

Supplementary Material

Contents

Appendix A Research design details	1
A.1 Online samples	1
A.2 Treatment assignment and experimental stimuli	1
A.3 Experimental Stimuli	1
A.4 Ethical Considerations	5
A.5 Measures	6
A.6 Estimation methods	7
A.7 Sample Characteristics	7
A.8 Manipulation and Engagement	11
Appendix B Design Assumptions	15
B.1 Covariate Balance	15
B.2 Differential Attrition	17
B.3 Differential Attrition by Covariates	17
Appendix C Treatment Effects on Support for Immigrant Rights	18
Appendix D Social Desirability or Experimenter Demand Effects	19
D.1 Migrant Support Action-Based Proxy Measure	19
D.2 External Motivation to Respond Without Prejudice	20
Appendix E Concerns about the negative effects of immigration	21
Appendix F Heterogeneity by Pre-treatment Tolerance Towards Venezuelan Immigrants	23

Appendix G Registered Pre-Analysis Plans	25
---	-----------

Appendix H Full Model Results	61
--------------------------------------	-----------

H.1 Estimates of Treatment Effects on Main Outcomes	61
---	----

H.2 Estimates of Treatment Effects on Concerns About Immigration Consequences	71
---	----

List of Tables

A.1 Proportion of Venezuelans and Distribution of the Sample	8
--	---

A.2 Distribution of the Sample in Study 3	9
---	---

A.3 Characteristics of the Sample	10
---	----

B.1 Covariate Balance in Study 1	16
--	----

B.2 Covariate Balance in Study 2	16
--	----

B.3 Covariate Balance in Study 3, Wave 1	16
--	----

B.4 Covariate Balance in Study 3, Wave 2	17
--	----

B.5 Test for differential attrition	17
---	----

D.1 Testing Experimenter Demand Effects	20
---	----

F.1 Heterogeneous Treatment Effects by Tolerance Level	24
--	----

G.1 Deviations from Pre-Registered Plan	26
---	----

H.1 Table Results of Meta Analysis	62
--	----

H.2 Full Model Results of Study 1	63
---	----

H.3 Full Model Results of Study 2	64
---	----

H.4 Full Model Results of Study 3 (Economic Treatment) - Wave 1	65
---	----

H.5 Full Model Results of Study 3 (Humanitarian Treatment) - Wave 1	66
---	----

H.6 Full Model Results of Study 3 (Economic Treatment) - Wave 2	67
---	----

H.7 Full Model Results of Study 3 (Humanitarian Treatment) - Wave 2	68
---	----

H.8 Full Model Results of Study 1 Without Covariates	69
--	----

H.9 Full Model Results of Study 2 Without Covariates	69
--	----

H.10 Full Model Results of Study 3 (Wave 1) Without Covariates	69
H.11 Full Model Results of Study 3 (Wave 2) Without Covariates	70
H.12 Table Results of Meta Analysis: Negative Consequences of Migration	72
H.13 Full Model Results of Study 1: Negative Consequences (Economic Treatment)	73
H.14 Full Model Results of Study 1: Negative Consequences (Humanitarian Treat- ment)	74
H.15 Full Model Results of Study 2: Negative Consequences (Economic Treatment)	75
H.16 Full Model Results of Study 2: Negative Consequences (Humanitarian Treat- ment)	76
H.17 Full Model Results of Study 3 (Wave 1): Negative Consequences (Economic Treatment)	77
H.18 Full Model Results of Study 3 (Wave 1): Negative Consequences (Humani- tarian Treatment)	78
H.19 Full Model Results of Study 3 (Wave 2): Negative Consequences (Economic Treatment)	79
H.20 Full Model Results of Study 3 (Wave 2): Negative Consequences (Humani- tarian Treatment)	80

List of Figures

1 Average Short-Term Treatment Effects of Immigrant Narratives	8
2 Short- and Medium-Term Average Treatment Effects of Immigrant Narratives in Study 3	9
3 Average Treatment Effects on Immigration-Related Economic Concerns . . .	11
A.1 Video Treatment Accessibility and Comprehension	11
A.2 Reasons for Venezuelan Migration to Colombia	12
A.3 Migration Reasons by Video Treatment Narrative	13

A.4	Narrative Implications: State Dependency vs. Economic Contribution	14
C.1	Average Treatment Effects on Support for Immigrant Rights	18
D.1	Treatment Effects on Migrant Support Action-Based Proxy Measure	19
E.1	Average Treatment Effects on Immigration-related Concerns: Item-by-Item .	22
E.2	Short- and Medium-Term Average Treatment Effects on Immigration-Related Concerns	23

A Research design details

Here, we describe the details of our online samples, experimental stimuli, measures, and estimation methods.

A.1 Online samples

Study 1 was conducted in July 2021 among 2,417 respondents. Study 2 was conducted between March and April 2022 among 5,037 respondents. Study 3 was conducted between July and August of 2023 among 4,823 respondents. All participants in Study 3 were recontacted approximately 10 days after the manipulation. 2,257 participants (or 47% of all respondents in the first wave) answered this second wave. On average, they responded 15 days after the manipulation. Participants were recruited by Offerwise, a market research company focused on Latin American markets. In Study 1 and Study 2 we used quota sampling by *departamento* (the administrative unit in Colombia) that reflects the distribution of Venezuelan immigrants across these administrative units. The Study 3’s sample is representative of regions and gender. See Section A.7 for more details.

A.2 Treatment assignment and experimental stimuli

Respondents were assigned with equal probability to one of the treatment conditions described below or to a control condition. Before answering the outcome measures, participants assigned to one of the treatment groups read (in Study 1, Study 2) or watched (Study 3) a narrative about the lived experience of a Venezuelan migrant and then answered an open-ended question reflecting on the reasons for Venezuelan migration. Participants assigned to the control group read/watched the narrative and answered this open-ended question after answering the outcome items in Study 1 and 2 and in Study 3 after they answered the outcome items in the second wave.

A.3 Experimental Stimuli

Choosing Narratives

While for the most part existing studies have focused on testing interventions with narratives designed for the research itself, knowledge of the effectiveness of the kinds of stories circulating in public discourse and whether their effects endure over time is still lacking, especially in contexts outside of the U.S.. For this reason, we draw from narratives promoted by migrant rights organizations in Colombian media outlets. An important aspect of choosing narratives entailed selecting narratives that displayed a real account of a Venezuelan immigrant as currently encountered in Colombian media outlets and booklets from organizations promoting migrant rights. The reason for using real narratives is twofold: first, to increase the ecological validity of the design, and second, to inform the current practices of advocacy groups with causal evidence.

We went through several stages to select the narratives we used in our study. First, we focused on the country’s primary written media: El Tiempo, El Espectador, and Revista

Semana. We also incorporated narratives from other sources in our search, including reports from the UNHCR. We read or viewed around 90 real narratives. We focus only on real narratives. This means we do not include news pieces or other information that people may receive about migrants. We made the initial classification focusing on the ability to generate empathy and counteract concerns about the negative effects of immigration or misconceptions about immigrants.

Following existing studies implementing perspective-getting exercises, which typically portray migrant hardships faced both in their home countries and at their destinations, we classified the collected narratives into two broad types: 1. narratives that could generate empathy by emphasizing migrant hardships and 2. narratives that could generate empathy and in addition could address concerns about the possible negative effects of immigration. The topics typically included in the first type relate to violence, economic scarcity in the form of food or medicine shortages, or discrimination due to stereotyping. Narratives typically included in the second type portray migrants as hard-working people who can contribute economically to their host countries. We call the first type humanitarian narratives and the second type economic narratives.

The next step was to contact advocacy leaders to verify the initial selection of the narratives. We interviewed two journalists and one advocacy group leader responsible for creating and diffusing different anti-discrimination campaigns that publicize the stories of Venezuelan migrants in Colombia. The two journalists work for Revista Semana's *Proyecto Migración Venezuela*, which frequently posts testimonies of Venezuelan migrants, data, and general interest stories about Venezuelan migration. We also interviewed a media campaign strategist at UNHCR's campaign to promote the integration of Venezuelans in Colombia, *Somos Panas Colombia*. All three confirmed that this conceptualization fits how they think about existing types of narratives. All agreed that economic narratives could reduce concerns about immigration and ranked favorably the narratives we used in the study.

Finally, we selected a small sample of narratives (41) so that two independent coders could classify them as economic, humanitarian, or belonging to another category. Of the 41 narratives, only one narrative for one of the coders did not belong to any of the two categories. To assess the level of inter-coder agreement, we calculate Cohen's Kappa, which is typically used to assess agreement among two raters on categorical data, while taking into account the possibility that both of the coders agree by chance. This measure has a range between -1 and 1, where 1 indicates perfect agreement, 0 indicates agreement by chance, and -1 indicates agreement less than chance. For the humanitarian category, the kappa is 0.594 (p-value = 0.000102), and for the economic category 0.645 (p-value = 3.52e-05), suggesting that for both categories, there is moderate to substantial agreement, and that it is unlikely that the agreement is due to chance alone ($p < 0.05$).

Additionally, we discussed the narrative proposals in different academic spaces with migration experts to get their feedback on the type of information conveyed by the narratives.

Narratives in Video Format

We worked with a college cinematic production club to produce the videos that we used as treatment manipulation in Study 3. We gave the production club the exact script for the narrative, which was the same text used in the manipulations of Study 2, and we directed

them to a video of El Tiempo, which portrayed one of the economic narratives for reference. The production club cast an actor who could credibly share the narratives that we used in the previous studies. Importantly, as in the previous two studies, participants were told that the narratives were published in the Colombian outlets in which they were published and that the person in the video and their details were changed to protect the privacy of the actual narrator.

To test whether participants could actually listen and view the videos and whether the videos accurately conveyed the information of the narratives, we carried out a preliminary pilot study. The pilot study tested different versions of the videos (e.g., the place where the character was recorded, their clothing, and hairstyle) and different versions of the narratives used in our previous studies. The results of this pilot study are further reported in Section A.8.

Study 1

Experimental conditions

1. Control: Respondents read narrative (2) after completing the mediation and outcome questions.

2. Economic narrative: *This is the testimony of Dwayxo Guzmán, a Venezuelan immigrant. Dwayxo was a professional basketball player from the state of Carabobo, Venezuela. He is part of the group of Venezuelan professionals that have arrived in Santana, Boyacá to work in the sugar cane mills. This testimony was published in the newspaper El Tiempo. Some details were changed to protect the identity of Dwayxo. After reading it, we will ask you some questions about what you have read.*

“I was part of the Carabobo state team. I played in lots of tournaments, travelling to Barquisimeto, Caracas, and other cities. I had the opportunity to play in professional leagues. However, I had to leave all of that behind and leave my country to help my family. I did not know anything about this job. I had to learn and that’s okay; but the job is a bit hard, we’ve got to work in the nighttime, morning, and afternoon. It’s physically draining.”

Think about the immigrants that arrive in Colombia. In your opinion, what are the reasons for which Venezuelans migrate to Colombia?

3. Humanitarian narrative (a): *This is the testimony of Jesús Alfredo Silva, a Venezuelan immigrant to Colombia. This testimony was published in Red Clamor. Some details were changed to protect the identity of Jesús Alfredo. After reading it, we will ask you some questions about what you have read.*

“We rode on a trailer until we reached Ibagué. It was getting dark. There a group of people wearing soccer jerseys got on the trailer to hurt us. They beat us up and robbed our belongings. Once they got off with all of our belongings the trailer still went on and on driving for a long time. He drove through a cold, cold, cold road until we got to Neiva. There we got off the trailer.”

Think about the immigrants that arrive in Colombia. In your opinion, what are the reasons for which Venezuelans migrate to Colombia?

4. Humanitarian narrative (b): *This is the testimony of Jesús Alfredo Silva, a Venezuelan immigrant to Colombia. This testimony was published in Red Clamor. Some details were changed to protect the identity of Jesús Alfredo. After reading it, we will ask you some questions about what you have read.*

“We rode on a trailer until we reached Ibagué. It was getting dark. There a group of people wearing soccer jerseys got on the trailer to hurt us. They beat us up and robbed our belongings. The driver noticed and got them off the trailer. Then he helped about 30 other Venezuelans get on the trailer and drove and drove for a long time. He drove through a cold, cold, cold road until we got to Neiva. There we got off the trailer.”

Think about the immigrants that arrive in Colombia. In your opinion, what are the reasons for which Venezuelans migrate to Colombia?

Study 2

The economic narrative presents a character that used to work in Venezuela’s manufacturing industry—one of the most common occupations, instead of a former basketball player as in Study 1. Like in Study 1, the character’s job in Colombia is in the sugar cane fields. In contrast to Study 1, the economic narrative does not portray an exceptional character (an athlete) to establish whether the positive effects on attitudes are driven by the character being an atypical exemplar rather than a more common migrant. The humanitarian narrative is about exposure to medicine shortages in Venezuela as opposed to exposure to violence as in Study 1.

Experimental conditions

1. Control: Respondents read narrative (2) after completing the mediation and outcome questions.

2. Economic narrative: *This is the testimony of Dwayxo Guzmán, a Venezuelan immigrant. Dwayxo was a worker in the manufacturing sector in Carabobo Venezuela. Some time ago he arrived in Santana in the state of Boyacá to work in the sugar mills. This testimony was published in the newspaper El Tiempo. Some details were changed to maintain the confidentiality of Dwayxo. After you have read it, we will ask you some questions about what you have read.*

“I worked in the manufacturing industry in Maracaibo and traveled to Valencia, Caracas and other cities. I had the opportunity to have a good job, but all of that is behind me because I had to leave my country to help my family. I didn’t know anything about this trade, I had to learn and it seems good to me; although the work is a bit heavy, you have to work at dawn, in the morning, in the afternoon and at night, that exhausts you physically”.

3. Humanitarian narrative *This is the testimony of Jesús Alfredo Silva, a Venezuelan immigrant. Jesús Alfredo was a worker in the manufacturing sector in Carabobo Venezuela. Some time ago he arrived in Santana in the state of Boyacá. This testimony was published in Red Clamor. Some details were changed to maintain the confidentiality of Jesús Alfredo. After you have read it, we will ask you some questions about what you have read.*

“We made the decision to leave our country, mainly, to be able to get my son Mario’s medications, he is diabetic and it was very difficult for us to get his medications there. The mother of a friend of ours sent him the medications from Spain but there was a time when she couldn’t do it anymore and we had to look for them on the ‘black’ market at excessive costs. it served him for approximately 15 or 20 days, it was very expensive and it was too difficult for us. There were months when we couldn’t get insulin, we spent a month or so looking for insulin, without him being able to inject himself, that was making him unbalanced, he was getting deteriorating, there came a point where he weighed 56 kilos, that was worrying”.

Study 3

In Study 3 the narratives’ content was exactly the same as in Study 2, but it was presented in a video. The videos are available here.

Experimental Conditions

1. Control: Respondents watched the videos in the second wave after completing the outcome questions.

2. Treatments: The name, state of origin, and state of destination of the migrant is kept fixed across the economic and humanitarian stories: “Jesús Alfredo worked in the manufacturing industry in the state of Carabobo, Venezuela. Some time ago he arrived in Santana, a municipality in the department of Boyacá [whose economic base revolves around sugarcane crops].” Except that the information in squared brackets is omitted in the humanitarian narrative. After this introduction, both the economic and humanitarian narratives include the same content as in Study 2.

Respondents watched the videos before the outcome measures and after responding to baseline demographic items and a measure of external motivation to respond without prejudice.

A.4 Ethical Considerations

This survey complies with APSA’s Principles and Guidance on Human Subject Research. All studies were reviewed and approved by the authors’ IRBs. The treatments were discussed with local experts working with Venezuelan migrants. We declare no ethical issues or conflicts of interest in this research; no ethical issues arose during the implementation of the study.

Participation in the survey was voluntary. We recruited participants from an online panel (through Offerwise). Offerwise compensated them directly for their time. We did not collect subjects’ names or any identifying information. We asked for participants consent at the beginning of each study, and participants had the option to leave the survey if they desired to. We used a standard consent form recommended by the IRB at one of our universities. No deception was involved in this study. The content of the narratives was taken from public outlets. Participants were told this, along with the source of the outlet. We also indicated that the personal characteristics of the narrator were changed to protect their privacy.

We did not anticipate any risks of harm beyond those encountered in everyday life, and none was reported.

A.5 Measures

Main outcomes

Attitudes towards migrant entry policy: *To what extent do you agree with the following statement? Colombia should limit the number of immigrants entering the country.* Responses range from strongly disagree to strongly agree on a 7-point Likert scale.

Feelings towards immigrants: *We would like to know your feelings towards Venezuelan migrants entering Colombia. To answer this question you are going to use something we call a feeling thermometer. Scores between 5 and 7 mean that you feel favorable and warm towards migrants. Scores between 1 and 3 mean that you do not feel favorable towards migrants and that you do not care too much about them. Use a score of 3 if you don't feel particularly warm or cold towards migrants. On a scale from 1 to 7, how warm do you feel toward Venezuelan migrants in Colombia?* Responses range from completely cold to completely warm on a 7-point Likert scale.

Quasi-behavioral proxy measure of migrant support To better assess whether the responses to the treatments might be driven by social desirability or experimenter demand effects, in Study 3 we included a quasi-behavioral measure that approximates participants support for Venezuelan immigrants already settled in Colombia. Specifically, we included the following question: “Would you like to acquire information on how to support Venezuelan immigrants in Colombia?”. The participants who answered ‘Yes’ were invited to click on a link to learn about the incorporation of immigrants to Colombia.

Supporting outcomes:

Concerns about negative effects of immigration

To what extent do you agree with the following statements:

- *Venezuelan immigrants are a burden to the state's social services.*
- *Venezuelan immigrants increase crime and insecurity.*
- *Venezuelan immigrants are affecting employment rates in Colombia.*

Responses are on a 7-point Likert scale from strongly disagree to strongly agree. The items are aggregated in an index via simple sum.

Index measure of support for immigrant rights policies We ask respondents their attitudes towards a set of immigrant policies that were discussed as part of the immigrant regularization program in Colombia.

To what extent do you agree with the following statements?

- *The children of Venezuelan immigrants should have the same rights to public education as Colombian children do.*
- *Venezuelans residing in Colombia should have access to the health services enjoyed by Colombians.*
- *Venezuelans residing in Colombia should have the right to receive a family subsidy from the Colombian government.*

Responses range from strongly disagree to strongly agree on a 7-point Likert scale. We aggregate these items in a simple sum index.

Predetermined covariates

Before randomization and exposure to experimental stimuli, respondents were asked to an-

swer demographic questions, including their age, socioeconomic status, gender, state of residence. Additionally, in Study 1 and Study 2, we asked respondents to rate their feelings towards different groups, including Venezuelan migrants.

To better assess whether the responses to the treatments are driven by social desirability or experimenter demand effects, in Study 3 we included a measure of external motivation to respond without prejudice. This measure is taken from (Bamberg and Verkuyten, 2022), and was measured using a 7-point Likert agreement scale (1 = strongly disagree; 7 = strongly agree) on the item “I try to appear non-prejudiced to avoid the disapproval of others.”

Mediators

Based on existing studies that argue that the effect of perspective-getting narratives is mediated by an increase in empathy, after delivering the treatment, we asked respondents the following question: *When you think about Venezuelan immigrants in Colombia, how often do you feel empathy towards them?* We measured empathy using a 7-point Likert scale (1= never; 7 = always).

A.6 Estimation methods

We estimate the ATE of the intervention on attitudes towards migrants via OLS both without and with covariate adjustment, including age, gender and socioeconomic status. We compute robust (“HC2”) standard errors. Namely we estimate the following equation:

$$Y_i = \alpha + \beta_1 T_{1i} + \beta_2 T_{2i} + \gamma X_i + \epsilon_i$$

where Y_i is the outcome variable of interest, T_{1i} denotes assignment to the economic narrative (takes value 0 otherwise), T_{2i} to the humanitarian narrative (takes value zero otherwise). X_i is a vector of covariate values for individual i , ϵ_i is the error term. α , β , and γ are the parameters to be estimated. β_1 , β_2 are the parameter of interest and measure the ATEs.

A.7 Sample Characteristics

This section presents descriptive statistics of our sample and its comparison with a nationally representative sample from The AmericasBarometer by the LAPOP Lab.

In the first two studies, we sampled from Colombian Departments proportional to the number of Venezuelan migrants living there to over-represent departments where the questions we ask in this context are more relevant. Table A.1 shows the proportion of Venezuelans living in each Colombian department according to data from DANE in 2020. The last two columns show the proportion of the sample from each department.

Table A.1: Proportion of Venezuelans and Distribution of the Sample

Department	Proportion Venezuelans	Study 1	Study 2
Amazonas	0.001	0.002	0.002
Antioquia	0.088	0.066	0.093
Arauca	0.026	0.023	0.025
San Andres y Providencia	0.000	0.002	0.002
Atlantico	0.092	0.088	0.091
Bogota	0.196	0.158	0.178
Bolivar	0.047	0.052	0.052
Boyaca	0.009	0.020	0.017
Caldas	0.004	0.010	0.005
Caqueta	0.000	0.003	0.004
Casanare	0.012	0.015	0.015
Cauca	0.005	0.014	0.008
Cesar	0.032	0.033	0.030
Choco	0.001	0.003	0.003
Cordoba	0.008	0.013	0.012
Cundinamarca	0.054	0.047	0.050
Guainia	0.004	0.002	0.000
Guaviare	0.000	0.002	0.002
Huila	0.003	0.009	0.006
La Guajira	0.088	0.077	0.033
Magdalena	0.051	0.059	0.053
Meta	0.004	0.007	0.009
Narino	0.008	0.012	0.011
Norte de Santander	0.113	0.112	0.106
Putumayo	0.002	0.004	0.004
Quindio	0.005	0.010	0.007
Risaralda	0.012	0.015	0.013
Santander	0.062	0.063	0.062
Sucre	0.013	0.016	0.013
Tolima	0.006	0.016	0.015
Valle del Cauca	0.052	0.044	0.076
Vaupes	0.000	0.000	0.000
Vichada	0.002	0.002	0.002

The sample in Study 3 is a nationally representative sample with quotas on region and gender. In Table A.2, we show how the population distribution of our third survey compares to the census distribution by gender and region. Considering its small size, the insular region is included in the Caribbean region.

Table A.3 compares our sample with the nationally representative LAPOP sample. Compared to the third study, the LAPOP sample is a little older, with slightly more men. More people live in urban places in our sample. Compared to the sample in our third study and the LAPOP sample, the samples in the first two studies have a larger share of women, young people, and people with higher levels of education.

Table A.2: Distribution of the Sample in Study 3

2018 Census: Population Distribution by Region		
	Female Population	Male Population
	Proportion	Proportion
Amazonia	0.01	0.01
Andina	0.34	0.32
Pacifico	0.02	0.03
Caribe	0.11	0.11
Orinoquia	0.02	0.01
Survey 3 Sample Distribution by Region		
	Female Population	Male Population
	Proportion	Proportion
Amazonia	0.02	0.02
Andina	0.30	0.31
Pacifico	0.02	0.02
Caribe	0.13	0.11
Orinoquia	0.04	0.03

Besides descriptive demographic variables, Table A.3 also compares responses to public opinion questions usually asked in the LAPOP survey. Interestingly, we see little difference concerning ideology or consumption of political information, but some differences in government evaluation.

Table A.3: Characteristics of the Sample

Lapop							
	Variable	Mean	Median	SD	Min	Max	N
1	Male	0.50	0	0.50	0	1	1658
2	Age	40.26	37	16.24	18	90	1658
3	Primary Education	0.89	1	0.32	0	1	1658
4	Rural	0.21	0	0.40	0	1	1658
5	Govrmt Evaluation	3.47	3	1.66	1	7	1658
6	Ideology	3.15	3	1.26	1	5	1658
7	Political Info	1.67	1	1.01	1	5	1658
8	Working	0.41	0	0.49	0	1	1658
Study 3 (2023)							
	Variable	Mean	Median	SD	Min	Max	N
9	Male	0.48	0	0.50	0	1	4823
10	Age	35.29	34	11.74	18	79	4823
11	Primary Education	0.98	1	0.14	0	1	4823
12	Rural	0.06	0	0.24	0	1	4823
13	Govrmt Evaluation	2.89	3	1.25	1	7	4823
14	Ideology	3.10	3	1.28	1	5	4823
15	Political Info	1.75	1	1.03	1	5	4823
16	Working	0.50	1	0.50	0	1	4823
Study 2 (2022)							
	Variable	Mean	Median	SD	Min	Max	N
17	Male	0.37	0	0.48	0	1	5037
18	Age	33.43	31	11.65	18	79	5037
19	Primary Education	0.97	1	0.16	0	1	5037
20	Working	0.69	1	0.46	0	1	5037
Study 1 (2021)							
	Variable	Mean	Median	SD	Min	Max	N
21	Male	0.37	0	0.48	0	1	2417
22	Age	31.37	29	10.80	18	81	2417
23	Primary Education	0.97	1	0.17	0	1	2417
24	Working	0.62	1	0.49	0	1	2417

Note: Descriptive statistics on sampled participants and Lapop survey.

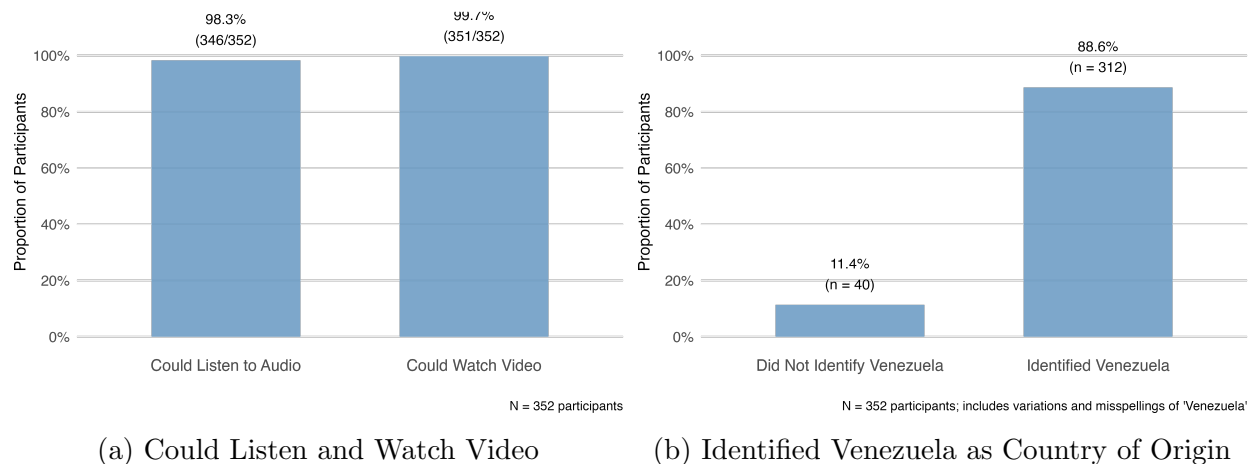
A.8 Manipulation and Engagement

Video Pilot Study

In this section we describe the results on participant engagement with the video and the treatment manipulation.

Technical Delivery and Accessibility First, 351 out of 352 participants (99.7%) were able to watch the video treatment, while 346 out of 352 participants (98.3%) were able to listen to the audio of the video treatment (Figure A.1a). This indicates that the video treatment was successfully delivered to nearly all participants, with only minimal technical issues affecting video access for one participant and audio access for six participants. The near-universal accessibility of both visual and audio components (>98% for both modalities) supports the validity of the experimental manipulation across the sample.

Figure A.1: Video Treatment Accessibility and Comprehension



Note: In (a) proportion of participants who could watch and listen to the video treatment. In (b) proportion of participants who correctly identified Venezuela as the nationality or country of origin mentioned in the video treatment. Classification includes geographical references and nationality terms related to Venezuela.

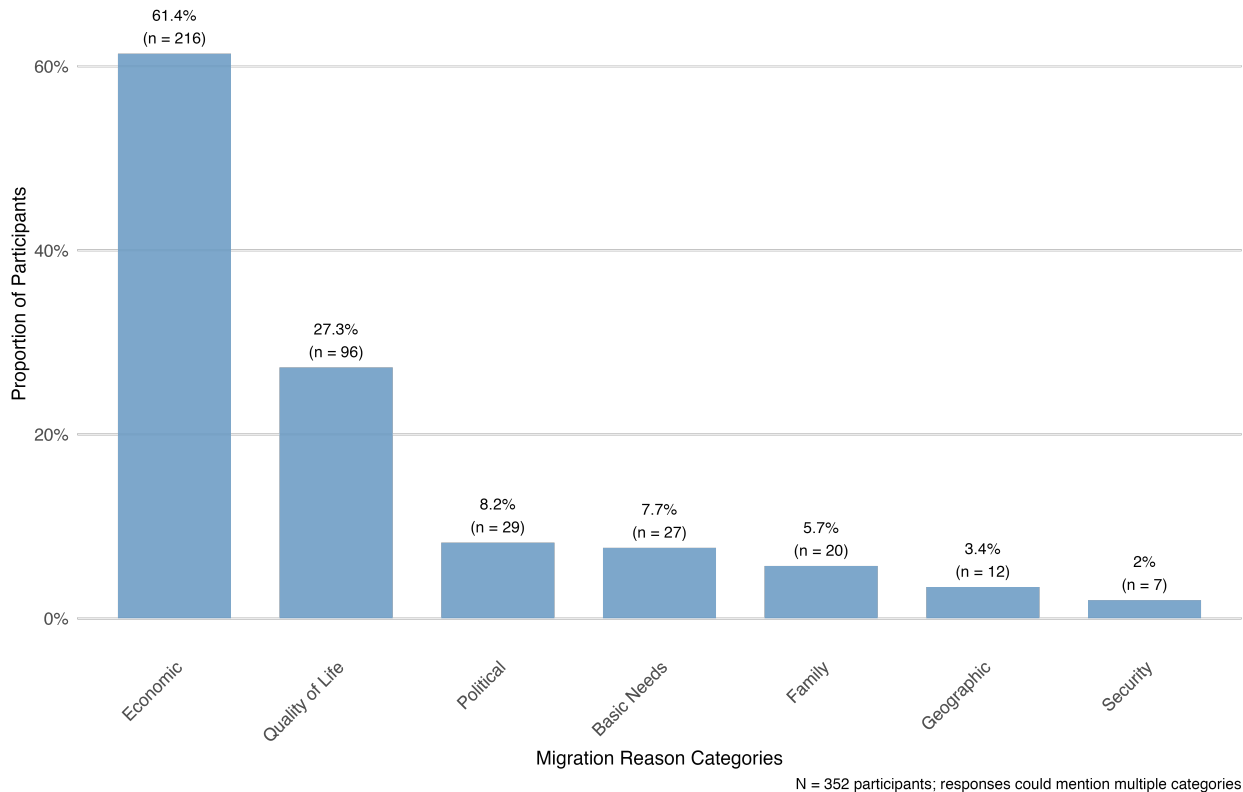
Comprehension and Engagement Second, we asked participants in an open-ended question to identify the nationality of the person in the video. Overall, 88.6% of participants (312 out of 352) correctly identified some connection to Venezuela in their responses (Figure A.1b), which suggests good attention to and comprehension of the video content.

Migration Reason Categories Third, we asked participants in an open-ended question to give us their opinion about why Venezuelans emigrate to Colombia. Figure A.2 shows that economic reasons (61.4%) were by far the most common, including mentions of job opportunities, economic crisis, inflation, and poverty. Quality of life (27.3%) was the second most common theme, focusing on improving living conditions. Political factors (8.2%) were less

frequently mentioned but still notable. Other categories like basic needs, family, geographic proximity, and security were mentioned less frequently.

This suggests that participants primarily understand Venezuelan migration through an economic lens, which aligns with common narratives about the Venezuelan crisis and with our theoretical expectation about the economic effects of Venezuelan migration as a particularly salient condition shaping attitudes.

Figure A.2: Reasons for Venezuelan Migration to Colombia

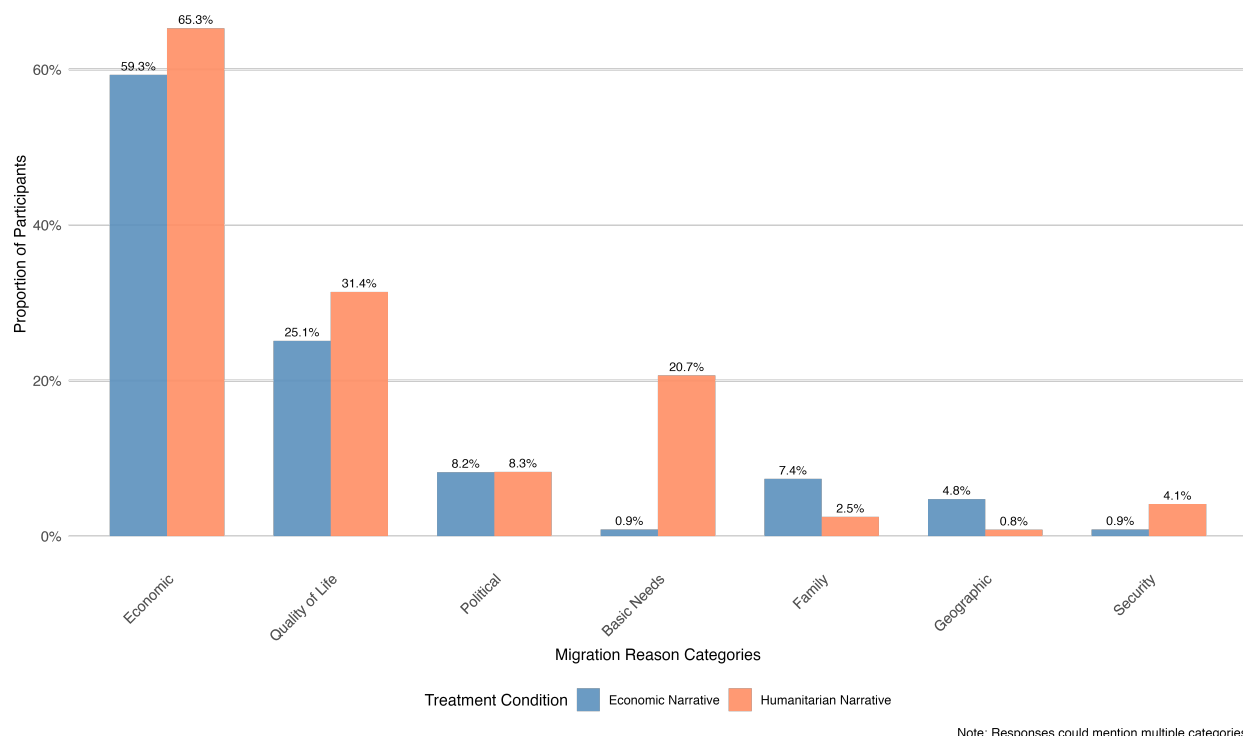


Note: Proportion of participants mentioning each category of reasons for Venezuelan migration to Colombia in open-ended responses. Responses could be classified into multiple categories.

Treatment Effect on Narrative Framing When we compare migration reasons by treatment narrative (Figure A.3), a notable difference emerges in mentions of basic needs (0.9% for Economic Narrative vs. 20.7% for Humanitarian Narrative), suggesting that the humanitarian video more successfully emphasized immediate material necessities like medicine and healthcare, while both conditions equivalently primed participants to think about the underlying economic drivers of Venezuelan migration (59.3% for Economic Narrative vs. 65.3% for Humanitarian Narrative). This lack of difference is not surprising given that both video narratives ultimately conveyed economic motivations for migration, albeit framed dif-

ferently. The humanitarian narrative featured a father explaining their migration decision to obtain medicine for their child—fundamentally an economic constraint. The economic narrative showed a person working in sugar cane fields in Colombia. While conveying economic motivations for migration, these frames possibly conveyed different economic impacts of migration, with the humanitarian narrative exhibiting larger costs due to migrant reliance on the Colombian state.

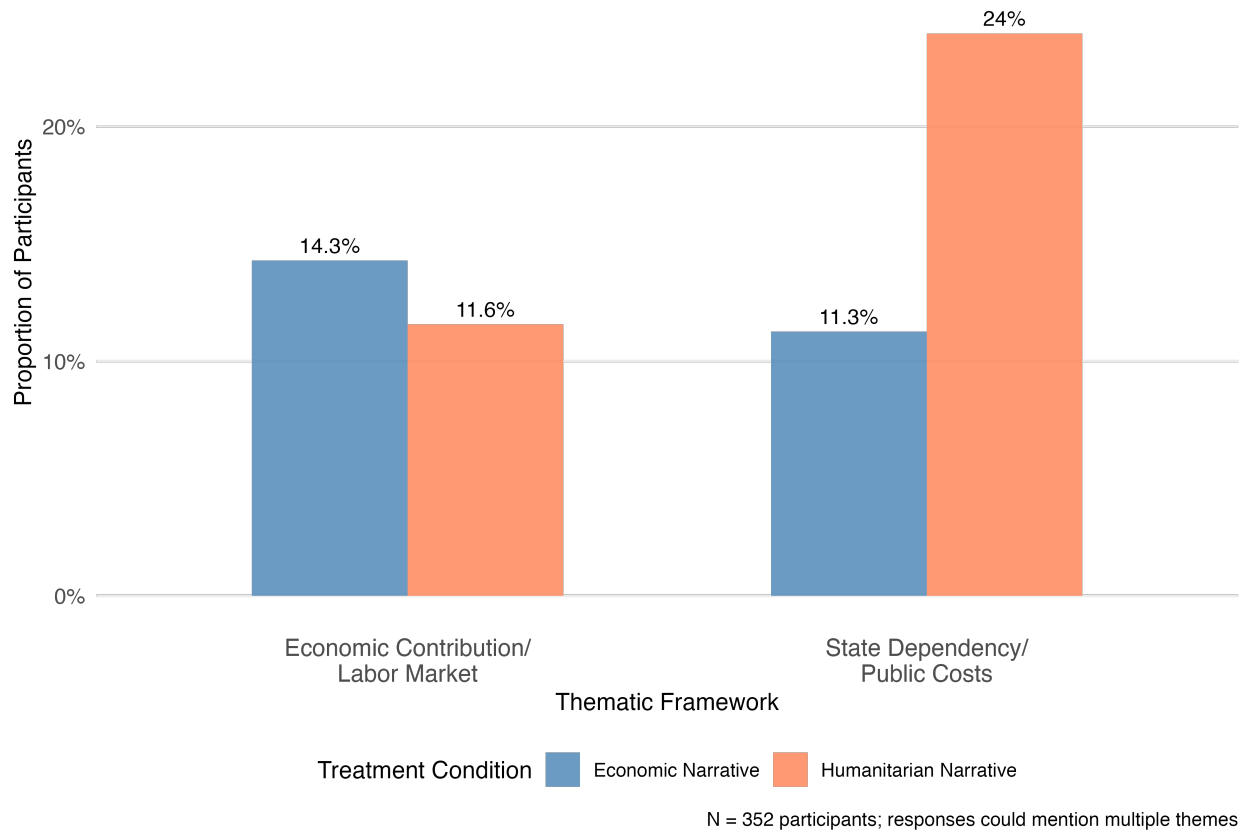
Figure A.3: Migration Reasons by Video Treatment Narrative



Note: Proportion of participants mentioning each category by treatment condition. Responses could be classified into multiple categories.

Evidence for Theoretical Expectations To test whether the humanitarian narrative primes thinking about public costs while the economic narrative primes thinking about economic contributions, we classified the open-ended responses using two thematic frameworks: State Dependency/Public Costs and Economic Contribution/Labor Market. The state dependency/public costs theme includes mentions of state, government, public services, hospitals, clinics, medicine, treatment, health services, help, assistance, benefits, free services, costs, needing resources. The economic contribution/labor market theme includes references to work, employment, job opportunities, production, contributing, generating income, economy, salary, improvement, progress, agriculture, industry, commerce.

Figure A.4: Narrative Implications: State Dependency vs. Economic Contribution



Note: Proportion mentioning themes related to public costs vs. labor market participation. Responses could be classified into multiple themes.

Figure A.4 shows the proportion of participants whose open-ended responses contained language related to state dependency/public costs versus economic contribution/labor market participation. As expected, participants exposed to the humanitarian narrative were significantly more likely to use language suggesting state dependency and public costs (24.0% vs. 11.3%), while showing similar rates of economic contribution language (11.6% vs. 14.3%). This pattern supports our theoretical framework that the humanitarian narrative primes thinking about migrants' reliance on public services and state resources, while the economic frame emphasizes labor market participation and economic contribution.

Authenticity and Credibility Assessment Finally, based on our analysis of these open-ended responses, there is very little evidence that participants were skeptical about the videos or thought they were inauthentic. Instead, our overall assessment of the manipulation checks suggests that participants believed in and engaged with the videos, supporting the internal validity of our experimental design. First, there are minimal signs of confusion or issues:

3 potentially problematic open-ended responses out of 352 (“no se” (I don’t know), “No se escucho nada” (I couldn’t hear anything)—a technical issue, and “Dice que de Venezuela pero habla como de Peru” (Says he’s from Venezuela but talks like he’s from Peru), suggesting some skepticism about accent/authenticity), and some very brief answers (just “economía” or “gobierno”), which seem more like concise responses rather than skepticism. Second, we find 1. high comprehension rates: 88.6% correctly identified Venezuela as country of origin, suggesting participants were paying attention and believed what they saw and heard; 2. substantive responses: most participants provided thoughtful, detailed explanations about migration reasons rather than dismissive or skeptical comments; on average, participants in the humanitarian narrative treatment used 7.41 words, while people in the economic narrative treatment used 7.25 words, and 3. no direct questioning of authenticity: we found no responses using words like “fake,” “acted,” “artificial,” “scripted,” or similar terms suggesting disbelief.

Overall, participants accepted the videos as genuine and engaged meaningfully with the content, with only one response (0.3%) potentially questioning authenticity by noting the person “talks like he’s from Peru” despite claiming to be Venezuelan. This minimal skepticism rate suggests the video treatment was convincing and effective.

Main Study

In the main study, we also look at the level of engagement with the outcome across the treatments. We check the time spent answering the outcome questions across treatment conditions. The time to respond to the outcomes is similar between the treatments (38.72 seconds for the economic treatment and 39.22 for the humanitarian treatment) and the control (39.66 seconds). This gives us confidence that the control group has the same level of engagement with the overall survey despite not being exposed to the narratives.

B Design Assumptions

B.1 Covariate Balance

The tables below show that covariate balance on pre-treatment variables is observed for our three surveys and the follow-up survey. Each table shows the mean of the variables for each treatment condition (economic, humanitarian and control) and the p -value from a one-way ANOVA test.

Table B.1: Covariate Balance in Study 1

Variable	Control	Humanitarian	Economic	P-value
Age	31.4158	31.5507	30.9477	0.5316
Male	0.3677	0.3824	0.344	0.2789
Single	0.5052	0.4952	0.4924	0.8954
Employed	0.6471	0.6177	0.5868	0.1125
Secondary Education or More	0.9381	0.9348	0.9376	0.9522
Baseline Feelings of Migrants	4.2302	4.3068	4.3086	0.5817
N	582	1242	593	

Table B.2: Covariate Balance in Study 2

Variable	Control	Humanitarian	Economic	P-value
Age	33.5256	33.4926	33.2606	0.773
Male	0.3641	0.3629	0.3855	0.3132
Single	0.4699	0.4701	0.4745	0.9566
Employed	0.6961	0.6882	0.6834	0.7326
Secondary Education or More	0.9272	0.9361	0.9317	0.5911
Baseline Feelings of Migrants	4.0517	4.11	4.0986	0.5429
N	1662	1691	1684	

Table B.3: Covariate Balance in Study 3, Wave 1

Variable	Control	Humanitarian	Economic	P-value
Age	35.027	35.4908	35.3452	0.5193
Male	0.4672	0.492	0.4948	0.2228
Urban	0.8085	0.8273	0.8178	0.3875
Employed	0.5494	0.5717	0.5594	0.4462
Secondary Education or More	0.9245	0.9299	0.9372	0.3577
Left Right Ideology [-2,2]	0.1002	0.1012	0.0994	0.9993
Seek Political Information [0=Never,4=Daily]	3.4107	3.4166	3.3809	0.5056
N	1629	1569	1625	

Table B.4: Covariate Balance in Study 3, Wave 2

Variable	Control	Humanitarian	Economic	P-value
Age	39.817	39.9882	39.8217	0.9501
Male	0.4582	0.4941	0.493	0.2963
Urban	0.9163	0.912	0.9001	0.5249
Employed	0.6596	0.661	0.6662	0.9587
Secondary Education or More	0.9745	0.9685	0.9709	0.7887
Left Right Ideology [-2,2]	0.1648	0.0726	0.118	0.3805
Seek Political Information [0=Never,4=Daily]	3.5261	3.5112	3.4846	0.6102
N	705	761	791	

B.2 Differential Attrition

To test for differential attrition in the follow-up survey, we regress an indicator for responding to the second wave of survey three on indicators of treatment assignment. Although the treatment groups are balanced across respondents as shown in section B.1, we find substantially small attrition.

Table B.5: Test for differential attrition

	Estimate	Std. Error	t value	p-Value
Economic Treatment	0.05	0.02	3.09	0.00
Humanitarian Treatment	0.05	0.02	2.96	0.00

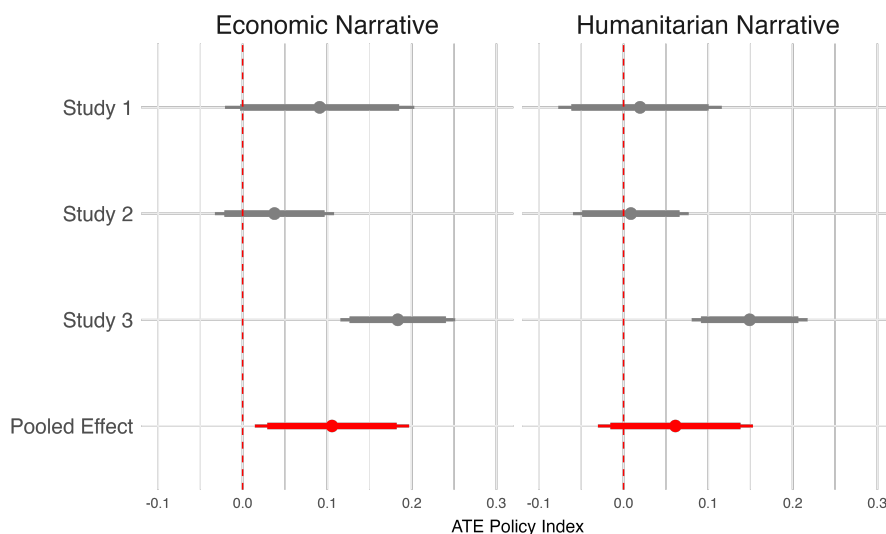
B.3 Differential Attrition by Covariates

Considering the small average differential attrition found in Section B.2, a potential concern is that treatment caused attrition to differ by covariates. For example, the treatment could have led people who were already more favorable to migrants or had more progressive ideologies to respond more to our survey, and those with more negative baseline views to respond less. Although we provided evidence that our second wave is balanced on observable characteristics, we test for differential attrition by covariates. To do this, we follow (Gerber and Green, 2012) and implement a linear regression of whether or not individuals responded to the second wave of our survey on treatment, all the baseline covariates we use to show covariate balance and treatment-covariate interactions. We perform a heteroskedasticity robust F-test of the hypothesis that all the interactions are equal to zero. The p -value on this F-test is 0.7264, which suggests that the treatment did not cause attrition to differ by covariates.

C Treatment Effects on Support for Immigrant Rights

We assess whether exposure to the narratives increases support for immigrant rights policies in addition to increasing support for open immigration. We specifically ask about immigrant policies that were discussed as part of the immigrant regularization program in Colombia, including immigrant children right's to public education, immigrant access to health services and family subsidies. We combine these three attitudinal items in a simple sum index.

Figure C.1: Average Treatment Effects on Support for Immigrant Rights



Notes: Points display covariate-adjusted average treatment effects in standard deviations. Thick and thin lines represent 90% and 95% confidence intervals, respectively. Estimates in red show a pooled precision-weighted average of study-level effects.

Figure C.1 presents the estimated treatment effects in standard deviations on this index measure, independently for each study (in grey) and across studies (in red). Across studies, the economic narrative significantly increased support for immigrant rights by 0.1 sd. This positive effect on the outcome is, however, only statistically significant in Study 3. In contrast, the humanitarian narrative did not affect support for immigrant rights across the three studies. The pooled estimate is 0.06 sd (about half the size of the economic narrative's effect) and is not statistically significant. This treatment effect is close to zero in Study 1 and Study 2 and positive and significant in Study 3. As we have mentioned above, this positive effect in Study 3 may be explained by the narrative's video format. It is possible that with the video format the narrative's specific content matters less than the imagery produced by the video. Positive imagery may offer the necessary diversion to not counter argue the narrative's story, and therefore produce a positive response to the group represented in the narrative, regardless of the specific narrative's content.

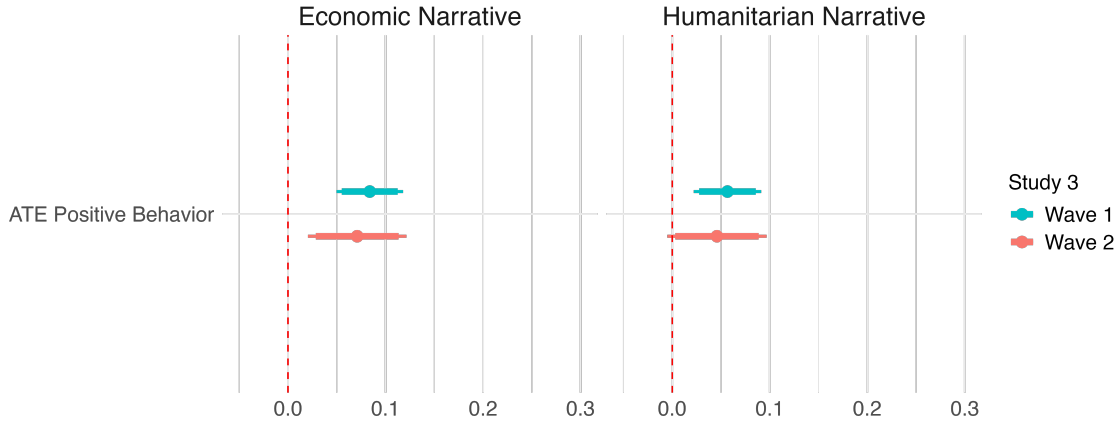
D Social Desirability or Experimenter Demand Effects

In Study 3 we assessed the possibility that the observed treatment effects are explained by social desirability or experimenter demand effects in two ways: with an action-based proxy measure of support for Venezuelan immigrants, and a treatment heterogeneity analysis with a pre-treatment measure of external motivation to respond without prejudice.

D.1 Migrant Support Action-Based Proxy Measure

The quasi-behavioral measure approximates participants' support for Venezuelan immigrants already settled in Colombia. Specifically, we included the following question: "Would you like to acquire information on how to support Venezuelan immigrants in Colombia?". Participants who answered 'Yes' were invited to click on a link to learn about the incorporation of immigrants into Colombia. Answering positively to this question carries some costs for participants. As such, responses to this question are unlikely aimed at satisfying what it is cued by the experimental manipulations to be the appropriate behavior.

Figure D.1: Treatment Effects on Migrant Support Action-Based Proxy Measure



Notes: Points display covariate-adjusted average treatment effects in percentage points. Thick and thin lines represent 90% and 95% confidence intervals, respectively.

Figure D.1 presents the estimated treatment effects on this quasi-behavioral outcome. Both treatments increased participants' willingness to acquire more information on how to support Venezuelan immigrants residing in Colombia. The estimates also suggest that such an increase remains and is statistically significant two weeks from treatment, although only at the 10% level for the humanitarian narrative. These results increase our confidence that the positive treatment effects on our main outcomes are not driven by social desirability or experimenter demand effects.

D.2 External Motivation to Respond Without Prejudice

The pre-treatment measure of external motivation to respond without prejudice is based on Bamberg and Verkuyten (2022). The measure used a 7-point Likert agreement scale (1 = strongly disagree; 7 = strongly agree) on the item “I try to appear non-prejudiced to avoid the disapproval of others.”

If participants are adjusting their responses to cues in the immigrant narratives about what constitutes appropriate behavior (in this case, a non-prejudiced or inclusionary assessment of immigrants or immigration), we would expect to observe more inclusionary responses to the treatment among participants who are more externally motivated to respond without prejudice. To assess this possibility, we regress our two main outcome measures (support for open immigration and positive affect toward immigrants) on the treatment indicator, the measure of external motivation, and the interaction between the treatment and the external motivation measure. A positive coefficient on this interaction would be suggestive of experimenter demand effects. Table D.1 presents these coefficients. The coefficient of the interaction between the economic narrative and the external motivation measure on both outcomes is negative and not statistically significant. Moreover, the coefficient of the interaction between the humanitarian narrative and the external motivation measure on support for open immigration is positive but very close to zero and not statistically significant, and the coefficient on positive affect is negative and not statistically significant. This suggests that it is unlikely that experimenter demand effects explain the observed treatment effects, increasing our confidence in the studies’ results.

Table D.1: Testing Experimenter Demand Effects

	Open Migration		Positive Affect	
	(1)	(2)	(3)	(4)
Economic	0.155** (0.070)		0.245*** (0.073)	
Extrinsic Motivation	-0.044*** (0.016)	-0.044*** (0.016)	-0.001 (0.016)	-0.001 (0.016)
Economic x Extrinsic Motivation	-0.006 (0.022)		-0.013 (0.023)	
Humanitarian		0.131* (0.069)		0.252*** (0.073)
Humanitarian x Extrinsic Motivation		0.004 (0.022)		-0.029 (0.024)
Num.Obs.	3254	3198	3254	3198

* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$

Notes: The table presents average treatment effects in standard deviations and robust standard errors in parenthesis. *Extrinsic Motivation* measures respondents’ agreement with the statement: “I try to appear non-prejudiced to avoid the disapproval of others.” Higher values indicate more extrinsically motivated to respond without prejudice.

E Concerns about the negative effects of immigration

In this section, we assess the narrative effects on perceptions about the negative effects of immigration, including effects on employment, crime and whether immigrants impose a burden on public services. The idea is that by way of addressing or countering immigration-related concerns (e.g. possible strain on public services), the economic narrative may reduce such negative perceptions.

Figure 3 shows that across studies, the economic narrative reduces concerns about the negative effects of immigration. This effect is statistically significant in Study 1 (although at the 10% level) and Study 3. The effect is not statistically significant in Study 2.

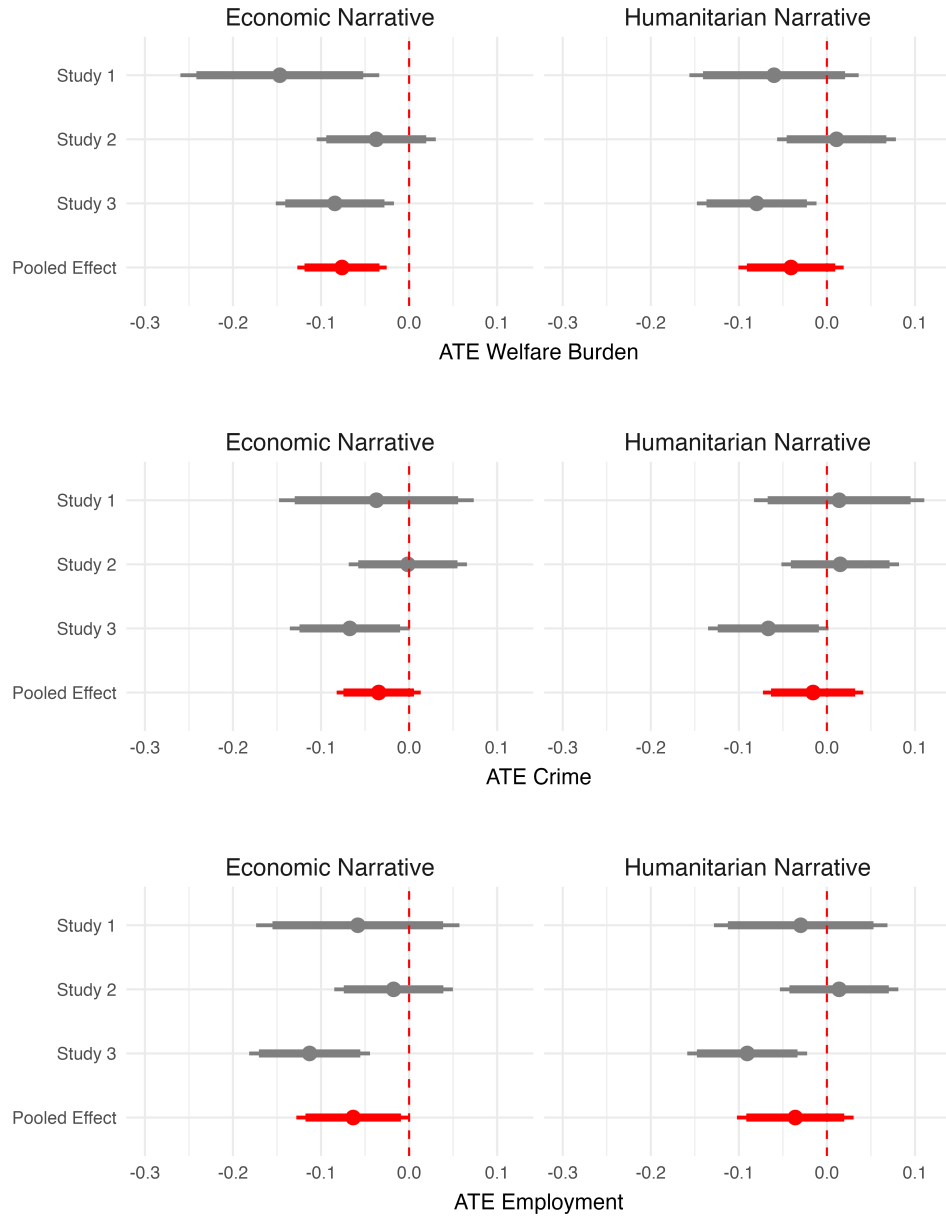
While the effect estimates of the humanitarian narrative are not statistically distinguishable from the economic narrative effects, the pooled precision-weighted average estimate of study-level humanitarian effects is small (-0.04 sd) and is not statistically significant. This effect is not significant in Study 1 and Study 2, but it is significant and negative in Study 3.

The decrease in immigration-related concerns from the economic narrative is in part driven by the concern that migrants impose a burden on public services. The story of a self-supporting migrant may particularly address concerns about migrant reliance on public assistance. Importantly, across studies, the economic narrative also decreases concerns about the effects of immigration on employment despite the narrative’s focus on an immigrant employed in Colombia.

It is possible that in Study 3 by changing the medium of the narrative from text to video the same exact narrative may have produced a different imagery, particularly a positive rather than negative imagery, reducing the cognitive response of counterarguing. Hence, the positive video imagery, more than the content of the narrative, may have provided a compelling diversion from the narratives’ implicit persuasive message, plausibly ameliorating pre-existing concerns about the negative effects of immigration. However, while in Study 3 both narratives significantly decreased these concerns immediately after the manipulation, such a decrease is only durable with the economic narrative treatment. The estimated effects presented in Figure E.2 show that two weeks from manipulation the magnitude of the economic narrative effects is similar to the magnitude just after the manipulation (and statistically significant), whereas the magnitude of the humanitarian narrative treatment effects approach zero (and are not statistically significant). These estimates are however not statistically distinguishable across the two narratives.

It is unlikely that this lack in durability of the humanitarian narrative treatment effects is explain by experimenter demand effects. As discussed in Appendix D, we do not find a differential response to the humanitarian narrative among respondents with higher external motivation to respond without prejudice. Moreover, the humanitarian narrative has short- and medium-term effects on the quasi-behavioral proxy measure of migrant support. It is unlikely that the response to this quasi-behavioral measure is aimed to satisfy what it is cued to be the appropriate behavior as this is an action-based (costly) measure (Figure D.1). Instead, it is possible that the humanitarian narrative does not durably affect concerns about the negative effects of immigration as, unlike the economic narrative, does not directly address or counter these concerns. This may also explain why in Study 3 the effect of the humanitarian narrative on support for open immigration more than halves two weeks from treatment and is not statistically significant. In contrast, the 2-week effect of the economic

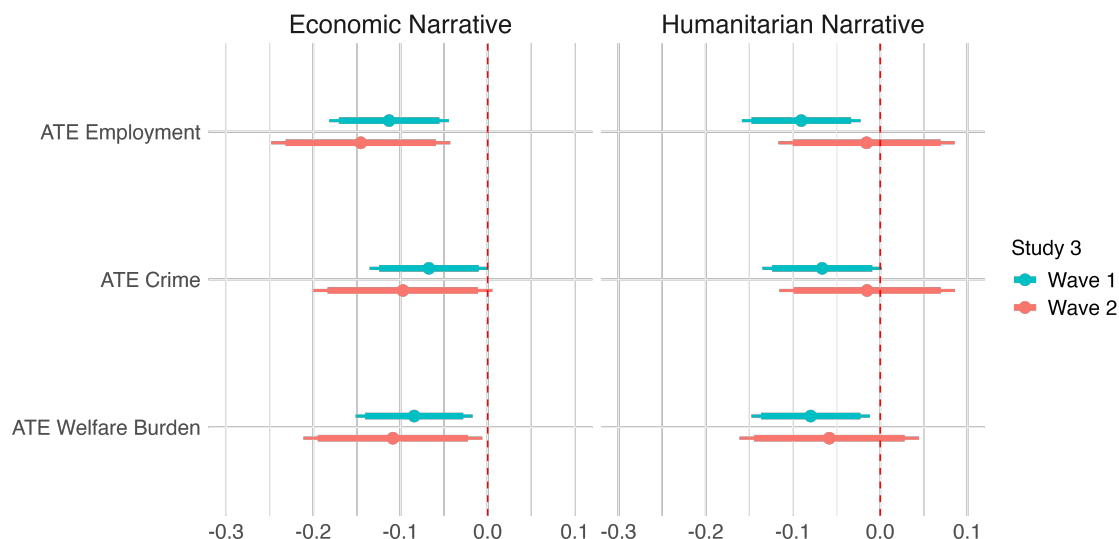
Figure E.1: Average Treatment Effects on Immigration-related Concerns: Item-by-Item



Notes: Points show covariate-adjusted average treatment effects in standard deviations on perceptions that immigrants impose a burden on public services/assistance, increase crime, and affect employment. Thick and thin lines describe 90% and 95% confidence intervals, respectively. Estimates in red present a pooled precision-weighted average of study-level effects.

narrative remains statistically significant (although at the 10% level).

Figure E.2: Short- and Medium-Term Average Treatment Effects on Immigration-Related Concerns



Notes: Points show covariate-adjusted average treatment effects in standard deviations on perceptions that immigrants impose a burden on public services/assistance, increase crime, and affect employment immediately after treatment (in blue) and two weeks from treatment (in red). Thick and thin lines describe 90% and 95% confidence intervals, respectively.

F Heterogeneity by Pre-treatment Tolerance Towards Venezuelan Immigrants

Table F.1: Heterogeneous Treatment Effects by Tolerance Level

Study 1

	Exclusion		Prejudice	
	Economic	Humanitarian	Economic	Humanitarian
Treatment	0.116 (0.063)	0.044 (0.055)	0.090 (0.058)	0.140** (0.049)
Very Tolerant	0.859*** (0.083)	0.859*** (0.083)	1.301*** (0.076)	1.301*** (0.076)
Treatment $\times$ Very Tolerant	-0.111 (0.115)	-0.147 (0.104)	-0.176 (0.108)	-0.418*** (0.097)
Constant	-0.174*** (0.045)	-0.174*** (0.045)	-0.264*** (0.041)	-0.264*** (0.041)
Observations	1175	1824	1175	1824
R ²	0.119	0.097	0.263	0.200

Study 2

	Exclusion		Prejudice	
	Economic	Humanitarian	Economic	Humanitarian
Treatment	0.061 (0.037)	0.022 (0.037)	0.131*** (0.034)	0.116*** (0.034)
Very Tolerant	0.818*** (0.057)	0.818*** (0.057)	1.268*** (0.051)	1.268*** (0.051)
Treatment $\times$ Very Tolerant	-0.017 (0.077)	-0.023 (0.078)	-0.081 (0.070)	-0.147* (0.073)
Constant	-0.157*** (0.026)	-0.157*** (0.026)	-0.243*** (0.024)	-0.243*** (0.024)
Observations	3346	3353	3346	3353
R ²	0.103	0.103	0.244	0.230

Notes: * $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$. 'Very Tolerant' is a dummy variable indicating respondents who scored 6 or 7 on the immigrant warmth scale.

G Registered Pre-Analysis Plans

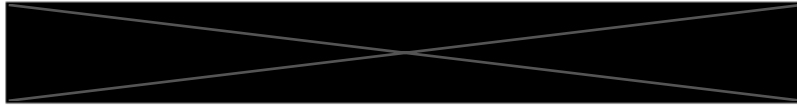
In the following pages, we attach the pre-analysis plan and the amendments that we made to the different iterations of the project between 2021 and 2023. In total, we attach four documents presenting our hypotheses, how to analyze them, the variables we use, how we measure them, the motivation, and power calculations. In the amendment of July 21, 2023 (prior to Study 3), we included information on behavioral outcomes, long-term effects, updated power analysis, and extrinsic motivation measures to rule out the demand effects explanation. In the amendment of April 4, 2023 (prior to Study 3 and pilots to test the videos), we explained that we would include the video format instead of text; we detail the content of the narratives and the exploratory analysis of the empathy mechanism found in the appendix. In the amendment of March 25, 2022 (prior to Study 2), we explain the changes in the content of the narratives from Study 1. In the document of July 2021 (before Study 1), we have information on the motivation and context (which includes a discussion of differentiated effects due to COVID-19 exposure).

Table G.1 below shows the analyses registered but not included in the main document and its reasons.

Table G.1: Deviations from Pre-Registered Plan

Pre-registered hypotheses	If not presented in main text, why?
Effects on prejudice (All Studies)	Results presented in main text; outcome name is <i>Positive Affect</i>
Mediation by empathy (All Studies)	Results not presented due to space constraints. Available upon request.
Mediation by anger (All Studies)	We do not present these results due to space constraints. Available upon request.
Moderation by COVID-19 (Study 1)	We have null results in Study 1. We abandoned COVID-19 focus in subsequent studies.
Economic treatment on Policy Rights Index (All Studies)	Results consistent with hypotheses. Presented in the Appendix.
Stereotypical Beliefs Index and Material Conflict (All Studies)	Results consistent with hypotheses. Presented in main text; outcome name <i>Negative Consequences of Migration</i> , using common elements of indices
Quasi-Behavioral Measure (Study 3)	Results consistent with hypotheses. Presented in Appendix, discussed in main text.

Amendment to Pre-Analysis Plan for a Survey Experiment on the Reduction of Prejudice against Migrants



July 21, 2023

We include this amendment for the pre-analysis plan of April 4, 2023. The experiment has the same characteristics described in the previous revision, but we implemented four changes to the experiment based on feedback received upon the presentation of previous results:

1 Quasi-behavioral Outcome

First, we included a quasi-behavioral measure in the new experiment. In addition to the two primary outcomes of prejudice and policy, we study the impact of the economic and humanitarian narratives on a quasi-behavioral measure: visits to a page with information and resources to support the Venezuelan migrant population in Colombia. The website is *Somos Panas Colombia*. An initiative by UNHCR with support from multiple international organizations. Colombian partners recommended this page as one of the most important and reliable sources on Venezuelan migration.

We hypothesize that the assignment to the economic narrative will increase visits to the web page to provide information and seek support for Venezuelan migrants. Likewise, we expect the humanitarian narrative to increase visits to *Somos Panas Colombia*.

We included a quasi-behavior outcome in a previous version of the study but was not included in the last pre-analysis plan.

2 Long-term Effects

The second change we included in the study is implementing a follow-up survey one week after people were assigned to one of the treatments. In the recontact survey a week later, the participants from the first wave will *only* answer our primary outcome questions and variables related to the supporting explanations in the pre-analysis plan of April 2023 (see section 4).

This is an exploratory analysis:

First, we expect that the potential impact of the economic and humanitarian narratives on prejudice and policy will decay after a week but will remain significant.

We will also explore the validity of our proposed supporting explanations, as explained in the Supporting Explanations sections in the PAP of April 4, after a week.

3 Stereotypical belief

We decided not to include the stereotypical belief measure included in the previous version, given the inclusion of the second wave and the duration of the survey.

4 Extrinsic Motivation and Moderators

We include a variable to account for possible demand effects and moderators. We include the following questions *before* the treatment to explore whether demand effects are driving our results. We also include a moderator variable to measure whether individuals who have varying beliefs of state capacity in Colombia respond differentially to treatment.

- How much do you agree with the following statement? I try to appear non-judgmental to avoid disapproval from others.
- To what extent do you believe that the basic rights of the citizen are well protected by the Colombian political system?

5 Updated Power Analysis

Finally, we conducted two additional pilots and a final power analysis based on the pooled outcomes of all our previous studies and pilots. As shown in Figure 1, to test both two hypotheses about the effect of the economic narrative on policy and humanitarian policy on prejudice, the required sample is approximately 5,000 observations. Thus, we aim to be powered to test the main hypotheses described in the previous PAP, provide an exploratory analysis of the quasi-behavior measure, analyze the long term effects, and proposed mechanisms.

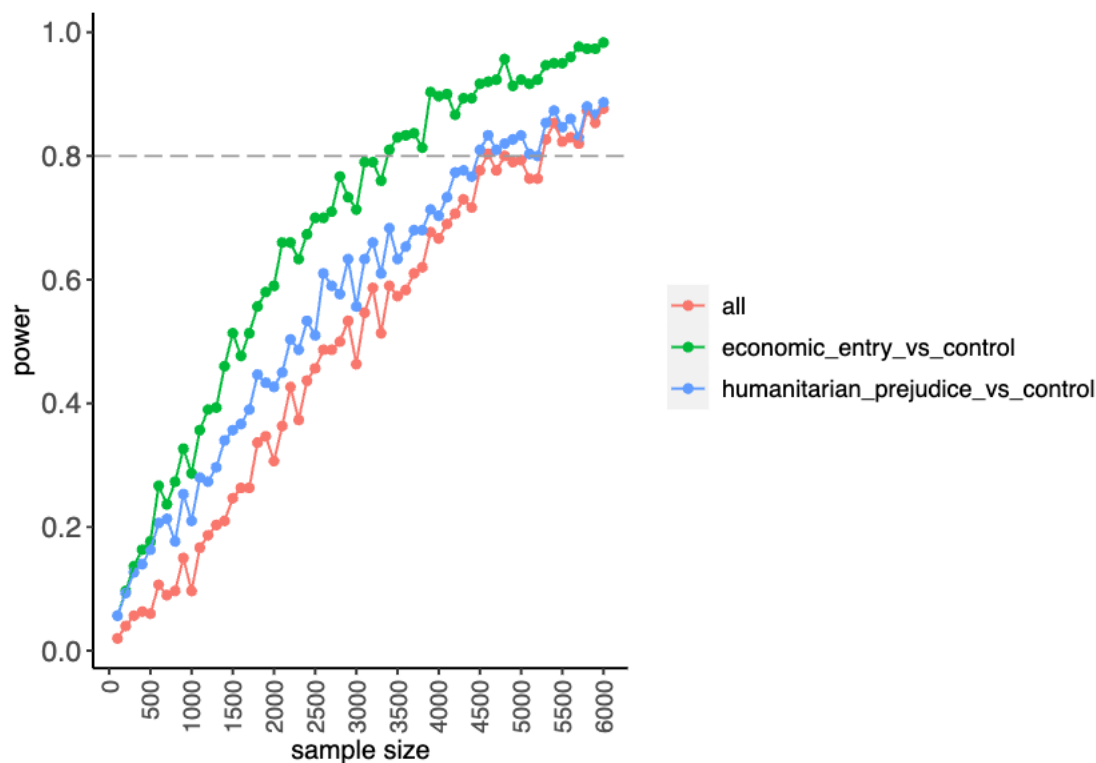
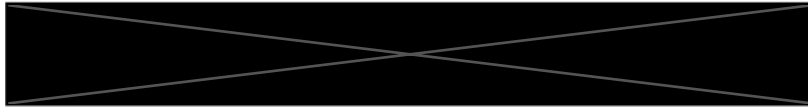


Figure 1: Power analysis

Notes: Sample needed to attain 80% power

Amendment to Pre-Analysis Plan for a Survey Experiment on the Reduction of Prejudice against Migrants



April 4, 2023

We test variations to the narrative format and content to assess our previous findings' robustness. First, we will present the treatments in video format instead of text. The motivation for this variation is twofold. First, we want to give a *more robust* treatment than the text narrative while using a format that emulates content that subjects can encounter in social media and news outlets. We also hope to reduce the sample size needed to detect effects. A paid student association at the University of California, Berkeley, produced the videos.

The videos will follow a script based on the narratives we presented in the previous experiment. We introduce some variations to the narratives as we describe below:

1 Treatment: Narratives

- **Economic narrative**

(narrated by a voice or with captions on the video) Jesus Alfredo worked in the manufacturing industry in the state of Carabobo, Venezuela. Some time ago he arrived in Santana, a municipality in the department of Boyacá whose economic base revolves around sugar cane crops.

(narrated by the actor) "I lived in Carabobo and used to travel to Barquisimeto, Caracas and other cities. I had the opportunity to work in different companies, but all of that is behind me because I had to leave my country to help my family. I didn't know anything about this job, I had to learn and it seems good to me; although the work is a bit heavy, you have to work at dawn, in the morning, in the afternoon and at night, that exhausts you physically".

- **Humanitarian narrative**

(narrated by a voice or with captions on the video) Jesus Alfredo worked in the manufacturing industry in the state of Carabobo, Venezuela. Some time ago he arrived in Santana, a municipality in the department of Boyacá whose economic base revolves around sugar cane crops.

(narrated by the actor) "I lived in Carabobo and traveled to Barquisimeto, Caracas and other cities for work, but all that is behind us because we made the decision to leave

our country, mainly to have the possibility of getting my son Mario's medicines. He is diabetic and it was very difficult for us to get his medication there. We had to find them on the 'black' market at excessive costs. There were months that we couldn't get insulin, we spent a month or so looking for insulin, without him being able to inject himself, it was causing him decompensation, he was deteriorating, there came a point where he weighed 56 kilos, that was worrying"

2 Main Outcomes: Policy and Prejudice

We test the impact of the narratives on two main outcomes: policy and prejudice.

Policy

We include two policy questions: one related to attitudes toward immigrants entering the country and one related to expanding the rights of those who are already in the country.

1. **Exit/Entry policy:** *To what extent do you agree with the following statement? Colombia should limit the number of immigrants entering the country.* Responses range from strongly disagree to strongly agree on a 7-point Likert scale.
2. **Expansion of rights policy:** *To what extent do you agree with the following statements:*
 - the children of Venezuelan immigrants should have the same right to attend public schools in Colombia as Colombians
 - Venezuelans residing in Colombia should have the right to receive a family subsidy from the Colombian government
 - Venezuelan immigrants should be eligible for the same health care benefits that Colombians receive

Prejudice

We use a feeling thermometer towards immigrants as our measure for the prejudice outcome:

1. **Feelings towards immigrants:** *We would like to know your feelings towards Venezuelan migrants entering Colombia. To answer this question you are going to use something we call a feeling thermometer. Scores between 5 and 7 mean that you feel favorable and warm towards migrants. Scores between 1 and 3 mean that you do not feel favorable towards migrants and that you do not care too much about them. Use a score of 3 if you don't feel particularly warm or cold towards migrants.* Responses range from completely cold to completely warm on a 7-point Likert scale.

3 Primary Hypotheses

The first two hypotheses are about the impact of the economic narratives. We argue that the economic narratives will affect both outcomes, policy, and prejudice. We test these hypotheses by looking at the effect of the economic narratives on policy measures and the feeling thermometer. For the policy outcomes, we will test the impact of the narrative on each type (exit/entry and rights acquisition) separately and in an index:

- H.1. Assignment to an economic narrative will reduce support for the exclusionary policy.
- H.2. Assignment to an economic narrative will reduce prejudice against migrants.

Our third hypothesis is about the impact of the humanitarian narrative. We argue that the humanitarian narratives, as opposed to the economic narratives, only affect the outcome of prejudice and not the policy outcomes. We test this hypothesis by looking at the effect of the humanitarian narrative on the policy and feeling thermometer outcomes:

- H.3. Assignment to a humanitarian narrative will reduce prejudice against migrants.
- H.4. Assignment to a humanitarian narrative will not affect support for the exclusionary policy.

4 Supporting Explanations

We explore a broad set of supporting explanations for the impact of the narratives on the primary outcomes. The measures include empathy, perceived realistic conflict (material and cultural), and stereotypical beliefs about the migrant population. We first present the measures and then the proposed explanations for each of them. We focus on empathy as a mediator and include a battery of items on conflict as a secondary outcome that allows us to understand (some) differences between the effect magnitudes of the economic vs. humanitarian narratives on attitudes toward immigration/immigrant policy.

Measures

Empathy Measure

Usually, when you think about Venezuelan migrants, how much do you experience the following emotions?

- Anger: "Anger about their situation."
- Empathy: "Empathy towards immigrants"

Responses are on a 7-point Likert scale from never to always.

Perceived Realistic Conflict Measure

We have two sets of questions about perceived realistic conflict. One related to material conflicts and one related to cultural and symbolic conflicts.

Material conflict

To what extent do you agree with the following statements:

- a. Venezuelan immigrants increase crime and insecurity.
- b. Venezuelan are affecting employment rates in Venezuela.
- c. Venezuelans are a burden for the State's social services.
- d. Venezuelan immigration increases the tax burden of Colombians
- e. Venezuelan immigrants get more from this country than they contribute.
- f. The quality of social services available to Venezuelans have remained the same despite Venezuelan immigration

Cultural conflict

To what extent do you agree with the following statements:

- a. Venezuelan immigrants must learn and adapt to the rules and norms of Colombian society as soon as possible

- b. Venezuelan immigration is undermining Colombian culture
- c. The values and beliefs of Venezuelan immigrants regarding work are basically the same as the values of the majority of Colombians
- d. The values and beliefs of Venezuelan immigrants regarding social relations are not compatible with the beliefs and values of the majority of Colombians

Responses are on a 7-point Likert scale (from strongly disagree to strongly agree). The items will be aggregated in an index via simple sum.

Stereotypical Beliefs Measure

What percentages of Venezuelan immigrants possess each of the following traits? (10-point scale, where A is 0-10%, B 10-20%, etc) Dishonest, Ignorant, Undisciplined, Aggressive, Hard worker, Reliable, Proud, Respectful, Unintelligent, Cleansed, Exclusive, Friendly.

Supporting Explanations

- We expect that the impact of the economic narratives on prejudice is mediated by changes in empathy.
- We argue that the the effect of the humanitarian narratives on prejudice is mediated by empathy.
- We conjecture that relative to the humanitarian narrative, the economic narrative decreases perceptions of conflict (both material and cultural)
- The economic narrative underscores immigrant strategies to overcome difficulties in the host country. As such, it may counter immigrant stereotypes relative to the humanitarian narrative, which focuses on conditions of humanitarian crises in the home country.

We test the first two explanations by doing a mediation analysis, but since we do not randomly assign these mediators, we implement the method proposed by Imai, Keele and Tingley (2010).

5 Summary

The following tables summarize the hypotheses and the proposed mechanisms described in this pre-analysis plan. Table 1 shows the different expectations regarding the economic and humanitarian narratives.

Table 1: Summary of Hypotheses

Treatment	Outcomes	Mechanism
Economic Narrative	Policy	(Material) Perceived Realistic Conflict Empathy
	Prejudice	Empathy
Humanitarian Narrative	Prejudice	Empathy

6 Power Analysis

For the power analysis, we consider a scenario where the effect sizes on exclusionary attitudes and prejudice are based on a pooled analysis of our previous studies. We perform the power analysis to detect an effect size of 0.15 standard deviations for both outcomes, with 80% power.

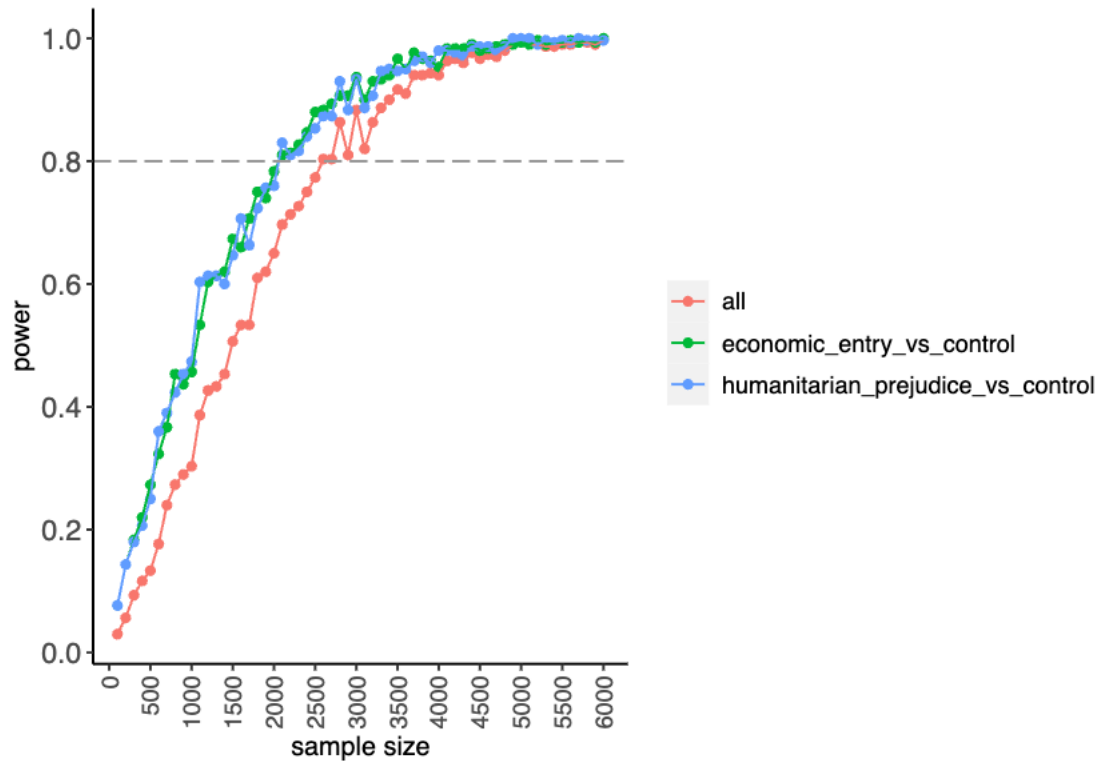


Figure 1: Power analysis

Notes: Sample needed to attain 80% power

As shown in Figure 1, to test the main two hypotheses about the effect of the economic narrative on exclusionary attitudes and prejudice, and the impact of humanitarian narratives on prejudice, the required sample is approximately 2,500 observations. Thus, we aim to be powered to test the main hypotheses described before and provide an exploratory analysis of the mechanisms.

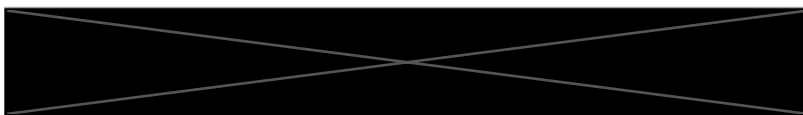
7 Meta-Analysis

Finally, taking into account that we carried out several studies, we are going to present the results for each individual study and aggregate them using a random-effects model and present the common-effects model as supplementary evidence. For this meta-analysis, we will use the results obtained in all our previous experiments.

References

Imai, Kosuke, Luke Keele and Dustin Tingley. 2010. “A general approach to causal mediation analysis.” *Psychological methods* 15(4):309.

Amendment to Pre-Analysis Plan for a Survey Experiment on the Reduction of Prejudice against Migrants



March 25, 2022

We test variations to the narratives' text and context to assess the robustness of our findings. In particular, in the 'economic' narrative we change the past occupation of the Venezuelan immigrant from a professional basketball player to a manufacturing sector worker, one of the most common occupations in Venezuela. We do that to assess whether the positive effects of the narrative on inclusionary attitudes disappear without the charisma of a professional basketball player. In addition, we now present a narrative that highlights the lack of essential resources in Venezuela as a reason for the migration decision. Such a narrative is more representative of the Venezuelan context than a previously used 'violence' narrative. This change, from the violence to the scarcity of resources narrative, reflects current findings in the literature (e.g. Fraser and Murakami, 2021) suggesting that humanitarian concerns arise from immigrants' uncertain living conditions in their countries of origin.

1 Narratives

Economic narrative [Translated from Spanish] This is the testimony of Dwuayxo Guzmán, a Venezuelan immigrant. Some data has been changed to maintain the confidentiality of the person. Dwuayxo is a worker in the manufacturing sector, from the State of Aragua, Venezuela, he is part of the group of Venezuelan professionals who have come to Santana (Boyacá) to work in the sugar mills. This testimony was published in the newspaper El Tiempo. After you have read it, we will ask you some questions about what you have read.

"I worked in the manufacturing industry in Maracay and traveled to Valencia, Caracas and other cities. I had the opportunity to have a good job, but all of that is behind me because I had to leave my country to help my family. I didn't know anything about this trade, I had to learn and it seems good to me; although the work is a bit heavy, you have to work at dawn, in the morning, in the afternoon and at night, that exhausts you physically".

Resource scarcity narrative [Translated from Spanish] This is the testimony of Jesús Alfredo Silva, a Venezuelan who migrated to Colombia. This testimony was published in Red Clamor. Some data has been changed to maintain the confidentiality of the person. After you have read it, we will ask you some questions about what you have read.

"We made the decision to leave our country, mainly, to be able to get my son Mario's medications, he is diabetic and it was very difficult for us to get his medications there. The mother of a friend of ours sent him the medications from Spain but there was a time when she couldn't do it anymore and we had to look for them on the 'black' market at excessive costs. it served him for approximately 15 or 20 days, it was very expensive and it was too difficult for us. There were months when we couldn't get insulin, we spent a month or so looking for insulin, without him being able to inject himself, that was making him unbalanced, he was getting deteriorating, there came a point where he weighed 56 kilos, that was worrying".

2 Additional outcomes

In addition, to deal with concerns of social desirability bias, we include a behavioral outcome, inviting respondents to write a letter to their preferred presidential candidate expressing their support for immigrant rights. We are coding this outcome as an indicator variable that takes the value 1 when respondents agree to write the letter and write at least one sentence, and the value 0 otherwise.

3 Power analysis

We present the power calculation for an experimental design with three arms. We randomly assign respondents into one of these three arms with equal probability:

C Pure control condition.

T1 Economic narrative condition. Respondents are exposed to a narrative of a "hard-working" Venezuelan immigrant in Colombia.

T2 Resource scarcity narrative condition. Respondents are exposed to a narrative of an immigrant unable to get insulin in Venezuela, which is the reason for immigrating into Colombia.

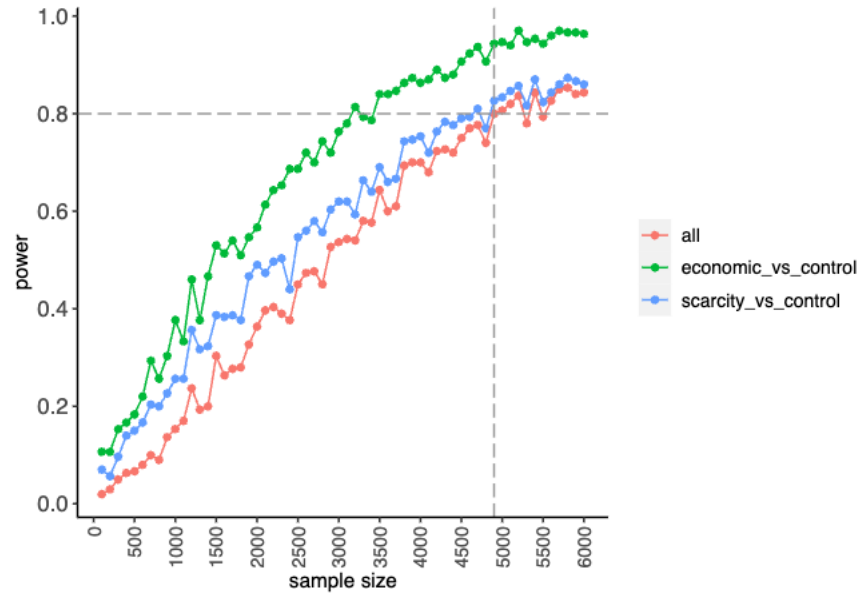
Relative to C, we assume that T1 increases support for inclusionary immigration policies by 0.12 standard deviations (based on the effects of a narrative with a professional basketball player), and that T2 increases support by 0.1 standard deviations.

We focus on testing:

- $\bar{Y}_{T1} - \bar{Y}_C > 0$
- $\bar{Y}_{T2} - \bar{Y}_C > 0$

Based on this assumptions, in order to achieve 80% power to test this two tests, we need a sample size of at least 4,900 respondents. This is illustrated in Figure 1, which plots power for all relevant tests for different sample sizes.

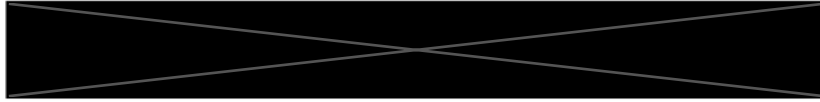
Figure 1: Power Calculation



References

Fraser, Nicholas AR and Go Murakami. 2021. "The role of humanitarianism in shaping public attitudes toward refugees." *Political Psychology* .

Pre-Analysis Plan for a Survey Experiment on the Reduction of Prejudice against Migrants

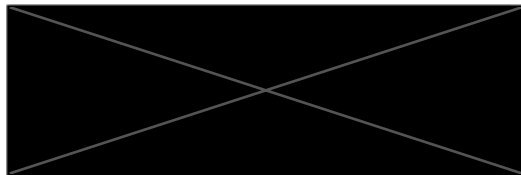


July 31, 2021

1 Overview

Developing countries have increasingly become the final destination for many international migrants, with about one third living at present in low or middle-income countries. Colombia, traditionally a net exporter of migrants and refugees, has received close to 2 million Venezuelans in the last couple of years. This new migratory climate has sparked a previously absent public debate between those who support policies that deter migration (including deportation), and those who prefer policies to assist migrants (granting humanitarian visas and work permits). Additionally, the current pandemic has increased prejudice and discrimination against migrants, which represents an important barrier to the implementation of appropriate policy measures to minimize the impact of the COVID-19 virus. Displaced Venezuelans in Colombia are currently facing many of these difficulties, as exclusionary attitudes are at an all time high. This puts migrants at risk and acts as a disincentive to necessary public actions that can help integrate and protect this group.

In this project, we ask how to reduce exclusionary attitudes towards immigrants in developing countries. Recent work has shown that perspective-getting interventions, those in



.

which individuals hear about the experiences of an outgroup member, have been successful at marshaling support for outgroups. However, we know little about their effectiveness in developing contexts, where migrants pose an economic threat to the native-born citizens. Such threat is grounded in self-interest, given the overlap between the socioeconomic characteristics of migrants and the native-born, and therefore their direct labor market competition. But it is also grounded in sociotropic assessments, as migrants pose a challenge to an already distressed national economy that hardly provides public goods like healthcare to its citizens. COVID-19 presents additional strain a weak public healthcare system and other public services as well as on the labor market. In this project, we implement a perspective-getting intervention that could potentially reduce exclusionary attitudes towards immigrants in Colombia, and we assess whether exposure to COVID-19 modifies the intervention effects.

The experiment will take place on a survey programmed in Qualtrics and implemented by Offerwise, starting with a sample of 2,000 adults in Colombia. The project already has the approval of the Institutional Review Boards of the participating universities.

2 Theory

Epidemics and economic crises can trigger exclusionary attitudes towards out-groups. Existing research suggests that anxiety, such as that generated by a crisis, leads to the selective consumption of information, ultimately resulting in the reinforcing of negative attitudes towards an out-group, such as immigrants (Gadarian and Albertson, 2014). This is particularly true in the case when an epidemic is politicized (Adida, Dionne and R. Platas, 2020). In a context in which misinformation about the pandemic has been rampant, exclusionary attitudes against migrants may be reinforced. Recent work conducted amidst the pandemic suggests that affected groups tend to express more exclusionary attitudes towards out-groups (Gottlieb, 2020). Notwithstanding, a few strategies have been shown to have a causal impact on reducing this type of exclusionary attitudes and behaviors in practice

(Paluck and Green, 2009), through interventions such as perspective-taking exercises (Adida, Lo and Platas, 2018; Broockman and Kalla, 2016; Simonovits, Kezdi and Kardos, 2018), listening to personal narratives (Audette, Horowitz and Michelitch, 2020), or non-judgmental exchange of narratives (Kalla and Broockman, 2020). However, most of this research focuses on developed countries, where migrants may not represent a source of labor-market competition, and where states have higher capacity to face the consequences of the pandemic in the medium-term. Moreover, we know little about what types of narratives may be more effective to decrease exclusionary attitudes.

Based on recent work suggesting that perspective-getting interventions can significantly and durably reduce exclusionary attitudes (Kalla and Broockman, 2020; Audette, Horowitz and Michelitch, 2020) we plan to implement such an intervention in Colombia. Perspective-getting interventions are based on individuals hearing a narrative about the experience of an outgroup member. Although it is not the most common type of treatment used in prejudice-reducing interventions, it is supported by research in the psychology literature (Redelmeier and Tversky, 1990). The findings in this literature suggest that when individuals hear the account of an outgroup member and focus on the story of the individual instead of that of the group, it can promote empathy, and in turn foster inclusionary attitudes.

In addition to testing the effects of perspective-getting narratives in developing countries, we want to explore two aspects that are understudied in the literature. First, we will explore the differentiated effect that two distinct types of narratives have on natives' attitudes. In particular, we will look at whether narratives that underscore harsh economic circumstances faced by migrants have a different effect from narratives that emphasize violence and crime faced by migrants. The motivation for this treatment is to tackle the main sources of apprehension towards migrants in developing contexts: a) the idea that migrants are not hardworking, and thus represent a strain on public spending, and b) the idea that migrants increase crime and violence upon their arrival. We argue that personal narratives crafted to affect different potential sources of exclusionary attitudes can affect prejudice against

migrants and policy attitudes differentially. In particular, economic migrants with personal narratives highlighting the necessity to leave their country and their hard work in the host country may affect natives' policy attitudes, while migrants that face violence along their journey may alter natives' stereotypes about migrants committing crimes.

Second, we will examine the role that in-group members play in the effect of narratives. In their personal narratives, migrants often highlight the generosity or help they receive from native citizens, which usually proves to be very significant for the former. We explore whether including mentions of support from native citizens in the narratives of migrants has a larger effect on reducing prejudice and increasing support for pro immigrant policies, compared to not including such mentions. We argue that if native citizens perceive that other in-group members support migrants, then they may be less motivated to resist persuasion or to dismiss evidence and arguments contrary to their views (Leeper and Slothuus, 2014), and therefore more willing to engage with migrants' narratives.

These two contributions have straight-forward and concrete public policy implications, and are complementary to the results obtained in other contexts. With low- and middle-income countries increasingly becoming immigrants' final destination, the question about how to reduce exclusionary attitudes is crucial to understand how to minimize the polarizing effects of the pandemic on immigrants in the Global South.

3 Context

The COVID-19 pandemic has exacerbated pre-existing social and economic group differences, with migrants among the groups that have experienced the most economic hardships, discrimination, and stigmatization. Migrants and people without permanent residence, experience the same health threats from COVID-19 as the native-born, but are particularly vulnerable, as they face obstacles accessing health-care, and commonly live in overcrowded, unhygienic conditions (e.g. Agudelo-Suárez et al. (2020); Doocy et al. (2019)). Additionally,

attitudes towards migrants have worsened recently, as migrants are perceived to be vectors of the disease. This combination of factors increases immigrants' vulnerability to the disease, and hinders the ability of governments to take comprehensive health and economic measures to protect migrants. Displaced Venezuelans in Colombia are currently facing many of these difficulties.

In the last few years, the humanitarian crisis in Venezuela has led nearly two million Venezuelans to flee to Colombia. Although the government has taken steps to promote the integration of migrants, many legal, political, and social barriers prevent their inclusion. The COVID-19 pandemic has strengthened such barriers by burdening Colombia's economic and healthcare system. The crisis has put a strain on local populations, who feel that their demand for government services is unmet partly due to the unprecedented levels of migration. This pressure has sustained xenophobic sentiments and exclusionary attitudes. Public opinion polls conducted as recently as October 2020 show that around 69% of Colombians have an unfavorable opinion of Venezuelans, and 72% feel that, after the pandemic is over, the border with Venezuela should be kept closed to prevent more migrants from entering the country. This level of polarization and discontent puts Venezuelans in Colombia at risk, as it undermines the collective response needed to implement health measures and economic policies.

4 Experimental Design

We plan to conduct a survey experiment to test a perspective-getting interventions aimed at fostering inclusionary attitudes towards immigrants in Colombia, as well as whether the effects of such interventions are mediated via emotions towards immigrants, and moderated by exposure to COVID-19.

Before randomization and the delivery of the intervention, respondents will be asked to answer demographic and COVID-related questions. Additionally, since we want to under-

stand whether prejudice towards Venezuelan immigrants moderates the treatment effects, we will ask respondents to rate their feelings towards different groups (including Venezuelan migrants) using a feeling thermometer. Next, respondents will be assigned with equal probability to one of three treatment conditions or to a control condition. Before answering the mediator and outcome questions, those assigned to one of the treatment groups will read a narrative about the immigration experience of a Venezuelan migrant and will be asked to reflect on the narrative with two short essay questions. Those assigned to the control group, will read the narrative and reflect on it after answering the mediator and outcome questions.

4.1 Treatment conditions

Participants will be randomly assigned to one of four conditions: (1) control; (2) reading a narrative of a Venezuelan immigrant discussing the hard economic conditions he has gone through; (3) reading a narrative of of a Venezuelan immigrant detailing the dangers he has gone through to migrate, and (4) reading an expanded version of the narrative in (3), in which participants learn that the Venezuelan immigrant was helped by a Colombian. We collected these narratives from newspaper stories about Venezuelan migrant experiences and from reports from NGOs promoting migrant rights in Colombia. The narratives are the following:

1. **Control.** Respondents will read narrative (2) after completing the outcome questions.
2. **Economic.** This is the testimony of Dwuayxo Guzmán, a Venezuelan immigrant. Dwuayxo is a professional basketball player, from the state of Carabobo, Venezuela. He is part of the group of Venezuelan professionals that have arrived in Santana, Boyacá to work in the sugar cane mills. This testimony was published in the newspaper *El Tiempo*. After reading it, we will ask you some questions about what you’ve read. “I was part of the Carabobo state team. I played in lots of tournaments, travelling to Barquisimeto, Caracas,

and other cities. I had the opportunity to play in professional leagues. However, I had to leave all of that behind and leave my country to help my family. I did not know anything about this job. I had to learn and that's okay; but the job is a bit hard, we've got to work in the nighttime, morning, and afternoon. It's physically draining."

Think about the immigrants that arrive in Colombia. In your opinion, what are the reasons for which Venezuelans migrate to Colombia?

3. Violence without in-group help. This is the testimony of Jesús Alfredo Silva, a Venezuelan immigrant to Colombia. This testimony was published in *Red Clamor*. After reading it, we will ask you some questions about what you've read.

"We rode on a trailer until we reached Ibagué. It was getting dark. There a group of people wearing soccer jerseys got on the trailer to hurt us. They beat us up and robbed our belongings. Once they got off with all of our belongings the trailer still went on and on driving for a long time. He drove through a cold, cold, cold road until we got to Neiva. There we got off the trailer."

Think about the immigrants that arrive in Colombia. In your opinion, what are the reasons for which Venezuelans migrate to Colombia?

4. Violence with in-group help. This is the testimony of Jesús Alfredo Silva, a Venezuelan immigrant to Colombia. This testimony was published in *Red Clamor*. After reading it, we will ask you some questions about what you've read.

"We rode on a trailer until we reached Ibagué. It was getting dark. There a group of people wearing soccer jerseys got on the trailer to hurt us. They beat us up and robbed our belongings. The driver noticed and got them off the trailer. Then he helped about 30 other Venezuelans get on the trailer and drove and drove for a long time. He drove through a cold,

cold, cold road until we got to Neiva. There we got off the trailer.”

Think about the immigrants that arrive in Colombia. In your opinion, what are the reasons for which Venezuelans migrate to Colombia?

4.2 Outcomes

Respondents will be asked about their attitudes toward immigration policy, feelings towards immigrants, and stereotypical beliefs about immigrants.¹

Main Outcomes

Attitudes towards immigration policy: *To what extent do you agree with the following statement? Colombia should limit the number of immigrants entering the country.* Responses range from strongly disagree to strongly agree on a 7-point Likert scale.

Feelings towards immigrants: *We would like to know your feelings towards Venezuelan migrants entering Colombia. To answer this question you are going to use something we call a feeling thermometer. Scores between 5 and 7 mean that you feel favorable and warm towards migrants. Scores between 1 and 3 mean that you do not feel favorable towards migrants and that you do not care too much about them. Use a score of 3 if you don't feel particularly warm or cold towards migrants.* Responses range from completely cold to completely warm on a 7-point Likert scale.

Stereotypes Index

To what extent do you agree with the following statements:

- Venezuelan immigrants increase crime and insecurity.

¹The feeling thermometer will also be asked before treatment to assess whether the treatment has heterogeneous effects by participants' pre-treatment feelings towards immigrants.

- Venezuelan are affecting employment rates in Venezuela.
- Venezuelan are responsible of spreading diseases such as COVID-19.
- Venezuelans are a burden for the State's social services.

Responses are on a 7-point Likert scale (from strongly disagree to strongly agree). The items will be aggregated in an index via simple sum.

Additional Outcomes

For comparability, we include an additional set of outcomes used in previous studies in the context of developed countries. In particular, we ask respondents their attitudes towards a set of immigrant and immigration policies that are specific to Colombia, and that are currently being discussed in the country. **Index of attitudes towards immigration policy**

To what extent do you agree with the following statements?.

- Colombia should limit the number of immigrants entering the country
- The government should give permits to Venezuelan migrants so that they can remain legally in the country for 10 years.
- Venezuelan immigrants should receive legal documents to be able to work.
- Venezuelans living in Colombia should have access to health services through government subsidies.
- The government should give Colombia nationality to children born of Venezuelan parents.
- The government should include Venezuelan immigrants in the COVID-19 vaccination plan.

Responses range from strongly disagree to strongly agree on a 7-point Likert scale. We aggregate these items in a simple sum index. Because we do not have power with 2,000 respondents to detect effects on this outcome (see Section 7), we treat it as an exploratory analysis.

4.3 Mediators

We assess mediation effects of two emotions: anger and empathy. While anger is more connected to activist or mobilizing attitudes (aimed at collectively challenging systems of inequality), empathy is more related to benevolent attitudes (aiming to compassionately alleviate the suffering of others) (Szekeres et al., 2021). The interventions can affect both types of emotions, and both emotions may be playing a role in fostering inclusionary policy attitudes and in decreasing prejudice and stereotypical beliefs. We are interested in exploring if this is actually the case. We use the following item to measure these emotions:

Usually, when you think about Venezuelan migrants, how much do you experience the following emotions?

- **Anger:** “Anger about their situation.”
- **Empathy:** “Empathy towards immigrants”

Responses are on a 7-point Likert scale from never to always.

4.4 Moderators

Respondents are asked on a 5 point Likert scale from “Not worried at all” to “Extremely Worried” the following two questions:

- How worried are you about having economic losses as a result of the economic crisis related to COVID-19? This includes, for example losing your job.

- How worried are you of getting COVID-19?

We aggregate the responses to these two items into an index via simple sum. We consider that a respondent is exposed to COVID-19 if the value of this index is above the median.

Additional Moderators

Since we are interested in understanding how powerful our treatment is to change the opinions of people who are prejudiced against migrants, respondents are asked about their feelings towards several groups, including Venezuelan migrants, during the first part of the survey. The question is the same as our main outcome of feelings towards immigrants, with a 7-point Likert scale where 1 is very cold and 7 is very warm, but measured pre-treatment within a battery of questions in which Venezuelan immigrants are one of the many groups respondents are asked to express their feelings towards.

We consider that a respondent is prejudice towards immigrants if the response value is below the median.

We are not powered to assess such moderation effects with the initial sample of 2000 respondents (See section 7). However, we conduct this exploratory analysis because we think that it is crucial to start to understanding whether perspective-getting interventions can foster inclusionary attitudes even among those who are prejudiced towards immigrants.

5 Hypotheses

We posit the following hypotheses:

Main effects

- *H1* Assignment to the economic narrative will decrease support for deportation.
- *H2* Assignment to the economic narrative will increase support for pro-immigrant policy index. (Exploratory hypothesis)
- *H3* Assignment to the violence narrative will reduce prejudice against migrants.

- *H4* Assignment to the violence narrative will reduce the stereotype beliefs index.

Heterogeneous treatment effects—two sided hypotheses

- *H5* There exists heterogeneity in the magnitude of treatment effects on both policy attitudes, and prejudice and stereotypical beliefs on the basis of how worried respondents are about COVID-19.
- *H6* There exists heterogeneity in the magnitude of treatment effects on both policy attitudes, and prejudice and stereotypical beliefs on the basis of the baseline level of prejudice against migrants respondents have. (Exploratory hypothesis)

Difference in effects across narratives with and without ‘in-group help’

- *H7.1* Assignment to the violence narrative with in-group help will reduce prejudice against migrants more than assignment to the violence narrative without in-group help.
- *H7.2* Assignment to the violence narrative with in-group help will reduce stereotypical beliefs about migrants more than assignment to the violence narrative without in-group help.

Mediation

- *H8.1* Assignment to the economic narrative will increase empathy towards migrants
- *H8.2* Assignment to the economic narrative will increase anger felt towards the situation of migrants (Exploratory analysis)
- *H9.1* Assignment to the violence narrative will increase empathy towards migrants
- *H9.2* Assignment to the violence narrative will increase anger felt towards the situation of migrants (Exploratory analysis)

- *H10.1* The effect of the assignment to the economic narrative on support for deportation will be mediated by the increase in empathy
- *H10.2* The effect of the assignment to the economic narrative on support for deportation will be mediated by the increase in anger (Exploratory analysis)
- *H11.1* The effect of the assignment to the violence narrative on prejudice and stereotypical beliefs will be mediated by the increase in empathy
- *H11.2* The effect of the assignment to the violence narrative on prejudice and stereotypical beliefs will be mediated by the increase in anger (Exploratory analysis)

6 Estimation Procedures

Main effects We estimate the ATE of the intervention on attitudes towards migrants via OLS both without and with covariate adjustment, including age, gender and socioeconomic status. We compute robust ("HC2") standard errors. Namely we estimate the following equation:

$$Y_i = \alpha + \beta T_i + \gamma X_i + \epsilon_i$$

where Y_i is the outcome variable of interest, T_i denotes assignment to treatment (0 if assigned to the control condition, 1 if assigned to treatment), X_i is the vector of covariate values for individual i , ϵ_i is the error term and α , β , and γ are the parameters to be estimated. β is the parameter of interest and measures the ATE.

Observational mediation analysis We follow the approach of Baron and Kenny (1986), while we control for the vector of pre-treatment covariates to account for potential confounding between the mediator and the outcome variables. First, via OLS, we test whether the intervention affects the outcome. Second, whether the intervention affects the mediator and

whether the mediator affects the outcome. Lastly, we check whether the intervention effects on the outcome remain significant when controlling for the mediator. Finding that that the effect is not statistically distinguishable from zero would suggest that it is mediated by increased empathy towards migrants/anger about the situation of migrants. We compute robust ("HC2") standard errors.

In addition, we compute the indirect and direct effects using the R package `mediation`, and conduct sensitivity analysis for the sequential ignorability assumption.

Heterogeneous effects We assess whether pandemic-related economic loss and healthcare concerns modify the intervention effects on attitudes towards migrants. We use OLS in which the treatment variable is interacted by the indicator variable of exposure to COVID-19. We include the vector of pre-treatment covariates to account for potential confounding. We compute robust ("HC2") standard errors. Namely we estimate the following equation

$$Y_i = \alpha + \beta_1 T_i + \beta_2 C_i + \beta_3 T_i \times C_i + \gamma X_i + \epsilon_i$$

where Y_i is the outcome variable of interest, T_i denotes assignment to treatment (0 if assigned to the control condition, 1 if assigned to treatment), C_i is the indicator of COVID exposure (0 if no and 1 if yes), X_i is the vector of covariate values for individual i , ϵ_i is the error term, and α , β_j , and γ are the parameters to be estimated. β_3 is the parameter of interest and measures the marginal effect of the treatment for the COVID-exposed.

We assess whether (pre-treatment) prejudice towards Venezuelan immigrants modifies the intervention effects with an analogous specification where C_i is the indicator variable for prejudice.

Difference in effects across narratives with and without ‘in-group help’ We use a Wald test of equality of coefficients. We contrast the value of the statistic to the critical value of a normal distribution.

7 Power Analysis

We consider a scenario where the perspective-getting effect size on exclusionary attitudes is based on a previous pilot study. We test heterogeneous treatment effects of this treatment by COVID-19 exposure and prejudice towards migrants, and test mediation effects empathy and anger.

As shown in Figure 1, for all these tests we need a very large sample. However, to test the main effects of the economic and violence narratives, their effects moderated by COVID-19 exposure, the mediation by empathy, and the difference in effects between the narratives with and without in-group help, the required sample is of approximately 2,000 observations. Thus, we aim to be powered to test all of the main effects, the COVID-19 moderator, the empathy mediator, the difference between narratives with and without in-group help. We will look at the effects of the economic narrative on the policy index outcome, the prejudice moderator, and the anger mediator in an exploratory fashion.

Conditional on budget restrictions, we aim to repeat the same design among a larger sample in order to be powered to measure some of the tests that we are currently considering as exploratory. Specifically, with a sample size of approximately 8,000 respondents, we would be powered to measure for the economic narrative: the main effects on all outcomes (including the policy index), mediation by empathy, moderation by COVID-19 exposure and moderation by prejudice. And for the violence narrative: the main effects, mediation by empathy and moderation by COVID-19 exposure. And the difference in effects between narratives with and without in-group help.

Although it would be ideal to test long term effects of the treatment, issues with power prevent us from implementing this test. To detect a precise main effect, based on effect sizes from a previous pilot, we would need around 3,800 to 4,000 in the second wave to argue that there are long term effects for two of the main treatments, as shown in Figure 2. Given that attrition tends to be around 60% only about 2 weeks after the first wave, this implies that we would need a sample of 9,500 respondents to start with. Due to budget limitations, we

can not implement such a large survey.

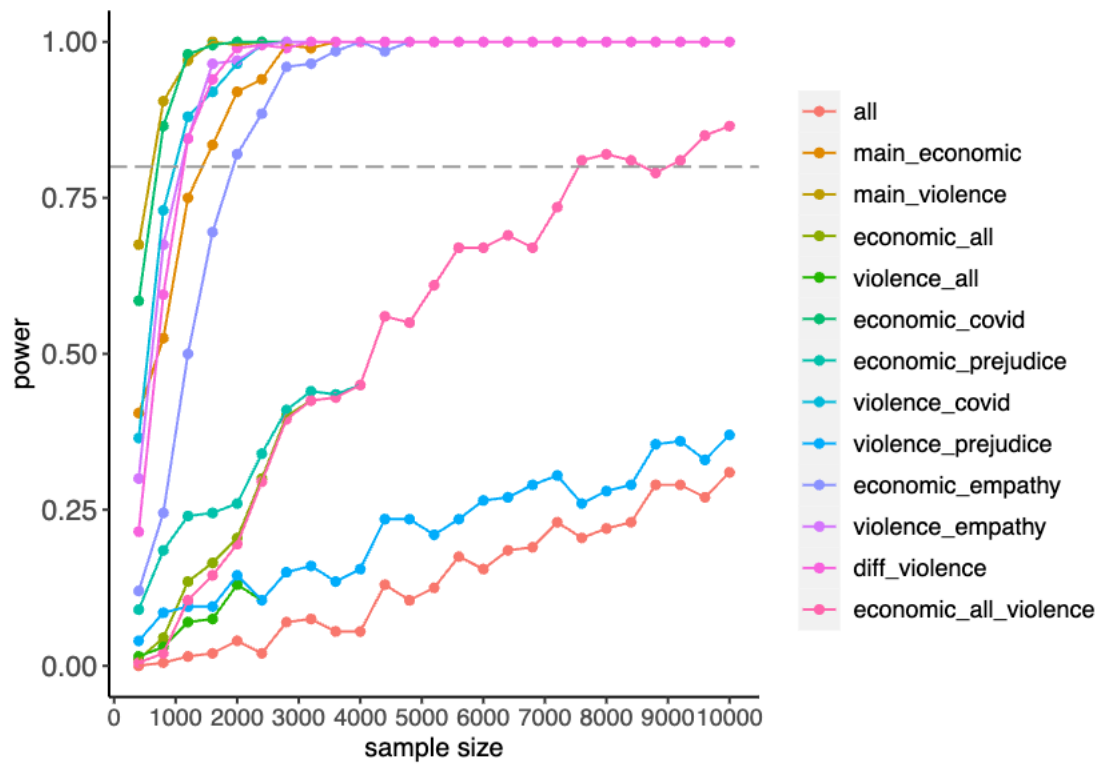


Figure 1: Power analysis

Notes: Sample needed to attain 80% power

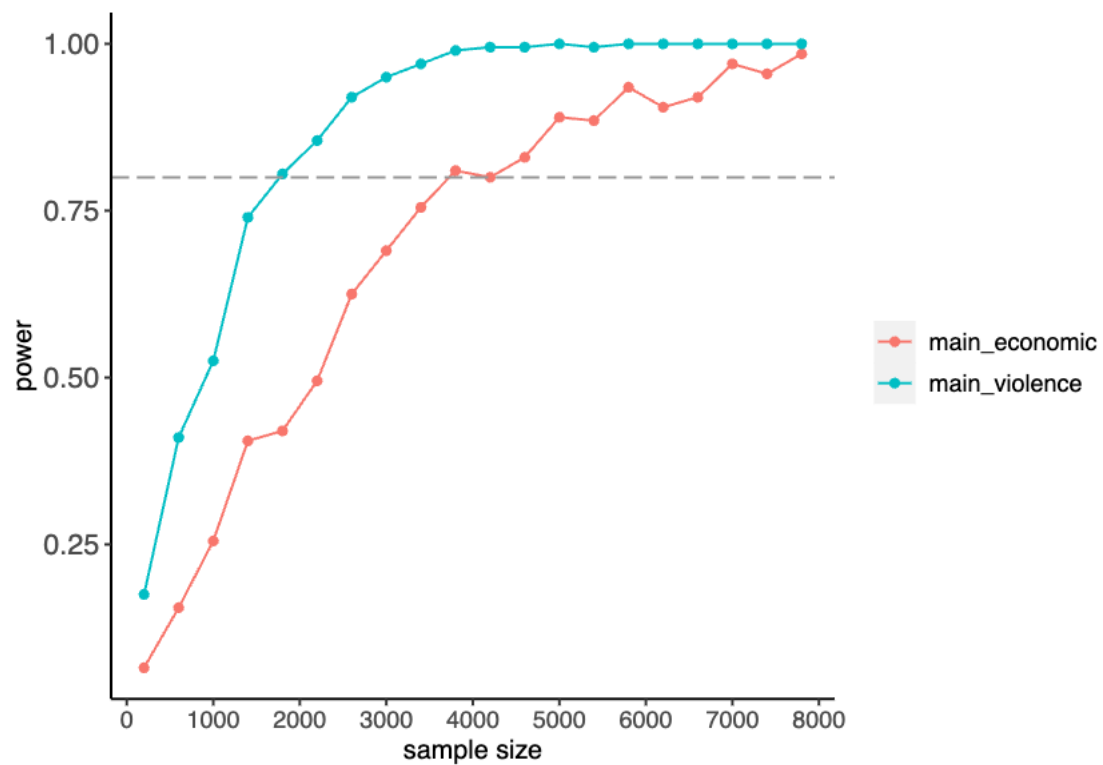


Figure 2: Power analysis: Long term effects

Notes: Sample needed to attain 80% power in second wave

References

- Adida, Claire L, Adeline Lo and Melina R Platas. 2018. "Perspective taking can promote short-term inclusionary behavior toward Syrian refugees." *Proceedings of the National Academy of Sciences* 115(38):9521–9526.
- Adida, Claire L, Kim Yi Dionne and Melina R. Platas. 2020. "Ebola, elections, and immigration: how politicizing an epidemic can shape public attitudes." *Politics, Groups, and Identities* 8(3):488–514.
- Agudelo-Suárez, Andrés A, Mary Yanet Vargas-Valencia, Jonny Vahos-Arias, Gladys Ariza-Sosa, Wilder J Rojas-Gutiérrez and Elena Ronda-Pérez. 2020. "Precarious employment and health: A qualitative study in Venezuelan immigrant population in Colombia." *Journal of Migration and Health* 1:100009.
- Audette, Nicole, Jeremy Horowitz and Kristin Michelitch. 2020. "Personal Narratives Reduce Negative Attitudes toward Refugees and Immigrant Outgroups: Evidence from Kenya."
- Baron, Reuben M and David A Kenny. 1986. "The moderator–mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations." *Journal of personality and social psychology* 51(6):1173.
- Broockman, David and Joshua Kalla. 2016. "Durably reducing transphobia: A field experiment on door-to-door canvassing." *Science* 352(6282):220–224.
- Doocy, Shannon, Kathleen R Page, Fernando de la Hoz, Paul Spiegel and Chris Beyrer. 2019. "Venezuelan migration and the border health crisis in Colombia and Brazil." *Journal on Migration and Human Security* 7(3):79–91.
- Gadarian, Shana Kushner and Bethany Albertson. 2014. "Anxiety, immigration, and the search for information." *Political Psychology* 35(2):133–164.

- Gottlieb, Jessica. 2020. "Identity, Resilience, and Risk in the Informal Sector: Differential Effects of COVID-19 in Lagos, Nigeria."
- Kalla, Joshua and David Broockman. 2020. "Which narrative strategies durably reduce prejudice? Evidence from field and survey experiments supporting the efficacy of perspective-getting."
- Leeper, Thomas J and Rune Slothuus. 2014. "Political parties, motivated reasoning, and public opinion formation." *Political Psychology* 35:129–156.
- Paluck, Elizabeth Levy and Donald P Green. 2009. "Prejudice reduction: What works? A review and assessment of research and practice." *Annual review of psychology* 60:339–367.
- Redelmeier, Donald A and Amos Tversky. 1990. "Discrepancy between medical decisions for individual patients and for groups." *Preference, Belief, and Similarity* p. 887.
- Simonovits, Gábor, Gabor Kezdi and Peter Kardos. 2018. "Seeing the world through the other's eye: An online intervention reducing ethnic prejudice." *American Political Science Review* 112(1):186–193.
- Szekeres, H, A Lantos, B Nyúl, L Faragó and A Kende. 2021. "The Interplay of Perspective Taking Ability and Perspective Taking Intervention on Prejudice Reduction." *Working Paper* .

H Full Model Results

This section presents the average treatment effect estimates across studies and for each study separately, with and without covariate adjustment. To compute the mean effect estimates across studies (i.e. the pooled effect estimates), we use a precision-weighted average of the individual effects, similar to Kalla and Broockman (2023). In particular, when estimating the average treatment effect size, the coefficient from each study’s treatment effect is weighted by the inverse of the variance of its effect estimate and the between-study variance. Because the first study has two experimental arms for the humanitarian narrative, for the meta-analysis we estimate the study-level effects pooling all observations exposed to this type of narrative.

All tables with covariates from Study 1 and Study 2 include the respondent’s age (*Age*), whether the respondent is currently employed (*Working*), whether the respondent is employed but is not working at the moment (*Working NT*)¹¹ and an indicator for gender (*Male*). All tables with covariates from Study 3 and the follow-up to Study 3 (Second Wave) include the respondent’s age (*Age*), a series of employment indicators including for not working due to disability (*Disability*), retirees (*Retired*), unpaid domestic employees (*Domestic*), unemployed but looking for a job (*Looking*), unemployed and not looking for a job (*Not Looking*), students (*Student*), and employed individuals (*Working*). We also include an indicator for gender (*Male*).

Overall, the direction and magnitude of the coefficients are consistent across model specifications.

H.1 Estimates of Treatment Effects on Main Outcomes

¹¹The omitted category is unemployed.

Table H.1: Table Results of Meta Analysis

	Study	Coefficient	Obs	SE	Narrative	Outcome
1	Study 1	0.121	1175	0.057	Economic	Open Migration
2	Study 2	0.056	3340	0.035	Economic	Open Migration
3	Study 3	0.142	3254	0.034	Economic	Open Migration
4	Pooled Effect	0.104	7769	0.031	Economic	Open Migration
5	Study 1	0.017	1824	0.050	Humanitarian	Open Migration
6	Study 2	0.022	3348	0.034	Humanitarian	Open Migration
7	Study 3	0.150	3198	0.035	Humanitarian	Open Migration
8	Pooled Effect	0.066	8370	0.045	Humanitarian	Open Migration
9	Study 1	0.094	1175	0.057	Economic	Positive Affect
10	Study 2	0.118	3340	0.034	Economic	Positive Affect
11	Study 3	0.215	3254	0.035	Economic	Positive Affect
12	Pooled Effect	0.148	7769	0.038	Economic	Positive Affect
13	Study 1	0.060	1824	0.049	Humanitarian	Positive Affect
14	Study 2	0.092	3348	0.034	Humanitarian	Positive Affect
15	Study 3	0.178	3198	0.035	Humanitarian	Positive Affect
16	Pooled Effect	0.114	8370	0.035	Humanitarian	Positive Affect

Table H.2: Full Model Results of Study 1

	Open Mir.	Open Mig.	Pos. Affect	Pos. Affect
Economic Treatment	0.12** (0.06)		0.09 (0.06)	
Humanitarian Treatment		0.02 (0.05)		0.06 (0.05)
Age	-0.00 (0.00)	-0.00 (0.00)	-0.00 (0.00)	-0.00 (0.00)
Working NT	-0.16 (0.21)	-0.16 (0.21)	-0.37 (0.25)	-0.37 (0.25)
Working	-0.11 (0.09)	-0.11 (0.09)	-0.09 (0.09)	-0.09 (0.09)
Male	0.13 (0.09)	0.13 (0.09)	0.09 (0.09)	0.09 (0.09)
Economic Treatment x Age	-0.00 (0.01)		0.01 (0.01)	
Economic Treatment x Working NT	0.07 (0.34)		0.16 (0.35)	
Economic Treatment x Working	0.20 (0.12)		0.10 (0.12)	
Economic Treatment x Male	-0.04 (0.12)		-0.15 (0.12)	
Humanitarian Treatment x Age		-0.01 (0.00)		-0.00 (0.00)
Humanitarian Treatment x Working NT		-0.15 (0.27)		0.30 (0.29)
Humanitarian Treatment x Working		0.00 (0.11)		0.08 (0.11)
Humanitarian Treatment x Male		-0.07 (0.11)		-0.13 (0.10)
Intercept	0.00 (0.04)	0.00 (0.04)	0.00 (0.04)	0.00 (0.04)
Num. obs.	1175	1824	1175	1824

*** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$

Table H.3: Full Model Results of Study 2

	Open Mir.	Open Mig.	Pos. Affect	Pos. Affect
Economic Treatment	0.06 (0.03)		0.12*** (0.03)	
Humanitarian Treatment		0.02 (0.03)		0.09*** (0.03)
Age	-0.00** (0.00)	-0.00** (0.00)	-0.00 (0.00)	-0.00 (0.00)
Working NT	0.06 (0.12)	0.06 (0.12)	-0.04 (0.12)	-0.04 (0.12)
Working	-0.05 (0.06)	-0.05 (0.06)	-0.07 (0.06)	-0.07 (0.06)
Male	0.09* (0.05)	0.09* (0.05)	-0.01 (0.05)	-0.01 (0.05)
Economic Treatment x Age	-0.00 (0.00)		-0.00 (0.00)	
Economic Treatment x Working NT	-0.05 (0.18)		0.08 (0.18)	
Economic Treatment x Working	0.01 (0.08)		0.07 (0.08)	
Economic Treatment x Male	0.02 (0.07)		0.04 (0.07)	
Humanitarian Treatment x Age		-0.00 (0.00)		0.00 (0.00)
Humanitarian Treatment x Working NT		0.05 (0.19)		0.04 (0.18)
Humanitarian Treatment x Working		-0.00 (0.08)		0.14* (0.08)
Humanitarian Treatment x Male		-0.02 (0.07)		-0.05 (0.07)
Intercept	0.00 (0.02)	-0.00 (0.02)	0.00 (0.02)	0.00 (0.02)
Num. obs.	3340	3348	3340	3348

*** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$

Table H.4: Full Model Results of Study 3 (Economic Treatment) - Wave 1

	Open Mir.	Pos. Affect	Behavior
Economic Treatment	0.14*** (0.03)	0.21*** (0.03)	0.08*** (0.02)
Age	-0.01*** (0.00)	-0.01*** (0.00)	0.00 (0.00)
Disability	0.01 (0.35)	-0.28 (0.30)	0.09 (0.17)
Retired	0.41** (0.18)	0.33* (0.18)	0.09 (0.10)
Domestic	0.00 (0.09)	0.02 (0.10)	-0.00 (0.05)
Looking	-0.07 (0.12)	-0.19 (0.12)	-0.04 (0.06)
Not Looking	-0.15 (0.23)	0.04 (0.28)	-0.01 (0.12)
Student	-0.02 (0.09)	-0.09 (0.09)	-0.01 (0.05)
Working	-0.03 (0.07)	-0.06 (0.07)	0.01 (0.03)
Male	0.07 (0.05)	-0.06 (0.05)	-0.01 (0.03)
Economic Treatment x Age	0.00 (0.00)	0.00 (0.00)	-0.00 (0.00)
Economic Treatment x Disability	0.14 (0.55)	0.69* (0.41)	-0.10 (0.23)
Economic Treatment x Retired	-0.04 (0.26)	-0.37 (0.28)	-0.06 (0.14)
Economic Treatment x Domestic	0.11 (0.13)	-0.06 (0.14)	-0.04 (0.07)
Economic Treatment x Looking	-0.06 (0.17)	-0.07 (0.17)	0.07 (0.08)
Economic Treatment x Not Looking	0.13 (0.31)	0.38 (0.33)	0.03 (0.16)
Economic Treatment x Student	0.00 (0.13)	-0.12 (0.13)	-0.09 (0.07)
Economic Treatment x Working	-0.02 (0.09)	-0.08 (0.09)	-0.02 (0.05)
Economic Treatment x Male	-0.09 (0.07)	0.04 (0.07)	-0.01 (0.04)
Intercept	-0.00 (0.02)	-0.00 (0.02)	0.51*** (0.01)
Num. Obs.	3254	3254	3253

*** $p < 0.01$; ** $p < 0.05$; * $p < 0.1$

Table H.5: Full Model Results of Study 3 (Humanitarian Treatment) - Wave 1

	Open Mir.	Pos. Affect	Behavior
Humanitarian Treatment	0.15*** (0.03)	0.18*** (0.04)	0.06*** (0.02)
Age	-0.01*** (0.00)	-0.01*** (0.00)	0.00 (0.00)
Disability	0.01 (0.35)	-0.28 (0.30)	0.09 (0.17)
Retired	0.41** (0.18)	0.33* (0.18)	0.09 (0.10)
Domestic	0.00 (0.09)	0.02 (0.10)	-0.00 (0.05)
Looking	-0.07 (0.12)	-0.19 (0.12)	-0.04 (0.06)
Not Looking	-0.15 (0.23)	0.04 (0.28)	-0.01 (0.12)
Student	-0.02 (0.09)	-0.09 (0.09)	-0.01 (0.05)
Working	-0.03 (0.07)	-0.06 (0.07)	0.01 (0.03)
Male	0.07 (0.05)	-0.06 (0.05)	-0.01 (0.03)
Humanitarian Treatment x Age	0.01** (0.00)	0.01*** (0.00)	0.00 (0.00)
Humanitarian Treatment x Disability	-0.20 (0.45)	0.19 (0.38)	-0.25 (0.21)
Humanitarian Treatment x Retired	-0.17 (0.24)	-0.51* (0.29)	-0.25* (0.15)
Humanitarian Treatment x Domestic	-0.06 (0.13)	-0.09 (0.14)	-0.08 (0.07)
Humanitarian Treatment x Looking	-0.01 (0.16)	-0.01 (0.17)	-0.11 (0.08)
Humanitarian Treatment x Not Looking	0.18 (0.30)	0.11 (0.34)	-0.11 (0.16)
Humanitarian Treatment x Student	0.03 (0.13)	-0.07 (0.13)	-0.08 (0.07)
Humanitarian Treatment x Working	0.02 (0.10)	-0.03 (0.10)	-0.06 (0.05)
Humanitarian Treatment x Male	-0.02 (0.07)	0.06 (0.07)	0.02 (0.04)
Intercept	-0.00 (0.02)	-0.01 (0.02)	0.51*** (0.01)
Num. Obs.	3198	3198	3197

*** $p < 0.01$; ** $p < 0.05$; * $p < 0.1$

Table H.6: Full Model Results of Study 3 (Economic Treatment) - Wave 2

	Open Mir.	Pos. Affect	Behavior
Economic Treatment	0.09*	0.12**	0.07***
	(0.05)	(0.05)	(0.03)
Age	-0.00	-0.00	0.00
	(0.00)	(0.00)	(0.00)
Disability	-0.45	-0.60	0.16
	(0.29)	(1.49)	(0.52)
Retired	0.03	0.20	0.29**
	(0.24)	(0.21)	(0.12)
Domestic	-0.01	0.27*	0.01
	(0.16)	(0.15)	(0.08)
Looking	-0.20	0.00	0.05
	(0.19)	(0.19)	(0.09)
Not Looking	0.45**	0.43	0.46***
	(0.19)	(0.29)	(0.14)
Student	0.24	0.30*	0.06
	(0.18)	(0.18)	(0.09)
Working	0.04	0.20*	0.12**
	(0.12)	(0.11)	(0.05)
Male	-0.09	-0.05	-0.01
	(0.08)	(0.08)	(0.04)
Economic Treatment x Age	-0.00	-0.00	-0.00
	(0.01)	(0.01)	(0.00)
Economic Treatment x Disability	0.01	0.88	-0.39
	(0.79)	(1.66)	(0.55)
Economic Treatment x Retired	0.32	0.03	-0.30*
	(0.35)	(0.33)	(0.17)
Economic Treatment x Domestic	-0.07	-0.39*	-0.07
	(0.23)	(0.21)	(0.11)
Economic Treatment x Looking	0.17	-0.14	0.00
	(0.26)	(0.26)	(0.13)
Economic Treatment x Not Looking	-0.23	0.28	-0.33
	(0.43)	(0.52)	(0.29)
Economic Treatment x Student	-0.32	-0.29	0.01
	(0.24)	(0.23)	(0.13)
Economic Treatment x Working	-0.12	-0.26*	-0.02
	(0.16)	(0.14)	(0.07)
Economic Treatment x Male	0.09	0.02	0.06
	(0.11)	(0.11)	(0.05)
Intercept	-0.01	-0.01	0.43***
	(0.04)	(0.04)	(0.02)
Num. Obs.	1496	1496	1496

*** $p < 0.01$; ** $p < 0.05$; * $p < 0.1$

Table H.7: Full Model Results of Study 3 (Humanitarian Treatment) - Wave 2

	Open Mir.	Pos. Affect	Behavior
Humanitarian Treatment	0.07 (0.05)	0.07 (0.05)	0.05* (0.03)
Age	-0.00 (0.00)	-0.00 (0.00)	0.00 (0.00)
Disability	-0.45 (0.29)	-0.60 (1.49)	0.16 (0.52)
Retired	0.03 (0.24)	0.20 (0.21)	0.29** (0.12)
Domestic	-0.01 (0.16)	0.27* (0.15)	0.01 (0.08)
Looking	-0.20 (0.19)	0.00 (0.19)	0.05 (0.09)
Not Looking	0.45** (0.19)	0.43 (0.29)	0.46*** (0.14)
Student	0.24 (0.18)	0.30* (0.18)	0.06 (0.09)
Working	0.04 (0.12)	0.20* (0.11)	0.12** (0.05)
Male	-0.09 (0.08)	-0.05 (0.08)	-0.01 (0.04)
Humanitarian Treatment x Age	-0.00 (0.01)	0.00 (0.01)	-0.00 (0.00)
Humanitarian Treatment x Disability	0.27 (0.48)	0.78 (1.53)	-0.19 (0.56)
Humanitarian Treatment x Retired	0.23 (0.34)	-0.16 (0.32)	-0.30* (0.17)
Humanitarian Treatment x Domestic	-0.09 (0.22)	-0.42* (0.22)	-0.17 (0.11)
Humanitarian Treatment x Looking	0.27 (0.25)	0.09 (0.28)	-0.01 (0.13)
Humanitarian Treatment x Not Looking	-1.01** (0.43)	-0.56 (0.40)	-0.32 (0.22)
Humanitarian Treatment x Student	-0.23 (0.24)	-0.39 (0.24)	-0.06 (0.13)
Humanitarian Treatment x Working	-0.05 (0.16)	-0.22 (0.15)	-0.11 (0.08)
Humanitarian Treatment x Male	0.15 (0.11)	0.10 (0.11)	0.10* (0.05)
Intercept	-0.00 (0.04)	-0.01 (0.04)	0.43*** (0.02)
Num. Obs.	1466	1466	1466

*** $p < 0.01$; ** $p < 0.05$; * $p < 0.1$

Table H.8: Full Model Results of Study 1 Without Covariates

	Open Mig.	Open Mig.	Pos. Affect	Pos. Affect
Economic Treatment	0.12** (0.06)		0.10* (0.06)	
Humanitarian Treatment		0.02 (0.05)		0.06 (0.05)
Intercept	0.00 (0.04)	0.00 (0.04)	0.00 (0.04)	0.00 (0.04)
Num. obs.	1175	1824	1175	1824

*** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$

Table H.9: Full Model Results of Study 2 Without Covariates

	Open Mig.	Open Mig.	Pos. Affect	Pos. Affect
Economic Treatment	0.06* (0.03)		0.12*** (0.03)	
Humanitarian Treatment		0.02 (0.03)		0.09*** (0.03)
Intercept	-0.00 (0.02)	-0.00 (0.02)	-0.00 (0.02)	-0.00 (0.02)
Num. obs.	3346	3353	3346	3353

*** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$

Table H.10: Full Model Results of Study 3 (Wave 1) Without Covariates

	Open Mig.	Open Mig.	Pos. Affect	Pos. Affect	Behavior	Behavior
Economic Treatment	0.14*** (0.03)		0.21*** (0.03)		0.08*** (0.02)	
Humanitarian Treatment		0.15*** (0.03)		0.17*** (0.03)		0.06*** (0.02)
Intercept	-0.00 (0.02)	-0.00 (0.02)	-0.00 (0.02)	-0.00 (0.02)	0.51*** (0.01)	0.51*** (0.01)
Num. obs.	3254	3198	3254	3198	3253	3197

*** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$

Table H.11: Full Model Results of Study 3 (Wave 2) Without Covariates

	Open Mig.	Open Mig.	Pos. Affect	Pos. Affect	Behavior	Behavior
Economic Treatment	0.08 (0.05)		0.11** (0.05)		0.07*** (0.03)	
Humanitarian Treatment		0.07 (0.05)		0.07 (0.05)		0.05* (0.03)
Intercept	0.00 (0.04)	0.00 (0.04)	-0.00 (0.04)	0.00 (0.04)	0.43*** (0.02)	0.43*** (0.02)
Num. obs.	1496	1466	1496	1466	1496	1466

*** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$

H.2 Estimates of Treatment Effects on Concerns About Immigration Consequences

Table H.12: Table Results of Meta Analysis: Negative Consequences of Migration

	Study	Coefficient	Obs	SE	Narrative	Outcome
1	Study 1	-0.147	1175	0.058	Economic	Welfare
2	Study 2	-0.037	3340	0.034	Economic	Welfare
3	Study 3	-0.084	3254	0.034	Economic	Welfare
4	Pooled Effect	-0.076	7769	0.026	Economic	Welfare
5	Study 1	-0.060	1824	0.049	Humanitarian	Welfare
6	Study 2	0.011	3348	0.034	Humanitarian	Welfare
7	Study 3	-0.080	3198	0.035	Humanitarian	Welfare
8	Pooled Effect	-0.041	8370	0.030	Humanitarian	Welfare
9	Study 1	-0.037	1175	0.056	Economic	Crime
10	Study 2	-0.001	3340	0.034	Economic	Crime
11	Study 3	-0.067	3254	0.035	Economic	Crime
12	Pooled Effect	-0.035	7769	0.024	Economic	Crime
13	Study 1	0.014	1824	0.049	Humanitarian	Crime
14	Study 2	0.015	3348	0.034	Humanitarian	Crime
15	Study 3	-0.067	3198	0.035	Humanitarian	Crime
16	Pooled Effect	-0.016	8370	0.029	Humanitarian	Crime
17	Study 1	-0.058	1175	0.059	Economic	Employment
18	Study 2	-0.018	3340	0.034	Economic	Employment
19	Study 3	-0.113	3254	0.035	Economic	Employment
20	Pooled Effect	-0.064	7769	0.033	Economic	Employment
21	Study 1	-0.030	1824	0.050	Humanitarian	Employment
22	Study 2	0.014	3348	0.034	Humanitarian	Employment
23	Study 3	-0.091	3198	0.035	Humanitarian	Employment
24	Pooled Effect	-0.036	8370	0.034	Humanitarian	Employment
25	Study 1	-0.095	1175	0.057	Economic	Neg. Cons. Index
26	Study 2	-0.022	3340	0.034	Economic	Neg. Cons. Index
27	Study 3	-0.106	3254	0.035	Economic	Neg. Cons. Index
28	Pooled Effect	-0.070	7769	0.030	Economic	Neg. Cons. Index
29	Study 1	-0.030	1824	0.049	Humanitarian	Neg. Cons. Index
30	Study 2	0.015	3348	0.034	Humanitarian	Neg. Cons. Index
31	Study 3	-0.095	3198	0.035	Humanitarian	Neg. Cons. Index
32	Pooled Effect	-0.037	8370	0.035	Humanitarian	Neg. Cons. Index

Table H.13: Full Model Results of Study 1: Negative Consequences (Economic Treatment)

	Neg. Cons. Index	Welfare	Crime	Employment
Economic Treatment	−0.10*	−0.15**	−0.04	−0.06
	(0.06)	(0.06)	(0.06)	(0.06)
Age	0.01*	0.01***	0.00	0.00
	(0.00)	(0.00)	(0.00)	(0.00)
Working NT	0.12	0.36*	−0.05	−0.01
	(0.23)	(0.21)	(0.26)	(0.20)
Working	0.12	0.15*	0.09	0.07
	(0.09)	(0.09)	(0.09)	(0.09)
Male	−0.31***	−0.22**	−0.32***	−0.27***
	(0.09)	(0.09)	(0.09)	(0.09)
Economic Treatment x Age	0.00	−0.00	0.00	0.00
	(0.01)	(0.01)	(0.01)	(0.01)
Economic Treatment x Working NT	−0.21	−0.38	−0.23	0.08
	(0.36)	(0.33)	(0.37)	(0.33)
Economic Treatment x Working	−0.18	−0.16	−0.13	−0.19
	(0.12)	(0.12)	(0.12)	(0.13)
Economic Treatment x Male	0.38***	0.30**	0.38***	0.31**
	(0.12)	(0.12)	(0.12)	(0.12)
Intercept	−0.00	−0.01	0.00	0.00
	(0.04)	(0.04)	(0.04)	(0.04)
Num. Obs.	1175	1175	1175	1175

*** $p < 0.01$; ** $p < 0.05$; * $p < 0.1$

Table H.14: Full Model Results of Study 1: Negative Consequences (Humanitarian Treatment)

	Neg. Cons. Index	Welfare	Crime	Employment
Humanitarian Treatment	−0.03 (0.05)	−0.06 (0.05)	0.01 (0.05)	−0.03 (0.05)
Age	0.01* (0.00)	0.01*** (0.00)	0.00 (0.00)	0.00 (0.00)
Working NT	0.12 (0.23)	0.36* (0.21)	−0.05 (0.26)	−0.01 (0.20)
Working	0.12 (0.09)	0.15* (0.09)	0.09 (0.09)	0.07 (0.09)
Male	−0.31*** (0.09)	−0.22** (0.09)	−0.32*** (0.09)	−0.27*** (0.09)
Humanitarian Treatment x Age	0.00 (0.00)	0.00 (0.00)	0.00 (0.00)	0.01 (0.00)
Humanitarian Treatment x Working NT	−0.02 (0.27)	−0.20 (0.25)	−0.00 (0.30)	0.17 (0.26)
Humanitarian Treatment x Working	0.03 (0.11)	0.02 (0.11)	0.00 (0.11)	0.05 (0.11)
Humanitarian Treatment x Male	0.27*** (0.10)	0.26** (0.10)	0.24** (0.10)	0.20* (0.10)
Intercept	−0.01 (0.04)	−0.01 (0.04)	−0.00 (0.04)	−0.00 (0.04)
Num. Obs.	1824	1824	1824	1824

*** $p < 0.01$; ** $p < 0.05$; * $p < 0.1$

Table H.15: Full Model Results of Study 2: Negative Consequences (Economic Treatment)

	Neg. Cons. Index	Welfare	Crime	Employment
Economic Treatment	−0.02 (0.03)	−0.04 (0.03)	−0.00 (0.03)	−0.02 (0.03)
Age	0.01** (0.00)	0.01*** (0.00)	0.00 (0.00)	0.00 (0.00)
Working NT	−0.09 (0.12)	−0.04 (0.12)	−0.04 (0.13)	−0.15 (0.12)
Working	0.18*** (0.05)	0.13** (0.05)	0.20*** (0.06)	0.14** (0.06)
Male	−0.08 (0.05)	0.02 (0.05)	−0.10** (0.05)	−0.14*** (0.05)
Economic Treatment x Age	0.01** (0.00)	0.01** (0.00)	0.01** (0.00)	0.01** (0.00)
Economic Treatment x Working NT	−0.18 (0.20)	−0.09 (0.20)	−0.27 (0.21)	−0.12 (0.20)
Economic Treatment x Working	−0.13* (0.07)	−0.02 (0.07)	−0.17** (0.08)	−0.14* (0.08)
Economic Treatment x Male	−0.02 (0.07)	−0.09 (0.07)	0.06 (0.07)	−0.02 (0.07)
Intercept	−0.00 (0.02)	−0.00 (0.02)	−0.00 (0.02)	−0.00 (0.02)
Num. Obs.	3340	3340	3340	3340

*** $p < 0.01$; ** $p < 0.05$; * $p < 0.1$

Table H.16: Full Model Results of Study 2: Negative Consequences (Humanitarian Treatment)

	Neg. Cons. Index	Welfare	Crime	Employment
Humanitarian Treatment	0.02 (0.03)	0.01 (0.03)	0.02 (0.03)	0.01 (0.03)
Age	0.01** (0.00)	0.01*** (0.00)	0.00 (0.00)	0.00 (0.00)
Working NT	-0.09 (0.12)	-0.04 (0.12)	-0.04 (0.13)	-0.15 (0.12)
Working	0.18*** (0.05)	0.13** (0.05)	0.20*** (0.06)	0.14** (0.06)
Male	-0.08 (0.05)	0.02 (0.05)	-0.10** (0.05)	-0.14*** (0.05)
Humanitarian Treatment x Age	0.00 (0.00)	0.00 (0.00)	0.00 (0.00)	0.00 (0.00)
Humanitarian Treatment x Working NT	0.10 (0.18)	0.05 (0.19)	0.03 (0.19)	0.19 (0.18)
Humanitarian Treatment x Working	-0.06 (0.08)	0.01 (0.08)	-0.12 (0.08)	-0.04 (0.08)
Humanitarian Treatment x Male	-0.04 (0.07)	-0.06 (0.07)	0.02 (0.07)	-0.06 (0.07)
Intercept	-0.00 (0.02)	-0.00 (0.02)	-0.00 (0.02)	0.00 (0.02)
Num. Obs.	3348	3348	3348	3348

*** $p < 0.01$; ** $p < 0.05$; * $p < 0.1$

Table H.17: Full Model Results of Study 3 (Wave 1): Negative Consequences (Economic Treatment)

	Neg. Cons. Index	Welfare	Crime	Employment
Economic Treatment	−0.11*** (0.03)	−0.08** (0.03)	−0.07* (0.03)	−0.11*** (0.04)
Age	0.01*** (0.00)	0.02*** (0.00)	0.01*** (0.00)	0.01*** (0.00)
Disability	−0.11 (0.32)	−0.28 (0.36)	−0.18 (0.38)	0.17 (0.28)
Retired	0.01 (0.19)	−0.06 (0.18)	−0.06 (0.19)	0.15 (0.18)
Domestic	−0.17* (0.09)	−0.15* (0.09)	−0.18* (0.10)	−0.09 (0.10)
Looking	0.07 (0.12)	0.07 (0.11)	0.02 (0.12)	0.07 (0.12)
Not Looking	0.10 (0.22)	0.19 (0.24)	0.05 (0.23)	−0.00 (0.23)
Student	−0.03 (0.09)	−0.09 (0.09)	−0.09 (0.09)	0.10 (0.09)
Working	0.09 (0.07)	0.05 (0.07)	0.06 (0.07)	0.11 (0.07)
Male	−0.12** (0.05)	−0.08 (0.05)	−0.07 (0.05)	−0.15*** (0.05)
Economic Treatment x Age	−0.00 (0.00)	−0.01 (0.00)	−0.00 (0.00)	−0.00 (0.00)
Economic Treatment x Disability	−0.00 (0.50)	0.10 (0.55)	−0.00 (0.52)	−0.11 (0.44)
Economic Treatment x Retired	−0.01 (0.28)	−0.05 (0.28)	0.29 (0.26)	−0.24 (0.28)
Economic Treatment x Domestic	0.02 (0.14)	0.06 (0.13)	0.12 (0.15)	−0.13 (0.14)
Economic Treatment x Looking	−0.01 (0.16)	−0.02 (0.15)	−0.01 (0.17)	0.01 (0.17)
Economic Treatment x Not Looking	−0.02 (0.29)	−0.16 (0.31)	0.05 (0.30)	0.06 (0.30)
Economic Treatment x Student	0.02 (0.12)	0.12 (0.13)	0.13 (0.13)	−0.20 (0.13)
Economic Treatment x Working	−0.03 (0.09)	0.00 (0.09)	0.06 (0.09)	−0.12 (0.10)
Economic Treatment x Male	0.06 (0.07)	0.04 (0.07)	0.08 (0.07)	0.04 (0.07)
Intercept	0.00 (0.02)	0.00 (0.02)	0.00 (0.02)	0.00 (0.02)
Num. Obs.	3254	3254	3254	3254

*** $p < 0.01$; ** $p < 0.05$; * $p < 0.1$

Table H.18: Full Model Results of Study 3 (Wave 1): Negative Consequences (Humanitarian Treatment)

	Neg. Cons. Index	Welfare	Crime	Employment
Humanitarian Treatment	−0.09*** (0.03)	−0.08** (0.03)	−0.07* (0.03)	−0.09*** (0.03)
Age	0.01*** (0.00)	0.02*** (0.00)	0.01*** (0.00)	0.01*** (0.00)
Disability	−0.11 (0.32)	−0.28 (0.36)	−0.18 (0.38)	0.17 (0.28)
Retired	0.01 (0.19)	−0.06 (0.18)	−0.06 (0.19)	0.15 (0.18)
Domestic	−0.17* (0.09)	−0.15* (0.09)	−0.18* (0.10)	−0.09 (0.10)
Looking	0.07 (0.12)	0.07 (0.11)	0.02 (0.12)	0.07 (0.12)
Not Looking	0.10 (0.22)	0.19 (0.24)	0.05 (0.23)	−0.00 (0.23)
Student	−0.03 (0.09)	−0.09 (0.09)	−0.09 (0.09)	0.10 (0.09)
Working	0.09 (0.07)	0.05 (0.07)	0.06 (0.07)	0.11 (0.07)
Male	−0.12** (0.05)	−0.08 (0.05)	−0.07 (0.05)	−0.15*** (0.05)
Humanitarian Treatment x Age	−0.00 (0.00)	−0.00 (0.00)	−0.00 (0.00)	−0.00 (0.00)
Humanitarian Treatment x Disability	0.27 (0.42)	0.33 (0.43)	0.39 (0.47)	−0.05 (0.37)
Humanitarian Treatment x Retired	0.05 (0.26)	0.25 (0.26)	0.11 (0.28)	−0.23 (0.26)
Humanitarian Treatment x Domestic	0.11 (0.13)	0.09 (0.13)	0.06 (0.14)	0.14 (0.14)
Humanitarian Treatment x Looking	0.09 (0.17)	0.10 (0.16)	0.06 (0.17)	0.06 (0.16)
Humanitarian Treatment x Not Looking	−0.10 (0.30)	−0.16 (0.34)	−0.10 (0.34)	0.00 (0.32)
Humanitarian Treatment x Student	0.03 (0.13)	0.17 (0.13)	0.05 (0.13)	−0.13 (0.13)
Humanitarian Treatment x Working	−0.01 (0.10)	0.08 (0.10)	0.01 (0.10)	−0.10 (0.10)
Humanitarian Treatment x Male	0.07 (0.07)	0.06 (0.07)	0.04 (0.07)	0.08 (0.07)
Intercept	0.00 (0.02)	0.00 (0.02)	0.00 (0.02)	0.00 (0.02)
Num. Obs.	3198	3198	3198	3198

*** $p < 0.01$; ** $p < 0.05$; * $p < 0.1$

Table H.19: Full Model Results of Study 3 (Wave 2): Negative Consequences (Economic Treatment)

	Neg. Cons. Index	Welfare	Crime	Employment
Economic Treatment	−0.14*** (0.05)	−0.11** (0.05)	−0.10* (0.05)	−0.15*** (0.05)
Age	0.01 (0.00)	0.01* (0.00)	0.00 (0.00)	0.00 (0.00)
Disability	0.70*** (0.23)	0.74 (0.74)	0.65** (0.30)	0.43*** (0.12)
Retired	0.01 (0.19)	0.01 (0.22)	0.08 (0.18)	−0.05 (0.19)
Domestic	−0.20 (0.17)	−0.03 (0.16)	−0.23 (0.17)	−0.27 (0.17)
Looking	0.30* (0.16)	0.39** (0.17)	0.27* (0.16)	0.12 (0.16)
Not Looking	−0.34 (0.27)	−0.24 (0.28)	−0.06 (0.26)	−0.58* (0.33)
Student	−0.29* (0.17)	−0.27 (0.17)	−0.18 (0.18)	−0.31 (0.19)
Working	−0.03 (0.11)	0.13 (0.12)	−0.12 (0.12)	−0.10 (0.11)
Male	−0.06 (0.08)	−0.10 (0.08)	−0.00 (0.08)	−0.06 (0.08)
Economic Treatment x Age	0.01 (0.01)	0.00 (0.01)	0.01 (0.01)	0.01 (0.00)
Economic Treatment x Disability	−0.41 (0.64)	−0.53 (0.93)	−0.39 (0.59)	−0.15 (0.52)
Economic Treatment x Retired	−0.06 (0.30)	0.00 (0.34)	0.01 (0.28)	−0.17 (0.31)
Economic Treatment x Domestic	0.35 (0.23)	0.37 (0.22)	0.22 (0.24)	0.33 (0.23)
Economic Treatment x Looking	−0.07 (0.24)	−0.19 (0.25)	0.02 (0.24)	−0.01 (0.24)
Economic Treatment x Not Looking	0.61 (0.65)	0.55 (0.64)	0.17 (0.46)	0.85 (0.68)
Economic Treatment x Student	0.31 (0.25)	0.42* (0.25)	0.21 (0.26)	0.18 (0.26)
Economic Treatment x Working	0.19 (0.15)	0.11 (0.16)	0.31* (0.16)	0.09 (0.15)
Economic Treatment x Male	0.04 (0.11)	0.17 (0.11)	−0.02 (0.11)	−0.04 (0.11)
Intercept	0.00 (0.04)	0.00 (0.04)	0.00 (0.04)	0.01 (0.04)
Num. Obs.	1496	1496	1496	1496

*** $p < 0.01$; ** $p < 0.05$; * $p < 0.1$

Table H.20: Full Model Results of Study 3 (Wave 2): Negative Consequences (Humanitarian Treatment)

	Neg. Cons. Index	Welfare	Crime	Employment
Humanitarian Treatment	−0.03 (0.05)	−0.06 (0.05)	−0.02 (0.05)	−0.02 (0.05)
Age	0.01 (0.00)	0.01* (0.00)	0.00 (0.00)	0.00 (0.00)
Disability	0.70*** (0.23)	0.74 (0.74)	0.65** (0.30)	0.43*** (0.12)
Retired	0.01 (0.19)	0.01 (0.22)	0.08 (0.18)	−0.05 (0.19)
Domestic	−0.20 (0.17)	−0.03 (0.16)	−0.23 (0.17)	−0.27 (0.17)
Looking	0.30* (0.16)	0.39** (0.17)	0.27* (0.16)	0.12 (0.16)
Not Looking	−0.34 (0.27)	−0.24 (0.28)	−0.06 (0.26)	−0.58* (0.33)
Student	−0.29* (0.17)	−0.27 (0.17)	−0.18 (0.18)	−0.31 (0.19)
Working	−0.03 (0.11)	0.13 (0.12)	−0.12 (0.12)	−0.10 (0.11)
Male	−0.06 (0.08)	−0.10 (0.08)	−0.00 (0.08)	−0.06 (0.08)
Humanitarian Treatment x Age	0.00 (0.01)	−0.00 (0.01)	0.00 (0.01)	−0.00 (0.00)
Humanitarian Treatment x Disability	−0.48 (0.42)	−0.32 (0.84)	−0.74* (0.39)	−0.19 (0.35)
Humanitarian Treatment x Retired	−0.21 (0.30)	0.11 (0.34)	−0.40 (0.32)	−0.25 (0.31)
Humanitarian Treatment x Domestic	0.33 (0.22)	0.20 (0.23)	0.19 (0.23)	0.46** (0.22)
Humanitarian Treatment x Looking	−0.52** (0.25)	−0.39 (0.25)	−0.68*** (0.26)	−0.28 (0.23)
Humanitarian Treatment x Not Looking	0.91** (0.37)	0.70 (0.43)	0.62* (0.32)	1.02** (0.42)
Humanitarian Treatment x Student	0.08 (0.24)	0.15 (0.25)	−0.01 (0.24)	0.05 (0.25)
Humanitarian Treatment x Working	0.10 (0.15)	0.05 (0.16)	0.07 (0.15)	0.14 (0.16)
Humanitarian Treatment x Male	−0.01 (0.11)	0.11 (0.11)	−0.02 (0.11)	−0.12 (0.11)
Intercept	0.00 (0.04)	0.00 (0.04)	0.00 (0.04)	0.00 (0.04)
Num. Obs.	1466	1466	1466	1466

*** $p < 0.01$; ** $p < 0.05$; * $p < 0.1$

References for Appendix

- Bamberg, Kim and Maykel Verkuyten. 2022. “Internal and external motivation to respond without prejudice: a person-centered approach.” *The Journal of Social Psychology* 162(4):435–454.
- Gerber, Alan S and Donald P Green. 2012. *Field experiments: Design, analysis, and interpretation*. Norton and Company.