How Does Past Experience with Civil Conflict Influence Support for Refugees? Observational and Experimental Evidence from the Ivoirian Refugee Crisis in Liberia

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PRELIMINARY DRAFT

Abstract

Indigenous host communities are essential providers in refugee crises. Yet the decision to support refugees is poorly understood, particularly among host populations previously affected by violent conflict. In this paper, we evaluate the relative influence of emotive, rational, and identity motivations in the decision to provide support to refugees. Second, we evaluate how the relative influence of these motivations changes when the host population has itself experienced civil conflict. To do so, we use observational and experimental survey data from 62 host communities in the Liberia-Côte d'Ivoire border region. To measure the relative influence of emotive, rational, and identity motivations, we employ a conjoint experiment to test the influence of 5 randomized refugee attributes indicating identity, distress, and remunerative capacity on whether a hypothetical refugee family is hosted. In support of emotive explanations of hosting behavior, we find that refugee distress dominates decisions on which refugees to host. We next examine how one important wartime experience affects subsequent hosting behavior: violence. Outgroup biases are lower and preferences for the distressed are higher among individuals with high levels of prior exposure to wartime violence. Turning to observational data and using village fixed-effects to control for selective refugee movement, we show that violence-affected Liberians host more refugees, do so for longer, host more outgroup refugees, and are more likely to host refugees who were sick or directly affected by violence. We use formal mediation analysis, a psychological prime, and qualitative data to argue that these results are driven by empathy rather than general altruistic preference shifts or other mechanisms.

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1 Introduction

Since 1975, over 75 million civilians in Africa alone have fled their home country due to violence[1]. These refugee populations are at once among the world's most vulnerable and the most difficult for whom to provide humanitarian assistance. Refugee crises can occur with little warning, and refugees tend to flee en masse into remote regions of countries that themselves are not fully secure from spillover violence. Following a crisis onset, shifting conflict dynamics cause highly variable refugee flows. These factors greatly challenge the response capacities of humanitarian actors and point to the critical role of indigenous host communities during refugee crises. Prior to the mobilization of international and host-country government resources, host communities are the primary providers of refuge. After the establishment of refugee camps, host communities continue to serve an important role as ongoing hosts, first-providers to new waves of refugees, and otherwise.

At the same time that host communities play a critical role in providing support for refugees, they are also likely to have suffered large-scale conflict in their recent past: Of the 546 major refugee movements in Africa since 1975, 370 (67%) have sent refugees into regions previously affected by large-scale civil conflict within a generation[2].

These observations raise a series of important questions: Given the risks that displaced populations pose to their hosts, including the spread of disease, the depletion of scarce resources (Lischer 2007), and the spread of violence and conflict (Salehyan and Gleditsch 2006), why would hosts host? In particular, what is the relative influence of emotive, rational, and identity motivations in the decision to support refugees? Do host populations support all refugees equally, or do they exhibit particular biases against types of individuals or groups? And how do the answers to these questions change when the host population has itself experienced conflict in its past?

We engage these questions in the context of the Ivoirian refugee crisis in Liberia. In November of 2010 a disputed election triggered a short civil war in which a diverse and overwhelming population of refugees was displaced into a region of Liberia that itself was ravaged by ethnic civil war from 1990-2003. We focus on the behavior of Liberian hosts towards Ivoirian refugees, examining linkages between Liberians' past exposure to conflict and their support for refugees. Our outcome of interest is support for refugees, which we operationalize (and measure) as having two components: 1)

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[1] Author calculations from UNHCR data: Accessed via `http://popstats.unhcr.org` [further explanation]
[2] Author calculations from UNHCR data: Accessed via `http://popstats.unhcr.org` [further explanation]

material support for refugees, such as the provision of food or shelter, and 2) variation in willingness to support refugees as a function of refugee attributes, such as refugee distress, identity, gender, or occupation.

To frame our analysis, we engage with competing literatures on the role of emotive, rational, and identity-based determinants of other-regarding behavior in conflict-prone contexts. Emotive explanations of altruistic behavior focus on the role of sympathy, empathy, and prosociality[3]. In the context of a refugee crisis, host populations will be driven to support refugees out of sympathy felt for those facing hardship, or due to intrinsic altruistic motivation. When the host population itself has experienced civil conflict, support for refugees will be greater than it otherwise would be because hosts empathize with refugees, or because conflict-affected populations experience a "prosocial" preference shift that drives altruistic motivation (Bellows and Miguel 2009; Gilligan, Pasquale and Samii 2014; Voors et al. 2012). Rational explanations of behavior, by contrast, suggest that hosting behavior will be driven either by the material benefits associated with hosting refugees, or by instrumental calculations in which one increases her social "insurance network" on which to draw in the event of future conflict. Lastly, identity-based explanations center on the role of ingroup norms and social ties in driving support for refugees. Models of identity polarisation during conflict, moreover, suggest that identity biases hardened during conflict persist after conflict and will therefore dominate altruistic motivations in the decision to support refugees (Fearon and Laitin 2000; Horowitz 1985; Sambinas and Shayo 2014).

To test these competing hypotheses, we employ observational and experimental survey data from 62 former host communities in the Liberia-Côte d'Ivoire border region. To test whether emotive, rational, or identity motivations drive the decision to host refugees, we conduct a conjoint survey experiment in which respondents imagine themselves the town chief amidst another (hypothetical) refugee crisis[4]. Respondents are asked to choose between two refugee families whose profiles are experimentally varied across five attributes: gender of the household head, ethnicity, religion, occupation, and level of hunger[5]. These attributes were selected to reveal information on what we

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[3]Of course, emotions are also a powerful driver of negative other-regarding behavior in conflict-prone environ. Petersen (2011), for example, argues that conflict creates emotions of fear, anger, resentment, contempt, and hatred which can be manipulated by political entrepreneurs for mobilization against outgroups.

[4]While the set-up is hypothetical, the prospect of a future refugee crisis is real. Smaller flows of refugees into Liberia are ongoing in response to the fluid situation in Côte d'Ivoire. The fundamental issues in the Ivoirian crisis remain unresolved, and the next Ivoirian election will be in the fall of 2015.

[5]Because roughly half of the sample is illiterate, attributes were presented using pictographs. For full details, see

believe are the key refugee-level factors adjudicating whether a refugee is hosted, and correspond to emotive, rational, or identity-based motivations to host. The conjoint experiment is particularly well-suited to our context because it incorporates the multidimensional choice problem faced by potential hosts in deciding who to host under scarce resources, and forces the respondent to reveal trade-offs between these competing motivations. Moreover, by providing respondents with multiple justifications for their response, it ameliorates social desirability concerns (Hainmueller, Hopkins and Yamamoto 2014). In Appendix 3, we demonstrate that gameplay in the conjoint survey experiment predicts real-world support for refugees, and is not merely a measure of preferences[6].

The conjoint experiment reveals large preferences for distressed refugees, smaller biases against outgroup refugees, and limited influence of refugees' ability to remunerate hosts. Biases against outgroup refugees are reduced by 50% when refugee families are not equal with respect to distress, while the positive effect of distress on the probability of hosting is as large among the sub-sample of outgroup refugees as in the full sample. These results clearly suggest that refugee distress dominates Liberians' decisions on who to host, thus providing support for emotive motivations as dominant in the decision to support for refugees.

We next turn to observational data on the extent to which Liberians provided material support to refugees during the crisis. Our survey data confirm what news reports and humanitarian situation reports have already documented: by any standard, Liberians were overwhelmingly hospitable hosts. Despite the significant material costs of hosting and limited associated material benefits, Liberians provided food and shelter to an average of 7 refugees for an average of 5 months.

We next consider how the experience of civil war may have affected Liberians' support for refugees. We emphasize the importance of this question given the spatial autocorrelation of conflict. While we are limited in the extent to which we can answer this question because we do not observe the population-counterfactual — how Liberians' support for refugees would have been different in the absence of the Liberia civil war — we are able to examine the effect of one of the most important experiences during civil conflict: direct exposure to violence at the individual level.

We find that preferences for the distressed are larger, and biases against outgroup refugees are

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Section 4 and Appendix 2.

[6]Hosts who express preferences for distressed refugees in the survey experiment hosted more distressed refugees during the actual refugee crisis, and did so for longer. Hosts who express outgroup biases in the survey experiment hosted fewer out-group refugees, and were generally less forthcoming in support for refugees. We emphasize that few survey experimental studies verify the external validity of the experiment in this fashion.

lower, among respondents with high levels of prior exposure to wartime violence, as well as among a random sample of respondents primed with the recollection of their own wartime experiences prior to the conjoint experiment. Turning to observed support for refugees and using village fixed-effects to avoid problems of selective refugee movement or sample bias, we show that Liberians with high levels of exposure to violence during the Liberia Civil War host more Ivoirian refugees, do so for longer, and have a preference for refugees who are sick or fleeing direct violence. We conduct a formal sensitivity analysis and show that these effects are robust to omitted variables bias. We interpret these findings as evidence that past experience with violence can increase the importance of "positive" emotive motivations, in sharp contrast to theories by which violence causes fear, anger, contempt, and hatred against outgroups (Petersen 2011). Indeed, our results are all the more notable because we find violence-affected Liberians are more willing to host outgroup refugees who are co-ethnic to their wartime rivals and the most likely perpetrators of their victimization.

An important limitation of our analysis of how civil war affects Liberians' support for refugees is that it relies on claims to the individual-level rather than population-level counterfactual. This analysis will not detect the many important mechanisms by which conflict affects hosting behavior via mechanisms vary at the population-level. For example, during conflict elites may generate outgroup animosity among the population as a whole in response to violence, even if violence-affected individuals hold less outgroup bias relative to the less-affected (Fearon and Laitin 2000; Horowitz 1985; Sambinas and Shayo 2014). As a consequence, it would remain an open question whether our individual-level results aggregate to the population level. This is important from a policy perspective as well: can conflict affected populations be expected to provide more or less support to refugees, and they be more or less biased against particular groups? To partially address this problem, we aggregate our individual data at the village level (N=62) to examine how aggregate village-level support for refugees is associated with village-level violence exposure during the war. By aggregating to the village level, our estimated effect will incorporate individual-level mechanisms as well as village-level mechanisms (such as manipulation by elites in response to violence). Our village level results mirror our individual level findings and remain robust to county fixed-effects and geographic control variables.

Our final section returns to an individual-level analysis to explore the mechanisms that may link past experience with violence to hosting behavior. We exploit empathetic prime prior to

the conjoint analysis, field interviews and qualitative sources to suggest that empathy is driving altrusitic behavior toward refugees. To further justify our interpretation, we consider, and provide evidence against, several alternative mechanisms.

The paper makes several contributions to academic and policy literatures. First, we provide evidence that emotive motivations, namely sympathy, instrinsic altruism, and empathy for distressed refugees, are powerful drivers of hosts' behavior towards refugees. These motivations are stronger than economic motivations, and they can dominant war-hardened identity biases. We also contribute to a growing empirical literature on the lasting micro-level effects of violence on post-war life by examining how past exposure to violence affects support for refugees. This literature has documented a robust positive correlation between past exposure to violence and prosocial or altruistic behavior across many settings, but has been fully unable to identify the mechanisms by which this occurs. We combine a psychological prime, quantitative mediation analysis and qualitative sources to suggest a novel mechanisms by which past experience with violence affects altruistic behavior after war: empathy.

From a policy perspective, we provide evidence to inform a new approach to refugee management in which local integration of refugees is supported as a flexible complement to camp-based management (UNHCR 2013). We show that in the context of local integration, the host population may prefer to host ingroup refugees, but that exception is made for the most distressed refugees, particularly when the host population has itself experienced conflict. Lastly, we demonstrate that conjoint experiments can be productively conducted in the field and among illiterates using pictographs.

The paper proceeds as follows: Section 2 provides a brief background on the Ivoirian refugee crisis in Liberia. Section 3 develops the core hypotheses. Section 4 describes the data and experimental protocol and Section 5 presents the empirical results. Section 6 discusses the results and considers causal mechanisms, and Section 7 concludes.

2 Background

Liberia is a West African nation of roughly 3.5 million people. Between 1990 and 2003, two civil wars (1990-97, 1999-2003) killed an estimated 250,000 people and displaced a large majority of the

population[7]. In 2003, a UN-brokered peace agreement brought peace to the country as well as a large UN peacekeeping mission. Liberia has held two peaceful elections since the end of the war and is slowly rebuilding. Neighboring Côte d'Ivoire is much larger, with a population of 15 million. Historically one of the most successful African countries, Côte d'Ivoire has faced a protracted crisis since 2000 between its Northern and Southern populations, which are majority Muslim and Christian, respectively.

The Ivoirian Refugee Crisis in Liberia

The Liberia-Côte d'Ivoire border bisects the traditional territory of three ethnic groups–the Grebo, Krahn, and Gio–who occupy the Southern, Central, and North portions of the border region respectively [8]. Appendix 1 provides a map of the Liberia-Côte d'Ivoire border region, including the primary zone of origin of Ivoirian refugees in Liberia. The Liberian side of the border is largely homogeneous within regions, with roughly 80% of the population in each region identifying with the region's majority ethnic group (DHS2007). The Ivoirian side of the border is ethnically mixed. Since the late colonial period, successive waves of economic migrants have migrated to the region to make cocoa and rubber plantations. Many of these migrants were Muslims from Northern Côte d'Ivoire and elsewhere in French West Africa. A smaller proportion were from Eastern and Central Côte d'Ivoire. The indigenous population, coethnic to Liberias indigenous border populations, is now a large minority in the region. The pattern of economic development has generated economic and political competition over scarce resources between the allogene "foreigners" and their allochtone allies, and the indigenous Autochtone (McCauley 2013).

In November of 2010, a disputed election in Côte d'Ivoire between Allassan Outarra, the preferred candidate of the southern migrant population and Northern, largely Muslim Côte d'Ivoire, and Laurent Gbagbo, the preferred candidate for the autochtone of Southern Côte d'Ivoire, initiated a short civil war that left over 3000 dead and over 300,000 displaced. At least 150,000 fled into rural Liberia in 2011, with the majority fleeing in March-July of 2011. The conflict sent a diverse population of refugees into Liberia. Armed groups from both sides perpetrated "collective targeting" based on ethnic identity, causing massive displacement (Steele 2009). Migrants outside

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[7]During the Liberian war, 36% of Liberians were at one point refugees, and 74% were at one point internally displaced. These sets are not disjoint. (2008)

[8]In Côte d'Ivoire, these ethnic groups are know as Kroumen, Guere, and Yacouba, respectively.

the border region largely fled to Northern Côte d'Ivoire. Travel was more dangerous for migrants in the mixed border region, who fled in significant numbers into Liberia. Indigenous groups in the border region fled into Liberia, finding refuge with coethnics across the border.

The international community was poorly prepared to handle the refugee crisis. The first refugee camps were not constructed until April of 2011, five months after the start of the crisis. After the onset of the crisis, refugee flows into Liberia remained variable and difficult to predict, straining the response capacities of humanitarian providers. As a result, a large burden of the hosting responsibilities fell to Liberian communities in the border region. Host communities provided support to refugees in numerous ways. In this study, hosting a refugee is defined as welcoming a refugee family to "sleep under your roof and eat from your pot". Under this definition, 80% of our sample hosted at least one refugee. On average, respondents hosted 7.1 refugees for an average of 5 months. Other forms of support included providing meals, water, or temporary refuge to refugees on their way to other communities or refugee camps.

Village chiefs and representatives generally served as key intermediaries between newly arrived refugees and hosts, playing matchmaker between refugees and willing hosts. We heard no reports of coercion into hosting by either Liberian village elites or refugees— the decision to host was voluntary. Cross-border ties also played a major role in Liberians' decision to host. x% of the refugees hosted in our sample had previously hosted their Liberian host during the Liberian civil war. Generally, these arrangements were more common after the initial months of the crisis. During the height of the refugee crisis, the majority of refugees taken in by host communities were strangers. A full analysis of the role of cross-border ties during the Ivoirian refugee crisis is beyond the scope of this project and the topic of a separate research project. For the present purposes, we point out that cross-border ties and past experience as a refugee are empirically uncorrelated with our key independent variable of interest: experience with violence during the Liberian civil war.

Hosting did not confer material gains that outweighed the direct costs of hosting. Ivoirian refugees fled with little resources with which to remunerate hosts, and humanitarian providers were unable to adequately provide support to communities hosting refugees, resulting in significant strains on host community food supplies, sanitation facilities and water sources, and an early onset of coping strategies associated with the"hunger" season (Brady et al. 2012; UNHCR 2012). In our sample, only 6% of respondents agreed that the refugees "brought benefits to your community",

and only 15% of refugee families remunerated their hosts, most commonly through farming (15%) or NGO-provided rations (6%).

3 Theoretical Background

In this section, we first highlight the various motivations that may lead potential hosts to host refugees, drawing on literatures from political science, psychology, and economics. The motivations to host refugees can be grouped broadly into emotive, rational, and identity-based motivations. This background suggests that refugee *distress*, *identity*, and *remunerative capacity* will be influential in hosts' decisions and produces predictions for the direction of their influence. We then discuss the ways in which the Liberian Civil War may have affected the relative magnitudes of emotive, rational, and identity determinants.

Finally, we turn to the way in which one important wartime experience might affect hosting behavior in the future: exposure to violence. We derive hypotheses regarding how past exposure to wartime violence affects (1) the level of support provided to refugees, and (2) the influence of refugee identity, distress, and remunerative capacity in determining whether a refugee is hosted. This analysis is particularly relevant considering the spatial auto-correlation of conflict— most refugees flee into regions previously affected by violence.

Why do Hosts Host?

Hosting refugees is unlikely to confer material gains that outweigh the direct costs of hosting. Yet numerous historical examples demonstrate the risks posed by displaced populations to their hosts, including the spread of disease, the depletion of scarce resources, or the spread of violence (Lischer 2007; Salehyan and Gleditsch 2006). Why do host communities accept these risks and provide refuge to strangers, often at great costs to themselves?

Sympathy-induced Altruistic Behavior

The first motivation highlighted here results from sympathy felt for refugees fleeing conflict. Sympathy refers to emotional distress resulting from witnessing another in need. This emotional state, in turn, motivates action to reduce the distress of he who is in need (Batson and Powell 2003).

The motivation to reduce the distress of another is due to either (1) egoistic motivation to reduce one's own aversive arousal, or (2) a genuinely altruistic and compassionate response beyond egoistic motivations, sometimes referred to as intrinsic human prosociality (Batson, Fultz and Schoenrade 1987). Under this logic, the plight of refugees initiates a sympathetic emotional response among potential hosts, and this emotional response drives potential hosts to host refugees. We do not attempt to distinguish between sympathy-induced altruism and intrinsic altruistic motivation. It suffices to conclude that humans have a natural inclination to assist those in need.

Sympathy-driven or intrinisic altruism not only provides a logic by which potential hosts will decide to host, but also has implications for which refugees will be hosted. The emotional response or intrinsic motivation driving altruistic behavior is increasing in the distress of he who is in need.

H1 Sympathy-Induced Altruism: The probability that a refugee is hosted is increasing in the distress of the refugee family.

Economic Motivations

Humanitarian reports during the crisis and our data indicate clearly that hosting refugees is a net loss for hosts, but this is not to preclude economic motivation entirely. Standard models of material utility maximization suggest that the willingness of potential hosts to host is increasing in the material welfare thus derived. Refugees may provide a ready source of skills and labor, direct financial compensation, or may be entitled to food rations from service providers.

H2 Economic Motivation: The probability that a refugee is hosted is increasing in the remunerative capacity of the refugee family.

Identity-Based Motivations

Norms of ingroup reciprocity or altruism provide another potentially powerful incentive to host refugees. There are also several mechanisms by which hosts may discriminate against outgroup refugees. Economic models of discrimination posit that individuals attach positive utility to the

welfare of fellow ethnic group members but less utility to the welfare of outgroup members (Tajfel 1978), or have a "distaste" for minorities for which they must be compensated (Becker 1957).

Economic discrimination may not be the only mechanism by which hosts discriminate against outgroup refugees. Ingroup refugees may be easier to host because they share "a reservoir of common cultural material–language, experience, and understandings about modes of interaction," that make co-habitation easier (Habyarimana et al. 2007). As one respondent explained her decision to host in pretesting the conjoint survey experiment: "Now because they and I can attend the same Church and we can understand the same dialect and they can also make farm like me so I will save them".

H3 Cultural distance: The probability that a refugee is hosted is decreasing in the cultural distance between the refugee and potential host[9].

To summarize, emotive, rational, and identity-based arguments provide primary logic by which potential hosts may decide to host. The relative magnitude of these influences is an open empirical question to which we return in the results.

Past Experience during Conflict and Support for Refugees

We now highlight how past experience during conflict may affect support for refugees. We enumerate population-level wartime processes, though we do not observe a counterfactual for this population. At the individual level, we derive hypotheses regarding the effect of one of the most profound experiences of wartime: exposure to violence. We generate predictions for how these experiences affect (1) the level of support provided to refugees, and (2) the influence of refugee identity, distress, and remunerative capacity.

Empathetic Capacity

Empathy is defined as the ability to understand and share in another's emotional state or context (Cohen & Strayer, 1996, p. 988). It has both affective and cognitive components, which are inex-

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[9]We operationalize identity as the "cultural distance" between the refugee and potential host, which takes a value of 0,1, or 2 depending on whether the refugee and host share the same religion and ethnicity, ethnicity or religion, or neither ethnicity nor religion, respectively.

tricably related. The affective component of empathy involves an emotional response to another's affective state, while the cognitive component involves *understanding* another's feelings. The affective and cognitive components of empathy, which are enabled by past experience with hardship, lead to vicarious arousal when observing another's suffering (De Waal 2008). Vicarious arousal, in turn, results in action to alleviate another's suffering through in either or both of (1) egoistic motivation to reduce one's own aversive arousal, or (2) a genuinely altruistic and compassionate response beyond egoistic motivations (Batson, Fultz and Schoenrade 1987). Note that empathy is distinguished from sympathy by the existence of vicarious arousal. Ceteris paribus, the emotional response associated with observing another in need will be greater if one is able to empathize.

To the extent that Liberians have suffered violence or the deprivations of displacement in their past, they can be expected to empathize with those fleeing violence today. Empathy-driven altruistic behavior provides another logic by which Liberians choose to host refugees, and reinforces Hypothesis 1 regarding the influence of refugee distress. We return to empathy-driven altruism in our discussion of how past experience with violence affects individual-level heterogeneous hosting behavior, below.

Polarised Identities

Research in political science, psychology and behavioral economics suggest conflict hardens outgroup biases. There are several mechanisms by which this may occur. Political scientists tend to emphasize constructivist or instrumentalist mechanisms (Fearon and Laitin 2000; Horowitz 1985; Rohner, Thoenig and Zilibotti 2012), or hardened outgroup animosities as a direct result of wartime atrocities (Kaufmann 1996). The constructivist logic holds that ethnic identities are flexible constructions which may be manipulated by political entrepreneurs or strategic individuals during wartime (Fearon and Laitin 2000). In conflict, faction elites may have incentives to drum-up ingroup sentiment and outgroup prejudice, while individuals may gain from greater ingroup attachment and outgroup animosity (Sambinas and Shayo 2014). This may be particularly true when groups were intermixed during conflict, as they were in the Liberia civil war (Kaufmann 1999; Posen 1993). After war's end, "hardened" identity boundaries may persist: Memories of conflict endure, and postwar peace may be marked by ongoing tensions along war's identity cleavages, providing ongoing incentives to elites or citizens to maintain strong identity boundaries.

Reciprocity

Another important potential motivation to host refugees is reciprocity. Reciprocity motivates behavior when an individual feels *obligated* to act on someone's behalf because of some prior favor received from that someone. This may take the form of direct a reciprocal obligation in which hosts host those who hosted them, or may operate more broadly, wherein hosts are motivated to host by a general sence of obligation to strangers, since strangers once hosted them (CITE). As noted in Section 2, many Liberians' hosted the same Ivoirians that once hosted them during the conflict. While we highlight reciprocity as an important determinant of Liberians' support for refugees, a full analysis of the role of cross-border ties and reciprocity on hosting behavior is beyond the scope of the present analysis, though it is the subject of ongoing research.

Summary

Empathetic capacity, polarised identities, and reciprocity provide the primary mechanisms by which past experience with conflict may affect hosting behavior. Empathetic capacity and polarised identity, in particular, serve to reinforce the rival predictions that either emotive or identity-based explanations will dominate the decision to host refugees. We now move beyond population-level predictions to derive hypotheses regarding the effect of one of the most profound experiences of wartime, exposure to violence, which varies and individual level and thus provides inferential traction.

Wartime Violence and Hosting Behavior

How does violence affect one's willingness to host refugees in the future? Two competing bodies of research provide rival predictions. On the one hand are those who link the experience of violence to polarised identities. When violence is indiscriminate, as was much of the violence in the Liberian Civil War, insecurity may lead victims to increase ingroup identification as a means of security against future violence, much as Fearon and Laitin argue that marginal group members increase ingroup affiliation to improve their status (Fearon and Laitin 2000; Kalyvas and Kocher 2007). When civilians can never be sure of their safety during conflict, the safest course may be to ally oneself strongly with one side (Wood 2008). A logical manifestation of greater ingroup attachment

is greater support for ingroup refugees: hosting cross-border brethen maintains high standing as a member a particular ethnic group. Another mechanism highlighted in the literature on identity polarisation is lower intergroup trust. When violence falls along identity lines in inter-mixed regions, as it did during the Liberia civil war, violence may erode trust as victimization causes individuals to update downward their beliefs about the trustworthiness of other groups (Posen 1993).

H4 Identity Polarisation: Violence-exposed individuals are more responsive to refugee identity, host fewer outgroup refugees and host more ingroup refugees.

Other research suggests that experience with violence may result in less hosting behavior in general. Violence can lead to lasting PTSD and associated anti-social behavior (King et al. 1998), or a general suspicion of foreigners born from insecurity.

H5 Violence-induced PTSD/insecurity: Violence-exposed individuals host fewer refugees.

Yet conflict need not breed outgroup biases, and several recent studies have demonstrated decidely positive, prosocial and altruistic responses to conflict. Blattman (2009) finds that youth abducted into the LRA in Uganda are significantly more involved in political life after war, while Bellows and Miguel (2009) find that violence-affected individuals and communities in Sierra Leone have higher levels of civic participation and contributions to public goods. Gilligan, Pasquale and Samii (2014) and Voors et al. (2012) show that conflict generates more prosocial behavior and altruistic preferences, respectively. They show this with respect to behavior in close-knit, ethnically homogeneous villages, and their results may be evidence of parochial altruism, but their results would also be consistent with a more general altruistic or prosocial shift in behavior.

What mechanisms drive the positive response to conflict? One mechanism may come from post traumatic growth theory (PTGT), which posits positive change and personal growth in response to traumatic life events. According to PTGT, trauma may lead to personal development and growth when an individual engages cognitively with an experience that "shatters the individual's understanding of the world and his or her place in it". The traumatic experience becomes a turning point from which an individual develops new goals, world views, wisdom, and a forward orientation

14

(Tedeschi and Calhoun 2004). Greater altruism is not explicitly linked to PTGT in Tedeschi and Calhoun (2004)'s seminal formulation, but nonetheless it is a plausible result of the process they describe.

Another mechanism by which violence may affect behavior and preferences is through empathy. Empathy refers to vicarious arousal resulting from the apprehension or another's suffering. When an individual empathizes with another, they are drawn to alleviate the other's suffering through altruistic action, either to reduce their own aversive arousal, or because of an intrinsically altruistic response (Batson and Powell 2003). Research in psychology has shown that individuals with past experience of need are more likely to empathize with those in need in the future (De Waal 2008). Vicarious arousal may result from previously experiencing the same condition of he who is in need, but may also be associated with "feeling a vicarious emotion that is congruent with but not necessanly identical to the emotion of the other" — in other words, vicarious arousal may result from a general experience of hardship in the past that makes one generally more inclined to become emotionally aroused in response to others' conditions of need (pg 20) (Batson, Fultz and Schoenrade 1987; Wispé 1986). We therefore expect violence-affected individuals will be more able to empathize with those fleeing violence or facing hardship generally, resulting in greater levels of altruistic support for refugees.

Prosocial preference shifts in response to conflict and empathy-driven altruism both imply that violence-affected populations will provide greater support to fleeing refugees, and that they will be more responsive to distress relative to identity and remunerative capacity. We group these mechanisms into a single hypothesis predicting greater support for refugee and greater regard for refugee distress. In Section 6, we turn to disaggregating these mechanisms.

H6 Empathetic or Prosocial response to violence: Violence-affected Liberians provide greater support to refugees and are more responsive to refugee distress and less responsive to refugee identity or remunerative capacity

A final mechanism by which past experience with violence could occur if violence results in persistent insecurity and fear of future conflict. In Liberia, 25% of the population believes that peace is only temporary(Vinck, Pham and Kreutzer 2011). One logical response to insecurity and fear

of future violence is to increase cross-border ties on which to drawn in the event of future conflict. Victims will host ingroup refugees because relationships are more readily built among coethnics.

H7 Insecurity-driven Instrumental hosting: Violence-affected Liberians provide greater support to (ingroup) refugees as a means to increase

Summary

This section has raised emotional, economic, and identity motivations for hosting refugees, each of which can be linked to a hypothesis summarized in Table 2. These motivations provide rival predictions yet may (and likely do) operate simultaneously. The relative magnitude of their influence in the decision to host refugees is an open empirical question. Do outgroup biases hardened by violence dominate the host population's sympathy for distressed refugees? Alternatively, do violence-induced sympathies crowd-out outgroup biases? Below, we operationalize these motivations in attributes immediately observable to hosts when considering whether to host a refugee family and test their relative influences through an innovative, experimental survey design. We then analyze observed support for refugees.

Table 1: Summary of Hypotheses

	Influence of Attribute on Whether Hosted			
Hypotheses	Refugee Distress	Refugee Identity	Refugee Remunerative Capacity	Aggregate Support for Refugees
H1: Sympathetic Altruism	+			
H2: Economic Motivations			+	
H3: Identity Biases		-		
Change in response to past wartime violence				
	Δ in magnitude of attribute influence			
H4: Polarised Identity	-	+		+ (ingroup)
H5: Insecurity				-
H6: Prosocial Preference Shift	+	-	-	+
H6: Empathetic Capacity	+	-	-	+
H7: Instrumental hosting		+		+

16

4 Data and Measurement

Sample

We employ observational and survey experimental data from 62 communities in the Liberia-Côte d'Ivoire border region. The 62 communities were selected purposefully in the following manner: 30 were selected as part of the baseline assessment for the NGO program–15 to receive an NGO program in 2014 and 15 comparison communities selected using pre-treatment census data and Mahalanobois matching (Sample 1)[10]. 32 communities were selected as part of an endline assessment of the well-being of Liberian host-communities 1.5 years after the height of the refugee crisis: 16 were designated host communities by the Liberian government, and a matching 16 communities were selected for comparison (Sample 2). Future versions of this paper will use detailed pre-treatment village-level census data to show how our sample differs from the representative sample of communities within each district, and discuss implications for the generalizability of the findings[11]. In each community, we randomly sample 20 citizens and purposefully sample four village leaders.

The designated host communities (DHC) were part of policy experiment in which local integration was used as a temporary means of service provision to refugees during the construction of refugee camps. Starting 2 months after onset of major refugee flows, refugees were directed to DHCs, where host structures were built and humanitarian support by NGOs and INGOs was concentrated. After the refugee camps were constructed, the DHCs continued to complement refugee camps. We might be concerned that this policy fundamentally changed patterns of refugee-host relationships, as DHCs were exposed to greater, more diverse numbers of refugees and greater humanitarian services. Three points may alleviate our concerns. First, our core outcome is a survey experiment delivered in the same manner to all communities. Second, our analysis uses village fixed effects. Third, our definition of hosting (accepting refugees to "sleep under your roof and eat from your pot") is distinct from support in DHCs, where separate structures were constructed for refugees. The main results use the full samples. Appendix 6 shows the core results without the DHC sample, and the results are substantively unchanged.

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[10]The NGO program sought to strengthen the economic recovery of host communities via the provision of agricultural tools and training. It selected communities using multiple criteria: (high) experience hosting refugees, high to moderate levels of poverty, and previous exposure to NGOs.

[11]Because our analysis uses on within-village variation, the sample selection does not affect internal validity.

Observational Data

Surveys were conducted from June 2013 to September 2013. The main outcomes for the observational analysis come from a detailed module on respondents' hosting experiences. We asked about the number and duration of refugees hosted, refugee well-being, ethnicity, and religion. In Sample 1, questions were asked with general reference to all refugees hosted. In Sample 2, collected after Sample 1, the survey instrument was updated and hosting experiences were collected "household roster" style, in which respondents were first asked to recall all refugee families hosted, followed by a set of questions asked with respect to each of the refugee families. The data are compatible and so are combined for the main analysis. Appendix 5 shows the construction of all outcome and control variables in detail. The survey also included the conjoint experiment (conducted prior to the hosting module) and covered socio-economic characteristics, political attitudes, and exposure to violence during Liberia's 1989-2003 war. On average, surveys lasted about one hour.

Experimental Design

We complement the observational data with a choice-based conjoint experiment designed to elicit host population preferences for varying refugee profiles. The method behind conjoint analysis is simple: respondents are asked to imagine themselves the town chief amidst a new refugee crisis in which the number of refugees seeking refuge is greater than the capacity of the community to host (much like the Ivoirian refugee crisis of 2011-2012). The respondent is then asked to choose between two hypothetical refugee families whose attributes are randomly varied across five dimensions: gender of the household head, ethnicity, religion, occupation, and whether "carrying food". These attributes were selected to correspond to emotive, rational, and identity-based motivations for hosting refugees, forcing the respondent to reveal trade-offs between these variables. Each attribute consists of two attribute levels, as listed in Table 1, and each level is randomly assigned within each pair of refugee profiles. Religion and ethnicity are taken as key indicators of identity. Whether carrying food and gender are taken to be a key indicators of distress. Other attributes that indicate distress, such as refugee health, did not adapt well to our use of pictographs, and so were excluded. Whether "having farming skills" was taken to be a key indicator of remunerative capacity, since the economy in the Liberia-Ivory Coast border region is a subsistence farming economy. Admittedly,

farming is not a clean measure remunerative capacity because farming is also revered for cultural reasons[12].

Table 2: Refugee Attributes

Attribute	Level 1	Level 2
Gender of HH	Male	Female
Ethnicity	Co-Ethnic	Not Co-Ethnic
Religion	Christian	Muslim
Occupation	Farmer	Not Farmer
Food	Have food	Do not have food

The conjoint experiment is particularly well-suited to our context in which the host population must make difficult decisions regarding who to host, optimizing a multidimensional choice problem between refugee identity, distress, remunerative capacity, and other variables. The design allows researchers to estimate the relative weight of the refugee characteristics, as well as how these weights change as a function of background characteristics. Does identity matter more than refugee distress? How do their relative weights vary as a function of respondent background characteristics, such as wartime exposure to violence displacement, or the experimental prime (discussed below)? Moreover, since the respondent can justify their response in many ways, the conjoint experiment also makes it difficult for the respondent to game the question or infer what is socially desirable. In implementation, the conjoint experiment was immediately understood and taken as indicative of the real-world choices faced during the crisis. In Appendix 3, we validate the conjoint experiment as not only a measure of expressed preferences, but also as predictive of real-world support for refugees. We highlight that most studies do not (or are not able to) demonstrate a correspondence between survey experimental or behavioral measures of an outcome and real-world outcomes.

We impose one restriction on the randomization of attribute values to rule out highly implausible profiles. If a respondent belongs to an ethnic group that is predominantly of a single religion, then *coethnic, not coreligious* profiles are eliminated. For example, the Grebo of Southern Côte d'Ivoire and North Eastern Liberia are almost entirely Christian. Therefore profiles in which a

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[12]We were aware of this drawback throughout, but choose "farming" as the least bad measure of remunerative capacity in this setting. In pre-testing, it was primarily interpreted as an indicator of remunerative capacity. Alternatives, such as whether able to provide cash, were rare in practice (in our data no hosts report receiving cash from refugees, whereas 25% received help farming), and not of primary importance in subsistence communities poorly served by markets.

Grebo respondent is presented a *coethnic, Muslim* family are eliminated. By contrast, the Gio are predominantly Christian in Liberia but both Christian and Muslim in Côte d'Ivoire. Therefore, pure randomization is used for Gio respondents [13].

Because the host population is largely illiterate (50% in our sample) the conjoint experiment was implemented using pictographs to display attributes (see Appendix 2). In designing the pictographs, we took care to depict only the relevant attribute level while maintaining neutrality on other dimensions such as aesthetic appeal. Pictographs were printed as 3x3 inch cards, and laminated. Enumerators presented the attributes for each profile side by side, and stated the attribute level as it was laid down to ensure clear interpretation. After both profiles were laid down, respondents were asked to repeat both profiles to ensure full comprehension. A photograph of enumeration during pre-testing is provided in Appendix 2. Randomization was conducted via the survey software, and the order in which attributes were presented was randomly assigned to rule out attribute ordering effects. Each respondent successively evaluated three pairs of refugees, choosing one refugee family each time.

Priming

Research on the association of war violence and contemporary behavior requires collecting data on individuals' and communities' exposure to war violence. The survey included 9 questions on an individual's exposure to violence during the war, including violence against their self, family, village, property, as well as violence witnessed and displacement experiences. The module was randomly assigned to come before or after the conjoint experiment. The enumeration of these questions may arouse an emotional response in respondents, and it is essential that the researcher have sound justification for doing so, carefully weighing the costs to respondents against the benefits of doing so. We took several steps to responsibly collect this information. First, in the consent form, respondents were informed that the survey would ask them about their experience during the war as part of a broader study of post-conflict recovery patterns. Immediately prior to the "war experiences" section, respondents were reminded that participation was voluntary and they could decline to respond to any question. Less than 4% of responses in this module were "Refuse

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[13]In the analysis below, we exploit the opportunity to estimate Muslim discrimination while holding other cultural factors fixed, a perennial challenge for scholars. For a review, see (Adida, Laitin and Valfort 2010)

or prefer not to answer". Enumerators were trained to monitor the respondent for distress, and instructed to end the interview in the event of adverse reactions to any survey question. No such incidents occurred during the survey.

The experimental prime is introduced to shed light on the mechanism by which Liberians' past experience with civil war may affect support for refugees. Its ability to do so depends crucially on what the prime is priming. The most obvious interpretation of the prime is that it heightens the emotional and cognitive salience of respondents' past experiences during civil war— essential components of empathy. If the prime indeed increases empathetic capacity and affects preferences over refugee attributes in a manner consistent with Hypothesis 6, we can take this as evidence that empathy may be the mechanism by which past experience with violence affects support for refugees. Alternativley, the prime may activate emotions of fear or anger against perpetrators associated with past experience, and we expect gameplay be affected following Hypotheses 4 or 5.

5 Results

The conjoint experiment consists of three rounds, or "choice-tasks". In each round the respondent chooses between two refugee families whose attributes are randomly assigned. The unit of analysis is the hypothetical "refugee family", and the outcome is whether the refugee family is hosted or not.

Following Hainmueller, Hopkins and Yamamoto (2014), we estimate the the probability that a hypothetical refugee family is hosted via the following equation:

$$\texttt{Hosted}_{ijk} = \beta_0 + \gamma_1 \texttt{coethnic}_{ikj} + \gamma_2 \texttt{female}_{ikj} + \gamma_3 \texttt{farmer}_{ikj} + \gamma_4 \texttt{hunger}_{ikj} + \gamma_5 \texttt{Muslim}_{ikj} + \epsilon_i$$

(1)

where i denotes the individual, k the round or "choice task", and j the choices (two refugee families per round). In our experiment, $i \in \{1, 2, \ldots, 1230\}$, $k \in \{1, 2, 3\}$, and $j \in \{1, 2\}$. Note that each respondent i yields 6 observations in this analysis: 3 rounds, and 2 choices (refugee families) per round. Standard errors are clustered by individual. For full details, see Hainmueller, Hopkins and Yamamoto (2014). Each attribute is randomly assigned and therefore orthogonal to all other attributes. Thus, equation (1) returns unbiased estimates of the average effect of each attribute on

the probability that a refugee family is hosted. Because both outcome and independent variables are binary, the equation is non-parametrically estimated via OLS.

Figure 1: Effect of Refugee Attributes on Whether Hosted
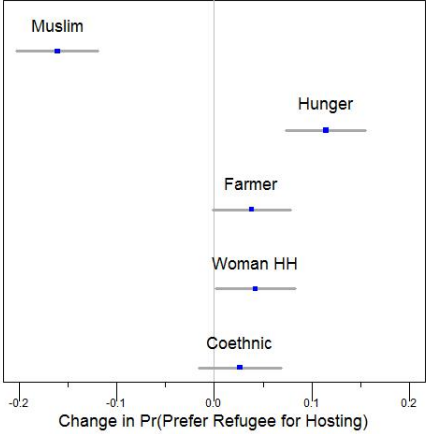
Note: This plot shows estimates of the effects of the randomly assigned refugee attributes on the probability of being hosted. Estimated by OLS with standard errors clustered by individual; bars represent 95% confidence intervals.

Figure 1 displays the main results from the conjoint experiment among the control group. A blue square indicates the point estimates and horizontal lines indicate the 95% confidence intervals. The results reveal large preferences for distressed refugees, slightly less large biases against outgroup refugees, and smaller preferences for coethnics, female headed households, and refugees with farming skills. To provide a substantive interpretation, refugees without food are 11% more likely to be hosted than refugees with food, ceteris paribus, and Muslims are 16% less likely to be hosted than Christians.

The results provide support for both rational, emotive, and identity-based motivations to support refugees. However, the question of interest is which set of motivations is most influential in the decision to support refugees? The competition is clearly between emotive and identity-based motivations, as we observe strong preferences for distressed refugees and, simultaneously, large biases against out-group refugees. How to reconcile these seemingly contradictory findings? Is this evidence of emotive determinants of support for refugees—in which the distress of the refugee is predicted to dominant hosting decisions— or identity biases? One approach to answer this question is to ask how the influence of identity is affected when refugee profiles within a choice-task are unequal with respect to identity. Because conjoint analysis reveals the marginal effect of an attribute

22

Table 3: Additional Analysis

	No Prime	No prime, unequal distress	Interactions
coethnic	0.03	0.04*	0.04
	(0.02)	(0.02)	(0.03)
woman_hh	0.04**	0.02	0.04**
	(0.02)	(0.02)	(0.02)
farmer	0.04*	0.02	0.04*
	(0.02)	(0.02)	(0.02)
hunger	0.11***	0.33***	0.13***
	(0.02)	(0.03)	(0.03)
muslim	−0.16***	−0.07***	−0.15***
	(0.02)	(0.02)	(0.03)
hunger:muslim			−0.02
			(0.04)
coethnic:hunger			−0.02
			(0.04)
R^2	0.06	0.13	0.06
Adj. R^2	0.05	0.13	0.05
Num. obs.	2745	2076	2745

$^{***}p < 0.01$, $^{**}p < 0.05$, $^{*}p < 0.1$

Column 1 shows the among the control group. Column 2 shows discrimination against Muslims decreases by 50% when we restrict the sample to choice-tasks in which the profiles are unequal with respect to refugee distress. Column 3 shows that the influence of hunger does not diminish when the refugee is of the outgroup. Intercept omitted.

level across the distribution of all other attributes, the negative influence of cultural distance on whether hosted may simply reflect its influence when refugee profiles are equal with respect to refugee distress. To test this, we restrict the sample to choice-tasks in which the profiles are unequal with respect to refugee distress. We see that biases against outgroup refugees are reduced by 50% when refugee profiles within a choice-tasking are not equal with respect to distress (Table 3, Column 2). Another approach to answer this question is to ask whether pro-distressed preferences are any less powerful among non-coethnics or among Muslims or non-coethnics. Table 3, Column 3 shows that the positive effect of distress on the probability of hosting is as large among the subsample of outgroup refugees as in the full sample. These results clearly suggest that refugee distress dominates Liberians' decisions on who to host, thus providing support for emotive motivations to support for refugees.

Turning to heterogeneous preferences, Figure 2 compares the results among respondents primed and not primed prior to the conjoint experiment. We see that that preferences for the distressed (hungry) are higher, and bias against Muslims lower, among those experimentally primed with the recollection of their past experiences with war violence prior to the conjoint experiment. Figure
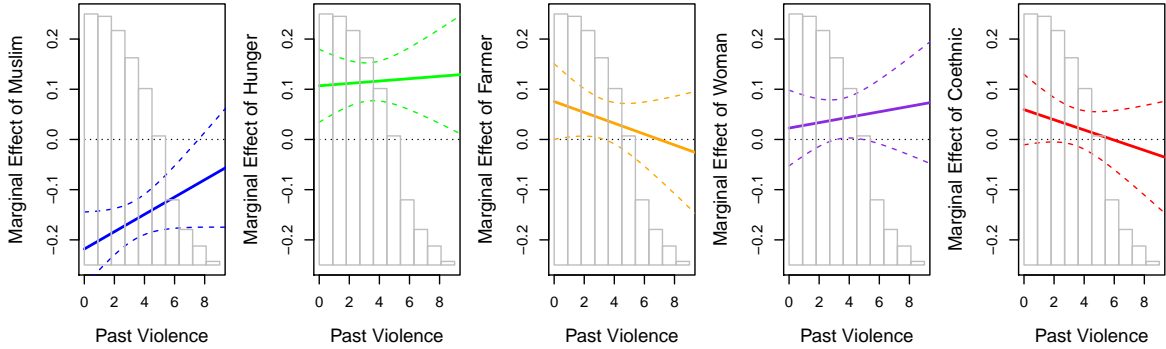
3 displays the marginal effects by past violence exposure analysis graphically among those not primed prior to the conjoint (since the prime effect may crowd-out heterogeneous gameplay.). While underpowered, the general pattern in Figure 3 is remarkably clear: those with high levels of past exposure are less biased against Muslims, less responsive to remunerative capacity, more responsive to women (a key indicator of distress), and less responsive to coethnicity. The consistency of Figure 2 and Figure 3 provides validity to the experimental prime approach and adds assurance to our conclusion that past experience with violence increases the positive influence of refugee distress on whether a refugee is hosted. Results not shown reveal no significant variation in preferences by past refugee experience or displacement experience, possibly because a large majority of the sample was a refugee during the conflict (70%), while 95% were either internally displaced or a refugee.

Figure 2: Effects by Prime
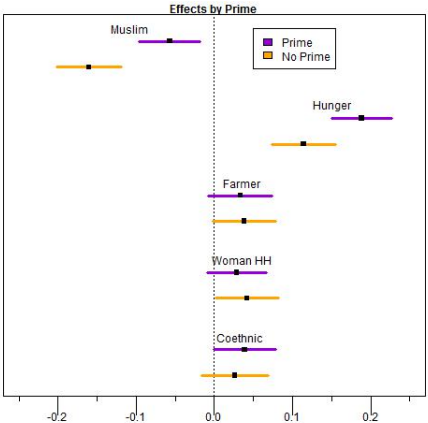
Note: This plot shows estimates of the effects of the randomly assigned refugee attributes on the probability of being hosted across prime vs. no-prime sub-samples. Estimated by OLS with standard errors clustered by individual; horizontal bars represent 95% confidence intervals

Figure 3: Marginal Effects by Past Wartime Violence Exposure

Note: This plot shows estimates of the marginal effects of the randomly assigned refugee attributes on the probability of being hosted by past wartime violence exposure. The histogram of past violence is also displayed. Estimated by OLS with standard errors clustered by individual; horizontal bars represent 95% confidence intervals. The density of wartime violence exposure is displayed in the background.

The results from the conjoint experiment suggest that Liberians' past experience with violence is a powerful predictor of their hosting preferences. How do these heterogeneous patterns compare to real-world behavior? We now consider observed support for refugees during the Ivoirian refugee crisis. As a first cut, Figure 3 graphically displays the correlates of support for refugees on two standardized outcomes using binary predictors, village fixed effects, OLS estimation and clustered standard errors. Past experience with violence, crudely dichotimized at the 50th percentile, is the largest predictor of support for refugees. Alternative cut-points have no material effect on the results. We take this as the first piece of (observational) evidence that support for refugees is powerfully affected by past exposure to violence.

Figure 4: Correlates of Support for Refugees
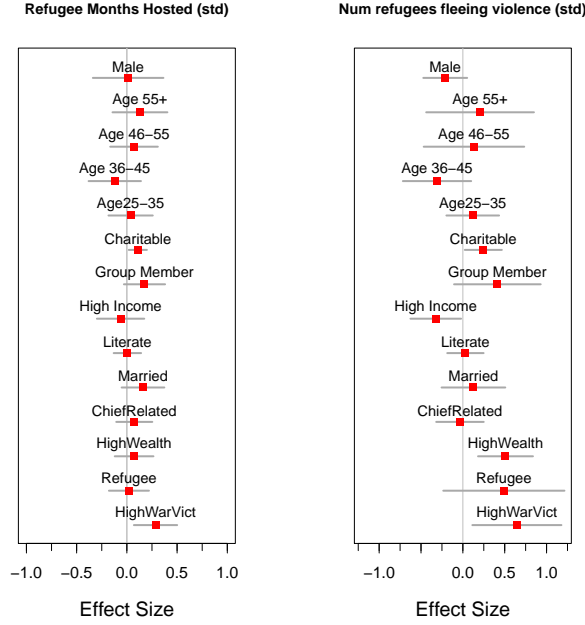
Past experience with violence and conflict induced displacement are the strongest predictors of support to refugees. Both outcomes are standardized, predictors are binary, and estimation is by OLS with clustered standard errors and village fixed effects.

Is this relationship causal? We now turn to a causal inference framework, estimating the following equation:

$$Y_{ij} = \alpha_j + \gamma \texttt{swarvict}_{ij} + X_{ij}^T \beta + \epsilon_{ij} \tag{2}$$

where j denotes the village, i the individual and X_{ij} is a vector of fixed and prewar covariates[14]. $\texttt{swarvict}$ is a standardized index of a (0-9) additive index of violent experiences during the conflict (mean=3.46)[15]. The identification assumption is that exposure to violence was independent of potential hosting behavior conditional on prewar covariates and village fixed effects. Estimates of γ from equation 2, as well as analogs without X_{ij}, are presented in Table 3. The results show a robust relationship between past violence exposure and support for refugees and coefficient

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[14]5 age dummies,whether related to chief prior to war, parental education, whether family owned livestock before the war, prewar family occupation dummies, prewar family business ownership, gender, and ethnicity

[15]The index includes violence against their self, family, village, property, as well as violence witnessed. Alternative constructions, such as via Factor Analysis, have no material effect on the results.

estimates change little with the inclusion of control variables. A standard deviation increase in exposure to violence is associated with 6.98 additional refugee-months of hosting (Table 2, Column 2, Row 1), a 20% increase in the likelihood of hosting a Muslim refugee (Table 2, Column 6, Row 1), and a 50% increase in the likelihood of hosting a refugee who fled direct violence (Table 2, Column 6, Row 2). In results not shown, we see little significant association between past refugee experience and hosting outcomes, against the hypothesis that social ties or norms of reciprocity will cause affect greater support for refugees among former Liberian refugees. Appendix 4 discusses selection into violence, examines its correlates using prewar and fixed covariates, and presents a sensitivity analysis for results in Table 3 to selection into violence. The results show that omitted variables bias, such as selective reporting propensities or selection into violence, would have to be more influential than the observed covariates to explain away the effects, a condition we believe highly unlikely. Robustness to selective return migration is also considered, and the results found to be robust under conservative assumptions.

Table 4: The effect of past exposure to violence on hosting behavior

	Hosted		#_Months_Hosted		Hosted Muslims	
swarvict	0.04***	0.04***	5.26***	6.98***	0.01*	0.01**
	(0.01)	(0.01)	(2.28)	(2.80)	(0.01)	(0.01)
Village FE	Y	Y	Y	Y	Y	Y
CTRLs	N	Y	N	Y	N	Y
Y Mean	.75%	.75%	32.25	32.25	.05	.05
Num. obs.	1230	901	1230	901	815	682

	Ref Bad Health (0-2)		Ref Food Insecurity (0-2)		# Ref flee violence	
swarvict	0.09***	0.10***	−0.04	−0.04	0.08**	0.10**
	(0.02)	(0.02)	(0.04)	(0.05)	(0.04)	(0.05)
Village FE	Y	Y	Y	Y	Y	Y
CTRLs	N	Y	N	Y	N	Y
Y Mean	.67	.67	1.57	1.57	.2	.2
Num. obs.	815	682	815	682	1230	901

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

Past experience with violence, but not as a refugee, predicts support refugees. Seperate estimates of equations 2 and 3, and their analog without control variables, are stacked by outcome. The survey was updated part-way through the survey to include additional outcomes. Sample sizes vary accordingly. Pretreatment covariates include: 5 age dummies, whether related to chief prior to war, parental education, whether family owned livestock before the war, prewar family occupation dummies, prewar family business ownership, gender, and ethnicity

An important limitation of our analysis of how civil war affects Liberians' support for refugees is that it relies on claims to the individual-level rather than population-level counterfactual. This analysis will not detect the many important mechanisms by which conflict affects hosting behavior via mechanisms vary at the population-level. For example, during conflict elites may generate outgroup animosity among the population as a whole in response to violence, even if violence-affected individuals hold less outgroup bias relative to the less-affected (Fearon and Laitin 2000; Horowitz 1985; Sambinas and Shayo 2014). As a consequence, it would remain an open question whether our individual-level results aggregate to the population level. This is important from a policy perspective as well: can conflict affected populations be expected to provide more or less support to refugees, and they be more or less biased against particular groups? To partially address this problem, we aggregate our individual data at the village level (N=62) to examine how aggregate village-level support for refugees is associated with village-level violence exposure during the war. By aggregating to the village level, our estimated effect will incorporate individual-level mechanisms as well as village-level mechanisms (such as manipulation by elites in response to violence). Our village level results mirror our individual level findings and remain robust to county fixed-effects and geographic control variables.

6 Discussion

Table 5 summarizes the results presented thus far. The the conjoint analysis reveals that emotive motivations dominate identity or rational motivations in the decision to support refugees. These results come in stark contrast to theories of identity formation during war, which would predict that identity concerns dominate the decision to host refugees.

We also show that past experience with wartime violence is a powerful driver of support for refugees at both the individual and village level. We interpret these findings as evidence that past experience with violence can increase the importance of "positive" emotive motivations that transcend identity boundaries, in sharp contrast to theories by which violence causes fear, anger, contempt, and hatred against outgroups that persist into peacetime (Petersen 2011; Sambinas and Shayo 2014). Our findings are also consistent with those of Hazlett (2013), who finds that exposure to war violence renders one more "pro peace" among Darfurian refugees in Chad. Indeed, our

Table 5: Summary of Results

| | Influence of Attribute on Whether Hosted | | | | |
Hypotheses	Refugee Distress	Refugee Identity	Refugee Remunerative Capacity	Aggregate Support for Refugees	Empirical Results
H1: Sympathetic Altruism /Intrinsic Prosociality	+				DOMINANT
H2: Economic Motivations			+		WEAKLY INFLUENTIAL
H3: Identity Biases		-			INFLUENTIAL
Change in response to past wartime violence					
	Δ in magnitude of attribute influence				
H4: Polarised Identity	-	+		+ (ingroup)	NOT SUPPORTED
H5: Insecurity				-	NOT SUPPORTED
H6: Prosocial Preference Shift	+	-	-	+	SUPPORTED?
H6: Empathetic Capacity	+	-	-	+	SUPPORTED?
H7: Instrumental hosting		+		+	NOT SUPPORTED

Emotive motivations dominate the decision to host refugees. Identity-based motivations are influential, but secondary. Violence-induced identity biases or insecurity among strangers find little support. Expectations of prosocial preference shifts or greater empathetic capacity in response to violence are supported in the data, but which mechanism operates is unclear.

results are all the more notable because we find violence-affected Liberians are more willing to host outgroup refugees who are co-ethnic to their wartime rivals and likely perpetrators of their victimization.

Mechanisms

What mechanism links a past experience with violence to greater altruistic behavior towards refugees today? Section 3 identified three mechanisms by which past experience with violence likely affects subsequent support for refugees: a prosocial preference shift (Gilligan, Pasquale and Samii 2014; Voors et al. 2012), insecurity that motivates efforts to expand one's social insurance network, or greater empathetic capacity. Unfortunately we were not able to measure empathetic capacity in our survey. We did, however, include several questions related to "prosociality" and insecurity.

In what follows, we use a formal causal mediation framework to evaluate the likelihood that "prosociality" and insecurity are the operative mechanisms. To measure prosociality, we construct a standardized index of three standardized inputs: contributions to public goods in community

in the past 30 days, contributions to those who are sick in past 30 days, and community group membership. To measure insecurity, we reverse code an index of "security", reflecting the extent to which an individual feels safe and secure in her community, trusts others inside and outside the community, and feels safe from crime. This measure does not map perfectly to fear of future conflict, but is the best option the data provide.

We can now evaluate whether insecurity or prosociality are likely to drive the results. The first step in a mediation argument is that "treatment" (violence) has a first-stage effect on the mediator. In the framework of equation (2), above, past violence exposure is a powerful predictor of both `Prosociality` (+) and `insecurity` (+). Another requirement is that the mediator affects the outcome variable. In the framework of equation (2), above, `Prosociality` is strongly correlated with hosting outcomes. `Security`, however is not correlated with hosting outcomes and therefore unlikely to be the operative mechanism. Appendix 8 conducts a formal sensitivity analysis in which `Prosociality` is modelled as a mediator by which past conflict affects support for refugees, following Imai et al. (2011). The mediation analysis reveals that violence's positive effect on support for refugees is not driven by `Prosociality`. This conclusion is robust to violations of key assumptions underlying the mediation analysis.

Instead, we advance empathy as a likely mechanism linking conflict to support for refugees. Perhaps the most persuasive evidence for empathy as the operative mechanism comes from our use of the experimental prime prior to the conjoint analysis. As discussed in Section 4, the prime most likely activates empathetic capacity by increasing the emotional and cognitive salience of respondents' past experiences during civil war[16]. Section 5 shows that primed respondents are significantly less biases against outgroups and more responsive to refugee distress, exactly in line with our predictions of empathy's effect on hosting behavior.

This interpretation is also strongly supported by our semi-structured interviews and field observations during the course of the survey, as well as newspaper and NGO accounts during the crisis. As one citizen put it, "After what happened to us during the war, we can't turn a refugee away. Even though the Ivoirians were wicked, we know the bitterness [of war] and it is not possible that we turn a refugee away"[17]. In pre-testing the conjoint experiment, respondents frequently

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[16]Alternatively, it may have activated emotions of fear or anger associated with the war. If this were true, we would expect the influence of distress to decrease and identity to increase, which we do not.

[17]Author Interview, July 2013

invoked their own experiences of refugees or cited an aversion to their suffering: "The reason why I choose [refugee family] is because war is going on and they do not have anybody here so I can't look at them to suffer so thats why I choose them and to help them"[18]. These accounts dovetail with media and NGO accounts during the crisis, which widely praised Liberians' hospitality and frequently cited Liberians' past experiences as underlying their willingness to help (*Human Rights Watch* 2011; *IRIN News* 2011). As one host explains his motivation to host even amidst food and water shortages: "My family and I were forced to flee during the Liberian civil war. We know what it is like to be a refugee" (*Norwegian Refugee Council* 2011).

Our overall message is that emotive responses to past experience with civil war trump identity and rational motivations in the decision to host refugees. To what extent do we expect this finding to apply to other context of refugee-host relations during forced displacement? Several considerations merit mention. First, our finding of greater empathetic capacity in response to violence is novel only in its context; psychologists have long been aware of this relationship. Trauma, including the experience of violence, increases empathetic capacity (Batson 2011). The relevant question, we believe, is what contextual conditions might decrease the influence of identity biases, or negative emotions of fear, anger, and resentment, and thereby allow empathetic or sympathetic motivations to operate? On this point, we note several considerations of context. First, Liberia's process of peacebuilding following war has been very successful. Since the end of war, Liberia has held two democratic and largely peaceful elections, UN peacekeepers effectively ensure macro-level peace, and economic growth rates per annum are around 10%. Second, for a variety of potential reasons, themes of reconciliation and peace register high in the Liberian discourse. Reconciliation and pro-peace were central themes of the 2011 election campaigns, and remain a central component of NGO programming. Perhaps as a result, ethnic tensions are on the mend, with 89% of citizens rating relationships with other ethnic groups as "good" or "very good" (Vinck, Pham and Kreutzer 2011). Lastly, 9 years had passed since the end of the conflict and the refugee crisis. Broadly speaking, there would appear few incentives for elites mobilize outgroup biases or citizens to harbour outgroup animosity. With these considerations in mind, we speculate that our findings are most relevant to context in which macro-level peace is firmly established, where fundamental ethnic cleavages from the war are on the mend, and where significant time has passed since the end of conflict.

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[18]Recorded Pretest Interview, July 2013

7 Conclusion

This paper is motivated by descriptive characteristics of refugee movements in Africa. The onset, scale, and flow of refugee movements are difficult to predict, while refugees often flee into remote regions. These factors challenge the response capacities of humanitarian providers and point to the critical role of indigenous host communities as providers during refugee crises. The decision to do so is not obvious: numerous historical examples highlight the risks displaced populations pose to their hosts, including the spread of disease, the depletion of scarce resources (Lischer 2007), and the spread of violence and conflict (Salehyan and Gleditsch 2006). In light of the considerable costs of hosting, we have a very poor understanding of why hosts might decide to provide support for refugees.

This paper tests three competing explanations. The first explanation centers on emotive motivations associated with observing refugees in need, namely sympathy and empathy. The second explanation is that rational calculations regarding the material benefits associated with hosting will drive the decision to host refugees. The final explanation is that identity-based motivations will dominate the decision to support refugees. Our results provide support for emotive and identity motivations, but clearly indicate that emotive factors trump identity motivations.

We also evaluate how the experience of civil war may have affected Liberians' support for refugees, emphasizing the importance of this question given the spatial autocorrelation of conflict. From a theoretical standpoint, ethnic civil conflict such as that experienced in Liberia has the potential to harden identity boundaries and, conversely, increase sympathetic capacity. Whether such effects exist, and which dominate, is very much an open empirical question. We find that preferences for the distressed are larger, and biases against outgroup refugees are lower, among respondents and villages with high levels of prior exposure to wartime violence, as well as among a random sample of respondents primed with the recollection of their own wartime experiences prior to the conjoint experiment. These results suggest that violent experiences during civil war increase the importance of emotive explanations relative to identity-based calculations, in sharp contrast to what theories of identity formation during conflict would predict. Observational data provide provide further support to this conclusion; respondents and villages with high levels of exposure to violence during the Liberia Civil War host more Ivoirian refugees, do so for longer, and have a

preference for refugees who are sick or fleeing direct violence. We find these results all the more notable given that pro outgroup behavior is expressed towards refugees who are co-ethnic to hosts' wartime rivals and most likely perpetrators of their victimization.

Our final section explores the mechanisms that may link past experience with violence to hosting behavior. We use an empathetic prime, field interviews and qualitative sources to suggest that *empathy* drives altrusitic behavior toward refugees, and provide evidence against several alternative mechanisms. In doing so, our paper contributes to a growing body of empirical literature on the micro-level effects of violence, which has hitherto done a poor job of explaining the mechanisms by which violence affects subsequent attitudes and behavior.

From a policy perspective, we provide evidence to inform a new approach to refugee management in which local integration of refugees is supported as a flexible complement to camp-based management (UNHCR 2013). We show that in the context of local integration, the host population may prefer to host ingroup refugees, but that exception is made for the most distressed refugees, particularly when the host population has itself experienced conflict.

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Appendix 1: Border Region
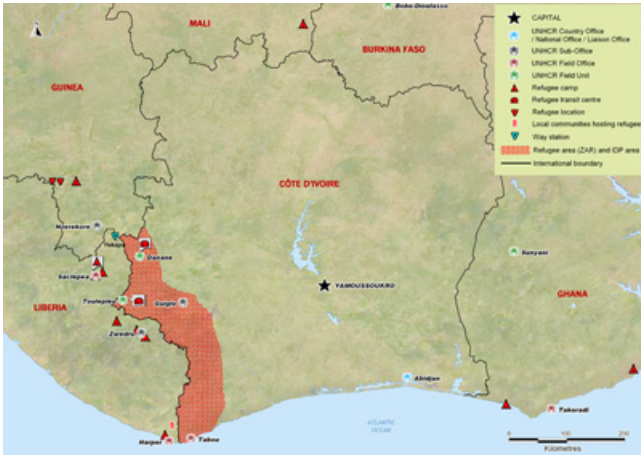
Appendix 2: Experimental Design
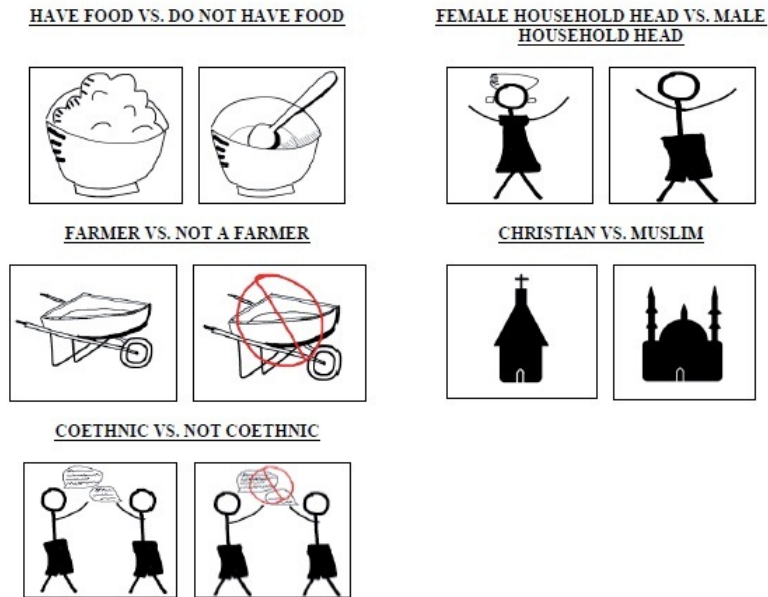
Pictographs were printed in black and white as 3 x 3 inch squares. Each attribute level was placed back-to-back with its conjugate, then laminated. Each enumerator thus had 10-double sided squares (5 for each profile), and would present them according to the instructions provided by the CAI device. The picture below displays practice survey enumeration during enumerator training. At the time, only four attributes were being used.

Appendix 3: Association of Conjoint Preferences with Observed Hosting Behavior

To test the association of preferences in the conjoint experiment with observed hosting behavior, we conduct the following procedure: For each individual, we sum the number of choice tasks in which they faced choices that varied on a) distress or b) cultural distance. The number of rounds in which they selected either the distressed candidate is the respondent's "pro distress" score, which takes a value of $\{NA, 0, 1, 2, 3\}$. NA occurs when the respondent does not encounter choice tasks in which profiles vary according to distress. The number of rounds in which the respondent selected the culturally proximate profile is their "pro identity score". The tables below show results from a regression of real-world hosting outcome on the respondents distress and identity scores. The analysis is underpowered. Nonetheless, we can see that the probability of hosting and hosting Muslims is increasing in the pro-distress score. The probability of distressed refugees is decreasing in the identity score, as expected. This analysis remains a work in progress.

Association of Pro-distress Score with Observed Hosting

	Estimate	SE	T Value	P Value
Hosted Refugees	0.01	0.02	0.57	0.57
Num_months_hosted	-0.38	1.97	-0.20	0.85
Hosted Muslims	0.02	0.01	2.13	0.03
Ref bad health	-0.01	0.03	-0.41	0.68
Ref food security	0.06	0.04	1.52	0.13
# Ref flee violence	-0.01	0.02	-0.69	0.49
Num female HH	-0.01	0.02	-0.86	0.39

Association of Pro-Identity Score with Observed Hosting

	Estimate	SE	T Value	P Value
Hosted Refugees	-0.00	0.02	-0.18	0.86
Num_months_hosted	-2.60	2.60	-1.00	0.32
Hosted Muslims	-0.01	0.02	-0.45	0.65
Ref bad health	-0.04	0.04	-1.24	0.22
Ref food security	0.04	0.05	0.77	0.44
# Ref flee violence	-0.07	0.03	-2.42	0.02
Num female HH	-0.05	0.02	-3.33	0.00

Appendix 4: Selection into Violence Exposure and Sensitivity Analysis

Underlying our causal claim that previous exposure to violence affects contemporary outcomes is the assumption that exposure to violence was independent of potential outcomes conditional on covariates. I attempt to outline some reasons why this may be true. The civil war was characterized by a high degree of indiscriminant violence by undisciplined fighters on all sides of the conflict (Ellis 2001; Lidow 2011). Fighters were notoriously ruthless and predatory. Several factors limited civilians' ability to avoid violence.

First, the flow of information during the conflict was extremely limited, with the total absence of modern information technologies. The limited-availability of reliable information mitigated the extent to which civilians could avoid violence. The inavailability of information was exacerbated by frequent changes in territorial control by various rebel groups. As one village leader describes the war onset in 1989 and subsequent conflict, "the war was too quick. One day we are having village beauty pageant on Christmas eve, the next day Doe's army is surrounding us. We run one way and people running coming, we run another way and people running coming. We had nowhere to go. It was like this everytime the fighting got heavy. It was always too quick." [19].

Second, travel for civilians was done by foot, and was extremely hazardous. This raised the cost of flight, keeping citizens in dangerous territories. Often, the process of fleeing had to be done through the bush rather then on the roads, lest they be found and accused of being "rebels" from another faction [20]. Third, there was considerable uncertainty over the temperament of the rebels in occupied territories. Fighters could accuse citizens with little cause of being rebels, subjecting them to violence or execution.

There was also a significant degree of targeted violence. Individuals were targeted based on their ethnicity. Survival at checkpoints was often a matter of whether one could convincingly speak the rebel's dialect (Ellis 2001). Village chiefs and their kin, in particular, were targeted, as well as families of wealth or status. Having a "big belly" at a checkpoint was a distinct risk factor (Ellis 2001). One informant recounts his strategy to survive checkpoint crossings: " If the rebels like your shoes, they will take your shoes, or worse. To pass through, I spoiled my shoes, then I would trade my left shoe for the right shoe of my friend, and we go through at opposite ends of the line with two shoes of the same feet. That way, the rebels will not take our shoes or accuse us of having money." We attempt to control for these variables in our analysis using prewar covariates and fixed characteristic controls, and conduct sensitivity analyses to unobserved selection into violence that may correlate with contemporary outcomes.

The non-exogeneity of exposure to violence does not confound the analysis. The identification assumption is that potential outcomes are independent conditional on prewar, fixed, and unobservable variables. Since only a subset of prewar and fixed variables are observed, a sensitivity analysis gauges whether unobserved selection is strong enough to explain away the observed association between war violence and outcomes conditional on observables.

I relax this assumption via a sensitivity analysis in the spirit of Imbens (2003), following the adaptation by Hazlett (2013) and applied within a fixed effects framework. This approach poses the question: How big of an effect would a confounder have to have on `viol_experienced` *and* the outcome to reduce the treatment effect below conventional levels of significance? Formally, consider the true model $y_{ij} = X_{ij}^T\beta + Z_{ij}\gamma + \epsilon_{ij}$, where X_{ij} is a matrix of covariates including the treatment

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[19]Author Interview, July 2013

[20]Author interview, June 2012

Determinants of Violence Victimization

	Violence Victimization (0-9)
(Intercept)	2.66***
	(0.25)
age2	0.13
	(0.08)
age3	0.31***
	(0.08)
age4	0.09
	(0.10)
age5	−0.03
	(0.12)
chiefrelbfrwar	0.16**
	(0.04)
fatheredu	−0.01
	(0.01)
motheredu	−0.01
	(0.01)
hh_livestock_bfrwar	0.16**
	(0.10)
hhprewar_formal	0.35***
	(0.10)
hhprewar_business	−0.01
	(0.19)
Muslim	0.15
	(0.14)
gio	0.40*
	(0.27)
grebo	0.36
	(0.54)
krahn	0.19
	(0.23)
mano	0.53*
	(0.26)
male	0.17***
	(0.05)
R^2	0.19
Adj. R^2	0.13
Num. obs.	901

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

variable `viol_experienced` and after partialling out village fixed-effects, and Z_{ij} is an unobserved omitted variable or group of variables that varies within a village. Estimating the model via OLS using only observed variables X_{ij} yields $\beta = \hat{\beta} - \gamma(X'X)^{-1}X'Z$, where we recognize the latter term on the right-hand side as the correlation of X with Z multiplied by the effect of Z on Y. We can proceed via simulation to generate bounds on the treatment effect for pairwise values of γ and α, where α is the partial correlation of Z with `viol_experienced` controlling for the other covariates in X. Figure 5 displays the results graphically.

Another source of potential bias is selective return migration. To understand this problem, consider the following table.

Figure 5: Sensitivity to Unobserved Confounder
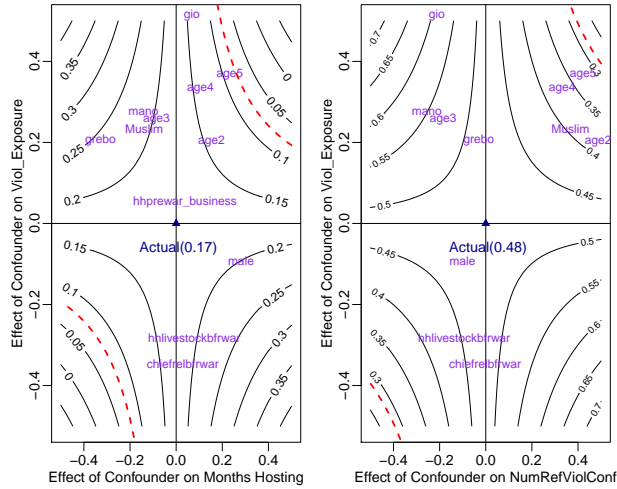
The "height" shown by contour lines gives the pairwise values of confounding with treatment (vertical axis) and the outcome (horizontal axis) needed to reduce the ATE of `viol_exposure` to below significance at the p=.05 level under a fixed effects specification. Each contour provides the estimated ATE given pairwise levels of significance. The origin provides the estimated ATE from equation 2. The red contour indicates levels of confounding required to reduce the estimated ATE below levels of conventional significance. The pairwise correlations of binary observed covariates after partialling out village fixed effects are provided for comparison.

Table 6: Selective Migration

Attribute	Y_High	Y_Low
`viol_experienced_high`	Poplation A	Population B
`viol_experienced_low`	Population C	Population D

where each Population represents the original inhabitants of a community immediately prior to the war's outbreak. Further imagine that Populations A, C, and D all return to the community after the war, but Population B, of unknown size, does not. In this case, my research design would falsely attribute `viol_experienced` with higher levels of Y. Put differently, violence exposure may simultaneously correlate with return migration and outcomes. Indeed, this problem would seem damning— potential bias of unknown size and magnitude. Future drafts of this paper will seek to adapt a Heckman model to truncated data to more formally relax these assumptions. In the immediate term, several points should alleviate our concerns. First, 80% of the sample was born in the community of survey enumeration, and violence is uncorrelated with being born in the community. Second, all results presented herein are substantively unchanged when restricting the sample to those born in the community. Finally, related survey conducted in 2008 and 2010 in the same region asked community leaders whether there were persons who lived in the community prior to the war and have not since returned, and this measure is uncorrelated with the mean level of violence exposure within a community (results not shown) (Blattman, Hartman and Blair 2014).

Appendix 5: Variable Construction

Variable	Description
OUTCOMES	
hosted	1 if hosted a refugee, 0 otherwise.
#_months_hosted	Number of refugee months hosted. Number of refugees x average time hosted
Hosted Muslims	1 if hosted a Muslim, 0 otherwise.
Ref Bad Health	0-2 level of health problems observed in refugees upon arrival by host
Ref Food Security	0-2 level of food security observed in refugees upon arrival by host
Ref flee violence	1 if refugees were directly fleeing violence
MECHANISMS	
prosociality	standardized index of contributions to sick persons in community, public goods, and group participation
security	standardized index of feelings of security in community, trust in others, and security from crime

Appendix 6: Restricted Sample Results

[UNDER CONSTRUCTION]

Appendix 7: Sample Selection

[UNDER CONSTRUCTION]

Appendix 8:

We now turn to a mediation analysis, following Imai et al. (2011). `Prosociality` will be modelled as a mediator by which past conflict affects support for refugees. Our operationalization of `Prosociality` encompasses both outcomes that are inherently altruistic, such as contributions to those who are sick, as well as measures of "prosocial behavior", such as group partcipation and contributions to public goods. The average treatment effect of violence can be decomposed into two components: the *average causal mediated effect* (ACME), representing the effect induced by increases in `prosociality`, and the *average direct effect* (ADE), representing the effect through all other causal pathways. To assess the relative size of these effects, we follow Imai, Keele and Yamamoto (2010), who show that these effects can be consistently estimated under the assumption of sequential ignorability. Formally, let $M_i(t)$ denote the potential value of the mediator (altruism) for unit i under treatment status $T_i = t$, where both treatment and mediator are continuous with standard deviation 1 and mean 0. Let $Y_i(t, m)$ denote the potential outcome that would result if the treatment and mediating variables equal t and m, respectively. Y_i is the number of refugee-months that a respondent hosted refugees (e.g. 3 refugees hosted for 2, 3, 4 months respectively implies $Y_i = 9$), and M_i be a respondent's score on the standardized index of `prosociality`. $Y_i(1, 1)$ represents the potential number of refugee-months hosted for individual i had that individual been exposed to one standard deviation above the mean level of violence and had a `prosociality` score one standard deviation above the mean. The ACME is defined as $\delta_i(t) \equiv Y_i(t, M_i(1)) - Y_i(t, M_i(0))$ and the ADE is defined as $\varepsilon_i \equiv (Y_i(1, M_i(t)) - Y_i(0, M_i(t))$. See Imai, Keele and Yamamoto (2010) for full details.

The sequential ignorability assumption can be written as follows:

$$\{Y_i(t', m), M_i(t)\} \perp\!\!\!\perp T_i | X_i = x, \tag{3}$$

$$Y_i(t', m) \perp\!\!\!\perp M_i(t) | T_i = t, X_i = x \tag{4}$$

In words, the sequential ignorability implies (1) given observed pretreatment confounders, exposure to violence is ignorable, and (2) the observed mediator is ignorable given actual exposure to violence and pretreatment confounders. The first ignorability assumption is the standard ignorability assumption made in experimental and observational studies, often referred to as the no-omitted-variables bias, conditional exogeneity, or unconfoundedness assumption. The second ignorability assumption implies that there are no unmeasured pretreatment or posttreatment covariates that confound the relationship between the levels of prosociality and the subjects' hosting behavior. A violation would have to be caused by an omitted variable correlated with `prosociality` *and* support for refugees after controlling for pretreatment variables: 5 age dummies,whether related to chief prior to war, parental education, whether family owned livestock before the war, prewar family occupation dummies, prewar family business ownership, gender, and ethnicity. The post-treatment variables from Figure 3 after partialling-out pretreatment covariates are all potential confounding variables[21]. However, note that few of these potential confounders correlate strongly with support for refugees.

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[21]These include income, literacy, married, and wealth.

Under these assumptions, the ACME and ADE are estimated from the following equations:

$$\texttt{prosociality}_{ij} = \alpha_{j1} + \beta_1 \texttt{swarvict}_{ij} + X_{ij}^T \xi + \epsilon_{i,1} \tag{5}$$

$$Y_{ij} = \alpha_{j2} + \beta_2 \texttt{swarvict}_{ij} + \tau \texttt{prosociality}_{ij} + X_{ij}^T \xi + \epsilon_{i,2} \tag{6}$$

In this setup, ACME is estimated as $\hat{\beta}_1 \hat{\tau}$ and the ADE as $\hat{\beta}_2$. The second ignorability assumption can be relaxed by allowing an omitted variable to correlate with the mediator and outcome variable. The degree of confounding in omitted variables is represented by $\rho = Cor(\epsilon_{i,1}, \epsilon_{i,2})$. For example, education may correlate positively with prosociality *and* support for refugees, thus confounding our estimate of ACME. If sequential ignorability holds, $\rho = 0$, whereas nonzero values imply departures from sequential ignorability. For full details, see (Imai, Keele and Yamamoto 2010).
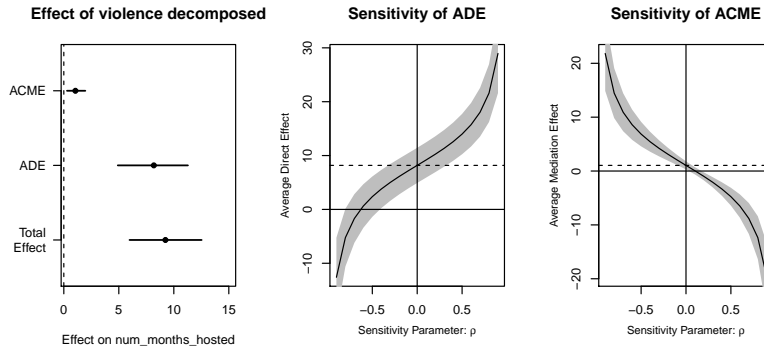
Implementation is courtesy of the `mediation` package in **R**, developed by Imai et al. (2010). Estimates of the ATE, ADE, and ACME of war violence on the number of refugee-months hosted are displayed in Figure 4 (A). Figure 4 (A) shows that the effect of past war violence on hosting behavior is not driven by conflict's positive effects on `prosociality`, but rather is the result of other pathways, which are aggregated into the ADE. Figure 4 (B) and (C) display the sensitivity of the ADE and ACME to violations of the sequential ignorability assumption. Figure 4 (B) shows that the ADE is positive and significant given various levels of confounding — even if the assumptions are violated, causal pathways other than `prosociality` drive the results. Figure 4 (C) shows that the estimated ACME is sensitive to violations of the conditional ignorability assumption. These patterns of mediation are similar across other hosting outcomes considered in Table 2 (results not shown).