The Impact of Forced Migration on In-Group and Out-Group Social Capital

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Abstract

In this paper, we study how forced migration impacts the in-group and out-group social capital of Syrian refugees and the host population in Northern Lebanon by administering a novel survey experiment in which we manipulate the salience of the migration experience (for refugees) and the refugee crisis (for the host population). Additionally, we study the social spillovers to Palestinians, an established refugee population in Lebanon. We find that the impact of forced migration is largely restricted to the Syrian refugee-Lebanese host population channel, and that it increases the relative disparity between in-group and out-group social capital. This may cause refugees to favor in-group interactions and therefore forgo more economically advantageous interactions with out-group members.

Keywords: Refugees; Migration; Social Capital; Experiment; Ethnicity

JEL Classification: C90; J15; D91

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After fleeing from violence and persecution in their home countries, victims of forced migration are faced with the difficult challenge of integrating into new societies. Whether settling in a community with fellow refugees or integrating into host communities, social preferences and beliefs (social capital) may play a key role in establishing successful economic interactions and support networks within the local community. Moreover, in contrast to economic migrants, forced migrants face the additional hurdles of having to flee from a chaotic and violent conflict and often having to settle in a neighboring country that is itself adversely affected by a large wave of incoming refugees.

These unique challenges have a direct impact on the social capital forced migrants face in receiving communities. On one hand, refugees' trust and attitudes towards others may be impacted by the experience of violence and displacement from their home countries—previous studies have shown that violence and conflict can impact both social preferences and beliefs about the trustworthiness of other individuals (see Bauer et al., 2016). On the other hand, the trust and attitudes of the receiving community may also be impacted by the shock of being subject to a large and sudden inflow of refugees—previous studies have established that the Syrian refugee crisis has had a significant impact on attitudes in European countries (Hangartner et al., 2019; Steinmayr, 2021).

In this paper, we shed light on these channels by collecting data on trust and other measures of social capital from both Syrian refugees and the host population in Lebanon, which hosts more refugees per capital than any other country. Importantly, while much of the existing research on the social impact of refugee settlement has focused on developed western countries,[1] we gathering data from a country directly neighboring the conflict where the social distance, both culturally and linguistically, to incoming refugees is relatively low (73 percent of refugees are hosted in neighboring countries UNHCR, 2017).

Additionally, by collecting data on both the refugee and host populations, we are

[1]Some exceptions are Barron et al. (2021), which we discuss below, and Drouvelis et al. (2021) who show that homogeneous groups cooperate more in the experimental games run with Lebanese and Syrian subjects.

able to document the impact of forced migration on both within-group social capital (in-group social capital) as well as social capital between groups (out-group social capital), and test whether forced migration increases or decreases the disparity between in-group and out-group social capital.[2] As we illustrate in a formal framework below, we focus on the difference between in-group and out-group social capital since a disparity between the two can lead to a decrease in economic inefficiency if it causes individuals to favor of in-group interactions, and therefore forgo more advantageous economic interactions with out-group members.

A central challenge to measuring the impact of forced migration in our setting is that the entire population is treated: all Syrian refugees are exposed to violence and displacement, and all Lebanese are exposed to the "refugee crisis." In fact, identification has been a key challenge for the literatures studying the social impact of both violence and the refugee crisis. We overcome this problem by experimentally manipulating the salience of, respectively, the experience of forced migration and the refugee crisis. For example, for the Syrian refugee sample, we ask a subset of respondents to recall their migration to Lebanon, thereby increasing the salience of their experience. Manipulating salience through targeted questions also arguably provides a lower bound of the impact and provides a clean causal identification (Benjamin, Choi and Strickland, 2010).

Based on the existing literature on social capital, violence and the refugee crisis, we expected our experimental primes to increase in-group social capital and decrease out-group social capital. However, there are certain aspects of the neighboring-country setting that make these predictions less clear. First, from the perspective of Syrian refugees, it is unclear how the out-group status of the Lebanese hosts will interact with the prime—given that Lebanon largely welcomed Syrians fleeing the civil war, an increased salience

[2]"Social capital" has often been used interchangeably with trust: conceptually, we use the term social capital to refer to the combination of social preferences and beliefs that drive behavior in settings where reciprocal behavior and cooperation are important factors; practically, we gather data on behavior in the classic trust game, dictator game and prisoners' dilemma and compile an index of behavior across these games.

of the refugee experience may trigger increased trust towards Lebanese. Second, given Lebanon's close proximity to the conflict and their cultural ties to the Syrian refugees, it is possible that references to the refugee crisis could trigger empathy and increased trust towards Syrian refugees.

Additionally, we investigate a third channel of impact, namely the social capital between new and established refugee populations; i.e. between Syrian refugees and Palestinian refugees. It is plausible that social capital towards established migrant/refugee populations increases through their common migrant/refugee status. If this is the case, then this could provide an important social connection to a group that is already established in the hosting country. Related, we also address whether the refugee crisis creates any spillovers in the out-group social capital between the host population and the established refugee population.

As mentioned above, we recruited a representative sample of both Syrian refugees and Lebanese from districts in the immediate north of Lebanon that directly border Syria. We gathered information on trust using hypothetical experimental games (see Falk et al., 2016), varying the identity of the recipient (Lebanese, Syrian and Palestinian). To provide a broader measure of social capital, we also gathered information on reciprocity (trust-game, receiver), altruism (dictator game), and cooperation (prisoner's dilemma) and construct an index of social capital based on all four measures.

Our main findings show that the impact of both our experimental primes is largely restricted to trust and social capital towards Syrian refugees: an increased salience of the migration experience increased Syrian refugees' trust towards fellow Syrian refugees, and increased salience of the refugee crisis decreased Lebanese trust towards Syrian refugees. We find no evidence of spillovers towards Palestinian refugees. Overall, this suggests that forced migration increases the difficulty refugees face in integrating socially and economically in their host country, and that active policy should be implemented to facilitate this integration.

Our paper contributes to several strands of the literature. First, we contribute to the

literature on the social and economic integration of refugees in receiving countries (Edo et al., 2018). This literature has largely focused on the reaction of receiving communities to an inflow of refugees, rather than the impact of forced migration on refugee populations. One exception is Barron et al. (2021), which measures discrimination among Jordanian and Syrian refugee school-age children and links this discrimination back to their parents' narratives about the refugee crisis. Interestingly, they find that Jordanian children with Palestinian roots do not discriminate against Syrian refugees, which contrasts with our finding that the migration prime did not increase Syrian refugees' trust or social capital towards Palestinian refugees. Additionally, they find relatively small overall effects, which suggests that the larger imbalance between out-group and in-group social capital that we find in the adult population may be attenuated in future generations, especially in settings where there is contact between the refugee and host populations.

Second, we contribute to the literature on violence and social capital (Bauer et al., 2016). In addition to expanding this literature to consider the impact on forced migrants who escape the region of conflict, we also are able to overcome certain identification problems highlighted in the literature. First, in violent conflicts, the distinction between in-group and out-group is not always clear. However, in our setting all Syrian refugees are linked due to their common refugee status, which provides a clear in-group identity. Second, most existing studies have used variation in exposure to violence, which may be correlated with other confounding factors. By manipulating the salience of the experience of forced migration, however, we are able to cleanly identify the direction of the effect, and our findings are largely consistent with a positive in-group effect, an overall increase in cooperation, but otherwise little to no impact on out-group trust and other measures of social capital.

1 Conceptual Framework

We develop a simple theoretical framework to illustrate the importance of social capital on social and economic integration of forced migrants. Consider an individual, i, who

chooses to create a link to another individual. Conceptually, this link can be seen as social network, or it could represent an economic transaction. For simplicity establishing the link is costless, but only one link can be established; i.e. we focus on modeling the choice of who i chooses to link with.[3] Specifically, individual i chooses to form the link with another individual from a set of individuals labeled with the index set J with typical element j. Since we consider three different social identities we use a set of size three, and use $j \in \{1, 2, 3\}$ to denote both the individual and their social identity. Similarly, take i to correspond with the social identity of i: i.e. $i \in \{1, 2, 3\}$.

There is a baseline economic value associated with the link between i and each j, which we denote by $\lambda_{i,j} \in [0, 1]$. Additionally, there is a social value of the link, which is a function of both i's social capital (trust) towards j, and j's trust towards i. Take $\alpha_{i,j} \in [0, 1]$ to be i's trust of j, $\beta_{j,i} \in [0, 1]$ to be j's trust of i, and the social value of the link to be $f(\alpha_{i,j}, \beta_{j,i})$. We assume that the value of $f(\alpha_{i,j}, \beta_{j,i})$ is positive and strictly increasing in both its arguments.

The utility of the link to i is the product of the economic and social value:

$$u_i(\lambda_{i,j}, \alpha_{i,j}, \beta_{j,i}) = \lambda_{i,j} f(\alpha_{i,j}, \beta_{j,i}). \tag{1}$$

Here we would like to note that we do not use the term economic and social value literally. Depending on the nature of the link, it could be that a higher social value—higher trust—increases the economic value of the link. In this case, $u_i(\cdot)$ can be conceptualized as a pure monetary payoff. By contrast, in cases where there is no interaction between trust and the monetary value of the link, $f(\alpha_{i,j}, \beta_{j,i})$ can be conceptualized as a pure intrinsic, non-monetary payoff.

In this framework there is no strategic interaction. Therefore, the individual's choice of which other individual to link with translates to a simple calculus of which link provides

[3]Note that this limits the analysis to the "intensive margin"—a more complete framework would also consider how many links individuals choose to establish. However, we hope this simple framework clearly illustrates the core insights of our research.

the highest utility. That is, i chooses to link with j according the following maximization problem:

$$\max_{j \in \{1,2,3\}} \{\lambda_{i,j} f(\alpha_{i,j}, \beta_{j,i})\} \tag{2}$$

While we remain agnostic as to whether $f(\alpha_{i,j}, \beta_{j,i})$ should be thought of as a monetary or intrinsic payoff, we highlight the fact that economic value, $\lambda_{i,j}$, is maximized when trust is equalized across all groups. While the result is straightforward, we specify this result formally:

Result 1. *Take j^* to be the individual whose link has the highest economic value. Individuals maximize economic value, $\lambda_{i,j}$, as long as $\lambda_{i,j^*}/\lambda_{i,j'} \geq f(\alpha_{i,j'}, \beta_{j',i})/f(\alpha_{i,j^*}, \beta_{j^*,i})$ for all j'.*

This result highlights that on the intensive margin, economic efficiency depends on the relative differences in trust between the members of different identities. That is, an increase in the relative distance between in-group and out-group social capital can cause individuals to forgo links with out-group members, even if those links have a higher economic value.

2 Design

2.1 Background on the Syrian Civil War and refugee settlement in Lebanon

The civil war in Syria has resulted in a massive displacement of the Syrian population, both internally and to the neighboring countries of Turkey, Jordan, Iraq and Lebanon. The war, which began with a civil uprising against the autocratic regime, quickly devolved into a sectarian conflict. Since the onset of the Syrian civil war in 2011, Lebanon has seen a massive inflow of refugees from Syria (roughly 1.5 million in a country of 6.8 million) and currently hosts the largest number of refugees per capita of any country in the world (UNHCR, 2017).

In contrast to neighboring countries, Lebanon did not limit the entry of refugees, or restrict refugee settlement to limited areas within Lebanon. The decision to not restrict refugee settlement was taken in an attempt to avoid the establishment of permanent refugee camps for Syrian refugees, and a related measure banned the erection of permanent structures (for example concrete buildings or foundations) for the purpose of housing new refugees (Ferris and Kirisci, 2016). Lebanon's approach to allowing Syrian refugees to freely settle among the local population has not been without controversy, however, and there are many reports of economic conflict between Lebanese and Syrian refugees in areas of co-habitation (e.g., The World Bank, 2013, UNDP, 2017).

2.2 Sample

To explore the impact of forced migration on the social preferences and beliefs of both refugees and the host population, we recruited a sample of 2,000 respondents, of which 1,000 were Syrian Refugees and 1,000 were Lebanese, from districts in the immediate north of Lebanon—an area with sustained exposure to Syrian refugees.[4] To gain a representative sample of Northern Lebanon's Lebanese resident population, we employed a multi-stage random sampling method. Our primary sampling units (PSUs) are 1km x 1km grid cells. We superimposed these grids onto a map of our sampling area. We defined our sampling area as the districts in the immediate north of Lebanon. These are: Akkar, Hermel and the very north-eastern part of Baalbek. In choosing this sampling area, we consulted with local experts in order to exclude highly insecure areas. In this process, we removed administrative districts in Balbeek that lie to the very east (an area where the Lebanese army had recently attacked the Islamic State in Iraq and Syria) and areas only reachable with offroad vehicles (namely, the very tip of Akkar).

In a second step, we drew a random sample of PSUs, weighted by the size of the Lebanese resident population, respectively. Overall, we drew a sample of 1,000 Lebanese residents. We estimated the number of Lebanese residents using data from the GHS

[4]The project was pre-registered at `https://osf.io/cqpx2`.

population grid (Freire and Pesaresi, 2015).[5] We estimated the number of Syrian refugees using data from UNHCR. The agency provides up-to-date information on Syrian refugee settlements, and we relied on the most recent estimate from June 30, 2017.

The randomly selected PSUs of the two samples—the *Syrian* refugee sample and the *Lebanese* sample—are shown in two maps in Figure 1. As can be seen, the *Lebanese* sample (Figure b) is more dispersed, while the Refugee sample (Figure a) clusters in a few areas. The maps also show interesting idiosyncrasies in refugee settling patterns. Notably, Syrian refugees are very unlikely to settle in the mountainous region of the Mount Lebanon. For example, note that the area around Charbine houses almost no refugees, but a sizable number of Lebanese residents.

Within the selected PSUs, we recruited a number of respondents proportional to the number of inhabitants within the grid. Within the grids, households were chosen by means of a random walk starting at randomly selected starting points. Within each household, we randomly recruited one participant by listing all household members over the age of 18 and choosing one of them using a dice.

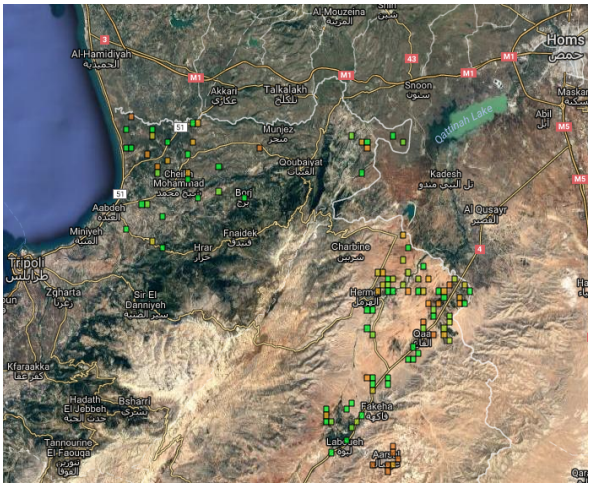
2.3 Outcome

To measure social capital, we used a proxy questionnaire that administered four well-established experimental measures of social preferences and beliefs: trust, reciprocity, altruism and cooperation (see Falk et al. 2016). In order to measure social capital toward i) Syrian refugees; ii) Palestinian migrants; and iii) other Lebanese residents, we varied the identity of the recipient in the pseudo-experimental games between a Syrian, Lebanese and Palestinian. We elicited responses from respondents for all three identities, but randomly varied the order of the recipient identity, and for empirical tests we only use responses from the first identity to avoid order effects (as specified in our pre-registration

[5]Given that the GHS population grid uses an algorithm to determine population density, we went through all PSUs by hand on GoogleMaps in order to discard PSUs that were erroneously determined as housing residents. This is the case, for instance, when large plantations, warehouses or factories are mistakenly interpreted as apartments or houses.

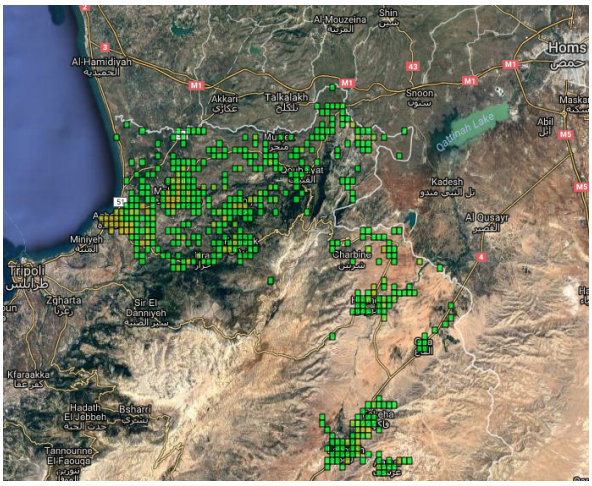
Figure 1: Sampling strategy

(a) Syrian sample



Notes: Randomly drawn proportional Syrian sample.

(b) Lebanese sample



Notes: Randomly drawn proportional Lebanese sample.

document). Our primary measure of social capital is the pseudo-experimental measure of trust. But we also consider a composite index consisting of a weighted sum of the four measures.

The trust instrument (here, played with a Lebanese resident) read as follows:

> "Imagine the following situation: You and a Lebanese individual nearby named Rami both participate in a study. You do not know Rami, but you do know that he is a 37-year old Lebanese citizen. In the study, you and Rami will be asked to make choices about how to assign a certain amount of money.
>
> Imagine the following game. Both you and Rami get $10. Next, you and Rami have to give any amount of that money to the other person. You decide first. Rami decides second. Importantly: each Dollar that you transfer to Rami, the Lebanese citizen, will be tripled by us and then given to Rami. That means, if you give $1 of your $10 to Rami, you then have $9, while Rami will have $10 plus 3 times $1, so $13. Then, Rami can decide to send some money back to you. Let's now play this game. How much of your $10 do you give to Rami, which we then triple?"

2.4 Treatments

Our treatments consist of a survey experimental prime administered to a random subset of respondents using simple random assignment. For the Syrian sample, we primed respondents to think about their migration experience by asking them the following questions:

- *Please briefly describe your experience migrating to Lebanon.*
- *Was your family alone, or did you flee with other Syrians?*

For the Lebanese sample, we primed respondents to think about the refugee crisis by asking them the following questions:

Currently, Lebanon is hosting over one million refugees from Syria.

- *How have you and your family been personally affected by the refugee crisis?*
- *How do you think Lebanon as a whole has been affected by the refugee crisis?*
- *Do you support Lebanon's response to the refugee crisis?*

We did not record respondents' answers to these questions. The questions merely served the purpose of priming respondents to think of, respectively, their experience of forced migration and the influx of Syrian refugees. The control group was asked no such questions.

2.5 Hypotheses

Drawing on our sample of Northern Lebanese residents, we test several hypotheses regarding the impact of forced migration and refugee settlement on social capital. First, we consider the impact of forced migration on the trust of the Syrian Refugees.

Following the findings of the literature on the impact of violence and war on in-group preferences, we expect there to be a positive impact of the prime on social capital towards other Syrian refugees.

Hypothesis 1 (In-Group Social Capital Refugees)**.** *Syrian Refugee in-group trust towards the Syrian recipient is higher for respondents primed with the migration experience. [H1]*

Likewise, since the share experience of forced migration may impact social capital towards all refugees, we expect there to be a positive impact of the prime on social capital towards *Palestinian* refugees due to their common refugee status.

Hypothesis 2 (Out-Group Social Capital Established Refugees)**.** *Syrian Refugee out-group trust towards the Palestinian recipient is higher for respondents primed with the migration experience. [H2]*

Lastly, we expect that the experience of force migration may decrease social preferences towards non-refugee out-groups.

Hypothesis 3 (Out-Group Social Capital Hosts)**.** *Syrian Refugee out-group trust towards the Lebanese recipient is lower for respondents primed with the migration experience. [H3]*

Second, we consider the national impact of the refugee crisis on the social structure of Lebanon. Based on the local political and social dialogue regarding the refugee "crisis" and studies documenting a negative impact of the refugee crisis on social attitudes towards refugees and voting behavior in Europe (Hangartner et al., 2019), despite the relatively low social distance between Lebanese and Syrian refugees we hypothesize a negative impact of priming the refugee crisis on social capital towards Syrian refugees:

Hypothesis 4 (Out-Group Social Capital "New" Refugees)**.** *Lebanese out-group trust towards the Syrian recipient is lower for respondents primed with the refugee crisis. [H4]*

While this is outside of our main research questions, we also consider the spillover effects on established refugee populations. Since the refugee crisis may negatively impact social capital towards all refugees, we expect there to be a negative impact of the prime on social capital towards *Palestinian* refugees due to their refugee status.

Hypothesis 5 (Out-Group Social Capital "Established" Refugees)**.** *Lebanese trust towards the Palestinian recipient is lower for respondents primed with the refugee crisis. [H5]*

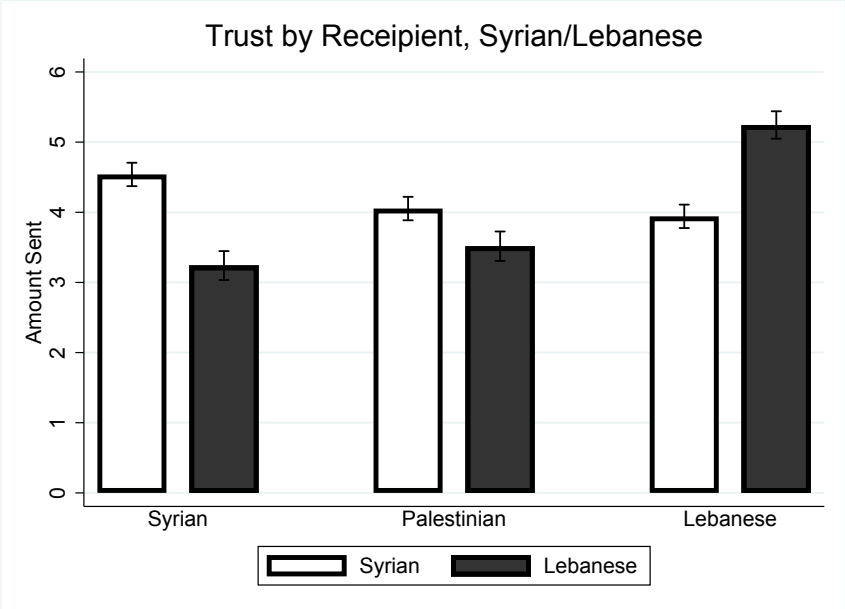
Lastly, we expect that the refugee crisis may harden the in-group preferences of the host population due to the increased economic competition with Syrian refugees.

Hypothesis 6 (In-Group Social Capital Hosts)**.** *Lebanese trust towards the Lebanese recipient is higher for respondents primed with the refugee crisis. [H6]*

3 Analysis

We first report the average levels of trust by the identity of the recipient, shown in Figure 2 (note that trust levels range from $0 - 10$).

Figure 2: Trust by Recipient



Notes: This figures shows the average response to the trust question by identity-category for both Lebanese and Syrian respondents. The error bars indicate a ninety-five percent confidence interval.

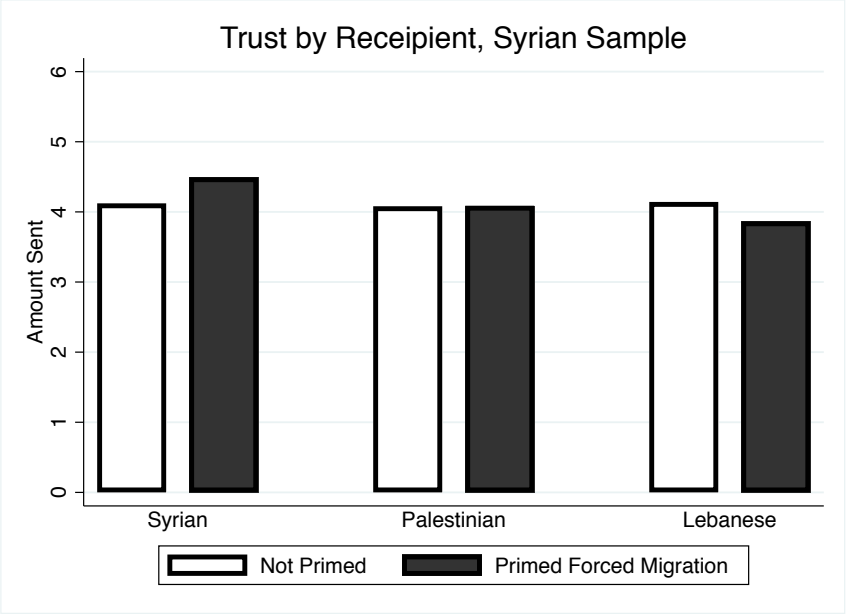
As anticipated, trust is highest for the in-group sample for both Lebanese and Syrian respondents, and lower for both out-groups. However, it appears that Lebanese

respondents have stronger relative in-group preferences compared to the Syrian respondents. There is also little difference in the levels of trust for Syrian and Palestinian refugees reported by Lebanese nationals—given the perceived low social status of Palestinian refugees in Lebanon, it is interesting to note that Syrian refugees, who have closer cultural ties to the population of North Lebanon, are trusted no more than this low social status group.

3.1 Syrian Respondents

First, we address the impact of forced migration on refugees and address the question of whether priming Syrian refugees to think about their migration experience changes their self-reported levels of social capital.

Figure 3: Effect of forced migration prime on trust



Notes: The figures show the mean of the indicated experimental outcomes across the treatment (black) and control group (white) played with the three indicated groups. Following our pre-registered analysis plan, we only include answers from the first identity-category of each respondent.

Figure 3 illustrates the impact of the experimental prime on trust. As expected, we see that respondents who are primed with their experience of forced migration report higher levels of trust for fellow Syrian Refugees (this difference is significant at the 10%

level). However, we observe no positive spillovers for trust towards Palestinian refugees, nor is there a significant decrease in trust towards Lebanese recipients.

Table 1 below details our experimental results, and confirms that Figure 3 is largely representative of our findings across our experimental measures. Specifically, we find an aggregate positive impact on social capital towards fellow Syrian refugees when respondents are asked to recall their migration experience (our index of social capital increases by just over two thirds of a standard deviation). On average, respondents increase the amount sent in the trust game by 0.372 dollars and send back 0.310 dollars more when primed with their migration experience, although the latter estimate is not statistically significant. Additionally, they send a full 1.206 dollars more in the dictator game, and increase the rate at which they cooperate in the prisoner's dilemma by 4.3 percent. Overall, these findings are consistent with the theory that exposure to violence and traumatic events leads to an increase in in-group social capital, and shows that refugees' integration into the refugee community may be facilitated through their joint experience of forced migration (H1: In-Group Social Capital Refugees).

Table 1: Impact of forced migration prime on Syrian Respondents

Recipient	Syrian	Palestinian	Lebanese
Social Capital Index	0.179***	0.086	0.012
	(0.068)	(0.107)	(0.015)
Trust	0.372*	0.008	-0.276
	(0.279)	(0.344)	(0.292)
Reciprocity	0.310	0.214	-0.492*
	(0.332)	(0.387)	(0.300)
Altruism	1.206**	0.381	0.355
	(0.550)	(0.608)	(0.369)
Cooperation	0.043**	0.059**	0.077†
	(0.024)	(0.030)	(0.029)

This table reports coefficient estimates and standard errors (clustered at the PSU level) of OLS regressions

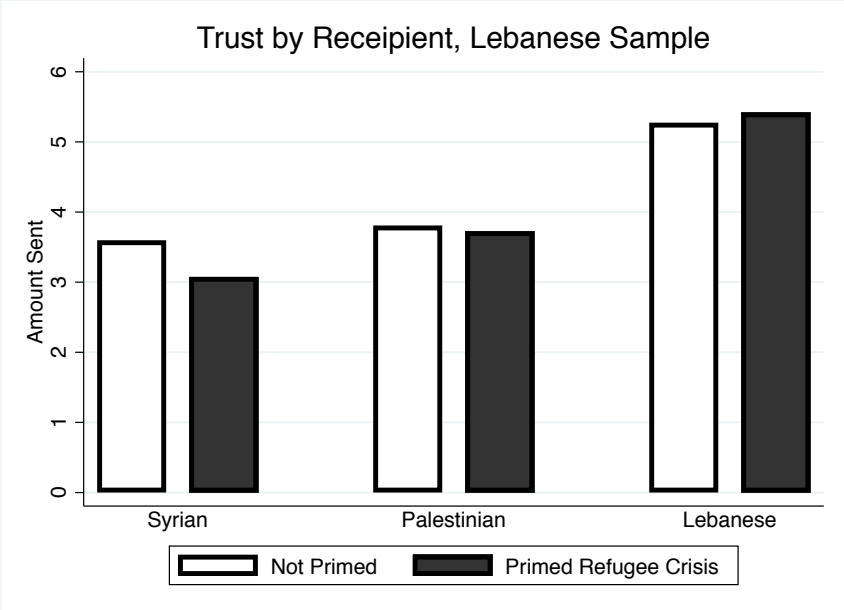
† The coefficient estimate is in opposite direction from our hypothesis, and is therefore not statistically significant

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

When we consider the impact of the migration experience on out-group social capital, we find no aggregate impact for Palestinian and Lebanese respondents when we consider our index of social capital (H2, H3: Out-Group Social Capital Established Refugees and Hosts). The aggregated measure, however, hides some interesting heterogeneity in the impact of the prime. While these results should be viewed as exploratory since they are not our main experimental outcomes, we do see a decrease in reciprocity for Lebanese respondents. Interestingly, we see that priming the respondents with their experience of forced migration increased in cooperation across all groups. This finding, however, is consistent with findings from the literature on the impact of violence on social capital that shows that exposure to violence can increase cooperation in general (Bauer et al., 2016).

Lebanese Respondents

Figure 4: Effect of refugee crisis prime on trust



Notes: The figure shows the mean of the indicated experimental outcomes across the treatment (black) and control group (white) played with the three indicated groups. Following our pre-registered analysis plan, we only include answers from the first identity-category of each respondent.

Next, we consider the impact of a wave of incoming refugees on the host population and answer the question of whether priming Lebanese respondents to think about the

Syrian refugee crisis changes self-reported levels of social capital. Looking first at trust levels, similar to above, the only recipient for which we see a significant impact is for the Syrian recipient. In this case, priming Lebanese respondents with the refugee crisis lowers their reported trust towards the Syrian recipient (out-group social capital). However, we do not observe a spillover to the Palestinian recipient, nor do we see an increase in in-group social capital.

Again, the regression results presented in Table 2 support the findings of Figure 4. Overall, the experimental prime decreases the social capital index towards Syrians by just over one-half of a standard deviation. When the recipient is a Syrian Refugee, Lebanese respondents primed to think about the refugee crisis send 0.52 fewer Dollars in the trust game, send 0.57 fewer Dollars when reciprocating in the trust game, send 0.77 fewer Dollars in the dictator game, and are 10 percentage points less likely to cooperate in a prisoners' dilemma.

Taken together, this shows that there is a substantial negative effect of the prime on social capital toward Syrians (H4: Out-Group Social Capital "New" Refugees). The result suggests that, comparable to findings from the EU (see Hangartner et al., 2019), the perceived impact of the refugee crisis on the host population contributes to lower levels of social capital between the host population and new refugees. However, perhaps encouragingly, we find no evidence of a negative spillover effect on other refugee groups (H5: Out-Group Social Capital "Established" Refugees), nor do we find any increase in in-group social capital (H6: In-Group Social Capital Hosts).

Table 2: Impact of refugee crisis prime on Lebanese respondents

Recipient	Syrian	Palestinian	Lebanese
Social Capital Index	-0.162**	0.025	0.065
	(0.093)	(0.082)	(0.078)
Trust	-0.521*	-0.081	0.146
	(0.348)	(0.352)	(0.324)
Reciprocity	-0.566*	0.379	0.379
	(0.435)	(0.411)	(0.455)
Altruism	-0.771*	0.515	0.401
	(0.596)	(0.561)	(0.535)
Cooperation	-0.099**	-0.030	0.015
	(0.055)	(0.047)	(0.035)

This table reports coefficient estimates and standard errors (clustered at the PSU level) of OLS regressions
* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

4 Discussion

Summarizing our experimental results, we find evidence that forced migration does impact the social capital faced by incoming refugees settling in a neighboring country. However, the impact seems to largely be limited to host-refugee relations, and our research does not provide any evidence of social spillovers to other refugee/migrant groups. From the perspective of established refugee groups, this is a positive finding, to the extent that they are protected against a negative backlash due to the refugee crisis. However, our results are not overly optimistic for refugee-host relations—as highlighted in our conceptual framework, higher in-group social capital and lower out-group capital may actually be an impediment to social and economic integration. Here we would also like to emphasize that we can only manipulate the salience of the refugee crisis. Therefore, the decease in trust that we observe towards refugees as a result of the experimental prime is plausibly a lower bound to the extent that the control sample is also impacted by, respectively, the migration experience and the refugee crisis.

As a coda, however, we present an unregistered, exploratory analysis, which offers

a more positive outlook and a policy suggestion. In a companion paper we explore the impact of proximity to refugees on Lebanese social capital towards refugees (Hager and Valasek, 2022). In that paper we explore whether proximity and the economic conflict that follows leads to lower social capital, or whether social capital are positively impacted through the channel of conflict. Using an IV approach, we find that proximity causes higher trust and social capital, suggesting that the positive effect of contact dominates economic conflict. Inspired by this finding, we also test whether the impact of the refugee crisis prime is correlated with respondents' contact with refugees. That is, we explore whether we observe different treatment effects among Lebanese respondents who are in contact with refugees. To measure contact, we asked respondents: *"In the last month, how many Syrian and Lebanese individuals have you interacted with. This does not include your family or friends."* In our sample, roughly one third of respondents (344 out of 1000) report that they have not been in contact with any Syrian refugees in the past month.

Surprisingly, the observed negative treatment effect that we see in the aggregate sample is driven mostly by respondents who have no contact to refugees: for Lebanese respondents without contact, the prime deceases trust by 28.1 percent, while for respondents with contact, it only decreases trust by 10.9 percent (see Figure 5 in the Appendix). Put differently, Lebanese that are in contact with Syrian refugees do not react as negatively to an increased salience of the refugee crisis.

Of course, an obvious confound is that the respondents who are most sensitive to the refugee crisis prime may be less likely to seek contact with Syrian refugees (or less likely to report contact). Therefore, we also consider effect heterogeneity based on whether or not respondents live above or below a pre-registered altitude cutoff—due to the fact that Syrian refugees almost exclusively settled in the less mountainous regions of Northern Lebanon, we used the pre-registered altitude cutoff as a proxy for whether respondents are in contact with Syrian Refugees. Also, as long as Lebanese are relocating to higher altitudes to specifically avoid contact with Syrian Refugees (which is unlikely in Lebanon since internal migration is low), this proxy for contact avoids the endogeneity problem present with self-reported contact.

The comparison is even more stark than with contact: respondents above the altitude cutoff who are primed with the refugee crisis decrease trust by 35.2 percent, and respondents below the altitude cutoff decrease trust with a mere 1.8 percent (see Figure 6 in the Appendix). Of course these results are only suggestive, and further study is needed to establish causality—Syrian refugees could be endogenously choosing to settle in areas where the refugee crisis did not decrease trust towards refugees. However, regardless of the direction of causality, this finding provides positive support for Lebanon's approach of allowing refugees to self-select their area of residence: either the negative impact of the refugee crisis on out-group social capital is mitigated through contact independent of where they settle; or, if allowed to settle freely, they settle in areas where out-group social capital with host population is not negatively impacted by the salience of the refugee crisis.

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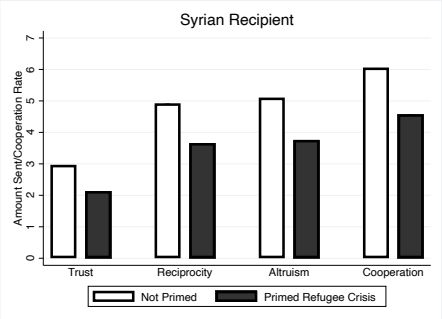
5 Appendix

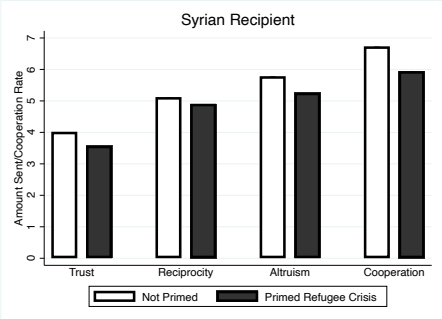
5.1 Additional Figures

Figure 5: Effect heterogeneity by refugee contact (Syrian Recipient)

(a) No contact with Syrians



(b) Contact with Syrians



Notes: The figures show the mean of the indicated experimental outcomes across the treatment (black) and control group (white) played with a Syrian recipient, split across respondents with (b) and without (a) refugee contact. Again, we only include answers from the first identity-category of each respondent.

5.2 Survey

Instructions to enumerators:

- If not otherwise specified, mark only one answer choice.
- If not otherwise specified, do not read out the answer choices.
- Anything in square brackets is information for the enumerator, which must not be read out lout.

A. Section A

Let's start with a few questions about yourself.

1. What is your citizenship?
    a. Lebanese
    b. Other, namely _____ → [*If other, exclude from interview. Say:* "Thank you very much for your time. This time around, however, we only want to interview Lebanese citizens."

2. Gender [*Fill in gender of respondent*]
    a. Male
    b. Female

3. Housing [*Fill in the type of housing of respondent*]
    a. Camp
    b. Shared apartment
    c. Separate apartment
    d. Shared house
    e. Separate house
    f. Other, _____ [*Fill in*]

4. How old are you? [*Fill in years*]
    a. _____ years

5. What is your highest level of education? [*Read out answer choices*]
    a. No formal education
    b. Incomplete primary school
    c. Complete primary school
    d. Incomplete secondary
    e. Complete secondary
    f. Some university-level education, without degree
    g. University-level education, with degree
    h. Other, _____ [*Fill in*]

6. What is your marital status?
    a. Married
    b. In a relationship
    c. Divorced

d. Separated
e. Widowed
f. Single

7. How many children do you have?
    a. _____ [*Fill in number*]

8. What is your primary occupation? [*Read out answer choices*]
    a. Full time employee (30 hours a week or more)
    b. Part time employee (less than 30 hours a week)
    c. Self-employed / owns business
    d. Retired
    e. Housewife / houseman
    f. Student
    g. Unemployed
    h. Other, namely _____ [*Fill in*]

9. Which of the following best describes your profession? If you do not currently work, characterize your major work in the past. [*Read out answer choices*]
    a. No profession
    b. Agriculture and fishing
    c. Manufacturing
    d. Construction
    e. Trade and repair
    f. Hotels and restaurants
    g. Transport and communications
    h. Education
    i. Health and social work
    j. Other, namely _____ [*Fill in*]

10. How many persons live in your household, including you?
    a. _____ [*Fill in number*]

11. What is the total approximate income of your household in USD each month?
    a. _____ USD

12. What percentage of your household income comes from money transfers from relatives who either work abroad or in another Lebanese city?
    a. _____ %

13. Where were you born? [*Fill in country and city*]
    a. Country: _____
    b. City: _____

14. What is your religion?
    a. Christian Maronite Catholic

b. Christian Greek Orthodox
c. Christian Melkite Catholic
d. Christian Armenian Apostolic
e. Muslim Sunni
f. Muslim Shia
g. Druze
h. Atheist / Agnostic / No belief
i. Other, namely _____ [*Fill in*]

15. How often do you pray during a given week? [*Fill in number*]
    a. _____

16. How important is religion in your life?
    a. Very important
    b. Important
    c. Neither important, nor unimportant
    d. Unimportant
    e. Very unimportant

17. I'd like you to think of your three closest neighbors. Can you tell me their nationality?
    a. Neighbor 1 _____ [*Fill in nationality*]
    b. Neighbor 2 _____ [*Fill in nationality*]
    c. Neighbor 3 _____ [*Fill in nationality*]

B. Section B

18. In general, how willing are you to take risks? Please use a scale from 0 to 10, where 0 means "*completely unwilling to take risks*" and a 10 means "*very willing to take risks*".
    a. _____ [*Fill in number*]

19. How willing are you to give up something today in order to get more in the future? Again, indicate your answer on a scale from 0 to 10, where 0 means "*completely unwilling to do so*" and a 10 means you "*very willing to do so*".
    b. _____ [*Fill in number*]

20. On a scale from 0 (not at all) to 10 (perfectly), how well does the following statement describe you as a person? "As long as I am not convinced otherwise, I assume that people have only the best intentions."
    a. _____ [*Fill in number*]

[The next question includes several random elements. In total, there are many different versions of the following question. Please take care in programming this question. Please also include variables that note which words respondents were assigned to.]

21. Now, we would like to introduce you to a hypothetical Syrian refugee named Mohamad. Mohamad is 24 years old. He has been contemplating whether to migrate toward the European Union to apply for asylum. Friends told Mohamad that refugees are [*randomize:* ostracized / welcomed] in Europe. He also heard that refugees have a [*randomize:* good / poor] chance of gaining full-time employment in the EU. His friends also said that certain European countries have recently put in place [*randomize:* less / more] strict border controls. At the same time, the economic situation in Mohamad's home region has [*randomize:* deteriorated / improved]. Meanwhile, the security situation continues to be [*randomize:* poor / good].

    Given this information, what would you advise Mohamad to do? [*Read out answer choices*]
    a. Definitely not migrate
    b. Probably not migrate
    c. Unsure
    d. Probably migrate
    e. Definitely migrate

22. How about yourself, on a scale from 1 to 10, how likely are you to migrate elsewhere in the coming years? 1 means very unlikely, while 10 means very likely.
    a. _____ [*Fill in number*]

23. And, if you were to migrate, what could country would you like to go to?
    a. _____ [*Fill in country*]

C. Section C

[*The following <u>three</u> questions should only be asked to 50% of all Lebanese respondents. It should be **<u>randomized</u>** whether a respondent receives these three questions or not. Please take care in programming this randomization. Please also include a variable that notes whether a respondent was assigned the questions or not.]*

24. Currently, Lebanon is hosting over one million refugees from Syria. We'd like to ask you a couple of questions related to the refugee crisis. How have you and your family been personally affected by the refugee crisis? [*Read out answer choices]*
    a. Positively affected
    b. Neutrally affected
    c. Negatively affected

25. How do you think Lebanon as a whole has been affected by the refugee crisis? [*Read out answer choices]*
    a. Positively affected
    b. Neutrally affected
    c. Negatively affected

26. Do you support Lebanon's response to the refugee crisis? [*Read out answer choices]*
    a. Yes, absolutely
    b. Yes, by and large
    c. No, not really
    d. No, not definitely not

[*Next, there are three blocks of questions, A, B and C. Each block includes four similar (but not identical) sets of questions. These bocks must be put in **random** order. That is, it should be **randomized** whether a respondent first receives Questions 27 – 30 and then Questions 31 to 34 and then Questions 35 to 38 or whether the ordering will be different (e.g., first Q31 to 34, then Q27 to 20 and then Q35 to 38). Please take care in programming this randomization. Please also include a variable that notes in which order the blocks were asked.]*

Block A

Next, I'd like you to think of the following situation: You and a Syrian refugee nearby named Omar both participate in a study. You do not know Omar, but you know that he is a 35-year refugee from Syria. In the study, you and Omar will be asked to make choices about how to assign a certain amount of money.

27. Imagine the following game. Both you and Omar get $10. Next, you and Omar have to give any amount of that money to the other person. You decide first. Omar decides second. Importantly: Each Dollar that you transfer to Omar, the Syrian refugee, will be tripled by us and then given to Omar. That means, if you give $1 of your $10 to Omar, you then have $9, while Omar will have $10 plus 3 times $1, so $13. Then, Omar can decide to send some money back to you. Let's now play this game. How much of your $10 do you give to Omar, which we then triple?
    a. _____ [*Fill in number*]

28. Next, imagine that we play the game again. Again, both you and Omar get $10. This time, Omar decides first and you second. Imagine that Omar, the Syrian refugee, transfers $3 of his $10 to you. That means, he remains with $7, while you get 3 times $3 (we have tripled the amount). Overall, you end up with your original $10 plus an additional $9, so $19 in total. Now, it is your turn to give money back. How much of the $19 would you transfer back to Omar?
    a. _____ [*Fill in number*]

29. Now, we'd like to play a different game. This time, you get $20. You are then asked to give any amount of that money to Omar, the Syrian refugee. This will be the end of the study. You will remain with $20 minus whatever you have given to Omar. How much would you transfer to Omar?
    a. _____ [*Fill in number*]

30. Finally, we would like to play another game. Imagine you and Omar, the Syrian refugee, both simultaneously have to choose between two options, *Cooperate* or *Not Cooperate*. That is, when you choose between *Cooperate* or *Not Cooperate*, you do not know what Omar has chosen. And Omar also does not know what you have chosen. The amount you and Omar are paid depends on both of your choices.
    1) If you choose to *Not Cooperate* and Omar also does *Not Cooperate*, you both get $5.
    2) If you choose to *Cooperate* and Omar chooses to *Cooperate*, you each receive $10.
    3) If you choose to *Not Cooperate* and Omar chooses to *Cooperate*, then you receive $20 and Omar receives $0.
    4) If you choose to *Cooperate* and Omar chooses to *Not Cooperate*, then you receive $0 and Omar receives $20.

    Would you choose to *Cooperate* or to *Not Cooperate*?
        a) Cooperate
        b) Not Cooperate

Block B

Imagine the following situation: You and a Lebanese individual nearby named Rami both participate in a study. You do not know Rami, but you do know that he is a 37-year old Lebanese citizen. In the study, you and Rami will be asked to make choices about how to assign a certain amount of money.

31. Imagine the following game. Both you and Rami get $10. Next, you and Rami have to give any amount of that money to the other person. You decide first. Rami decides second. Importantly: each Dollar that you transfer to Rami, the Lebanese citizen, will be tripled by us and then given to Rami. That means, if you give $1 of your $10 to Rami, you then have $9, while Rami will have $10 plus 3 times $1, so $13. Then, Rami can decide to send some money back to you. Let's now play this game. How much of your $10 do you give to Rami, which we then triple?
    a. _____ [*Fill in number*]

32. Next, imagine that we play the game again. Again, both you and Rami get $10. This time, Rami decides first and you second. Imagine that Rami, the Lebanese citizen, transfers $3 of his $10 to you. That means, he remains with $7, while you get 3 times $3 (we have tripled the amount). Overall, you end up with your

original $10 plus an additional $9, so $19 in total. Now, it is your turn to give money back. How much of the $19 would you transfer back to Rami?

a. _____ [*Fill in number*]

33. Now, we'd like to play a different game. This time, you get $20. You are then asked to give any amount of that money to Rami, the Lebanese citizen. This will be the end of the study. You will remain with $20 minus whatever you have given to Rami. How much would you transfer to Rami?

    a. _____ [*Fill in number*]

34. Finally, we would like to play another game. Imagine you and Rami, the Lebanese citizen, both simultaneously have to choose between two options, *Cooperate* or *Not Cooperate*. That is, when you choose between *Cooperate* or *Not Cooperate*, you do not know what Rami has chosen. And Rami also does not know what you have chosen. The amount you and Rami are paid depends on both your choices.

    5) If you choose to *Not Cooperate* and Rami also does *Not Cooperate*, you both get $5.
    6) If you choose to *Cooperate* and Rami chooses to *Cooperate*, you each receive $10.
    7) If you choose to *Not Cooperate* and Rami chooses to *Cooperate*, then you receive $20 and Rami receives $0.
    8) If you choose to *Cooperate* and Rami chooses to *Not Cooperate*, then you receive $0 and Rami receives $20.

    Would you choose to *Cooperate* or to *Not Cooperate*?

    a) Cooperate
    b) Not Cooperate

Block C

Imagine the following situation: You and a Palestinian refugee nearby named Adham both participate in a study. You do not know Adham, but you do know that he is a 33-year old Palestinian refugee. In the study, you and Adham will be asked to make choices about how to assign a certain amount of money.

35. Imagine the following game. Both you and Adham get $10. Next, you and Adham have to give any amount of that money to the other person. You decide first. Adham decides second. Importantly: each Dollar that you transfer to Adham, the Palestinian refugee, will be tripled by us and then given to Adham. That means, if you give $1 of your $10 to Adham, you then have $9, while Adham will have $10 plus 3 times $1, so $13. Then, Adham can decide to send some money back to you. Let's now play this game. How much of your $10 do you give to Adham, which we then triple?

    a. _____ [*Fill in number*]

36. Next, imagine that we play the game again. Again, both you and Adham get $10. This time, Adham decides first and you second. Imagine that Adham, the Palestinian refugee, transfers $3 of his $10 to you. That means, he remains with $7, while you get 3 times $3 (we have tripled the amount). Overall, you end up with your original $10 plus an additional $9, so $19 in total. Now, it is your turn to give money back. How much of the $19 would you transfer back to Adham?
    a. _____ [*Fill in number*]

37. Now, we'd like to play a different game. This time, you get $20. You are then asked to give any amount of that money to Adham, the Palestinian refugee,. This will be the end of the study. You will remain with $20 minus whatever you have given to Adham. How much would you transfer to Adham?
    a. _____ [*Fill in number*]

38. Finally, we would like to play another game. Imagine you and Adham, the Palestinian refugee, both simultaneously have to choose between two options, Cooperate or Not Cooperate. That is, when you choose between Cooperate or Not Cooperate, you do not know what Adham has chosen. And Adham also does not know what you have chosen. The amount you and Adham are paid depends on both your choices.
    9) If you choose to *Not Cooperate* and Adham also does *Not Cooperate*, you both get $5.
    10) If you choose to *Cooperate* and Adham chooses to *Cooperate*, you each receive $10.
    11) If you choose to *Not Cooperate* and Adham chooses to *Cooperate*, then you receive $20 and Adham receives $0.
    12) If you choose to *Cooperate* and Adham chooses to *Not Cooperate*, then you receive $0 and Adham receives $20.

    Would you choose to *Cooperate* or to *Not Cooperate*?
        a) Cooperate
        b) Not Cooperate

D. Section D

39. In your view, to what extent are the following resources scarce in this neighborhood? Please rate it from 0 (not scarce at all) to 10 (very scarce). [*Fill in number*s]
    a. Water: _____
    b. Electricity: _____
    c. Food: _____
    d. Supplies: _____
    e. Clothing: _____

40. In the last month, how many Syrian and Lebanese individuals have you interacted with. This does not include your family or friends. [*Fill in number*s]

a. Syrians: _____
b. Lebanese: _____

41. We have spoken to many people in this area and they have all described themselves in different ways. Some people describe themselves in terms of their religion or nationality. Others describe themselves in economic terms, such as working class, middle class, or a farmer. Which specific group do you feel you belong to first and foremost? [*Read out answer choices*]
    a. Nationality
    b. Religion
    c. Class

42. On a scale from 0 to 100, where 0 means (very cold) and 100 means (very warm), how warm or cold do you feel toward Syrian refugees?
    a. _____ [*Fill in number*]

43. Lebanon has seen migrants come from many countries. Two big groups are Syrians and Palestinians. To what extent do you think these two groups are similar or different? Please answer on a scale from 0 (very similar) to 10 (very different).
    a. _____ [*Fill in number*]

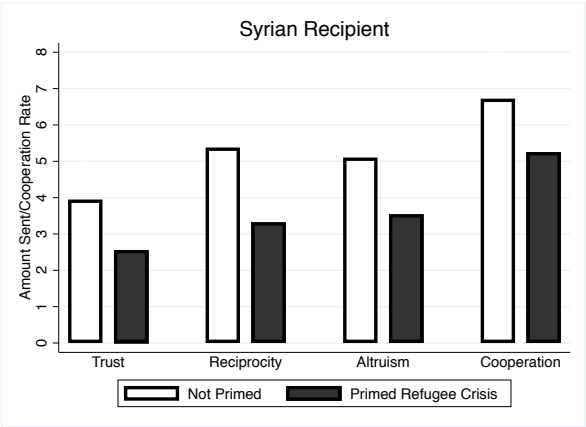
44. Last, would you be happy to give us your phone number so that we can stay in touch with you?
    a. _____ [*Fill in number*]

Thank you very much for agreeing to participate in this survey. Your participation means a lot to us!

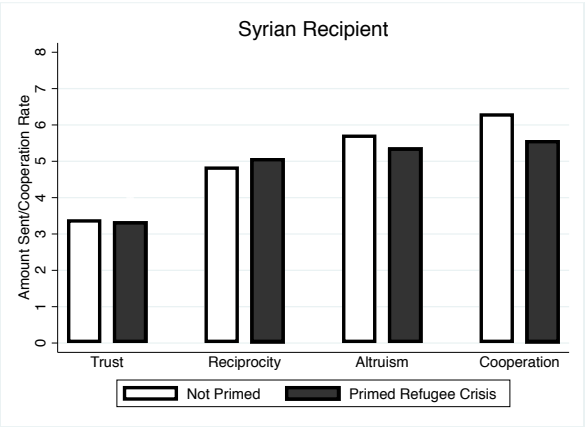
[End of survey]

Figure 6: Effect heterogeneity by altitude

(a) Above pre-registered cutoff.



(b) Below pre-registered cutoff.



Notes: The figures show the treatment averages by identity-category as a function of refugee exposure. We only include answers from the first identity-category of each respondent.