job for colombians	825	59.30	31.54	0	100
Integrate venezuelan migrants would make society less secure	823	44.11	31.67	0	100
Our culture would be in danger by integrating Venezuelans into Colombia	825	40.02	31.62	0	100
Police prevent crime?	829	2.81	1.30	1	5
Public schools offer quality education?	828	3.28	1.20	1	5
Public hospitals offer quality services?	828	2.93	1.19	1	5
Public employee solve problem?	828	2.43	1.16	1	5
Congressmen keep what they promise?	827	1.55	0.97	1	5
Judges to make fair decisions?	827	2.27	1.08	1	5
Companies offer quality products at fair prices?	827	2.80	1.11	1	5
Armed Forces to contribute to public safety?	824	3.04	1.25	1	5
Politicians think of the interests of people like you?	821	1.59	0.98	1	5

Note: In this table we can see the answers from the Conflict Beliefs and Common Beliefs Survey a of the total sample of participants *Fuente*: (Invamer,2022)

Table 15: Prejudices and Policies Survey

	N	Mean	SD	Min	Max
Excombatants are unable to integrate into Colombian society	817	38.14	30.93	0	100
Excombatants are not willing to renounce violence and criminality	820	40.00	31.85	0	100
Excombatants are not really interested in peace	818	42.30	33.08	0	100
Excombatants are willing to adopt the norms of the rest of Colombian society	814	59.17	29.49	0	100
Excombatants will not be able to renounce violence and criminality.	818	37.50	31.09	0	100
Venezuelan migrants are unable to integrate into Colombian society	826	37.37	28.60	0	100
Excombatants are not willing to renounce violence and criminality	826	37.32	28.99	0	100
Venezuelan migrants will not be able to renounce violence and criminality.	826	36.52	27.83	0	100
Prohibit the access of ex-FARC combatants to well-paid jobs	826	30.29	29.11	0	100
Prohibit spending public resources to integrate Venezuelans into Colombian socie	825	41.44	31.20	0	100
Provide resources that facilitate the access of FARC ex-combatants to psychologi	823	71.89	26.84	0	100
Forcing ex-combatants of the FARC to live in restricted places outside the citie	826	29.62	29.30	0	100
Provide educational opportunities to FARC ex-combatants and their families	825	74.35	24.87	0	100
Invest public resources in job training programs for former FARC combatants	826	67.28	27.18	0	100
Forcing Venezuelans to live in restricted places outside the cities	825	27.09	27.40	0	100
Close the borders with Venezuela and stop the migratory flow	827	44.54	32.85	0	100
Accelerate and improve the legalization of Venezuelan migrants arriving in the c	825	54.76	30.39	0	100
When jobs are scarce, prioritize Colombians over foreigners	824	72.33	27.59	0	100

Note: In this table we can see the answers from the Prejudices and Policies survey a of the total sample of participants *Fuente*: (Invamer,2022)

Table 16: Balance Test

	Number of obs= 507 Root MSE=1.14006				R= 0.2303 R-adj =0.019
Source	Partial SS	df	MS	F	Prob>F
Model	154.40568	109	1.4165659	1.09	0.2757
Female=1	0.06702976	1	0 .06702976	0.05	0.8205
Socioeconomic Stratum	13.346992	5	2.6693983	2.05	0.0704
Year of birth	70.589061	59	1.1964248	0.92	0.6428
Family Members	7.3776201	8	0.92220251	0.71	0.6832
Children(13-17 years old) live in your household	0.9862536	2	0.4931268	0.38	0.6845
Have you donated money in the last month?	0.44538188	1	0.44538188	0.34	0.5586
Volunteered time in the last month?	1.6250108	1	1.6250108	1.25	0.2642
Support by family or friends	0.09347083	1	0.09347083	0.07	0.7887
Helped to a stranger	3.0032954	1	3.0032954	2.31	0.1293
Helped another person	0.01739625	1	0.01739625	0.01	0.908
Safe feeling living area	6.600343	1	6.600343	5.08	0.0248
Money robery in the week	0.97932273	1	0.97932273	0.75	0.3859
I am good at math.	5.2660484	9	0.58511649	0.45	0.907
I guess people have only the best of intentions.	24.278076	9	2.697564	2.08	0.0307
When someone does a favor for me, I am willing to return it.	10.073037	9	1.1192263	0.86	0.5603
Residual	515.99669	397	1.2997398		
Total	670.40237	506	1.3249059		

Note: In this table we can see the balance test between group treatments against sociodemographic variables. According to ANOVA results, there is not evidence (Prob ¿ F = o.27) to argue that any of the control variables explains the treatment,which confirms a random distribution.
Fuente: (Invamer,2022)

Table 17: Dehumanization Model

VARIABLES	(1) DH1 DH_Score	(2) DH2 DH_Score
Actor = 2, Colombianos desplazados por la violencia		-4.872***
		(0.656)
Actor = 3, Colombianos pobres		-7.248***
		(0.656)
Actor = 4, Colombianos que viven en el campo		-1.795***
		(0.656)
Actor = 5, Colombianos que viven en la ciudad		1.181*
		(0.656)
Actor = 6, Disidencias de las FARC		-17.170***
		(0.656)
Actor = 7, Europeos		5.353***
		(0.656)
Actor = 8, Ex-combatientes de las FARC		-11.894***
		(0.656)
Actor = 9, Venezolanos en Colombia		-8.331***
		(0.656)
T = 1, neutral video	0.290	
	(1.580)	
T = 2, TE	2.843*	
	(1.650)	
T = 3, TR	3.507**	
	(1.580)	
Constant	73.341***	79.907***
	(1.098)	(0.722)
Observations	7,540	7,540
R-squared	0.009	
Number of ID	839	839

Standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Note: The two columns shows the Dehumanization Model results applying Random effects Models, The Dependent variable is the qualification from 0 to 100 of how dehumanized the participant believes the actor is(0= Totally dehumanized 100=Totally humanized).In column 1 the treatment variable represent the video shown to the participant that corresponds to control(neutral video), ExFarc(E)and Migrant(R), the coefficients are read against non video shown. In column 2 the independent variable corresponds to the actor that the participant is scoring, the coefficients are read against Colombians.
Fuente: (Invamer,2022)

Table 18: Dictator Game

	(1) DG	(2) DG_Controls
VARIABLES	DG	DG
V	0.022	0.028
	(0.020)	(0.020)
EV	0.030	0.028
	(0.020)	(0.021)
RV	0.047**	0.040**
	(0.020)	(0.020)
D	0.100***	0.100***
	(0.013)	(0.013)
E	-0.053***	-0.055***
	(0.013)	(0.013)
R	-0.043***	-0.043***
	(0.013)	(0.013)
V:D	0.016	0.016
	(0.019)	(0.019)
V:E	0.056***	0.057***
	(0.019)	(0.019)
V:R	0.050***	0.051***
	(0.019)	(0.019)
EV:D	-0.003	-0.002
	(0.020)	(0.020)
EV:E	0.080***	0.082***
	(0.020)	(0.020)
EV:R	0.038*	0.039*
	(0.020)	(0.020)
RV:D	-0.007	-0.007
	(0.019)	(0.019)
RV:E	0.045**	0.046**
	(0.019)	(0.019)
RV:R	0.115***	0.116***
	(0.019)	(0.019)
Constant	0.426***	-1.870
	(0.014)	(1.179)
Controls	NO	YES
Observations	3,351	3,331
Number of ID	838	833

Standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Note: This table shows dictator game results applying random effects standard errors. The dependent variable is the percentage distribution of the participant over five tokens. The treatment variable represent the video shown to the participant that corresponds to control(No video), Turism Video (V), ExFarc Video(EV) or Migrants Video(RV) The variable Actor describe the actor that interacts with the participant:Civil(C),Displaced(D), ExFarc(E)and Migrant(R). The interaction of both treatments gives the heterogeneous effects between the videos and the actor. The variables excluded are non video and Civil(C). The Second column include all the sociodemographic variables as controls.
Source: Own calculations.

Table 19: Trust Game

VARIABLES	(1) TG TG	(2) TG_Controls TG
V	0.008	0.009
	(0.025)	(0.025)
EV	0.021	0.020
	(0.026)	(0.026)
RV	0.056**	0.047*
	(0.025)	(0.025)
D	0.116***	0.120***
	(0.017)	(0.017)
E	-0.048***	-0.047***
	(0.017)	(0.017)
R	-0.015	-0.012
	(0.017)	(0.017)
V:D	0.011	0.007
	(0.025)	(0.025)
V:E	0.009	0.008
	(0.025)	(0.025)
V:R	-0.017	-0.021
	(0.025)	(0.025)
EV:D	-0.019	-0.023
	(0.026)	(0.026)
EV:E	0.059**	0.056**
	(0.026)	(0.026)
EV:R	-0.009	-0.012
	(0.026)	(0.026)
RV:D	-0.007	-0.011
	(0.025)	(0.025)
RV:E	0.034	0.033
	(0.025)	(0.025)
RV:R	0.091***	0.088***
	(0.025)	(0.025)
Constant	0.578***	-0.070
	(0.017)	(1.474)
Controls	NO	YES
Observations	3,352	3,332
Number of ID	838	833

Standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Note: This table shows trust game results applying Random effects standard errors. The dependent variable is the percentage distribution of the participant over five tokens. The treatment variable represent the video shown to the participant that corresponds to control(No video), Turism Video (V), ExFarc Video(EV) or Migrants Video(RV) The variable Actor describe the actor that interacts with the participant:Civil(C),Displaced(D), ExFarc(E)and Migrant(R).The interaction of both treatments gives the heterogeneous effects between the videos and the actor. The variables excluded are non video and Civil(C). The Second column include all the sociodemographic variables as controls.
Source: Own calculations.

Table 20: Third-Party Redistribution Game with Luck

VARIABLES	(1) TRGL TRGL	(2) TRGL_Controls TRGL
V	0.008	0.006
	(0.018)	(0.018)
EV	-0.010	-0.011
	(0.019)	(0.019)
RV	0.008	0.004
	(0.018)	(0.018)
D-C	0.009	0.010
	(0.014)	(0.014)
E-C	0.037***	0.038***
	(0.014)	(0.014)
R-C	0.020	0.020
	(0.014)	(0.014)
C-D	0.083***	0.084***
	(0.014)	(0.014)
C-E	-0.035**	-0.035**
	(0.014)	(0.014)
C-R	-0.018	-0.019
	(0.014)	(0.014)
VD-C	-0.037*	-0.037*
	(0.020)	(0.020)
VE-C	-0.058***	-0.060***
	(0.020)	(0.020)
VR-C	-0.023	-0.023
	(0.020)	(0.020)
VC-D	-0.013	-0.013
	(0.020)	(0.020)
VC-E	0.011	0.012
	(0.020)	(0.020)
V:C-R	0.016	0.016
	(0.020)	(0.020)
EV:D-C	-0.021	-0.022
	(0.021)	(0.021)
EV:E-C	-0.015	-0.015
	(0.021)	(0.021)
EV:R-C	-0.017	-0.017
	(0.021)	(0.021)
EV:C-D	0.018	0.017
	(0.021)	(0.021)
EV:C-E	0.065***	0.065***
	(0.021)	(0.021)
EV:C-R	0.026	0.026
	(0.021)	(0.021)
RV:D-C	-0.027	-0.028
	(0.020)	(0.020)
RV:E-C	-0.019	-0.020
	(0.020)	(0.020)
RV:R-C	-0.026	-0.026
	(0.020)	(0.020)
RV:C-D	0.014	0.013
	(0.020)	(0.020)
RV:C-E	0.033*	0.033*
	(0.020)	(0.020)
RV:C-R	0.068***	0.068***
	(0.020)	(0.020)
Constant	0.446***	1.036
	(0.012)	(0.929)
Controls	NO	YES
Observations	5,866	5,831
Number of ID	838	833

Standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Note: This table shows Third-Party Redistribution Game with Luck results applying random effects standard errors. The dependent variable is the percentage distribution of the participant over five tokens. The treatment variable represent the video shown to the participant that corresponds to control(No video), Turism Video (V), ExFarc Video(EV) or Migrants Video(RV) The variable Actor describe the actor that interacts with the participant:Civil(C),Displaced(D), ExFarc(E)and Migrant(R). The interaction of both treatments gives the heterogeneous effects between the videos and the actors pair. The variables excluded are non video and Poor Civil- Poor Civil(C-C). The Second column include all the sociodemographic variables as controls.
Source: Own calculations.

Table 21: Third-Party Redistribution Game with Merit

	(1) TRGM	(2) TRGM_Controls
VARIABLES	TRGM	TRGM
V	-0.001	-0.008
	(0.022)	(0.023)
EV	0.023	0.021
	(0.023)	(0.024)
RV	0.025	0.013
	(0.022)	(0.023)
C-D	0.066***	0.066***
	(0.012)	(0.012)
C-E	-0.024**	-0.026**
	(0.012)	(0.012)
C-R	-0.011	-0.012
	(0.012)	(0.012)
V:C-D	0.011	0.010
	(0.017)	(0.017)
V:C-E	0.029*	0.029*
	(0.017)	(0.017)
V:C-R	0.042**	0.042**
	(0.017)	(0.017)
EV:C-D	0.007	0.007
	(0.017)	(0.018)
EV:C-E	0.040**	0.041**
	(0.017)	(0.018)
EV:C-R	0.021	0.022
	(0.017)	(0.018)
RV:C-D	0.011	0.011
	(0.017)	(0.017)
RV:C-E	0.029*	0.030*
	(0.017)	(0.017)
RV:C-R	0.071***	0.071***
	(0.017)	(0.017)
Constant	0.292***	3.961***
	(0.015)	(1.466)
Controls	NO	YES
Observations	3,352	3,332
Number of ID	838	833

Standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

*T*his table shows Third-Party Redistribution Game with Merit results applying random effects standard errors. The dependent variable is the percentage distribution of the participant over five tokens. The treatment variable represent the video shown to the participant that corresponds to control(No video), Turism Video (V), ExFarc Video(EV) or Migrants Video(RV) The variable Actor describe the actor that interacts with the participant:Civil(C),Displaced(D), ExFarc(E)and Migrant(R). The interaction of both treatments gives the heterogeneous effects between the videos and the actors pair. The variables excluded are non video and Poor Civil- Poor Civil(C-C). The Second column include all the sociodemographic variables as controls.

References

Akerlof, G. A. (1984). *An Economic Theorist's Book of Tales*. Cambridge, UK: Cambridge University Press.

Alesina, A. and E. La Ferrara (2005). Preferences for redistribution in the land of opportunities. *Journal of public Economics 89*(5-6), 897–931.

Almås, I., A. W. Cappelen, and B. Tungodden (2020). Cutthroat capitalism versus cuddly socialism: Are americans more meritocratic and efficiency-seeking than scandinavians? *Journal of Political Economy 128*(5), 1753–1788.

Arrow, K. (1970). Political and economic evaluation of social effects and externalities. In *The analysis of public output*, pp. 1–30. NBER.

Bachelor, A. (1988). How clients perceive therapist empathy: A content analysis of" received" empathy. *Psychotherapy: Theory, Research, Practice, Training 25*(2), 227.

Bagdasarov, Z., S. Connelly, and J. F. Johnson (2019). Denial and empathy: Partners in employee trust repair? *Frontiers in psychology 10*, 19.

Barrett-Lennard, G. T. (1981). The empathy cycle: Refinement of a nuclear concept. *Journal of counseling psychology 28*(2), 91.

Bass, B. M. (1960). Leadership, psychology, and organizational behavior. *American Psychological Association 0*(0), 5.

Bastian, B., T. F. Denson, and N. Haslam (2013). The roles of dehumanization and moral outrage in retributive justice. *PloS one 8*(4), e61842.

Batson, C. D. and T. Moran (1999). Empathy-induced altruism in a prisoner's dilemma. *European Journal of Social Psychology 29*(7), 909–924.

Bauer, P. C. and M. Freitag (2018). Measuring trust. *The Oxford handbook of social and political trust 15*, 15–21.

Becker, G. (1976). Altruism, egoism, and genetic fitness: Economics and sociobiology. *Journal of Economic Literature 14*(3), 817–826.

Ben-Ner, A., J. A. List, L. Putterman, and A. Samek (2015). Learned generosity? a field experiment with parents and their children. *A Field Experiment with Parents and Their Children (December 21, 2015). CESR-Schaeffer Working Paper 2706751*, 1–63.

Ben-Ner, A. and L. Putterman (2009). Trust, communication and contracts: An experiment. *Journal of Economic Behavior & Organization 70*(1-2), 106–121.

Borisova, E., A. Govorun, D. Ivanov, and I. Levina (2018). Social capital and preferences for redistribution to target groups. *European journal of political economy 54*, 56–67.

Borman, W. C., L. A. Penner, T. D. Allen, and S. J. Motowidlo (2001). Personality predictors of citizenship performance. *International journal of selection and assessment 9*(1-2), 52–69.

Boyce, C. J., M. Czajkowski, N. Hanley, C. Noussair, M. Townsend, S. Tucker, et al. (2015). *The effects of emotions on preferences and choices for public goods*. Department of Economics, University of Waikato.

Bruneau, E., A. Casas, B. Hameiri, and N. Kteily (2022). Exposure to a media intervention helps promote peace and reintegration in colombia. *Nature Human Behaviour*.

Bruneau, E., B. Hameiri, S. L. Moore-Berg, and N. Kteily (2021). Intergroup contact reduces dehumanization and meta-dehumanization: Cross-sectional, longitudinal, and quasi-experimental evidence from 16 samples in five countries. *Personality and Social Psychology Bulletin 47*(6), 906–920.

Bruneau, E., N. Jacoby, N. Kteily, and R. Saxe (2018). Denying humanity: The distinct neural correlates of blatant dehumanization. *Journal of Experimental Psychology: General 147*(7), 1078.

Bruneau, E. and N. Kteily (2017). The enemy as animal: Symmetric dehumanization during asymmetric warfare. *PloS one 12*(7), e0181422.

Bruneau, E., N. Kteily, and E. Falk (2018). Interventions highlighting hypocrisy reduce collective blame of muslims for individual acts of violence and assuage anti-muslim hostility. *Personality and social psychology bulletin 44*(3), 430–448.

Bruneau, E. G., N. S. Kteily, and A. Urbiola (2020). A collective blame hypocrisy intervention enduringly reduces hostility towards muslims. *Nature human behaviour 4*(1), 45–54.

Burnham, T., K. McCabe, and V. L. Smith (2000). Friend-or-foe intentionality priming in an extensive form trust game. *Journal of Economic Behavior & Organization 43*(1), 57–73.

Cameron, L., N. Erkal, L. Gangadharan, and M. Zhang (2015). Cultural integration: Experimental evidence of convergence in immigrants' preferences. *Journal of Economic Behavior & Organization 111*, 38–58.

Capozza, D., G. A. Di Bernardo, and R. Falvo (2017). Intergroup contact and outgroup humanization: Is the causal relationship uni-or bidirectional? *PloS one 12*(1), e0170554.

Cárdenas, J.-C., N. Candelo, A. Gaviria, S. Polanía, and R. Sethi (2008). Discrimination in the provision of social services to the poor: a field experimental study. *Discrimination in Latin America: An Economic Perspective 1*(1), 37 – 45.

Cárdenas, J. C., A. Chong, H. Ñopo, A. W. Horowitz, and D. Lederman (2009). To what extent do latin americans trust, reciprocate, and cooperate? evidence from experiments in six latin american countries [with comments]. *Economía 9*(2), 45–94.

Casas, A. and B. Hameiri. Giving peace a chance: Lessons from translational research in colombia. *A Special Issue of Peace and Conflict: Journal of Peace Psychology (PAC). "Putting Science to Work for Peace: Global Research in Memory of Emile Bruneau" (Under review)*.

Chen, Y. and S. X. Li (2009). Group identity and social preferences. *American Economic Review 99*(1), 431–57.

Condra, L. N. and S. Linardi (2019). Casual contact and ethnic bias: Experimental evidence from afghanistan. *The Journal of Politics 81*(3), 1028–1042.

Cox, J. C. and W. H. Orman (2015). Trust and trustworthiness of immigrants and native-born americans. *Journal of Behavioral and Experimental Economics 57*, 1–8.

Decety, J. and C. Lamm (2006). Human empathy through the lens of social neuroscience. *TheScientificWorldJOURNAL 6*, 1146–1163.

Dinesen, P. T., M. Schaeffer, and K. M. Sønderskov (2020). Ethnic diversity and social trust: A narrative and meta-analytical review. *Annual Review of Political Science 23*, 441–465.

Emile Bruneau, Andrés Casas Boaz Hameiri, N. K. (2022). *Single exposure to a media intervention durably reduces psychological impediments to peace in Colombia.* Experimental.

Fershtman, C. and U. Gneezy (2001). Discrimination in a segmented society: An experimental approach. *The Quarterly Journal of Economics 116*(1), 351–377.

Fong, C. (2001). Social preferences, self-interest, and the demand for redistribution. *Journal of Public economics 82*(2), 225–246.

Freeman, J., R. Dale, and T. Farmer (2011). Hand in motion reveals mind in motion. *Frontiers in psychology 2*, 59.

Gächter, S. and J. F. Schulz (2016). Intrinsic honesty and the prevalence of rule violations across societies. *Nature 531*(7595), 496–499.

Gallardo, R. A., B. Hameiri, S. L. Moore-Berg, and E. Bruneau (0). The collective praise intervention: A brief intervention highlighting prosocial behavior reduces hostility towards muslims. *Group Processes & Intergroup Relations 0*(0), 13684302211021665.

Gandelman, N. and D. Lamé (2021). Trust towards migrants. Technical report, IDB Working Paper Series.

Gilet, A. (2008). Procédures d'induction d'humeurs en laboratoire: une revue critique [mood induction procedures: A critical review]. *L'encéphale 34*, 233–239.

Glaeser, E. L., D. I. Laibson, J. A. Scheinkman, and C. L. Soutter (2000). Measuring trust. *The quarterly journal of economics 115*(3), 811–846.

Grimalda, G., L. Detlefsen, and C. Schütt (2019). Improving immigrants' integration in host countries. *SOCIAL COHESION, GLOBAL GOVERNANCE AND THE FUTURE OF POLITICS 1*(1), 1–18.

Grimalda, G., F. Farina, and U. Schmidt (2018). Preferences for redistribution in the us, italy, norway: An experiment study. Technical report, Kiel Working Paper.

Haddock, G., M. P. Zanna, and V. M. Esses (1993). Assessing the structure of prejudicial attitudes: The case of attitudes toward homosexuals. *Journal of personality and social psychology 65*(6), 1105.

Hangartner, D., E. Dinas, M. Marbach, K. Matakos, and D. Xefteris (2019). Does exposure to the refugee crisis make natives more hostile? *American Political Science Review 113*(2), 442–455.

Hehman, E., R. M. Stolier, and J. B. Freeman (2015). Advanced mouse-tracking analytic techniques for enhancing psychological science. *Group Processes & Intergroup Relations 18*(3), 384–401.

Ibanez, A., A. Moya, W. Shieber, S. Rozo, and M. Urbina (2022). Life out of the shadows: Impacts of amnesties in the lives of migrants.

Jardina, A. and S. Piston (2021). The effects of dehumanizing attitudes about black people on whites' voting decisions. *British Journal of Political Science 1*(1), 1–23.

Jolliffe, D. and D. P. Farrington (2004). Empathy and offending: A systematic review and meta-analysis. *Aggression and violent behavior 9*(5), 441–476.

Keita, S., T. Renault, and J. Valette (2021). The usual suspects: Offender origin, media reporting and natives' attitudes towards immigration. *Documents de travail du Centre d'Économie de la Sorbonne 1*(1), 1–23.

Konrath, S., E. Falk, A. Fuhrel-Forbis, M. Liu, J. Swain, R. Tolman, R. Cunningham, and M. Walton (2015). Can text messages increase empathy and prosocial behavior? the development and initial validation of text to connect. *PloS one 10*(9), e0137585.

Krawczyk, M. (2010). A glimpse through the veil of ignorance: Equality of opportunity and support for redistribution. *Journal of Public Economics 94*(1-2), 131–141.

Kteily, N. and E. Bruneau (2017a). Backlash: The politics and real-world consequences of minority group dehumanization. *Personality and Social Psychology Bulletin 43*(1), 87–104.

Kteily, N., E. Bruneau, A. Waytz, and S. Cotterill (2015). The ascent of man: Theoretical and empirical evidence for blatant dehumanization. *Journal of personality and social psychology 109*(5), 901.

Kteily, N., G. Hodson, and E. Bruneau (2016). They see us as less than human: Metadehumanization predicts intergroup conflict via reciprocal dehumanization. *Journal of Personality and Social Psychology 110*(3), 343.

Kteily, N. S. and E. Bruneau (2017b). Darker demons of our nature: The need to (re) focus attention on blatant forms of dehumanization. *Current Directions in Psychological Science 26*(6), 487–494.

Latinobarometro (2018). Informe 2018. *Latinobarometro 1*(1), 1–50.

Latinobarometro (2020). Informe 2020. *Latinobarometro 1*(1), 1–60.

Mahsud, R., G. Yukl, and G. Prussia (2010). Leader empathy, ethical leadership, and relations-oriented behaviors as antecedents of leader-member exchange quality. *Journal of Managerial Psychology 25*(1), 561–577.

Mendez., A. C. . N. (2019). *Encuesta Mundial de Valores -COL 7- Andrés Casas Investigador Principal WVSA-Col*. Encuesta Mundial de Valores - COMFAMA.

Moore-Berg, S. L., L.-O. Ankori-Karlinsky, B. Hameiri, and E. Bruneau (2020). Exaggerated meta-perceptions predict intergroup hostility between american political partisans. *Proceedings of the National Academy of Sciences 117*(26), 14864–14872.

Moore-Berg, S. L., B. Hameiri, and E. G. Bruneau (2021). Empathy, dehumanization, and misperceptions: A media intervention humanizes migrants and increases empathy for their plight but only if misinformation about migrants is also corrected. *Social Psychological and Personality Science*, 19485506211012793.

Nadler, A. and I. Liviatan (2006). Intergroup reconciliation: Effects of adversary's expressions of empathy, responsibility, and recipients' trust. *Personality and Social Psychology Bulletin 32*(4), 459–470.

Niven, K., D. Holman, and P. Totterdell (2012). How to win friendship and trust by influencing people's feelings: An investigation of interpersonal affect regulation and the quality of relationships. *human relations 65*(6), 777–805.

OAS (2019). *Informe del Grupo de Trabajo de la OEA para abordar la crisis de migrantes y refugiados venezolanos en la región*. OAE.

Orosz, G., E. Bruneau, L. R. Tropp, N. Sebestyén, I. Tóth-Király, and B. Bőthe (2018). What predicts anti-roma prejudice? qualitative and quantitative analysis of everyday sentiments about the roma. *Journal of Applied Social Psychology 48*(6), 317–328.

Ostrom, E. (1990). *Governing the Commons: The Evolution of Institutions for Collective Action*. Cambridge, UK: Cambridge University Press.

Petsko, C. D., R. F. Lei, J. R. Kunst, E. Bruneau, and N. Kteily (2021). Blatant dehumanization in the mind's eye: Prevalent even among those who explicitly reject it? *Journal of Experimental Psychology: General 150*(6), 1115.

Piraino, P. and J. Ryan (2018). The price of fairness: Experimental evidence on the limits to demands for redistribution. manuscript.

Rodriguez Chatruc, M. and S. Rozo (2021). How does it feel to be part of the minority? impacts of perspective-taking on prosocial behaviors. *SSRN 1*(1), 1–63.

Song, J.-H. and K. Nakayama (2009). Hidden cognitive states revealed in choice reaching tasks. *Trends in cognitive sciences 13*(8), 360–366.

Tapias, M. P., J. Glaser, D. Keltner, K. Vasquez, and T. Wickens (2007). Emotion and prejudice: Specific emotions toward outgroups. *Group Processes & Intergroup Relations 10*(1), 27–39.

UNHCR (2019). Refugees and migrants from venezuela top 4 million: Unhcr and iom. *UNHCR 1*(1), 1–50.

Westermann, R., K. Spies, G. Stahl, and F. W. Hesse (1996). Relative effectiveness and validity of mood induction procedures: A meta-analysis. *European Journal of social psychology 26*(4), 557–580.

Williams, A., K. O'Driscoll, and C. Moore (2014). The influence of empathic concern on prosocial behavior in children. *Frontiers in Psychology 5*, 425.

Wohl, M. J., S. Cohen-Chen, E. Halperin, J. Caouette, N. Hayes, and M. J. Hornsey (2015). Belief in the malleability of groups strengthens the tenuous link between a collective apology and intergroup forgiveness. *Personality and Social Psychology Bulletin 41*(5), 714–725.

Wojnowicz, M. T., M. J. Ferguson, R. Dale, and M. J. Spivey (2009). The self-organization of explicit attitudes. *Psychological Science 20*(11), 1428–1435.

Wondra, J. D. and P. C. Ellsworth (2015). An appraisal theory of empathy and other vicarious emotional experiences. *Psychological review 122*(3), 411.