Additional Supplementary Materials for:

Who Hosts?
The Correlates of Hosting the Internally Displaced

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A. Variable Descriptions

Table S1 describes all variables used in the study. Column "Q" refers to the question number in the survey, which took place during visit 3. Summary information for each variable can be found in the main text. The full survey instrument is available on the APSR Dataverse.

Table S1. Variable Description

Variable	Description	Q
Hosting	Binary. Individual started hosting in the ten-month period after the household survey. Source: village chief (visits 4 and 5).	NA
Willingness to host IDPs	Binary. Respondent is willing to add his/her name to a list of willing-to-host individuals. The list is to be shared with the village chief.	Q110
Respondent's age	Continuous (>18). Respondent's age in years.	Q105
Respondent is literate	Binary. Respondent can read and write. Verified by enumerator.	Q106
Respondent is born in the village	Binary. Respondent is born in the village.	Q37
Respondent is Protestant	Binary. What is your religion? Options: Catholic, Protestant, Muslim, Jehovah witnesses, Kimbanguist, Anglican, Without Religion, Traditional religions, Adventist, Other. Equals one when response is Protestant.	Q49
Respondent is Catholic	Binary. What is your religion? Options: Catholic, Protestant, Muslim, Jehovah witnesses, Kimbanguist, Anglican, Without Religion, Traditional religions, Adventist, Other. Equals one when response is Catholic.	Q49
Respondent adheres to another religion	What is your religion? Options: Catholic, Protestant, Muslim, Jehovah witnesses, Kimbanguist, Anglican, Without Religion, Traditional religions, Adventist, Other. Equals one when response is different than Protest and Catholic.	Q49
Household size	Continuous. What is the size of the household (including children)?	Q33
Household dependency ratio	Continuous (0-1). The number of people younger than 15 plus the number of people older than 64, divided by the total size of the household.	Q33-35
Host at the time of the survey	Binary. How many households live in this dwelling? If more than one, are you the host household or the hosted household? Equals one if host household.	Q22, Q23
Empathy index	Continuous (0-15). Simple sum of the following five statements: 1) After being with a friend who is sad about something, I also feel sad, 2) I get caught up in other people's feelings easily, 3) I tend to feel scared when I am with friends who are afraid, 4) I can often understand how people are feeling even before they tell me, and 5) I can usually realize quickly when a friend is angry. Response options: 0= strongly disagree, 1= somewhat disagree, 2= somewhat agree, 3= strongly agree.	Q61-Q65
Household head is Havu	Binary. Head of the household's mother tongue is Havu.	Q41, Q42
Household head is Shi	Binary. Head of the household's mother tongue is Shi.	Q41, Q42

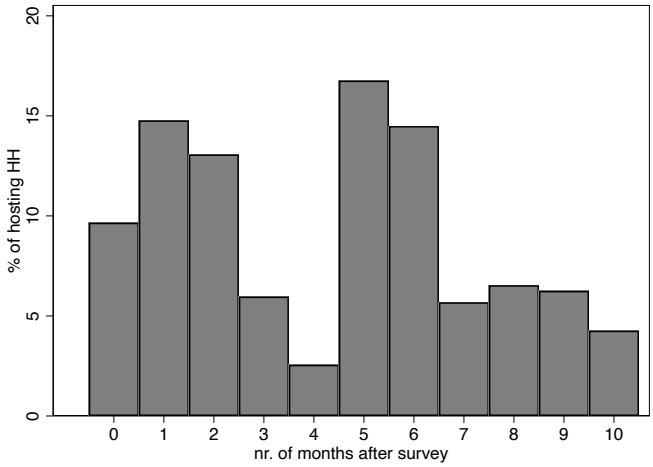
Household head is Tembo	Binary. Head of the household's mother tongue is Tembo.	Q41, Q42
Strength of ethnic attachment index	Continuous (0-9). Simple mean of the following three statements: 1) Overall, I am similar to average people among ___ people, 2) I have strong attachment to ___ people, and 3) If someone criticizes ___, it feels like a personal insult. Where ___ is tailored to each respondent's ethnicity. Response options are: 0 = strongly disagree, 1 = somewhat disagree, 2 = somewhat agree, 3 = strongly agree.	Q98-Q100
Respondent is related to the village chief	Binary. Is the respondent related to the village chief (as a friend or family)?	Q58
Strongly agrees that IDPs increase probability of aid	Binary. Respondent's opinion about the statement that incoming IDPs will increase the probability of aid. 1 = strongly disagree, 2 = somewhat disagree, 3 = somewhat agree, 4 = strongly agree. Equals one if response equals "4".	Q103
Strongly agrees that IDPs provide cheap labor	Binary. Incoming Internally Displaced People provide cheap labor. Options: 1: strongly disagree, 2: somewhat disagree, 3: somewhat agree, 4: strongly agree. Equals one if response equals "4".	Q104
Dwelling has a high-quality roof	Binary. Observed and recorded by the enumerator. What kind of materials are used to build the roof of the respondent's house? Options: earth, straw, wood or bamboo, metal sheets, cement or concrete, tiles, plastic, stones, clay bricks, carton. Metal sheets is considered as high quality.	Q67
Dwelling has high-quality walls	Binary. Observed and recorded by the enumerator. What kind of materials are used to build the walls of the respondent's house? Options: earth, straw, wood or bamboo, metal sheets, cement or concrete, tiles, plastic, stones, clay bricks, carton. Cement or concrete and clay bricks are considered as high quality.	Q68
Asset index	Continuous. How many of the following 23 assets does the household own? sheep or goats, chicken / duck / turkey, cows, pigs or hogs, houses, rooms, jerrycans, chairs, beds, foam mattress, straw mattress or sheets or towels or mats, buckets, basins, oil lamps (or equivalent), motorcycle or scooter, bicycle, machetes and hoes, pots, cupboards, canoes, camera, radio or cassette radio, mobile phones. Variable is the predicted values of a principal component analysis.	Q69-Q91
Importance of church in daily life	Continuous (1-10) How important are the opinions and actions of the church in informing your daily behavior: 1-10. 1 = not important at all, 10 is extremely important.	Q53
Church attendance	Continuous. How often per week do you go to church?	Q50
Household head is male	Binary. Respondent is male.	Q12
Respondent's exposure to violence last year	Continuous (0-6). Sum of the following binary events. In the last year: 1) had your home ransacked?, 2) have you been attacked physically by armed groups?, 3) have you been kidnapped by an armed group (e.g. to carry loads)?, 4) have you seen armed violence in your village?, 5) have you seen armed groups in your village?, 6) have you been afraid that the village would be attacked by an armed group?	Q43-Q48

Notes: Description for all variables used in the study.

B. Hosting Behavior during the Study Period

During the ten-month period after household surveys took place, 24% of surveyed households started hosting a newly arrived IDP. **Figure S1** presents a histogram showing the timing of these new hosting relationships. On average, they started about four months after the survey, with the median at five months.

Figure S1. Timing of New Hosting Relationships



Notes: This histogram is based on the 354 surveyed households that started hosting an incoming IDP in the 10-month period after the survey.

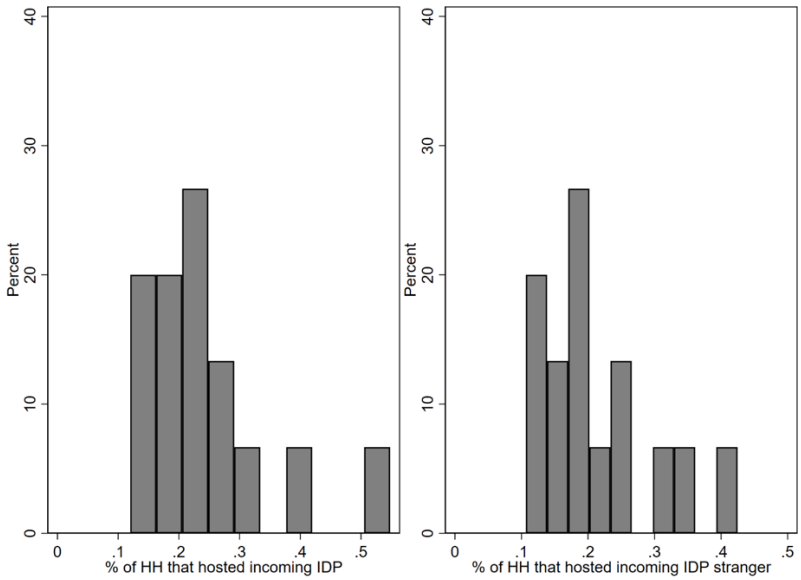
In most cases (89%), hosting households had no prior connection with the incoming IDPs. As indicated in the main manuscript, these are the hosting relationships that we focus on, as we are interested in why people open their doors to strangers. In total, 21% of households started hosting a newly arrived IDP with whom they had no prior acquaintance. In each of the 15 study villages, respondents started hosting during the study period. The village share of hosting households ranges from 0.12 to 0.55, while the share of households that started hosting strangers ranges between 0.11 and 0.42. **Table S2** provides summary statistics, while **Figure S2** presents histograms at the village level.

Table S2. Hosting Descriptives

	Obs.	Mean	Std.dev.	Min.	Max.
Hosted incoming IDP	1,504	0.24	0.42	0	1
Hosted incoming IDP stranger	1,504	0.21	0.41	0	1
Village share that hosted incoming IDP	15	0.24	0.11	0.12	0.55
Village share that hosted incoming IDP stranger	15	0.22	0.09	0.11	0.42

Notes: Summary statistics are based on the 1,504 surveyed households and 15 study villages.

Figure S2. New Hosting Relationships at the Village-Level



Notes: These histograms are based on the 15 study villages.

C. Correlates of Attitudes towards IDPs

While this study focuses on hosting behavior, we also hypothesized in our pre-analysis plan that individuals who are more empathic might be less likely to hold negative attitudes towards IDPs. We measured attitudes towards IDPs through a set of seven statements: IDPs are lazy; IDPs are violent; IDPs are trustworthy; IDPs are involved in witchcraft; IDPs are good Christians; IDPs abuse social benefits my village offers; IDPs threaten our way of life. Respondents were asked to answer on a four-point scale ranging from 1) 'Strongly disagree' to 4) 'Strongly agree'. As pre-registered, we constructed a measure for attitudes by taking the simple mean of respondents' answers on these statements, with higher values indicating more negative attitudes.

Table Table S3 presents summary statistics while regression results are presented in Table S4. While we find no significant correlation between empathy and attitudes towards IDPs, we do note that survey respondents who were already hosting IDPs at the time of the survey are less likely to hold negative attitudes towards the displaced.

Table S3. Attitudes towards IDPs

	Obs	Mean	Std.dev.	Min	Max
IDPs are lazy	1,479	2.28	0.81	1	4
IDPs are violent	1,479	2.17	0.74	1	4
IDPs are trustworthy	1,442	2.14	0.62	1	4
IDPs are involved in witchcraft	1,286	1.98	0.75	1	4
IDPs are good Christians	1,336	1.98	0.51	1	4
IDPs abuse social benefits my village offers	1,475	2.32	0.81	1	4
IDPs threaten our way of life	1,482	2.67	0.75	1	4
Attitudes towards IDPs	1,503	2.24	0.43	1	4

Notes: Answers range from 1) 'Strongly disagree' to 4) 'Strongly agree'. As pre-registered, we reversed the score for the two statements that are phrased in a positive way 'IDPs are trustworthy' and 'IDPs are good Christians'.

Table S4. Correlates of Attitudes towards IDPs

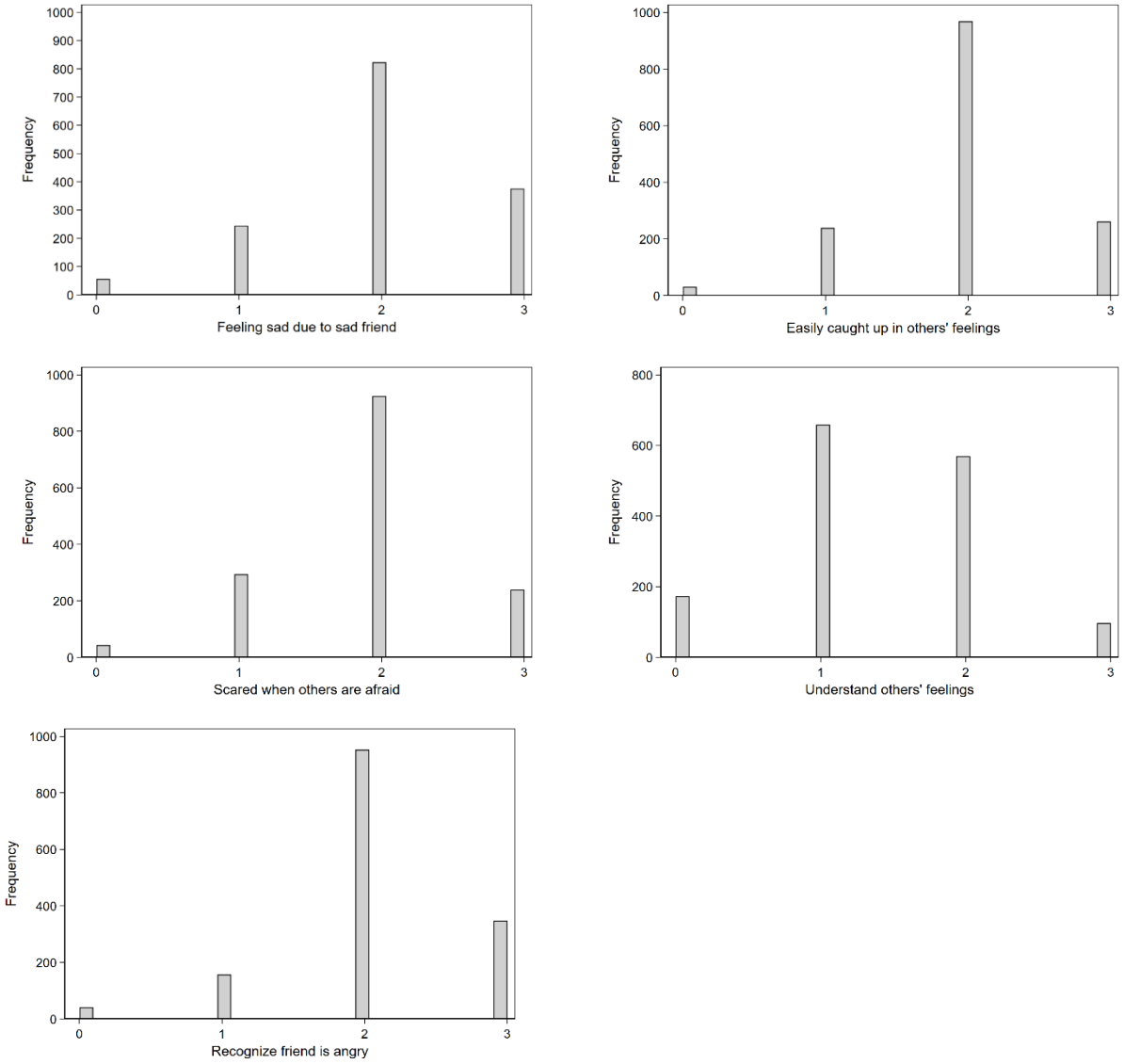
		Attitudes towards IDPs
Empathy	Empathy	0.006
		(0.037)
Ethnicity	Strength of ethnic attachment	0.082**
		(0.032)
Authority	Respondent related to chief	0.006
		(0.027)
Benefits	Strongly agrees IDPs increase prob. of aid	-0.027
		(0.042)
	Strongly agrees IDPs provide cheap labor	-0.044*
		(0.023)
Wealth	Dwelling has a high-quality roof	0.030
		(0.033)
	Dwelling has high-quality walls	0.022
		(0.031)
	Asset index	0.061
		(0.039)
Religiosity	Importance of church in daily life	-0.102***
		(0.027)
	Times to church per week	0.002
		(0.030)
Security	Household head is male	0.026
		(0.023)
Violence	Home was ransacked	0.053**
		(0.020)
Demographic	Host at the time of the survey	-0.063*
		(0.033)
	Respondent's age	0.020
		(0.035)
	Respondent is literate	-0.014
		(0.041)
	Respondent is born in the village	0.097**
		(0.039)
	Respondent is Protestant	0.044
		(0.027)
	Household size	0.035
		(0.038)
	Household dependency ratio	0.026
		(0.031)
	Village FE	Yes
	Observations	1,361
	R^2	0.096

Notes: * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$. Standard errors clustered at the dwelling level and reported in parentheses. Variables are standardized.

D. Is Empathy Binary or Continuous?

In this study, we measure empathy across five items, which are each scored using a 4-point Likert scale: 0) strongly disagree; 1) disagree; 2) agree; 3) strongly agree. Empirically, we can explore whether the data suggest that empathy is binary or continuous. **Figure S3** shows distributions for each item. Responses to the empathy items are not binary.

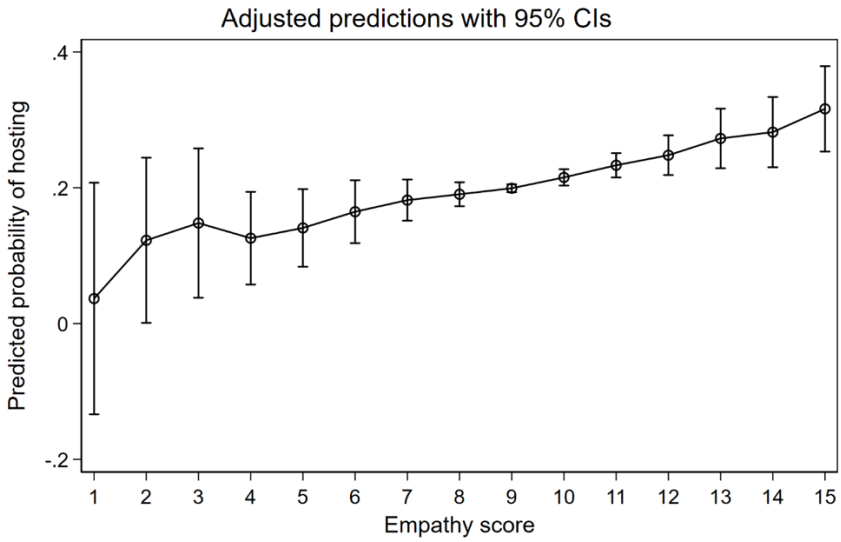
Figure S3. Histograms Empathy Items



Notes: Histograms for the following statements: 1) After being with a friend who is sad about something, I also feel sad, 2) I get caught up in other people's feelings easily, 3) I tend to feel scared when I am with friends who are afraid, 4) I can often understand how people are feeling even before they tell me, 5) I can usually realize quickly when a friend is angry. Response options: 0) strongly disagree; 1) disagree; 2) agree; 3) strongly agree.

Based on the study's main empirical model (**Table 2** model 3), **Figure S4** presents the predicted probabilities of hosting for different empathy scores (keeping the other covariates at their mean values). The probability of hosting increases gradually as the empathy score increases. There is little evidence that there is a threshold above which households start hosting. We also find no evidence for a ceiling effect, above which households are no longer willing to host.

Figure S4. Predicted Probability of Hosting by Empathy Score



Notes: Predicted probability of hosting by empathy score keeping other variables at their mean. Vertical bars indicate 95% confidence intervals based on a model with village fixed effects. Predicted probabilities are based on the study's main empirical model (Table 2 model 3), full specification results are reported in Appendix F, Table A6 model 3.

E. The Experiment

Table S5 presents the text that the respondents were shown in each of the experimental conditions.

Table S5. Manipulation Texts

Manipulation	Text
Control	Delivered by enumerator: "As you might have heard, there have been violent incidents in this region. One of the villages that has already experienced violence or might experience violence in the near future is village _____, where the majority of villagers are _____. People might have to leave their homes as a result of violence, and it is very possible that some of them will be coming to this village to escape the conflict and to seek shelter."
Perspective	Delivered by enumerator: "As you might have heard, there have been violent incidents in this region. One of the villages that has already experienced violence or might experience violence in the near future is village _____, where the majority of villagers are _____. People might have to leave their homes as a result of violence, and it is very possible that some of them will be coming to this village to escape the conflict and to seek shelter." **"Being a migrant is really tough. If you were internally displaced as a result of conflict and had to flee your home in a matter of hours, where would you go? [Allows respondents to answer] What would you take with you? [Allows respondents to answer]"**
Morality	**Delivered by the musharikishi who is holding a Bible:** "As you might have heard, there have been violent incidents in this region. One of the villages that has already experienced violence or might experience violence in the near future is village _____, where the majority of villagers are _____. People might have to leave their homes as a result of violence, and it is very possible that some of them will be coming to this village to escape the conflict and to seek shelter." **"Christian duty demands that we help those in need. In Romans 12:13 in the Holy Bible, the Lord says "Share with the Lord's people who are in need. Practice hospitality.""**
Authority	**Delivered by village chief:** "As you might have heard, there have been violent incidents in this region. One of the villages that has already experienced violence or might experience violence in the near future is village _____, where the majority of villagers are _____. People might have to leave their homes as a result of violence, and it is very possible that some of them will be coming to this village to escape the conflict and to seek shelter." **"The village council has discussed this matter, and we would like people in our village to help these incoming migrants."**

E.1 Balance

Within study villages, dwellings were randomly assigned to the control group or one of the three treatment appeals. **Table S6** presents a balance test for the covariates included in our analyses.[1] As expected, given random assignment, the variables are well balanced across control and treatment groups.

[1] All variables were asked before the treatment, except for respondent's age and whether the respondent is literate. These two variables, however, do not change due to the treatment and therefore have been included in the balance test.

Table S6. Balance

	N	(1) Control Mean/(SE)	N	(2) Empathy Mean/(SE)	N	(3) Morality Mean/(SE)	N	(4) Authority Mean/(SE)	N	(1)-(2) t-test Mean	N	(1)-(3) t-test Mean diff.	N	(1)-(4) t-test Mean diff.
Empathy index	372	9.263	379	9.303	371	9.423	366	9.497	751	-0.040	743	-0.160	738	-0.234
		(0.113)		(0.114)		(0.113)		(0.109)						
Strength of ethnic attachment index	361	6.305	372	6.282	364	6.486	365	6.501	733	0.022	725	-0.182	726	-0.197*
		(0.081)		(0.079)		(0.084)		(0.075)						
Respondent is related to the village chief	376	0.022	380	-0.021	373	-0.055	370	0.055	756	0.043	749	0.077	746	-0.033
		(0.052)		(0.051)		(0.052)		(0.052)						
Str. agrees IDPs increase prob. of aid	368	0.054	377	0.027	367	-0.032	366	-0.050	745	0.027	735	0.087	734	0.104
		(0.054)		(0.052)		(0.051)		(0.051)						
Str. agrees IDPs provide cheap labor	374	-0.007	380	-0.000	374	0.028	368	-0.020	754	-0.007	748	-0.035	742	0.013
		(0.052)		(0.051)		(0.052)		(0.052)						
Dwelling has a high-quality roof	377	0.682	381	0.651	376	0.673	370	0.651	758	0.031	753	0.009	747	0.030
		(0.024)		(0.024)		(0.024)		(0.025)						
Dwelling has high-quality walls	377	0.146	381	0.165	376	0.165	370	0.141	758	-0.019	753	-0.019	747	0.005
		(0.018)		(0.019)		(0.019)		(0.018)						
Asset index	373	0.083	375	0.070	370	-0.037	365	-0.119	748	0.013	743	0.120	738	0.202
		(0.107)		(0.109)		(0.109)		(0.102)						
Importance of church in daily life	373	7.960	377	7.806	375	7.923	367	8.035	750	0.153	748	0.037	740	-0.076
		(0.093)		(0.097)		(0.083)		(0.095)						
Church attendance	376	2.330	377	2.363	376	2.301	370	2.376	753	-0.034	752	0.029	746	-0.046
		(0.069)		(0.070)		(0.066)		(0.076)						
Household head is male	377	0.745	381	0.798	376	0.734	370	0.765	758	-0.053*	753	0.011	747	-0.020
		(0.022)		(0.021)		(0.023)		(0.022)						
Home was ransacked	377	0.552	381	0.633	374	0.626	366	0.637	758	-0.081**	751	-0.074**	743	-0.085**
		(0.026)		(0.025)		(0.025)		(0.025)						
Host at the time of the survey	377	0.260	381	0.160	376	0.226	370	0.192	758	0.100***	753	0.034	747	0.068**
		(0.023)		(0.019)		(0.022)		(0.020)						
Respondent's age	377	42.798	381	41.651	376	43.444	370	43.122	758	1.147	753	-0.646	747	-0.323
		(0.868)		(0.775)		(0.805)		(0.865)						
Respondent is literate	377	0.469	381	0.507	376	0.465	370	0.516	758	-0.037	753	0.004	747	-0.047
		(0.026)		(0.026)		(0.026)		(0.026)						
Respondent is born in the village	377	0.586	381	0.635	376	0.612	370	0.584	758	-0.049	753	-0.025	747	0.002
		(0.025)		(0.025)		(0.025)		(0.026)						
Respondent is Protestant	377	0.682	381	0.701	376	0.715	370	0.730	758	-0.019	753	-0.034	747	-0.048
		(0.024)		(0.023)		(0.023)		(0.023)						
Household size	377	7.711	381	7.627	376	7.928	370	7.627	758	0.084	753	-0.217	747	0.084
		(0.171)		(0.156)		(0.166)		(0.155)						
Household dependency ratio	372	0.551	379	0.549	372	0.532	359	0.548	751	0.002	744	0.019	731	0.003
		(0.011)		(0.011)		(0.012)		(0.011)						
F-test of joint significance (F-stat)										1.123		1.071		1.249
F-test, number of observations										687		673		669

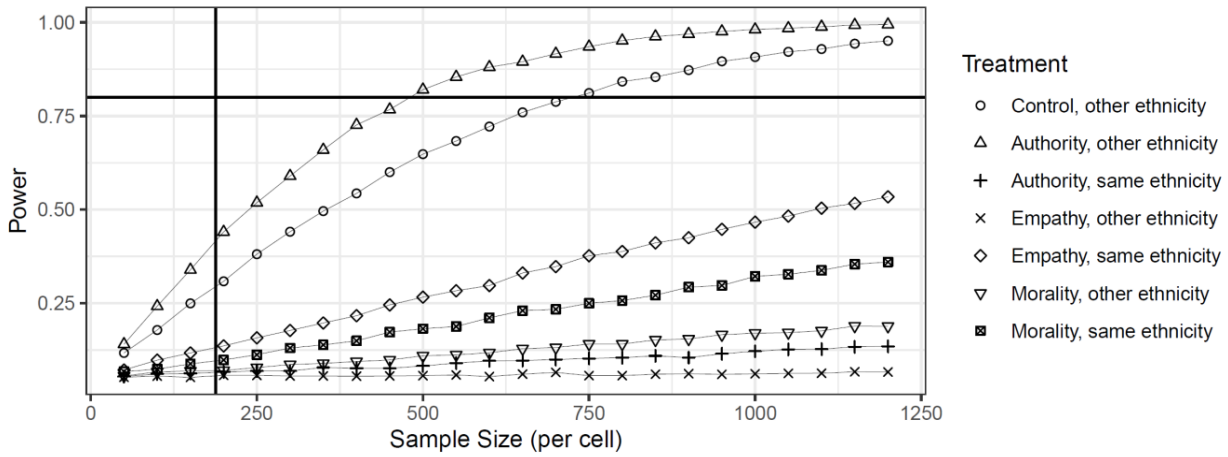
Notes: Significance is indicated by $^{*}p < 0.1$, $^{**}p < 0.05$, $^{***}p < 0.01$

E.2 Statistical Power

In this section, we discuss statistical power of the experiment.[2] First, we explore how large the sample size must be to detect an effect at at least the 0.05 level, given the observed data. To do so, we simulate our experiment 10,000 times across multiple sample sizes, randomly drawing observations with replacement from the observed data. For each simulation, we randomly sample a dataset of size *N* from the actual data, and use this sample to regress the dependent variable on the treatment vector, recording whether or not the estimated p-value for each factorial treatment is less than or equal to 0.05.[3]

Figure S5 plots *N* and statistical power – the percentage of p-values less than or equal to 0.05 – for each factorial treatment for N ranging from 50 to 1,200. The vertical line indicates the number of observations used for this study (188 per cell). The findings suggest that were the sample size three and four times as large, respectively, we would have been well-powered to observe treatment effects for the "control other ethnicity" and "authority other ethnicity" treatments. Related to all other treatments, even if we had increased our sample size by any appreciable amount, we would reach the same conclusions.

Figure S5. Varying the Sample Size



Notes: Power given sample size conditional on the observed data. For each cell sample size *N*, we randomly select *N* observations for each factorial cell, for a total sample size of 8N. We then regress the sampled outcome vector on the sampled treatment vector, recording the p-values for each coefficient. We do this 10,000 times for each N. Next, for each N, we calculate the power (y-axis) by calculating the proportion of p-values less than or equal to 0.05, the chosen alpha-level. Vertical line indicates the number of units per treatment cell in this study (N=188).

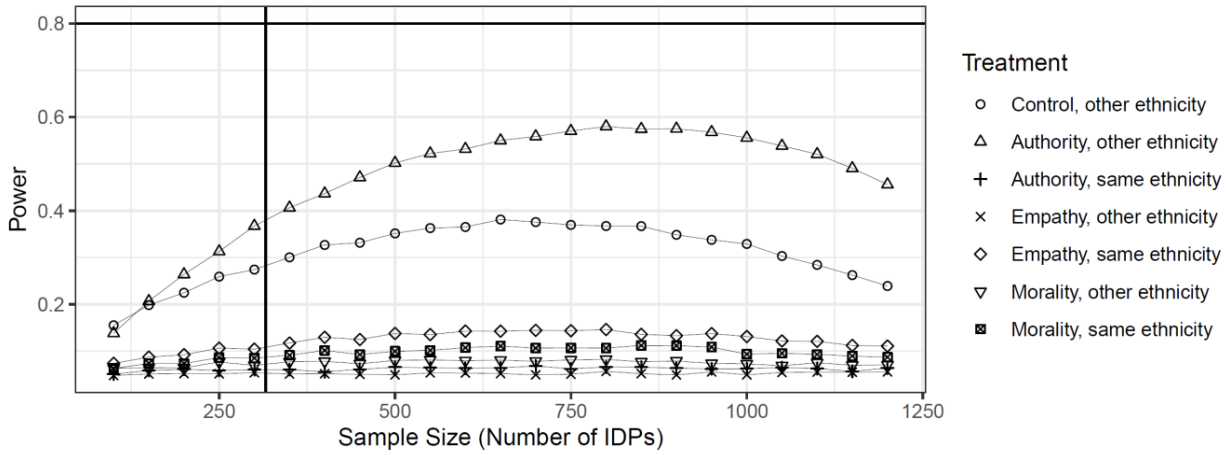
[2] We did not include a power calculation in the pre-analysis plan as we had little ex ante information or strong priors about the magnitude of treatment effects or their standard deviations.

[3] Note that this analysis implies similar hosting dynamics for larger number of potential hosts, which may not be the case.

The second analysis takes the number of observations used in this study, 1,504, but varies the number of households that start hosting during the 10-month period. We randomly draw, with replacement, *N* observations from the households that are hosting, and 1,504 minus *N* observations from the households that are not hosting. We then use this sample to regress the dependent variable on the treatment vector, recording whether or not the estimated p-value for that simulation for each factorial treatment is less than or equal to 0.05.[4] We simulate our experiment 10,000 times for different *N*.

Figure S6 plots the number of households hosting and statistical power, for N ranging between 100 and 1,200. The vertical line indicates the number of households that are hosting strangers in the study and were interviewed during visit 3 (N=316). We find that while a larger number of households hosting increases statistical power, all treatment arms remain far from being well-powered given the observed data.[5]

Figure S6. Varying the Number of Hosting Households



Notes: Power given hosting households, conditional on the observed data. Given the study's sample size, we vary the number of households that are hosting an IDP, *N*. We randomly select *N* observations from the households that are hosting, and 1,504 minus *N* observations from the households that are not hosting. We then regress the sampled outcome vector on the sampled treatment vector, recording the p-values for each coefficient. We do this 10,000 times for each *N*. Next, for each *N*, we calculate the power (y-axis) by calculating the proportion of p-values less than or equal to 0.05, the chosen alpha-level. Vertical line indicates the number households that are hosting in this study (N=316).

[4] Note that this analysis implies similar hosting dynamics for different sample sizes of hosting households, which may not be the case.

[5] Note that statistical power first increases but then decreases. The dependent variable is a binary variable and thus the variance is largest when the number of hosting and not hosting are equal (which is at 1504/2=752).