

Legacies of Conflict

Experiences, Self-efficacy and the Formation of Conditional Trust

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Abstract

An established literature finds that those exposed to conflict are more pro-social later in life. This paper builds on this work in two directions using a sample of 4,200 women born during the Sierra Leonean civil war and surveyed 14 years later. First, the paper introduces the notion of conditional trust, whereby individuals neither outright distrust nor outright trust others, but can use their perceived self-efficacy to raise the cooperativeness of others. This takes ideas from the psychology literature documenting survivors of trauma can go through a process of posttraumatic growth generating perceived self-efficacy. The paper develops a framework to make precise how conditional trust depends on beliefs over others, gains from cooperation, risk aversion, and the key mediating role of self-efficacy in linking conflict and trust. Second, the paper constructs a granular typology of experiences of conflict combining information on a geo-coded

measure of exposure to conflict, self-reported memories/recall of victimization, and ages of exposure to conflict. This distinguishes individuals who are traumatized, those with direct first-hand accounts of conflict, and those with second-hand narratives. Empirically, the analysis shows that exposure to conflict—either by being in the vicinity of conflict or through specific experiences of conflict—leads respondents to be significantly more likely to conditionally trust others. The findings show that perceived self-efficacy is higher among those exposed to conflict and this mediates the impact of conflict on trust preferences. By considering the role of memories, narratives/socialization in shaping experiences of conflict, generating self-efficacy and thus driving trust preferences, the paper provides new avenues for research on how psychological legacies of trauma early in life shape the long run formation of economic preferences.

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Legacies of Conflict: Experiences, Self-efficacy and the Formation of Conditional Trust*

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1 Introduction

The recent history of many countries has been shaped by armed conflict. Since 1989, 123 countries have experienced such violence, resulting in 10 to 14 million deaths. Much of humanity remains at risk of conflict, with two billion residing in fragile states. The scourge of conflict is especially acute in Africa, where 39 out of 54 countries have experienced conflict since 1989 [UCDP 2018].

Conflict determines economic outcomes. It adversely affects the accumulation of human and physical capital – through their destruction, displacement, and by dampening investment incentives due to the threat of future conflict. All of this can lead to economy wide underdevelopment traps [Collier *et al.* 2003, Besley and Reynal-Querol 2014]. At the individual level, a growing literature has described psychological legacies of conflict that impact economic decision making. Whether such legacies help or hinder post-conflict recovery is open to debate: a body of evidence in economics and political science has highlighted that exposure to conflict tends to foster pro-social behavior [Bauer *et al.* 2016, Hartman and Morse 2020], while others have argued exposure to conflict can strengthen parochial altruism, whereby in-group cooperation is reinforced at the expense of across-group cooperation [Heinrich and Boyd 2001, Bowles 2008].

Bauer *et al.* [2016] meta-analyze the literature linking conflict and pro-sociality. While they find that on many dimensions, those exposed to conflict are more pro-social later in life, somewhat puzzlingly, trust is one dimension of pro-sociality where null impacts are found (this work is summarized in Table A1a). This points to a need to better understand the subtleties of the relationship between conflict and trust. The importance of doing so is first order given trust is an outcome of intrinsic interest: it is the foundation for social and economic interactions and acts as ‘an important lubricant of the social system’ [Arrow 1974]. It underpins anonymized market exchange, and is key to cooperation in non-market exchange such as risk sharing.

In this paper we provide novel theory and evidence to study the relationship between conflict and trust. We provide a road map for organizing the wider literature, to reconcile why heterogeneous effects might be found across studies, and to provide avenues for research on psychological legacies of traumatic events for economic preferences. We build on the multi-disciplinary literature on conflict and trust in two fundamental directions.

First, we introduce the notion of *conditional* trust in one off anonymized exchange with others, whereby individuals neither outright distrust or outright trust others, but rather can choose to use skills related to their self-efficacy to raise the cooperativeness of others. This incorporates ideas from psychology on post-traumatic growth, whereby survivors of serious trauma can go through a process leading to greater personal hardiness and resilience [Tedeschi *et al.* 1998, Tedeschi and Calhoun 2004]. We develop a framework linking conflict and trust to make precise what respondents can have in mind when reporting conditional trust in others. The framework captures factors that have been stressed in the earlier literature such as beliefs over others, the gains from cooperation and risk aversion, and highlights the key mediating role that perceived

self-efficacy plays in linking conflict and trust.

By encompassing other proposed mechanisms linking conflict and trust such as beliefs about others, the framework offers testable predictions to take to data to distinguish between explanations for why and how conflict shapes the long run formation of trust preferences. In so doing we tackle head on a critique of Bauer *et al.* [2016] that, ‘the research to date has done a far better job of establishing the effect of war violence on later cooperation than of explaining it.’

Second, we construct a granular typology of *experiences* of conflict by combining information on: (i) a novel geo-coded measure of exposure to conflict; (ii) self-reported memories/recall of victimization during the civil war; (iii) ages at which the individual is exposed to conflict. Age of exposure is critical because memory formation begins largely at age three onwards, shaping later life beliefs and attitudes [Fehr *et al.* 2008, Malmendier and Nagel 2011]. It is thus useful to consider if an individual was aged 0-2 when in the vicinity of conflict (and so prior to significant memory formation), and/or whether the individual was aged 3 and above when in the vicinity of conflict, and hence more capable of retaining first-hand memories of conflict. Our objective is to distinguish between individuals who are more likely to be traumatized or suppressing memories of conflict, those who are more likely to have direct first-hand accounts of conflict, and those whose narrative of conflict is more likely to be passed onto them second-hand.

In examining the mediating role of perceived self-efficacy between these distinct experiences of conflict and trust, we provide novel insights on how trauma, memory and narratives link to the generation of self-efficacy, and how this matters for the long run formation of trust preferences.

Our context is Sierra Leone. We survey 4, 200 young girls and women in 2014, all of whom were born into the civil war that took place between 1991 and 2001. This was one of most brutal conflicts experienced by a civilian population in recent times. As has been well documented, the violence largely did not operate along ethnic, religious or political lines [Conibere *et al.* 2004, Humphreys and Weinstein 2006, Bellows and Miguel 2009]. Instead, the conflict is widely recognized as being characterized by indiscriminate episodes of violence and abuse of civilians from all armed sides. As a result, the decade long conflict spread to nearly all Chiefdoms in Sierra Leone, with the majority of households potentially exposed to violence and acts of victimization.

We measure generalized trust using a question with similar wording to the World Values Survey (WVS): “*In general do you think people can be trusted, or that they cannot be trusted?*” In contrast to the WVS, we allow respondents to answer yes, no, or it depends (and allow for don’t know or refusals).¹ 11% of our respondents say ‘no’ (outright distrust of others), 37% say ‘yes’, and 51% say ‘it depends’. Hence the modal answer highlights the prevalence of *conditional trust* among those born into conflict. This response does not reflect respondent uncertainty: none answered the trust question with ‘don’t know’ or refused to answer.

¹In the WVS the exact wording of the trust question is, ‘*Generally speaking, would you say that most people can be trusted or that you need to be very careful in dealing with people?*’ Permitted answers are, ‘*most people can be trusted*’, ‘*need to be very careful*’, ‘*don’t know*’, ‘*no answer*’, or ‘*other missing*’.

We use three approaches to measure exposure to conflict. First, we collect first-person accounts of direct exposure to violence during the civil war, as in much of the existing literature. Second and more innovatively, we use information from individual migration journals to construct respondent’s entire life history of Chiefdoms of residence, from their place of birth through to their current Chiefdom of residence. We then geo-reference information from migration journals to geo-coded conflict data from the *Uppsala Conflict Data Program* that codes conflict-related events at the Chiefdom-year level. This matching allows us to construct: (i) on the extensive margin, whether the individual was ever in the vicinity of conflict (so in the same Chiefdom-year as a conflict event); (ii) on the intensive margin, the cumulative exposure to conflict at any given age.

Third, we construct a granular typology of *experiences* of conflict by combining information on: (i) the geo-coded measure of exposure to conflict; (ii) self-reported memories/recall of victimization during the civil war; (iii) ages at which the individual is exposed to conflict. The constructed typology distinguishes five mutually exclusive experiences: (i) those exposed to a ‘background narrative’ of the war because they were never in the vicinity of conflict and nor do they recall any victimization; (ii) those with direct first-hand experience of conflict because they were in vicinity of conflict from age 3 and recall being victimized; (iii) those who are traumatized or suppressing memories of conflict because they were in the vicinity of conflict from age 3 but they do not recall any form of victimization, including fighting in their area; (iv) those socialized, because they were never in vicinity of conflict from age 3, yet they recall being victimized – their memories/recall stem from second-hand narratives passed onto them rather than direct experience; (v) respondents similar to those with a background narrative except they were exposed to violent events early in life, yet narratives of these events have not been passed onto them by their parents/guardians, perhaps because these caregivers are themselves traumatized.

To formalize the link between exposure to conflict and trust, we develop a parsimonious framework of anonymized one-off exchange with a partner. The model views trusting others as a gamble with potential outcomes depending on the probability the partner cooperates. To allow for conditional trust, we assume an individual can undertake costly actions to increase the probability of cooperation of the partner. Our approach views the cooperation of others as open to change, and not a fixed type. We use the term ‘self-efficacy’ to capture the perceived ability of an individual to increase the probability their partner cooperates. Self-efficacy can relate to the ability to persuade or negotiate with others to make them more cooperative [Bandura 1977].

The model generates a solution whereby individuals optimally choose to trust, not trust, or conditionally trust their partner depending on parameter values. The framework makes precise that conditional trust depends on factors: (i) that have been emphasized in the earlier literature linking conflict and trust, such as beliefs over others, the gains from cooperation and risk aversion; (ii) have been more discussed in the psychology literature and referred to as post-traumatic growth, captured in our framework through the notion of self-efficacy.

We derive comparative statics on how key mediators of trust – self-efficacy and beliefs over the

trustworthiness of others – are impacted by conflict, how this subsequently impacts the likelihood of reporting conditional trust, and can have asymmetric effects on the likelihood of expressing outright trust and outright distrust of others. This provides precise and testable microfoundations for whether and how conflict impacts trust preferences and allows us to potentially distinguish between alternative explanations.

Our main results are as follows.

We first examine the link between exposure to conflict and trust preferences, using our geo-coded measure of ever being in the vicinity of conflict. Those ever in the vicinity of conflict early in life are significantly more likely to report conditional trust (‘it depends’) rather than outright trust or distrust in others, as measured 14 years later. The marginal effect of ever being in the vicinity of conflict is to increase conditional trust by 7.7pp, corresponding to a 16% increase over the level of conditional trust among those never exposed to conflict. This increase in conditional trust arises because of significant reductions in those reporting outright distrust of others (which falls by 2.9pp), and in outright trust of others (which falls by 5pp).

We present a battery of checks to establish this result is replicated when: (i) using alternative econometric models; (ii) accounting for enumerator effects; (iii) accounting for individuals being affected by conflict in neighboring Chiefdoms (that might otherwise lead to measurement error of being in the vicinity of conflict). We also show the results do not reflect indecisiveness more generally among those exposed to conflict, and nor do they reflect those exposed to conflict having smaller social networks and so being more uncertain of the trustworthiness of others for anonymized exchange. To underpin a causal interpretation of the finding, we: (i) demonstrate how the results vary in alternative subsamples related to the variation in geo-coded exposure to conflict; (ii) use a placebo check to strengthen the argument that actual exposure to violence matters, not other geographic factors correlated with conflict including pre-war confounders; (iii) use an IV approach, predicting exposure to conflict by exploiting geographic and temporal patterns of conflict.

Second, we examine the link between experiences of conflict and trust preferences. Relative to those with the background narrative, those socialized have identical trust preferences over a decade later. This implies narratives passed onto children about the civil war are similar between those families for which violent events occurred outside their Chiefdom of residence, and those families for whom violent events occurred in their Chiefdom of residence but prior to their children forming direct memories of those events.

Relative to those with the background narrative, those traumatized are significantly more likely to report conditional trust by 10.8pp. This increase in conditional trust comes mostly from a fall in outright distrust (by 4.9pp). A similar pattern of marginal impacts on trust are found for those with direct experience of conflict. Hence relative to those with the background narrative, we find a comparable association between trust preferences for those traumatized or with direct experience of conflict.

This implies that while the process of memory formation is important, an individual’s own recall

of conflict – the extent to which memories of violence are suppressed or not – is not associated with the long formation of trust preferences.

This offers mixed news for the literature using self-reported victimization to measure exposure to conflict (Table A1): on the one hand, among those with no recall that might otherwise be analyzed similarly, respondents that are traumatized have significantly different trust preferences than those subject to the background narrative. Indeed, the formation of trust preferences does not differ between those with and without direct recall but with experiences of trauma or direct exposure to violence.

For those whose parents are traumatized, relative to those with the background narrative, this experience also leads individuals to increase the likelihood of conditional trust by 8.9pp. They differ from the traumatized and direct experience groups in that this increase comes from a significantly decline in outright trust in others (by 7.5pp) rather than a decline in distrust of others. The findings suggest the relationship between experiences of conflict and trust do not depend strongly on whether an individual or their parents are traumatized.

In short, the five different experiences essentially boil down into two types, at least for the study of the long run relationship between exposure to conflict early in life and generalized trust: (i) those with the background narrative combined with those socialized; (ii) those with direct experience, combined with those traumatized and those whose parents are traumatized.

Third, having established a robust link between conflict and trust we use the framework to guide our analysis of mechanisms underlying the relationship. We measure perceived self-efficacy using two approaches: the first relates to confidence respondents express in being able to conduct entrepreneurial activities, in which one-off anonymized exchange with others plays a major role. The second relates to personal traits, including those related to interpersonal interaction. We then establish that those ever in the vicinity of conflict have significantly higher perceived self-efficacy than those never in the vicinity. Similarly, those with trauma/direct experience have significantly higher perceived self-efficacy than those with the background narrative/socialized. What these experiences have in common is that respondents are subject to violence after age 3 when memories are being formed, and these shape later life attitudes [Fehr *et al.* 2008, Malmendier and Nagel 2011, Bauer *et al.* 2014, Giuliano and Spilimbergo 2014, Malmendier 2021].

Fourth, we re-examine the link between exposure to conflict and trust additionally controlling for self-efficacy. We find that conditional on ever being in the vicinity of conflict, self-efficacy correlates to trust preferences. A one standard deviation increase in self-efficacy is associated with a significantly higher likelihood of reporting conditional trust: the magnitude of the effect is 5.6pp, and significant at the 1% level. This increase in conditional trust related to self-efficacy arises because of a near equal and opposite reduction in those reporting outright trust of others. Higher perceived self-efficacy is asymmetrically associated with the extremes of trust preferences: we can reject equality of shifts from yes/no towards conditional trust ($p = .000$). This asymmetry is precisely in line with the predictions of the framework.

Finally, we use the framework to consider other explanations. A prominent alternative is that conflict changes beliefs about others. To examine this hypothesis directly, we asked respondents, “How many people in *[group]* can you trust?” with potential responses being none, some, most, and all. We do so for ingroups of respondents, as well as for various outgroups. We find a remarkably consistent pattern of findings: for each and every group, respondents report being significantly less likely to trust no one, being significantly less likely to report trusting all, but being significantly more likely to trust some/most. That this applies equally to ingroups and outgroups is especially notable because it runs counter to the notion that exposure to conflict leads to parochial altruism. This interpretation is in line with narratives of the civil war in Sierra Leone being a conflict not rooted along ethnic, religious or political party divides.

As described earlier, our work builds on an established literature on conflict and trust by introducing the notion of conditional trust, enriching the notion of exposure to conflict through the construction of specific experiences of conflict, and by developing a framework linking conflict and trust that highlights the key mediating role played by self-efficacy. By highlighting the subtleties in the link between conflict and trust, the analysis provides a road map for reconciling existing results in the literature and developing a future agenda.

We also add to the literature on the formation and stability of economic preferences. As economic preferences emerge in childhood and remain stable from late adolescence, many studies have focused on their intergenerational transmission [Dohmen *et al.* 2012, Doepke and Zilibotti 2017, Kosse *et al.* 2020, Falk *et al.* 2021, Chowdhury *et al.* 2022]. We extend this to understand how experiences of conflict relating to parent-child interactions such as parental trauma and socialization, distinctively shape self-efficacy and the link between exposure to conflict and trust.

Finally, our granular analysis of experiences of conflict contributes to a nascent literature on the role of memory and narratives in economic outcomes. On memory, the focus has largely been on formalizing processes of recall, or understanding limitations that recall biases or motivated beliefs have for choices [Mullainathan 2002, Gennaioli and Shleifer 2010, Bordalo *et al.* 2020, Fudenberg *et al.* 2022]. On narratives, economists increasingly recognize they shape expectations and macroeconomic outcomes [Akerlof and Snower 2016, Shiller 2017, Bénabou *et al.* 2018]. Nonetheless, empirical evidence on both the role of memory and narratives for individual decision making remains scarce. Our work provides new evidence that memory and narratives/socialization shape the link between conflict and trust through the generation of self-efficacy early in life.

Section 2 develops a framework to make precise the notion of conditional trust, and microfound the link between conflict and trust. Section 3 details the Sierra Leonian civil war. Section 4 describes our data and key measures. Section 5 presents results on the relationship between exposure to conflict and trust. Section 6 uses the framework to guide the analysis of mechanisms. Section 7 discusses external validity, reconciles our data with a literature documenting *negative* impacts of conflict on psychological traits, and outlines an agenda for future work. Section 8 concludes. Additional results are in the Appendix.

2 A Framework for Understanding Conditional Trust

We develop a parsimonious framework to characterize the concept of conditional trust, and micro-found the link between conflict and trust preferences. We do so in the context of a static model of random pairwise interactions. This is appropriate for anonymized market exchange, the effective functioning of which is critical to post-conflict recovery and economic growth more broadly [Knack and Keefer 1997]. As detailed later, such one-off anonymized interaction closely matches the wording of the survey question we use to measure generalized trust. The framework and data are less appropriate for understanding repeated (non-market) exchange, such as in informal risk sharing. There is of course a vast theoretical literature exploring how trust/cooperation can be fostered in repeated interactions, where patience and punishment strategies, signaling reputations and third party enforcement are all more relevant for fostering trust.

Despite its parsimony, the framework provides intuitive ways to encompass other prominent explanations on why conflict affects trust. We derive comparative statics on how mediators of trust are impacted by conflict, how this impacts conditional trust, and can have asymmetric effects on outright trust and outright distrust of others. This provides testable predictions to distinguish between some alternative hypotheses for the link between conflict and trust.

2.1 Set up

To begin with, consider a simple scenario where individuals can only either choose to trust (T) or not trust (NT) another anonymous agent upon meeting them. We later introduce the notion of conditional trust (CT). We view trusting others as a gamble with two potential outcomes that depend on whether the partner cooperates or not. If the partner cooperates, the individual obtains a high payoff \bar{c} . This occurs with probability p , which captures the prior belief an individual holds that their partner cooperates. With probability $1 - p$ the partner does not cooperate and the individual obtains the low payoff \underline{c} , which we normalize to zero. The alternative (safe) option is for the individual not to trust their partner, and obtain a guaranteed payoff \tilde{c} where $\underline{c} = 0 < \tilde{c} < \bar{c}$.

Individuals have a concave utility function $u(\cdot)$ with $u(0) = 0$. If the individual trusts her partner, her expected payoff is $pu(\bar{c}) + (1 - p)u(\underline{c}) = pu(\bar{c})$, and if she does not trust then her payoff is $u(\tilde{c})$. Hence, if the agent's choice is restricted between trusting or not trusting, the individual prefers to trust if:

$$\mathbf{T} \succeq \mathbf{NT} : p \geq \frac{u(\tilde{c})}{u(\bar{c})} = \alpha. \quad (1)$$

This captures the standard intuition that trust is more likely to occur if the individual's belief over the trustworthiness of their partner (p), the gains from cooperation ($\frac{1}{\alpha}$) are sufficiently high, or the agent is less risk averse.

We now introduce a third option: to conditionally trust the partner. We operationalize this

by assuming an individual can undertake actions at cost $k \in [0, K]$, to increase the probability of the partner cooperating from p to $\lambda(p)$ where $\lambda(p) \geq p$ for all $p \in (0, 1)$, $\lambda(0) \geq 0$, and $\lambda(1) = 1$. Our approach thus views the cooperation of others as open to change, and not immutable: trustworthiness is not a fixed ‘type’. Figure 1A shows an example $\lambda(p)$ function (in bold). $\lambda(p)$ need not be increasing everywhere, it is only assumed $\lambda(p) \geq p$ for all $p \in (0, 1)$. Hence the dashed $\lambda(p)$ function is also permissible.

We use the term ‘self-efficacy’ to capture the ability of an individual, or their belief in themselves, to increase the cooperativeness of their partner ($\lambda(p) - p$). Self-efficacy intuitively relates to individual actions such as the ability to persuade or negotiate with others to make them more cooperative, and such actions come at cost k . This is narrower than the original formulation of self-efficacy in the psychology literature, where self-efficacy describes one’s ability to execute actions required to reach a particular goal [Bandura 1977]. In Bandura’s original formulation, perceptions of self-efficacy are derived from four sources: accomplishments, vicarious experiences, verbal persuasion and physiological states.

2.2 Solution

The expected payoff from conditionally trusting the agent is $\lambda(p)u(\bar{c}) + (1 - \lambda(p))u(\underline{c}) - k = \lambda(p)u(\bar{c}) - k$. With this notion of conditional trust, individuals differ along two dimensions: their beliefs about others, and their self-efficacy. The following conditions then identify when an individual would prefer to conditionally trust their partner rather than trusting them outright, or not trusting them altogether:

$$\begin{aligned} \mathbf{CT} &\succeq \mathbf{T} : [\lambda(p) - p]u(\bar{c}) \geq k, \\ \mathbf{CT} &\succeq \mathbf{NT} : [\lambda(p) - \alpha]u(\bar{c}) \geq k. \end{aligned} \tag{2}$$

The solution is in Figure 1B. There are three regions corresponding to when the individual would prefer to trust, not trust or conditionally trust the partner. In the bottom-left corner of $\{p_i, k_i\}$ -space, when belief over the trustworthiness of the partner (p) is very low, then even if the cost of making use of self-efficacy (k) is low, the individual would prefer to not trust because the marginal gains from trusting (proportional to $\lambda(p) - p$) are too small. In the bottom-right corner, when p is very high then the individual does not need to use their self-efficacy, even if the cost of doing so is low, in order to trust. For intermediate values of p , the highest levels of costs of self-efficacy can be borne to conditionally trust the partner.²

²If $k = 0$ the model predicts the partner would never be trusted as $\mathbf{CT} \succeq \mathbf{T}$ when $k = 0$, and only the lowest p beliefs sustain not trusting as preferred to conditional trust. Given in our data, a large share of respondents report trusting others, the evidence does not support self-efficacy being costless.

2.3 Self-Efficacy as a Mechanism Linking Conflict and Trust

Conditional trust depends on factors that (i) have been emphasized in the earlier literature in economics and political science on trust and conflict such as beliefs over others (p), the gains from cooperation ($\frac{1}{\alpha}$) and risk aversion; (ii) have been more discussed in the psychology literature. In this literature, largely based on case studies with survivors of serious trauma (accidents, rape, near-death experiences etc.), it is documented that exposure to extreme trauma can lead to greater self-reflection and greater personal hardiness [Tedeschi *et al.* 1998, Tedeschi and Calhoun 2004]. Anthropological studies have also noted individuals exposed to conflict display surprising resilience [Betancourt and Khan 2008]. This body of work thus stresses positive changes to individuals that can arise from exposure to conflict – collectively labelled as ‘post-traumatic growth’. This notion is captured in our framework through the idea of self-efficacy.³

Viewing this as a key mediator of conflict onto trust preferences, Figure 1C shows the comparative statics on trust if belief in oneself rises from $\lambda(p)$ to $\lambda^*(p)$ where $\lambda^*(p) > \lambda(p)$ for all $p \in (0, 1)$. The figure shows that for any given underlying distribution of $\{p_i, k_i\}$, an increase in self-efficacy from $\lambda(p)$ to $\lambda^*(p)$ increases the likelihood of conditional trust, and causes asymmetric reductions in the likelihood of not trusting and of trusting others.

While we have emphasized positive changes or post-traumatic growth arising from exposure to conflict, we recognize that a separate literature examines how exposure to violence can have negative psychological impacts, such as increased anxiety. If so, the comparative statics in Figure 1C are reversed. We return to discuss this more fully later.

Finally, we reiterate that our focus is on microfounding the link between conflict and trust – with self-efficacy being a key mediator. How traumatic events generate self-efficacy as a coping strategy has been much discussed in psychology [Bandura 1997]. Benight and Bandura [2004] describe a body of evidence showing how different types of traumatic experiences – including military combat, sexual and criminal assaults – can all generate self-efficacy as a coping mechanism. We are able to dig into this empirically using a refined typology of experiences of conflict, to see how direct exposure, memory and narratives/socialization each shape self-efficacy.

2.4 Alternative Mechanisms

The framework captures other explanations for why conflict can impact trust, and so can potentially provide testable ways to distinguish between them.

A prominent class of explanation is that exposure to conflict changes beliefs about the trustworthiness of others. One suggested mechanism is via parochial norms, whereby conflict strengthens

³By making precise what respondents might have in mind when expressing conditional trust, our work relates to the long-standing debate around the standard World Values Survey measure of generalized trust, in that it captures beliefs over the trustworthiness of others rather than trust in others [Glaeser *et al.* 2000, Sapienza *et al.* 2013]. Our framework makes clear how the two relate and richens up the set of determining factors for generalized trust – beyond just preferences (risk aversion, inequality aversion, altruism) that are all captured in $u(\cdot)$.

social preferences towards ingroups [Heinrich and Boyd 2001, Choi and Bowles 2007]. In our framework this can be interpreted as p being a population-share weighted average of high beliefs of cooperation if matched to an ingroup member, and low beliefs of cooperation if matched to an outgroup member. How this impacts generalized trust preferences depends on the likelihood of matching with an ingroup member, and the increased strength of ingroup cooperation caused by conflict. We provide direct evidence on this below.

Another variant is that conflict causes individuals to hold less extreme beliefs over others – say because both acts of violence and acts of protection are experienced. As a result, the distribution of p moves away from the tails. As Figure 1D shows, this direct effect of conflict on trust through beliefs over others, p , can then also imply a reduction in the likelihoods of not trusting or of trusting, and an increase in the likelihood of conditional trust. The impact of exposure to conflict on trust preferences is then similar to when conflict raises the self-efficacy of individuals.

A related explanation is that through conflict, individuals learn about the trustworthiness of others. Interpreting p as the prior belief held about the partner cooperating, and if $\lambda(p)$ represents the posterior belief after some signal of the partner’s type is observed, then the model can be recast as one in which conflict allows individuals to learn about others. In the current formulation $\lambda(p) > p$ so individuals only ever receive good news about the cooperativeness of others. With learning, individuals update their beliefs either positively or negatively. The latter is more likely to occur the higher the prior belief is to begin with. In other words, $\lambda(p)$ lies above p for low p and lies below p for high p . If exposure to conflict affects trust preferences through this channel, the predicted effects on trust preferences are the opposite to what occurs if conflict increases self-efficacy, potentially causing conditional trust to fall, and outright trust to rise.⁴

A second class of explanation more rooted in neoclassical approaches are that conflict increases the return to investing in social capital because of a loss of formal institutions during conflict, or as a way to build personal safety and security. These channels are captured in the gains from cooperation, $\frac{1}{\alpha}$. As these rise, the model predicts outright trust rises, outright distrust falls, and conditional trust might rise or fall depending on $\lambda(\cdot)$. Similarly if exposure to conflict increases risk aversion, the utility function becomes more concave so increasing the threshold in p for the individual to prefer trusting the agent to not trusting the agent. This has more pronounced effects on shifting the tails of trust preferences from outright trust towards outright distrust of others, while conditional trust might rise or fall.⁵

⁴Some have argued that a ‘security dilemma’ leads individuals to update their beliefs that others are not trustworthy in general [Walter and Snyder 1999], while arguments related to ‘collective coping’ suggest improved cohesion with neighbors in order to defend themselves [Pennebaker and Harber 1993].

⁵If exposure to conflict increases risk aversion then the utility function becomes more concave increasing $\frac{u(\tilde{c})}{u(c)}$ and the threshold in p for the individual to prefer trusting the partner. There is mixed evidence on link between exposure to conflict and risk aversion. Some studies find evidence of higher risk taking using lab-in-the-field experiments [Voors *et al.* 2012], while others find evidence of lower risk taking or a stronger preference for certainty [Callen *et al.* 2014, Moya 2018, Jakiela and Ozier 2019].

Finally, the framework encompasses an alternative interpretation of what respondents mean when they report conditional trust. If individuals provide this reply whenever they are close to indifference to trust or not trust others, the region of conditional trust just spans the threshold for p described in (1) and changes in self-efficacy have no impact on conditional trust – something that is testable (and indeed ruled out by the evidence we provide below).

3 Study Context: The Sierra Leonian Civil War

The framework developed is general and can be potentially applied to many conflict scenarios. To narrow our focus, we discuss the specifics of the 1991-2002 civil war in Sierra Leone, two features of which have important implications for our analysis. First, the violence largely did not operate along ethnic, religious or political party divides [Conibere *et al.* 2004, Humphreys and Weinstein 2006, Bellows and Miguel 2009]. As such, it might not be expected to strengthen ingroup ties or create increased animosity towards outgroups (as we later show). Second, it is widely recognized as being characterized by indiscriminate episodes of violence and abuse of civilians from all armed sides in the conflict. The conflict spread in waves, rather than being concentrated in specific areas/cities. As a result, the decade long conflict spread to nearly all Chiefdoms in Sierra Leone, leaving the majority of households – and individuals of both genders and all ages – potentially exposed to violence and acts of victimization.

On the eve of the conflict, Sierra Leone was ranked 153rd out of 181 countries in terms of GDP per capita. Three decades of one-party predatory rule by Siaka Stevens first and General Momoh later had left the country on the brink of economic collapse. The conflict began in March 1991 when the Revolutionary United Front (RUF), with support from the special forces of Charles Taylor’s National Patriotic Front of Liberia (NPFL), intervened to overthrow the Momoh government with the stated aim of ending its period of corruption and ineptitude [Reno 1995, Richards 1996].

The RUF were the main perpetrators of violence in the conflict, but had no political, ethnic or religious affiliation [Bellows and Miguel 2009]. They conscripted disenfranchised youths from across Sierra Leone as well as Liberian refugees. They also used child soldiers from Sierra Leone, many of whom were forced to abuse their own communities. Chiefdoms bordering Liberia experienced the most intense and prolonged exposure to violence because the RUF and NPFL entered Sierra Leone via Liberia, their headquarters were based there, and these Chiefdoms were also rich in diamonds – control of which helped finance the conflict.

By 1992 the Sierra Leone Army (SLA) had taken over the government. Like the RUF, they were drawn from across ethnic groups, and also employed child soldiers – a quarter of the SLA was aged below 18. As is well documented, there was a degree of cooperation between the SLA and the RUF – they coordinated movements to avoid direct battles, and sometimes made profit sharing arrangements in diamond areas. The extent of cooperation was such that some soldiers

apparently fought for the SLA by day and the RUF by night. As a result, the SLA engaged in looting to such an extent that they became known as ‘rebels by night’ and over time became largely indistinguishable from rebels in terms of their violence towards civilians [Bellows and Miguel 2009].

In 1993 a government offensive supported by ECOMOG pushed the RUF back towards the Liberian border. Notwithstanding this effort, the RUF regained territories, approaching the capital Freetown in 1995. This period saw the conflict spread to many more Chiefdoms throughout Southern and Western Sierra Leone.

In 1997, the Armed Forces Revolutionary Council (AFRC) split from the SLA, staged a coup, united with the RUF and took over Freetown [Keen 2005]. Looting, rape, murder followed, alongside a complete collapse of most state institutions.

To protect themselves from attack by the RUF and SLA, many communities organized Civil Defense Forces (CDF). While many acts of heroism were conducted by CDF fighters, over time some CDF members also began to abuse civilians, enter the illicit diamonds trade, and utilize child soldiers [Keen 2005].

After a further brutal rebel attack on Freetown in 1999 and failed peace talks, in 2000 the UK, UN and Guinea intervened to conduct a disarmament campaign and secure a peace treaty – involving the demobilization of the RUF and the reintegration into society of its members. In January 2002 the civil war was declared to be over.

On the eve of the conflict in 1991, the population of Sierra Leone stood at 4.5 million. By its end, 2.5 million individuals had been displaced from their homes, 50,000 were casualties, and approximately 18,000 had died. Despite the collective trauma, the country has seen a period of post-conflict political stability and economic recovery. National elections were held in 2002, closely followed by the first local elections in decades in 2004, and the post-conflict decade was one of largely sustained economic growth.

We use the *Uppsala Conflict Data Program* (UCDP) as our key data source on conflict events during the civil war. This data codes conflict-related events at the Chiefdom-year level, based on official, NGO or journalistic records. A conflict event is defined as the use of armed force by an organized actor against another, or against civilians, that resulted in at least one death. The data records the exact location and time of each event, the parties involved, the number of civilian casualties (and whether they occurred at the hands of rebels or state forces), and fatalities on each side. We retain only those events for which the Chiefdom can be retrieved with confidence: this results in the selection of 1,297 events (out of 1,495 available in the UCDP data for the Sierra Leone civil war). We aggregate events within a Chiefdom and year to construct measures of violent conflict by Chiefdom-year.⁶

⁶This UCDP covers conflicts that cause at least 25 deaths in a given year. The alternative source to the UCDP used in conflict research is from the Armed Conflict Location and Event Data Project (ACLED). We use the UCDP because: (i) it spans the entire period of the civil war in Sierra Leone (while ACLED starts only in 1997); (ii) ACLED has looser definitions of events and actors, and thus includes protests and troop movements for example; (iii) UCDP focuses on episodes of explicit violence against civilians – that are most relevant for our

Figure 2 shows the geographic spread of the conflict across the 149 Chiefdoms in Sierra Leone. Each panel shows the cumulative conflict in each Chiefdom, at four key dates: its initiation in 1991, when the RUF began to be pushed back by the SLA in 1993, the initial taking of Freetown by the RUF in 1997 and the conflict end in 2001. This shows how the conflict spread from Chiefdoms close to the Liberian border, and this spread occurred in waves driven by political events exogenous to factors specific to any given Chiefdom. In all regions, we observe wide variation in cumulative conflict across Chiefdoms, and even among neighboring Chiefdoms.

Figure 3 shows the time series variation in conflict by Chiefdom, grouping the 14 districts into three regions. Within Chiefdom, a grey cell indicates a year of no conflict, and a red cell indicates a year with conflict. The Figure highlights the intermittent nature of conflict within Chiefdoms: (i) while 98% of Chiefdoms experienced at least one conflict spell, more than 90% of Chiefdoms experienced gaps of at least a year between conflict episodes; (ii) the average length of a conflict episode within a Chiefdom is 1.6 years; (iii) the autocorrelation in casualty numbers within a conflict spell quickly falls, so as with the extensive margin, the intensity of conflict rises and falls sporadically within Chiefdoms over time.

This evidence all suggests that during the conflict it would be difficult to migrate across Chiefdoms to avoid violence. Indeed, below we document that few respondents migrated during the conflict, with the majority of cross-Chiefdom migration occurring post-conflict. Moreover, given the lack of contraceptive availability in Sierra Leone at the time, it would be equally difficult for parents to strategically delay fertility during the conflict in order to ensure their child was less exposed to violence. The foot of Figure 3 shows a histogram of year of birth in our sample: we observe a slight baby boom in the last year of the conflict, when it would be most apparent that the conflict was over. We later examine in more detail the robustness of our findings to concerns related to strategic migration or delay in fertility timing to avoid exposure to violence.⁷

4 Data, Key Variables and Empirical Method

4.1 Data Sources

Our data was collected as part of an evaluation of a life skills intervention targeting young girls and women in 200 villages in four districts of Sierra Leone: Kambia, Moyamba, Pujehun and Port Loko [Bandiera *et al.* 2020]. Our baseline data was collected in 2014, from a representative sample of young girls and women aged 12 to 24 resident in these villages. Hence all respondents were

research question on the formation of trust preferences; (iv) the UCDP data has been argued to have higher quality for the kinds of research question that we seek to address [Eck 2012].

⁷Data from the 2004 census shows that pre-conflict, there is a steady upward trend in cohort size – starting from the 1970s – and this does not break with the conflict starting in 1991, nor does this trend change in the conflict years. Overall, census data do not suggest aggregate falls in fertility away from their long run trend over the conflict period. The census data re-confirms the finding from our sample shown in Figure 3, that there is an increase in cohort size in the final year of the conflict.

born between 1990 and 2002 and we trim the sample to focus on those born during the civil war. Our working sample comprises 4,188 respondents all born at some point of the civil war between 1991 and 2001 inclusive. This corresponds to the daughters of the generation of conflict survivors surveyed in Bellows and Miguel [2009].⁸

Respondents are on average aged 18, 63% are in a relationship, 53% have ever been pregnant and 30% are married. In terms of family background, 16% belong to a ruling family, and 10% (3%) report their father (mother) to have attained higher levels of education.⁹

4.2 Measuring Trust Preferences

We measure generalized trust at baseline using a question with similar wording to the World Values Survey or Afrobarometer: “*In general do you think people can be trusted, or that they cannot be trusted?*” However, in contrast to these cross-country surveys, we allow respondents to answer yes, no, or it depends (as well as allowing for don’t know or refusals).¹⁰ 11% of respondents say no (so report outright distrust of others), 37% say yes, and 51% say it depends. Hence the modal answer is not one that is routinely permitted: it highlights the prevalence of *conditional trust* among those born into conflict. This response does not reflect respondent uncertainty: no respondents answered the trust question with ‘don’t know’ or refused to answer. We later show that trust preferences do not correlate with indecisiveness as measured in other survey modules.¹¹

4.3 Measuring Exposure to Conflict

Migration Journals We measure individual exposure to conflict using information from migration journals that we collected from each respondent as part of our midline survey in 2016. We asked each respondent their entire history of Chiefdoms of residence, from their place of birth through to their current Chiefdom. These migration journals thus build migration histories spanning conflict and post-conflict years. We record each Chiefdom resided in for at least six months over this period, for each respondent. For each migration spell we record the Chiefdom, year of

⁸The survey modules covered a sequence of sensitive subjects – not just those related to conflict, but also topics relevant for the underlying evaluation such as risky behaviors, and experience of intimate partner violence. As a result, all surveys were conducted by a trained group of women enumerators.

⁹A respondent belongs to a ruling family if household members are eligible for the role of Paramount Chief (district -level) and sub-Chief (chiefdom level). This pre-colonial institution remained the form of sub-national governance until 2004 in Sierra Leone. Eligibility for ruling positions is hereditary, and several families can be eligible within a Chiefdom. Having higher education is completing at least one year of Senior Secondary School (SSS1/form 4 and above), including Teacher’s College. Respondents identify as belonging to one of ten ethnic groups/tribes. In our analysis we include dummies for the three largest ethnic groups: Mende, Temne and Limba. The other 7 (corresponding to 3% of the sample) and are the excluded category throughout.

¹⁰In the WVS the exact wording of the trust question is, ‘*Generally speaking, would you say that most people can be trusted or that you need to be very careful in dealing with people?*’ Permitted answers are, ‘*most people can be trusted*’, ‘*need to be very careful*’, ‘*don’t know*’, ‘*no answer*’, or ‘*other missing*’.

¹¹Our trust measure was collected prior to the Ebola outbreak, that started after our baseline data collection.

the start/end of the spell.¹²

Table A2 shows that among the sample for which we have migration journals for, trust preferences do not correlate with attrition (Column 1), and this remains true if we condition on individual and village controls (Column 2).¹³

The 4,188 respondents collectively report 4,795 migration spells. 31% still reside in their Chiefdom of birth. Only 14% migrated during the conflict – the majority of cross-Chiefdom migration occurs post-conflict (and only 5% of all migration spells occur post-Ebola). While our baseline sample was drawn in 2014 from those resident in 23 Chiefdoms across 4 districts for evaluation purposes, given migration histories, respondents are drawn from 101 Chiefdoms of birth across 14 districts.

Panels A and B of Figure A1 shows cumulative conflict in these Chiefdoms of birth, and Chiefdoms of residence when migration journals were collected. For those respondents who migrated during the conflict, the lower panels provide evidence on how origin and destination Chiefdoms compare in terms of conflict intensity. We calculate: (i) the difference in the total number of episodes of violence at the time of migration between their Chiefdom of origin and destination; (ii) the difference in the total number of episodes of violence that took place between their origin and destination Chiefdom post-migration. Panels C and D show histograms of each of these differences. For both measures there is a mass point in the difference of conflict intensity at zero episodes. Hence for the 14% of respondents who migrated during the conflict, we do not see evidence of systematic migration towards Chiefdoms with lower conflict, either overall or post-migration.

To construct individual measures of exposure to conflict we then geo-reference the information from migration journals to UCDP geo-coded conflict data. This matching by Chiefdom-year allows us to construct: (i) on the extensive margin, whether the individual was ever in the vicinity of conflict (in the same Chiefdom-year as a conflict event); (ii) on the intensive margin, the cumulative exposure to conflict at any given age. To get a sense of what it means to be in the vicinity of conflict, we note that on average, Chiefdoms have area of 480km², equivalent to one third the size of London, or the same as Nashville.

¹²Two points are of note. First, displacements of residence *within* Chiefdom are not recorded, nor are those occurring across Chiefdoms but for less than six months. This differs from the measures of internally displaced individuals recorded in UCDP data (that measure displacements to any different location, including those within Chiefdom) and also might differ from what individuals provide in self-reported victimization data. For example, there are accounts from the conflict of entire communities temporarily displacing themselves to the outskirts of their villages in advance of troop arrivals or battles. Second, we asked respondents to provide the reason for each change of residence: in most cases this is missing, reflecting that girls were in childhood during the conflict and often do not know the reason for household migration.

¹³Reliable data on age is determined through age and year of birth being consistent across surveys, the place of birth is known and the migration journal does not have missing spells. Alternatively, there might be minor inconsistencies in reported age across surveys, but the respondent is either exposed or not exposed to conflict regardless of the implied year of birth used. 98% of the tracked sample follow one of these routes.

Descriptives Table 1 describes the exposure to conflict measure. For the full sample in Column 1 we see that 62% of respondents have ever lived in a Chiefdom where conflict occurred. 44% were exposed at birth (so born directly into conflict). The vast majority (97%) were exposed in their Chiefdom of birth – very few individuals were able to migrate prior to being exposed in their Chiefdom of birth. This reflects the low levels of migration during the conflict, and difficulty of using migration as a strategy to avoid conflict. The average respondent was first exposed to conflict at age 1.5, and then cumulatively exposed to around six violent events during the war. For individuals who migrated during the conflict, they did so once, while 68% of respondents migrated post conflict.

Columns 2 and 3 compare those who migrated during the civil war to those that did not. Migrants are more likely to be in the vicinity of conflict at some point, cumulatively exposed to more conflict events, and also more likely to migrate post-conflict. Columns 4 and 5 compare exposure to conflict between those from ruling families to those from non-ruling families. Many accounts of the civil war highlight that the one group the RUF targeted for attacks were members of traditional authority households, akin to local elites [Richards 1996, Keen 2005]. However, we do not find stark differences in their patterns of exposure to conflict on either extensive or intensive margins, or their propensity to have migrated during the conflict.

Table A3 shows correlates of exposure to conflict on the extensive and intensive margins (Column 1 and 2). The main correlate is age (equivalent to year of birth). Although the dummies for tribe are collectively significant this likely reflects their geographic distribution. In line with narratives of the war, other factors such as family background, being part of a ruling family and religion are not predictive of exposure to conflict.

4.4 Constructing Experiences of Conflict

To provide granular evidence on how exposure to conflict impacts trust preferences, we exploit the full richness of our data to construct a typology of experiences of conflict. This combines information on: (i) the geo-coded measure of exposure to conflict; (ii) self-reported recall of victimization during the civil war; (iii) ages at which the individual is exposed to conflict. This detailed typology provides insights into how memories and narratives shape experiences of conflict, and can lead to the generation of self-efficacy.

4.4.1 Self-reported Victimization

At baseline, we collected first-person accounts of direct exposure to fighting and violence during the civil war. The forms of victimization we asked respondents about are comparable to those in Bellows and Miguel [2009]: whether there was fighting in their area, they were personally harmed, their family was harmed, they were a refugee overseas, or they were internally displaced. For each victimization type, we ask individuals whether they recall being victimized in this way during the

conflict. They can respond with yes, no, or state they were too young/do not recall. For those that report they were too young/do not recall no recollections on all dimensions of victimization, we refer to them as not recalling the war.

54% of individuals recall the civil war or are willing to discuss victimization during it. Of these, 80% experienced victimization first-hand, while the other 20% recall the war but report not being victimized during it. Figure 4A details the victimization data. The left hand panel shows how self-reported victimization relates to the geo-coded measure of exposure to conflict. Among those in the vicinity of conflict, 64% recall the war, and conditional on recall, 87% recall being victimized. Of the sample geo-coded never in the vicinity of conflict, 39% recall the war, and conditional on recall, 63% recall being victimized.

The right hand panel of Figure 4A shows that among those self-reporting victimization, 78% observed fighting in their area, 62% were internally displaced, 12% were a refugee overseas, 41% had their family harmed, and 6% were personally harmed. This ranking fits accounts of the civil war in Sierra Leone, with conflict occurring in nearly every Chiefdom, the majority of the population being displaced, and violence being inflicted on civilians by all parties. The fact that respondents were born into the conflict also helps explain the low levels of personal harm reported relative to reports of family members being harmed.^{14,15}

As expected, there is an imperfect mapping between the geo-coded and self-reported measures of exposure to conflict. Of those geo-coded to be in the vicinity of conflict, 56% recall the war *and* being victimized. Of those geo-coded not ever be in the vicinity of conflict, 25% recall being victimized during the conflict. These discrepancies are informative. Our sample were all born during the conflict, and hence might be too young to themselves recall events – but rather report narratives of the conflict handed down to them from parents and others.

Digging into this further, Figure 4B details how recall of the civil war, reporting any form of victimization, and the geo-coded measure of exposure to conflict, all vary with age. All three indicators increase with age, as expected. For cohorts born later in the conflict (and so with a lower age in 2001), the gap between victimization rates and actual vicinity to conflict are greatest. These series narrow with age (as we move to the right hand side of the figure). For those born early in the conflict, and so aged 6 and above by the end of the civil war, there is near convergence in rates of victimization and the geo-coded measure of residing in the vicinity of conflict. This further

¹⁴Our sample of respondents born into the civil war corresponds to the daughters of the generation of conflict survivors surveyed in Bellows and Miguel [2009]. They find that 44% of respondents reported a family member being killed during the conflict; 35% had a family member being injured (close to the figure in our sample); 38% report being refugees during the conflict (that is far higher than in our sample).

¹⁵Among the sample reporting any victimization, the correlates of being in the vicinity of conflict remain largely unchanged (Table A3, Columns 3 and 4). Columns 5 to 11 in Table A3 shows correlates of victimization: again age is the predominant predictor of recalling victimization, and is positively correlated to reports of family being harmed, being internally displaced or there being fighting in their area. In line with accounts of the civil war, we find those from ruling families are more likely to report experiencing some form of victimization, and specifically, being a refugee overseas.

hints that for girls born nearer the end of the conflict, this gap between self-reported victimization and actual exposure to conflict is partially explained by a process of socialization, where they have heard narratives about the civil war, and this influences self-reported victimization a decade later.

4.4.2 A Typology of Experiences

We combine the geo-coded measure of exposure to conflict, self-reported recall and victimization data, together with information on ages of exposure to construct a typology of experiences. Our objective is to distinguish between respondents who are more likely to be suppressing memories of conflict, those that are more likely to have direct first hand accounts of conflict, and those whose narrative of conflict is more likely to be second-hand. In this construction, age of exposure is critical because memory formation begins largely after age three. It is thus useful to consider if an individual was aged 0-2 when in the vicinity of conflict (and so prior to significant memory formation), and/or whether the individual was aged 3 and above when in the vicinity of conflict, and hence more capable of retaining first-hand memories of conflict.¹⁶

For each period in a respondent’s life – when aged 0-2 and when aged 3 onwards, we consider whether the individual: (i) was in the vicinity of conflict using the geo-coded measure; (ii) recalls any form of victimization. This provides an 8-way mutually exclusive classification of respondents, as shown in the left hand side of Figure 5. We use this 8-way classification to naturally group respondents into five distinct types of *experience* of civil war.

To begin with, consider those with no recall of victimization during the civil war, corresponding to rows 1, 3, 5 and 7 in Figure 5. While these might typically be grouped together in earlier work using self-reported recall, our data allows a finer gradation among them.

Respondents in row 1 are never in the vicinity of conflict at any stage of childhood, nor do they recall victimization. The civil war took place in their country, but they did not experience it first hand either because they were born after the violence took place (or far more rarely, they moved Chiefdom prior to violence occurring). Nor do they recall any victimization. We refer to this group as having been exposed to a ‘background narrative’ experience of the civil war. They form a natural benchmark group from which to consider other experiences: 27% of respondents are of this type.¹⁷

Consider next those in rows 3 and 7 in Figure 5: these individuals were all in the vicinity of conflict at age 3 or later – so have a higher likelihood of having memory-based recall of the war. Yet they do not recall any form of victimization, including fighting in their area. We thus refer

¹⁶Pro-social motivations develop from age 3 and into adolescence, although much of this evidence is based on WEIRD samples [Fehr *et al.* 2008]. As children rely on parents for priors that shape their responses to new information, socialization during childhood can also affect attitudes [Dohmen *et al.* 2012, Doepke and Zilibotti 2017, Kosse *et al.* 2020, Falk *et al.* 2021, Malmendier 2021, Chowdhury *et al.* 2022].

¹⁷This benchmark group comprises those that survived the civil war but did not experience it first hand. This is not the same as a control group that never experienced civil war altogether, or for whom civil war was a distance event. Such counterfactuals simply do not exist in the context of the civil war in Sierra Leone.

to these groups as ‘traumatized’ in that their experience of the conflict leads them to suppress memories – they are unwilling to talk about the conflict or any form of victimization. 9% of respondents fall into this type.

Those in row 5 were not in the vicinity of conflict from age 3 onwards, nor do they recall any victimization. These respondents are similar to those with a background narrative except they were exposed to violent events when aged 0 to 2 – yet narratives of these events have not been passed onto them by their parents or others. Their experience of conflict is filtered through their parents, who might either be deliberately trying to protect their children, or who themselves might be traumatized and so unable to pass on such narratives. We refer to this group of respondents as those with parental trauma: 14% fall into this type.

We next consider those with recall or victimization (rows 2, 4, 6 and 8 in Figure 5). Consider those in rows 2 and 6: neither group were in the vicinity of conflict from age 3 onwards, when their direct memories would have formed. Yet they recall being victimized. We thus refer to these individuals as having the experience of being ‘socialized’, in that their victimization recall stems from narratives told to them rather than from their own direct experience. This includes those in row 4: like those with parental suppression (row 5), this group did have violent events occur in their Chiefdom of residence when aged 0 to 2, but the key distinction from those in row 5 is that they are able to recall such victimization – suggesting the narratives passed on differ between the socialized and parental trauma experiences. 16% of respondents fall into this type.

Finally, those in rows 4 and 8 were all in the vicinity of conflict from age 3 onwards, when direct memories are more likely to form, and they recall being victimized. We refer to these individuals as having experienced conflict ‘directly’. 25% of respondents fall into this type.

We thus construct a mutually exclusive five-way typology of experiences of civil war: those with a background narrative, those socialized, those with direct experience, those traumatized, and those whose parents are traumatized. Each group is well represented in our sample (with the smallest group still having 9% of respondents in it). Although there are clearly issues related to measurement error, alternative groupings and interpretations, given such experiences have not previously been considered in work linking conflict and trust, and they potentially provide insights into how conflict generates self-efficacy, we proceed with this specific formulation.

4.4.3 Descriptive Evidence on Experiences of Conflict

To underpin the usefulness of the typology, Table 2 provides descriptive evidence by experiences of conflict. Panel A focuses on family background. As expected, those traumatized or with direct experience of conflict are older (and so born earlier into the conflict). Those with direct experience or trauma are also most likely to have migrated during the civil war.

Panel B focuses on the geo-coded measure of exposure to conflict, the key advantage of which is that it can be measured for each experience. By definition, those subject to the background

narrative are never in the vicinity of conflict. Comparing those traumatized to those with direct experience, these groups are exposed to a similar number of violent events with similar numbers of total and civilian casualties. Where they differ is the former group are significantly more likely to have been exposed to events where civilians were targeted (especially by government forces) ($p = .011, .063$), and they have been exposed to significantly more years of conflict overall ($p = .000, 008$). The final column shows this pattern remains largely robust to conditioning on a polynomial in age and district of birth fixed effects.

Panel C focuses on self-reported victimization, that by definition is reported only for those with direct experience and those socialized. By construction, those with the background narrative recall the war but report no victimization. Comparing victimization accounts of those with direct experience to those socialized, we see the former report significantly higher rates of each form of victimization. The final column shows that once we condition on age and district of birth fixed effects, the significant differences are that those with direct experience are more likely to be internally displaced ($p = .017$), and those socialized are significantly more likely to be a refugee overseas ($p = .048$).

4.5 Measuring Self-Efficacy

Self-efficacy describes one’s ability to execute actions required to reach a particular goal [Bandura 1977]. In Bandura’s original formulation, perceptions of self-efficacy are derived from four sources: accomplishments, vicarious experiences, verbal persuasion and physiological states. We focus on one manifestation of this: the belief in oneself to increase the cooperativeness of others ($\lambda(.)$). We use two baseline survey modules to proxy this belief. The first relates to confidence respondents express in being able to conduct various tasks relevant for entrepreneurial activities, in which one-off anonymized exchange with others plays a major role. Although in the context of entrepreneurship, some of these questions link directly to interpersonal skills, powers of persuasion and cooperation with others.¹⁸ The second module relates to personal traits, including those related to interpersonal interaction. These questions related more to underlying notions of self-efficacy, grit, determination, locus of control, self-image and some elements of interpersonal interaction.¹⁹

¹⁸On entrepreneurial skills we asked a sequence of questions to elicit self-reported ability to perform the following tasks: (i) run your own business; (ii) identify opportunities to start a new business; (iii) obtain credit to start a new business/expand an existing business; (iv) save in order to invest in future business opportunities; (v) make sure your employees get work done properly; (vi) manage financial accounts; (vii) bargain to obtain cheap prices when you are buying inputs; (viii) bargain to obtain high prices when you are selling outputs; (ix) protect your business assets from harm by others; (x) collect money someone owes you; (xi) find information about paid work opportunities in your community. Responses to each were recorded on a 1-10 point Likert scale ranging from ‘definitely cannot do this’, to ‘can definitely do this’. Some of these dimensions pick up persuasion or communication skills, thus linking to a evidence from laboratory settings showing that pre-play communication, even if cheap talk, can enhance subsequent cooperation and trust [Charness and Dufwenberg 2006, Vanberg 2008, Serra-Garcia *et al.* 2013, Ederer and Schneider 2022].

¹⁹Specifically, we asked respondents’ agreement with the following statements about themselves: (i) if I start working on a task, I definitely see the end of it no matter how difficult it is; (ii) while doing any task, it is

Rather than pick specific questions, we use all of them to construct separate indices for entrepreneurial skills and personal traits, using the approach of Anderson [2008]. We also construct an overall index of self-efficacy that uses all questions across measures. We focus on this as our baseline measure, although also show impacts of each index separately, as well as the impacts of each and every component. Each index is standardized with respect to the control group (those not in the vicinity of conflict), so the impacts on the index can be interpreted as effect sizes.²⁰

4.6 Empirical Method

To analyze the relationship between exposure to conflict during the civil war and generalized trust measured more than a decade later, we treat generalized trust preferences – yes, no, it depends – as a sequence of unordered alternatives. The framework developed makes clear that allowing the flexibility for exposure to conflict to have non-monotonic impacts on trust preferences is key for understanding their link. We use the following multinomial logit model:

$$\begin{aligned} \log \left(\frac{\mathbb{P}[\text{trust}=\text{Yes} \mid C_i, \mathbf{X}_i]}{\mathbb{P}[\text{trust}=\text{It Depends} \mid C_i, \mathbf{X}_i]} \right) &= C_i\beta_Y + \mathbf{X}_i\gamma_Y, \\ \log \left(\frac{\mathbb{P}[\text{trust}=\text{No} \mid C_i, \mathbf{X}_i]}{\mathbb{P}[\text{trust}=\text{It Depends} \mid C_i, \mathbf{X}_i]} \right) &= C_i\beta_N + \mathbf{X}_i\gamma_N. \end{aligned} \quad (3)$$

In our baseline specification we consider the geo-coded measure of exposure, so $C_i = 1$ for those ever in the vicinity of conflict, namely if any conflict episode took place in the respondent’s chiefdom of residence while they resided there. We then examine the relationship between experiences of conflict and trust preferences. This sheds light on the roles that the suppression of memories of conflict, direct accounts of conflict, and second-hand narratives of conflict all play relative to those with a background narrative. Standard errors are clustered by village of residence at baseline.²¹

In each batch of three columns we show the average marginal effects from (4) for each trust response $j \in \{No, It\ Depends, Yes\}$:

$$\delta_j = \mathbb{E}_i (\mathbb{P}[\text{trust} = j \mid \mathbf{X}_i, C_i = 1] - \mathbb{P}[\text{trust} = j \mid \mathbf{X}_i, C_i = 0]), \quad (4)$$

important for me to do it better than others; (iii) if I have the chance, I would make a good leader; (iv) I want to be a respectful person in my village; (v) I do not care what others think about my success or failure; (vi) I am in control of what happens in my life; (vii) I save regularly; (viii) a person can get rich by taking risks; (ix) I often make plans for the future; (x) I believe that my future is determined by luck no matter how hard I work. Responses to each were again recorded on a 1-10 point Likert scale ranging from ‘definitely false’, to ‘definitely true’.

²⁰An alternatively widely used scale to measure self-efficacy is that developed by Schwarzer and Jerusalem [1995], although other researchers have used variants of this to capture the same basic concept [McKelway 2021]. While self-efficacy is distinct from traits such as self-esteem or locus of control, they are highly related and self-efficacy scales are indeed often validated through their correlations with these other constructs.

²¹The controls in \mathbf{X}_i include age (where we allow for a cubic polynomial in age at baseline), father’s education, ruling family status, religion and tribe dummies, village size and the average poverty score of households in the village of residence at baseline, and district of birth dummies.

The coefficient of interest δ_j is the average marginal effect on trust response j between those not ever in the vicinity of conflict ($C_i = 0$) to those in the vicinity of conflict ($C_i = 1$), holding constant all other covariates \mathbf{X}_i . These estimates are akin to intent-to-treat effects. The later results on experiences of conflict and trust are more akin to treatment-on-the-treated effects.

5 Conflict and Trust

5.1 Vicinity to Conflict

Table 3 presents our baseline results linking the geo-coded measure of being in the vicinity of conflict, when respondents were aged 0 to 11, to trust preferences expressed 14 years later.

We find that, irrespective of the set of controls, those who were in the vicinity of conflict are significantly more likely to report conditional trust ('it depends') rather than outright trust or distrust in others. When all covariates are conditioned on in Columns 2a-2c, the marginal effect of ever being in the vicinity of conflict is to increase conditional trust by 7.7pp, corresponding to a 16% increase over the level of conditional trust among those never exposed to conflict ($C_i = 0$). The estimated effect is precisely estimated, being statistically significant at the 1% level. This increase in conditional trust arises because of significant reductions in those reporting outright distrust of others (the marginal effect on not trusting others reduces by 2.8pp or 23% relative to those not in the vicinity of conflict), and in outright trust of others (the marginal effect on trusting others falls by 5pp or 13% relative to those not in the vicinity of conflict). We cannot reject equality of shifts from yes/no towards conditional trust ($p = .534$).

Three points are of note. First, the fact that exposure to conflict has persistent effects on trust preferences means there is no strong general equilibrium effect, where all individuals – even those never exposed – converge to conditional trust preferences as a best response to those that were exposed to conflict or through some process of collective coping [Pennebaker and Harber 1993, Lyons *et al.* 1998]. This already suggests that beliefs about others is unlikely to fully explain how conflict shifts trust preferences.

Second, that trust preferences non-monotonically move in from both extremes towards conditional trust is revealing. Had we used the simpler categorization of yes/no answers and modelled those as ordered choices, then those answering it depends would be shifted to these tails. This makes it more likely that no change in trust preferences is detected, which would be in line with the meta-analysis of Bauer *et al.* [2016], that finds on many dimensions of pro-sociality, those exposed to conflict tend to be more pro-social later in life, but imprecise null impacts are found for trust. Hence one way to reconcile varying results in the literature linking conflict and trust is to recognize the value in allowing respondents to express conditional trust – not doing so might lead to the false conclusion that trust preferences are unaffected by conflict.²²

²²The framework makes precise exactly how those expressing conditional trust would be reallocated to yes/no

Third, we can also use the geo-coded measure to examine the relationship between the intensive margin of exposure to conflict and trust preferences. We do so by estimating a specification analogous to (3) but where we control for the number of episodes exposed to, or the number of casualties in the episodes exposed to (in each case we take an *asinh* transformation to take account of a mass point of zero because 39% of respondents are never in the vicinity of conflict). The results are in Table A4 and show a positive dose response: being exposed to more conflict is associated with a higher likelihood of reporting conditional trust using either measure.

5.2 Robustness Checks and Underpinning a Causal Interpretation

We extend our baseline result in two directions. First, we present a battery of robustness checks on the finding to establish it is replicated when: (i) using alternative econometric models; (ii) accounting for enumerator effects; (iii) accounting for individuals being affected by conflict in neighboring Chiefdoms (that might otherwise lead to measurement error of being in the vicinity of conflict). We also show the results do not reflect indecisiveness more generally among those exposed to conflict, and nor do they reflect those exposed to conflict having smaller social networks and so being more uncertain of the trustworthiness of others for anonymized exchange.²³

Second, to help underpin a causal interpretation of the finding, we first note that for our geo-coded measure of exposure to conflict, its construction is entirely independent of respondents being able and willing to recall victimization post-conflict. Nevertheless, we probe the data to present: (i) how the results vary in alternative subsamples related to the fact that variation in geo-coded exposure to conflict C_i arises from three sources – year of birth, Chiefdom of birth, migration during or post-conflict (this also relates to concerns that respondents might sort into villages based on their trust preferences [Gilligan *et al.* 2013]); (ii) a placebo check to strengthen the argument that actual exposure to violence matters, not other geographic factors correlated with conflict including pre-war confounders; (iii) an IV approach, where we predict exposure to conflict exploiting the geographic and timing patterns of the conflict described in Section 3.

The bottom line from these extensions is the same: those ever in the vicinity of conflict are

responses if only those were allowed. Those to the right of the threshold in (1) would report outright trust (rather than conditional trust), and those to the left of the threshold would report outright distrust. Given the asymmetry in the model, these reallocations would not be of equal magnitude, and depend on the $\lambda(p)$ and $u(\cdot)$. In our data, among those never in vicinity of conflict (38% of respondents), 12% say no, 39% say yes, and 49% say it depends. While the WVS is not conducted in Sierra Leone, we can draw a comparison with the 2012 Afrobarometer survey in Sierra Leone (close to the time of our baseline), that is based on a sample of 600. This asks respondents the general trust question in a format very close to that used in the WVS: around 20% of respondents report outright distrust of others, and 78% report outright trust of others (with 2% reporting don't know). The breakdown is similar if we focus on those aged 18-25 in 2012. Comparing these distributions of trust preferences across our baseline and Afrobarometer surveys, suggests 16% of those that report conditional trust would shift to reporting outright distrust of others, while 84% of them would shift to reporting outright trust in others.

²³The concern relates to Nunn and Wantchekon [2011] who show that a history of violence going to the slave trade in Africa impacts contemporary trust negatively – they attribute this to destruction of social ties by inter-ethnic slave raiding.

significantly more likely to report conditional trust, and are less likely to express outright distrust or outright trust in others. This holds across samples, definitions, and empirical approaches. We thus press on to understand how experiences of conflict relate to trust preferences.

5.3 Experiences of Conflict

To shed light on the link between experiences of conflict and the formation of trust preferences we re-estimate (3), with the estimates being more akin to treatment-on-the-treated effects. The results are in Table 4, where we report average marginal effects throughout and the omitted category are those with the background narrative.

To begin with, we contrast those two groups never in the vicinity of conflict from age 3: those with the background narrative (no exposure ever, no recall) and those socialized (i.e. not exposed at age 3 or later and with recall). Relative to those with the background narrative, those socialized have identical trust preferences over a decade later – all estimated marginal effects on each trust preference are below .008 in absolute value. This implies narratives passed onto children about the civil war might well be similar between those families for which violent events occurred in different locations to their own Chiefdom of residence, and those families for whom violent events occurred in their Chiefdom of residence but prior to their children forming direct memories of those events.

This underpins the use of the geo-coded measure of exposure to conflict: both groups coded as never in the vicinity of conflict end up with identical trust preferences more than a decade later, irrespective of their exact experience of conflict (background narrative vs. socialized).

Second, relative to those with the background narrative, those traumatized are significantly more likely to report conditional trust ('it depends'). The magnitude of the effect is to marginally increase the likelihood of conditional trust by 10.8pp (or by 21% over those with a background narrative). This increase in conditional trust comes from both falls in outright distrust (by 4.9pp) and a fall in outright trust in others (by 6pp) although only the former effect is statistically different from zero.

A very similar pattern of marginal impacts on trust are found for those with direct experience of conflict: both experiences significantly increase conditional trust, and both do so through significant falls in outright distrust of others. Relative to those with the background narrative, we thus find a comparable association between trust preferences and: (i) those traumatized (i.e. exposed at age 3 or later but not recalling the war or any victimization); (ii) those with direct experience (i.e. exposed at age 3 or later and with recall). This implies that while the process of memory formation is important, an individual's own recall of the war – the extent to which memories of actual conflict are suppressed or not – is not associated with the formation of conditional trust. For the remainder of the analysis we thus group together these experiences (traumatized, direct).

This offers mixed news for the literature using self-reported victimization to measure exposure to conflict (Table A1): on the one hand, among those with no recall that might otherwise

be analyzed similarly, we find that respondents that are traumatized have significantly different trust preferences than those subject to the background narrative. Indeed, the formation of trust preferences does not differ between those with and without direct recall but with experiences of trauma or direct exposure to violence.

Third, for those whose parents are traumatized, we also see a somewhat similar relation with trust preferences over a decade later. Relative to those with the background narrative, this set of experiences also leads individuals to significantly increase the likelihood of conditional trust by 8.9pp. They differ from the traumatized and direct groups in the sense that this increase in conditional trust comes from a significantly decline in outright trust in others (by 7.5pp) rather than a decline in distrust of others. We therefore consider them separately to the traumatized/direct grouping, although in terms of conditional trust, the findings suggest the relationship between experiences of civil war and trust do not depend strongly on whether an individual or their parents are traumatized.

In short, the five different experiences essentially boil down into two types, at least for the study of the long run relationship between exposure to conflict early in life on long run trust preferences: (i) those with the background narrative and those socialized; (ii) those with direct experience, those traumatized, and those whose parents are traumatized, although the last group only subtly differs from the first two in terms of whether the increase in conditional trust is driven by falls in outright trust or outright distrust.

The second batch of estimates in Table 4 show the results from pooling experiences of conflict, where the omitted experiences combine those with the background narrative and those socialized. These replicate the earlier findings in terms of direct/trauma/parental trauma experiences of conflict increasing conditional trust. This restricted specification also allows us to make precise that there are significant differences in the fall in outright distrust between those with direct/trauma experiences and those with parental trauma ($p = .066$).²⁴

6 Mechanisms

The framework makes precise what respondents can have in mind when they report conditional trust in others. This depends on factors: (i) that have been emphasized in the existing literature in economics and political science on trust and conflict such as beliefs over others (p), gains from cooperation ($\frac{1}{\alpha}$) and risk aversion; (ii) have been more discussed in the psychology literature related to post-traumatic growth and captured through self-efficacy. We now take these predictions to the data.

²⁴In comparing the marginal effects on trust preferences of the geo-coded exposure to conflict (Table 3) to those from experiences of conflict (Table 4), we do not find stark differences – so that the intent-to-treat effects captured by vicinity to conflict are only slightly smaller than the effects of experiences of conflict, that account for recall and direct victimization.

6.1 Conflict and Self-Efficacy

As a preliminary step in using the framework to understand the link between conflict and trust, we establish whether exposure to conflict correlates to perceived self-efficacy. Table 5 shows OLS estimates of the partial correlation between residing in the vicinity of conflict and the overall index of self-efficacy, where we condition on the same set of background and geographic controls as in (3). Column 1 shows those ever in the vicinity of conflict have higher self-efficacy than those never in the vicinity. The magnitude of the difference is $.089\sigma$ and is statistically significant ($p = .053$).²⁵

Figure A2 summarizes the results if we repeat the exercise for each sub-component of the self-efficacy index. Components of both the business and personal traits measures significantly increase self-efficacy. For the business measure, vicinity to conflict is statistically significantly correlated to the ability to run a business, bargain on purchases, obtain credit, manage accounts and ensure employees work. For the personal traits measures, the strongest and most precise correlations are found with respect to a drive to do better than others, making a good leader, making plans for the future, seeing tasks to completion, and saving regularly.

In Column 2 of Table 5 we repeat the analysis but examine how experiences of conflict partially correlate to self-efficacy. Following the earlier results, we group those traumatized and with direct experience, and the omitted category groups together those with the background narrative and those socialized. Experiences matter: those with trauma/direct experience have significantly higher self-efficacy than those with the background narrative/socialized. The magnitude of the effect is $.121\sigma$ and is statistically different to zero at the 5% level. What these experiences have in common is that respondents are subject to violence after age 3 when memories are being formed, and these shape later life beliefs and attitudes [Fehr *et al.* 2008, Malmendier and Nagel 2011, Bauer *et al.* 2014, Giuliano and Spilimbergo 2014, Malmendier 2021].

Column 2 also shows that those with parental trauma also have significantly higher self-efficacy than the omitted group – the magnitude of the effect is $.143\sigma$ and is precisely measured, being statistically different to zero at the 1% level. The partial correlations with self-efficacy are not different between the traumatized/direct group and the parental trauma group ($p = .713$).

Our results build on a long-standing evidence base in psychology, showing the development of self-efficacy is an important coping strategy in the face of extreme trauma [Bandura 1997, Benight and Bandura 2004]. Our findings suggest this process starts early in life – as soon as memories start forming. The fact that perceived self-efficacy is not higher among those with traumatized parents is also informative. Recall these respondents are similar to those with a background narrative except they were exposed to violent events when aged 0 to 2 – yet narratives of these events have not been passed onto them by their parents or others. We refer to them as with parental trauma, but an alternative interpretation is that parents might be deliberately trying to protect

²⁵To reiterate, the finding that self-efficacy increases for those exposed to conflict is relative to those not exposed but still in Sierra Leone. We do not have a counterfactual to compare self-efficacy to those never exposed to conflict. Hence it could still be the case that self-efficacy is lower than if conflict had never occurred.

their children in suppressing accounts of violent events in their early years. If so, we find they are not able to engender significantly higher levels of perceived self-efficacy among their children, relative to those with experiences of direct exposure or trauma.²⁶

6.2 Conflict, Self-Efficacy and Trust

We can now re-examine the link between conflict and trust by estimating (3) and additionally controlling for self-efficacy. The results are in Table 6 where we report average marginal effects throughout. Columns 1a-1c show that all else equal, self-efficacy correlates to trust preferences. A one standard deviation increase in self-efficacy is associated with a significantly higher likelihood of conditionally trust: the magnitude of the effect is 5.6pp, corresponding to a 11% increase over the level of conditional trust among those never exposed to conflict ($C_i = 0$). The effect is statistically significant at the 1% level. This increase in conditional trust related to self-efficacy arises because of a near equal and opposite reduction in those reporting outright trust of others (the marginal effect of trusting others reduces by 5.5pp). Higher self-efficacy is asymmetrically associated with trust preferences: we can reject equality of shifts from yes/no towards conditional trust ($p = .000$). This is in line with the asymmetric predictions of the framework, as described in Figure 6C.

We also continue to find a significant correlation between vicinity to conflict and conditional trust. This suggests there remain residual channels through which exposure to conflict still directly affects trust preferences through. These other channels include that conflict increases the return to investing in social capital because of a loss of formal institutions during conflict, or as a way to build personal safety and security ($\frac{1}{\alpha}$). We cannot empirically capture these directly.

Column 2a-2c repeat the analysis but for experiences of conflict. We again see that, all else equal: (i) self-efficacy relates to trust preferences: those with great self-efficacy are significantly more likely to report conditional trust, and this increase comes from a near equal and opposite likelihood of reporting outright trust in others; (ii) experiences of conflict correlate to trust preferences in a very similar way as documented earlier in Table 4.

6.3 Conflict and Beliefs Over Others

The framework captures alternative hypotheses for why conflict can impact trust preferences: a prominent class of explanation for why conflict affects generalized trust in one-off interactions is because it changes beliefs over the trustworthiness of others. One suggested mechanism is via parochial norms, whereby conflict strengthens social preferences towards ingroups [Heinrich and Boyd 2001, Choi and Bowles 2007]. In the framework this can be interpreted as p being a

²⁶Our findings complement recent work showing it is possible to design interventions to increase self-efficacy [McKelway 2021], and to design interventions to improve imagery-based decision making, especially among trauma victims [Ashraf *et al* 2022].

population-share weighted average of high beliefs of cooperation if matched to an ingroup member, and low beliefs of cooperation if matched to an outgroup member.

Distinct from the standard question on generalized trust in others, to proxy for beliefs over specific groups we asked respondents at baseline, “How many people in $[group]$ can you trust?” with potential responses being none, some, most, and all. We do so for groups considered ingroups of respondents – such as residents of their village, other women, those attending their same church/mosque, and those of the same religion. We also do so for various outgroups – men, those of a different religion, and whites. We also asked the same question about groups related to state and market institutions – police officers, politicians, those in national government, those in local government, banks and money lenders.

We use this data to estimate a specification analogous to (3) where we examine the relationship between being in the vicinity of conflict (C_i) and responses to the question of how many in each group can be trusted. Figure 6 summarizes the results: it shows the average marginal effect of being in the vicinity of conflict on each response (none, some/most, and all).

We see a remarkably consistent pattern of findings: for each and every group, respondents report being significantly less likely to trust no one in each group, they are also significantly less likely to report trusting all in nearly each group. They are significantly more likely to report trusting some/most in each group. This represents a shift in the distribution of beliefs over others, so p becomes concentrated towards central values and away from extremes.

The fact that this applies equally to ingroups and outgroups is especially notable. This result runs counter to the notion that exposure to conflict leads to parochial altruism or greater trust in the ingroup at the expense of less trust towards outgroups. This interpretation is in line with narratives of the civil war in Sierra Leone being a conflict not rooted along ethnic, religious or political party divides.

Finally, the fact that self-efficacy affects trust preferences helps rule out an alternative explanation for why individuals reply ‘it depends’ when asked our trust question: that they do so whenever they are close to indifference to trusting or not. If that were true, then the region of conditional trust spans the threshold for p described in (1) and changes in self-efficacy should have no impact on conditional trust – something emphatically ruled out by the evidence.

7 Discussion

7.1 Negative Psychological Legacies of Conflict

We have demonstrated the mediating role of self-efficacy in linking exposure to conflict and trust preferences. This builds on case studies in psychology highlighting positive changes to individuals that arise through post-traumatic growth. At the same time, it is important to understand whether our data can be reconciled with an equally important literature documenting *negative*

impacts of conflict on psychological traits, such as depression and anxiety [Ehlers and Clark 2000, Yehuda 2002, Vinck *et al.* 2007]. This is especially relevant given our sample, if women are more susceptible to negative impacts of trauma [Baranov *et al.* 2020]. We shed light on this in two ways: (i) by examining the relation between exposure to conflict, anxiety and life satisfaction; (ii) probing how specific types of victimization correlate to trust.

7.1.1 Anxiety and Satisfaction

On anxiety, we asked respondents about whether they worry about various dimensions of life: finding a job, finding a husband, money and violence/theft. The results in Table 7 show that: (i) relative to those never in the vicinity of conflict, those in the vicinity of conflict are significantly more likely to report worrying about violence/theft, but not other dimensions (Columns 1-4); (ii) in terms of experiences, relative to those with the background narrative/socialized, those traumatized or who experienced violence directly, also are significantly more likely to report worrying about violence/theft, but not these other dimensions (Columns 5-8). Those with the experience of parental trauma report no more anxiety than those with the background narrative. This provides added credence to our gradations of experiences of conflict.

Given the evidence suggests those exposed to conflict have both higher anxiety and self-efficacy in the long run, one way to establish the net effect on welfare is to examine correlations between these measures and life satisfaction. To be clear, these comparisons are relative to those never in the vicinity of conflict or those with the background narrative. The results cannot be interpreted as relative to a counterfactual absent civil war altogether.

We are able to construct indices across three dimensions: social, economic and life in general. These results are in the remaining Columns of Table 7. We see overall higher satisfaction along all three dimensions for those ever in the vicinity of conflict (Columns 9-11), or with various experiences of conflict relative to those with the background narrative (Columns 12-14). This is consistent with any positive effects on self-efficacy induced by exposure to conflict more than compensating for negative impacts through anxiety about future violence.²⁷

7.1.2 Victimization, Self-Efficacy and Trust

Our second approach probes further the link between specific types of victimization and generalized trust. We have so far only used the victimization data in terms of memory recall to construct experiences of conflict. We start by examining how specific forms of victimization correlate to self-efficacy. Column 1 of Table 8 shows the results: this highlights that some, but not all, forms of victimization increase self-efficacy. Those that report their family being harmed or being a

²⁷The satisfaction indices are inverse covariance weighted indices constructed from questions asking respondents to rate their satisfaction on a Likert scale. The dimensions over which this questions are asked are: (i) Social: friends, family, community, house; (ii) Economic: own education, job, earnings, household finances, access to credit; (ii) Life: life as a whole, future prospects. The indices are each standardized relative to the omitted group.

refugee overseas have significantly higher self-efficacy. Notably however, reporting being personally harmed significantly *reduces* self-efficacy. Hence types of victimization shift self-efficacy in different directions. This result was masked in the earlier analysis because the most common forms of victimization (fighting in the area, internally displaced or family harmed) all positively correlate to self-efficacy, while only 6% of respondents report being personally harmed.

The results point to the need for targeted post-conflict policy interventions towards those personally harmed, the returns to which might be very high given the costs of worse mental health over the life cycle [Currie 2009, Adhvaryu *et al.* 2019, Ridley *et al.* 2020].

The remaining Columns of Table 8 then link forms of victimization to trust preferences. We see that the two most common forms of victimization – fighting in the area or being displaced – are significantly related to conditional trust, and pull in trust preferences from the tails. However, for other forms of victimization such as family being harmed or being personally harmed, we see no association with trust preferences.

To the extent conflicts vary in terms of the *specific* types of victimization civilians suffer from, the finding suggest that the impact of conflict on trust preferences will be tempered. Most notably in conflicts where many are personally harmed, their families harmed, or they are refugees, the impact on conditional trust might be far weaker. This helps reconcile the range of estimates found in the literature, that lead to the meta-analysis of Bauer *et al.* [2016] finding no overall effect of conflict on trust (counter to other forms of pro-social behavior).²⁸

7.2 Survivor Bias

As in all studies linking conflict and trust, we can only base our analysis on the select sample of those that survive the conflict. As Table A1 highlights, our sample is uniquely based on a group born into conflict and that survive 14 years post-conflict. While this helps establish the long run effects of conflict and the formation of trust preferences, this leads to a particular form of survivor bias, relevant for external validity. Earlier studies have demonstrated that children who live through conflict are less healthy, less educated, and have worse labor market outcomes as adults [Bundervoet *et al.* 2009, Blattman and Annan 2010]. While all these focus on socio-economic outcomes, our findings additionally highlight that those born into and exposed to conflict can develop psychological resistance in the form of higher self-efficacy.²⁹

²⁸Relative to other conflicts, the civil war in Sierra Leone might be characterized as one in which although casualty rates were relatively low (estimated to be 1.5% of the population), there were high rates of displacement of the civilian population (estimated to be 58% of the population), and as emphasized throughout, the conflict did not operate along parochial lines. In contrast, during the ethnically-based Rwandan civil war of 1990-4, casualty rates were 9%, while 20% of the population were displaced. Our results suggest to the extent that forms of victimization differ across conflicts, these can translate into self-efficacy being increased or decreased, and consequent differential impacts on the long run formation of trust preferences.

²⁹The other dimension of selection relevant for external validity is that our sample is based on girls born into conflict. As such, our focus is largely on victims of conflict, and our results do not speak to the formation of trust preferences among perpetrators of violence. However, Bauer *et al.* [2016] report similar findings on exposure to

7.3 Future Agenda

Our analysis points to three important directions for future research on psychological legacies of exposure to conflict and violence early in life.

First, the framework developed emphasizes the mediating role that self-efficacy has, and our evidence hints to the processes generating self-efficacy. The results on experiences of conflict and trust inform some of the modelling choices. Given the similarity of findings between those traumatized by conflict and those with direct experience of conflict, the framework does not focus on the role that being able and willing to recall victimization plays in explaining trust preferences. Similarly, the findings suggested a similarity between those with the background narrative and those socialized. Hence the framework does not focus on the endogenous choice of narratives passed down by parents to children born into conflict [Doepke and Zilibotti 2017, Bénabou *et al.* 2018, Akerlof and Rayo 2020]. We leave such extensions for future work, as such channels might well be important in other conflict scenarios.

Second, there can be valuable gains from more closely integrating work on post-conflict psychological legacies for those born into conflict with the established literature studying the process of human capital accumulation in early childhood, a recent overview of which is provided by Atanasio *et al.* [2022]. These strands of research have developed largely in isolation from each other. Work in early childhood development has focused on the accumulation of cognitive skills, non-cognitive skills and health, in response to inputs such as resources, information, nutrition and parenting. Less attention has been paid to the development of traits such as self-efficacy, or the importance of aggregate and traumatic shocks in shaping parent-child interactions and the production function for human capital early in life.³⁰

Third, when constructing experiences of conflict, age of exposure is critical. We considered if an individual was aged 0-2 when in the vicinity of conflict (and so prior to significant memory formation), and/or whether the individual was aged 3 and above when in the vicinity of conflict, and hence more capable of retaining first-hand memories of conflict. While this age split is useful, there might be other critical periods of childhood development when exposure to conflict leaves psychological legacies [Kim and Lee 2014]. The brain develops in cyclical spurts from birth through to the end of teenage years [Lampl *et al.* 1992, Heckman 2007]. We are unable to study other sensitive periods of development because of the long lasting nature of the conflict in Sierra Leone, so most respondents are exposed to conflict early in life. Understanding how conflict shapes which traits are formed across phases of development, and their dynamic interlinkages are all rich areas for future study.

conflict and pro-social behavior for victims and perpetrators of violence, and for both genders.

³⁰Other example of collective traumas and aggregate shocks impacting traits include slavery, natural disasters and economic downturns [Malmendier and Nagel 2011, Nunn and Wantchekon 2011, Callen 2015].

8 Conclusion

Exposure to armed conflict in early life is an extremely traumatic experience, and yet it is common, affecting over 400 million children worldwide, and with the number of countries experiencing armed conflict in 2021 being among the highest in 30 years [Ostby *et al.* 2020]. We build on the literature documenting persistent psychological legacies of conflict. We shed new light on the role that post-traumatic growth and building self-efficacy play in the long run formation of trust preferences, that is the foundation for social and economic interactions and acts as ‘an important lubricant of the social system’ [Arrow 1974]. Taken together our analysis provides a framework in which to understand and reconcile disparate findings in the multi-disciplinary literature linking conflict and trust.

The macro evidence suggests on average, post-war periods are often characterized by rapid economic recovery [Cerra and Saxena 2008, Miguel and Roland 2011]. Whether psychological legacies of violence help or hinder post-conflict recovery has been subject to debate [Knack and Keefer 1997, Guiso *et al.* 2009]. Despite the collective trauma, Sierra Leone has seen a remarkable period of post-conflict recovery and stability— at least until the Ebola outbreak of 2014. National elections were held in 2002, closely followed by the first local elections in decades in 2004, and the post-conflict decade was one of largely sustained economic growth. Linking psychological legacies of conflict to understanding whether such changes in self-efficacy and trust also help foster public goods provision or allow new forms of social organization to emerge [e.g. Grief 1993, Bowles 2008, Blattman and Miguel 2010] would be a natural next step in understanding more general patterns of post-war economic recovery in an increasingly violent world.

A Appendix

A.1 Robustness

We present a series of robustness checks on the main finding from Table 3 linking exposure to conflict to trust. Table A5 shows our main result is robust to: (i) alternative clustering of standard errors than by village of residence, such as clustering by district of birth, by age, or allowing for robust standard errors (Columns 1a-1c); (ii) alternative empirical models, such as probit or linear probability specifications (where we group the yes and no trust answers together). In both alternative models we find comparable increases in the likelihood to report conditional trust among those ever in the vicinity of conflict (Columns 2, 3).

Given the sensitive nature of survey questions related to conflict and trust, we address the concern that results are driven by enumerator style by conditioning on 53 enumerator fixed effects in the linear probability model specification (from across the 200 villages in our sample). Column 4 shows that the coefficient of interest reduces in magnitude (from .77 to .44) but remains precisely

estimated and statistically different from zero at the 5% significance level. Given enumerators typically survey across a handful of villages, this specification is the closest we can get (without losing precision altogether) to documenting within village variation in conditional trust being related to individuals ever being in the vicinity of conflict.

We next account for individuals being affected by conflict in neighboring Chiefdoms (that might otherwise lead to measurement error of being in the vicinity of conflict). To do so, we construct a measure of conflict exposure that takes into account all episodes of violence that took place within a fixed radius from each Chiefdom’s centroid, and weight episodes by the inverse of their distance. We thus redefine exposure to conflict as:

$$C_i = \log \left(\sum_t \sum_{e \in E_t} (1 + \text{distance}_{i,t,e})^{-1} \right) \quad (5)$$

where T_i includes all years between birth of respondent i and 2001, E_t is the subset of episodes of violence that took place in year t , and $\text{distance}_{i,t,e}$ is the distance in kilometers between the centroid of the chiefdom of residence of respondent i in year t and the location of conflict episode e . Table A6 shows results from our benchmark specification using this measure of being in the vicinity of conflict, for various distance cutoffs, where we note the average Chiefdom has an approximate radius of 12km. We see that using larger areas rather than the Chiefdom boundaries gradually weakens the results. This is as expected and reinforces the idea that it is exposure to localized violence that matters for the long run formation of trust preferences.

We next examine whether the results reflect indecisiveness more generally among those exposed to conflict. To do so we consider responses to an altogether different survey module, on various dimensions of life satisfaction. These questions asked, “*How do you feel about [category]?*” where the categories were own education, family, friends, job, income, own dwelling, own school, own community, future prospects, family’s financial situation, access to credit, and life as a whole. Responses were coded on a 7-point Likert scale, ranging from very happy/optimistic to very sad/pessimistic. The middle of the scale is labelled as neutral. We combine responses across these dimensions and code whether: (i) the respondent gives a neutral reply to any of these dimensions of satisfaction; (ii) the share of dimensions that they give a neutral response to. Table A7 shows OLS estimates of these outcomes regressed against the geo-coded exposure to conflict measure, controlling for the usual set of covariates included in (3), and allowing standard errors to be clustered by village of residence. We find those exposed to conflict are less likely to report being neutral on any dimension of satisfaction (Column 1) and their share of neutral answers across all dimensions is uncorrelated to exposure to conflict (Column 2).

Finally, to check whether our main finding might reflect those exposed to conflict having smaller social networks and so are more uncertain of the trustworthiness of others for anonymized exchange, we use social networks data collected in our midline survey from a random subset of

respondents. We report Tobit estimates of the relationship between conflict exposure and the degree of various types of social networks of respondents. These networks include friendship ties, others they speak to about intimate topics, work issues and opportunities, or issues related to finances and credit. As reported in Columns 3 to 6 of Table A7, on each type of social network, we see no relationship between the size of networks reported and having been ever in the vicinity of conflict.

A.2 Causality

We use a variety of approaches to underpin a case for the link between exposure to conflict early in life and trust preferences expressed a decade later as being causal.

First, we note that variation in the geo-coded exposure to conflict C_i arises from three sources: (i) year of birth; (ii) Chiefdom of birth; (iii) migration during or post-conflict. In Table A8 we explore how the relationship between conflict and trust varies along these dimensions. We do so using the linear probability specification, in which heterogeneous effects of conflict on trust are most transparently estimated. In Column 1 we drop those born in the final year of conflict. This cohort are born to parents who would be more certain of the conflict's end than those born earlier, and they might also be born to parents who strategically delayed fertility during the conflict. Either form of selection could correlate with trust preferences. We find the relationship between exposure to conflict and conditional trust remain unchanged when dropping this cohort from the sample: despite the 15% reduction in sample size, the coefficient of interest remains identical (.077) and its standard error increases only marginally.

Columns 2 and 3 explore how the relationship between conflict and trust varies with location of birth. We find those born into districts neighboring Liberia – that experienced the earliest and severest conflict (Figure 2) – have no differential relationship between exposure to conflict and conditional trust. Column 3 shows this to also be the case examining heterogeneous relationships across regions.

If migration is endogenous to conflict, the results capture a total effect accounting for migratory insurance responses of households. While policy relevant, the concern is that this picks up factors driving both the decision to migrate during conflict and the formation of trust preferences. To assess endogenous migration choices driving exposure to conflict, we examine if there is a heterogeneous relationship between vicinity to conflict and conditional trust between those that did and did not migrate across Chiefdoms during the civil war (Column 4). We find no evidence for this. The same holds if we also allow the relationship between conflict and trust to vary with whether the respondent migrated post-conflict. Taken together, the evidence suggests if migrating parents differ in attributes, those differences appear unrelated to the formation of conditional trust preferences of their children. This also helps address concerns that respondents might sort into villages based on their trust preferences [Gilligan *et al.* 2013].

We next provide a placebo check on our main result: we do so by adding five years to the actual year of birth of each respondent (where we restrict the sample to those that would still then be born sometime during the conflict – this avoids a mass of respondents being shifted to never being exposed). Columns 1a-1c in Table A9 show the result of doing so when estimating (3): we see that under this placebo we find no evidence that measured exposure to conflict relates to trust preferences. This placebo strengthens the argument that actual exposure to violence matters, not other geographic factors correlated with conflict. Given the few respondents that migrate during the civil war, this check is reassuring that trust preferences do not just pick up factors related to place of birth.

Finally, we address causality through an IV approach where we predict exposure to conflict. We exploit the geographic patterns of the conflict described in Section 2. More precisely, we consider as instruments an interaction between: (i) the distance from the respondents’ place of birth and the first recorded episode of violence in the conflict in 1991 ($DistFV_i$); (ii) the year of birth of the respondent.³¹ The first stage of the IV is then given by:

$$C_i = \sum_{t=1991}^{2000} \delta_t DistFV_i \mathbb{I}[t \geq YoB_i] + X_i \gamma_C + u_i, \quad (6)$$

where C_i is the measure of vicinity to conflict, X_i includes our standard set of controls and fixed effects (including district of birth and district of residence), $\delta = (\delta_{1991}, \dots, \delta_{2000})'$ and γ_C are column vectors of parameters. The exclusion restriction is that conditional on these controls, distance to the first violent event of the conflict predicts conflict but has no direct effect on the long run formation of trust preferences. As a second set of instruments we also include interactions of respondent’s year of birth with their distance from Freetown ($DistFT_i$) so the first stage is:

$$C_i = \sum_{t=1991}^{2000} \delta_t DistFV_i \mathbb{I}[t \geq YoB_i] + \sum_{t=1991}^{2000} \sigma_t DistFT_i \mathbb{I}[t \geq YoB_i] + X_i \gamma_C + u_i. \quad (7)$$

Figure A3 graphs the first stage estimates of the instruments on exposure to conflict. In the left hand panel we see the first stage from (6). Residing further from the first violent event decreases the likelihood of ever being in the vicinity of conflict for those born up until 1997, and the effect of the instruments reverses later in time as the conflict advanced to regions away from the border with Liberia. The right hand panel shows the predictability of the both instrument sets from the first stage described in (7). Again we see the instruments vary in their predictability with year of birth of ever being in the vicinity of conflict.

Columns 2 and 3 in Table A9 report the second stage 2SLS estimates, where we use the LPM specification for the second stage. For both sets of instruments, we find a strong first stage (F-

³¹Alternative approaches to predicting conflict have included using machine learning methods using multiple data sources or newspaper archives [Bazzi *et al.* 2022, Mueller and Rauh 2022].

statistics above 30) and the second stage remains precisely estimated. The magnitude of the IV effects of conflict on conditional trust are stronger than in the baseline LPM specification, being around double in size.

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Table 1: Geo-Coded Exposure to Conflict

Means (standard deviation in parentheses)

	(1) Full Sample	(2) Migrated During Civil War [1991,2001]	(3) Stable Residence During Civil War [1991,2001]	(4) Ruling Family	(5) Non-Ruling Family
Number of respondents	4,188	577	3,611	658	3,424
In vicinity of any conflict	.617	.849	.580	.653	.614
In vicinity of conflict at age zero	.439	.386	.452	.444	.434
In vicinity of conflict in Chiefdom of birth	.974	.888	.995	.985	.971
Youngest age when in vicinity	1.46 (1.89)	1.50 (1.86)	1.44 (1.90)	1.54 (2.03)	1.45 (1.86)
Cumulative number of conflict episodes in vicinity of	6.36 (9.77)	11.2 (14.0)	5.57 (8.62)	6.83 (11.3)	6.34 (9.50)
Migration during civil war					
Ever migrated	.138	1	0	.160	.135
Number of migrations migrated	1.16 (.423)	1.16 (.423)	- -	1.18 (.434)	1.16 (.422)
Migration post civil war					
Ever migrated	.677	.967	.630	.696	.671
Number of migrations migrated	1.75 (1.01)	1.41 (1.19)	1.83 (.947)	1.76 (1.06)	1.75 (1.01)

Notes: Migration is recorded within the survey's migration journal, where respondents are asked to list all of the location where they resided for at least 6 months. Respondents were also asked about episodes of internal displacement during the war in the victimization module. These includes migration episodes that were either shorter than 6 months, seen as temporary, or towards location in the proximity of the village of residence. As such some of these episodes might have not been listed in the migration journal and do not count as migration spells.

Table 2: Experiences of Conflict

Means, p-values in braces

	(1) Background	(2) Trauma	(3) Direct	(4) Socialized	(5) Parental Trauma		
Number of observations (%)	1114 (29%)	380 (10%)	1033 (27%)	656 (17%)	594 (16%)		
Panel A. Family Background							
Age	14.5	19.9	21.4	17.6	16.5		
Ruling family	.141	.146	.170	.193	.185		
Born in district close to Liberia	.488	.142	.251	.419	.219		
Migrated during civil war	.038	.197	.238	.108	.121	Unconditional	Conditional on a polynomial in age and district of birth
Panel B. Vicinity of Conflict						Trauma = Direct	Trauma = Direct
Total number of events	0	13.4	12.8	2.40	5.43	{.236}	{.320}
Civilian targets	0	6.74	6.14	1.17	2.24	{.011}	{.063}
Civilians targeted by government	0	1.60	1.19	.241	.545	{.000}	{.186}
Civilians targeted by rebels	0	5.07	4.91	.905	1.64	{.438}	{.145}
Total number of casualties	0	206	197	28.1	82.5	{.593}	{.559}
Total number of civilian casualties	0	65.6	60.4	11.6	20.5	{.277}	{.140}
Years of exposure	0	3.68	3.48	.733	1.66	{.000}	{.008}
Age at first exposure	-	1.49	2.48	.338	.209	{.000}	{.000}
Panel C. Victimization Recall						Direct = Socialized	Direct = Socialized
Fighting in the area	0		.925	.892		{.017}	{.752}
Personally harmed	0		.089	.058		{.018}	{.909}
Family harmed	0		.500	.489		{.603}	{.697}
Internally displaced	0		.785	.673		{.000}	{.017}
Refugee overseas	0		.134	.155		{.221}	{.048}

Notes: Respondents assigned to groups based on their wartime experience. Panel A and C contain information from the respondents' survey collected in 2014. The information in Panel B is constructed by matching respondents' migration journals, collected as part of the survey in 2014, with conflict data from Uppsala Conflict Data Program. The table refers to all episodes of violence that took place in each respondent's chiefdom(s) of residence. Features are then averaged across respondents. The last two columns report simple test of equality of means across groups. The first of set of tests - unconditional - is performed by regressing the variable of interest on dummies for each of the experience groups, and then testing for equality of the relevant coefficients. The second set of tests is analogous, but regressions additionally control for a cubic polynomial in age and district of birth fixed effects.

Table 3: Vicinity to Conflict and Trust

Multinomial logit, average marginal effects reported

Dependent variable: In general do you think people can be trusted?

Standard errors in parentheses, clustered by village of residence

	(1a) NO	(1b) IT DEPENDS	(1c) YES	(2a) NO	(2b) IT DEPENDS	(2c) YES
Vicinity to Conflict	-.015 (.016)	.071*** (.027)	-.056** (.027)	-.028* (.017)	.077*** (.029)	-.050* (.028)
p-value (yes = no)		{.250}			{.534}	
Age	✓	✓	✓	✓	✓	✓
Indiv. Controls				✓	✓	✓
Tribe & Religion				✓	✓	✓
Village Controls				✓	✓	✓
District of birth FE	✓	✓	✓	✓	✓	✓
District 2014 FE	✓	✓	✓	✓	✓	✓
Sample Avg Not in the vicinity of conflict	.119	.496	.385	.121	.489	.390
Observations		4,187			3,784	

Note: ***, ** and * denote significance at the 1%, 5%, and 10% levels. The table reports average marginal effects for the estimation sample from a multinomial Logit specification. All specifications include a cubic polynomial in age, district of birth and district of residence fixed effects. Controls include dummy variables for: respondents belonging to each of the three largest tribes in our sample (Mende, Temne and Limba); respondents identifying as Muslim; respondents' father has completed junior secondary education; respondent belongs to a ruling family. Village controls include the number of households residing in the community and the average PPI score, the latter being an index capturing household wealth. Standard errors are clustered at the community level.

Table 4: Experiences of Conflict and Trust

Multinomial logit, average marginal effects reported

Dependent variable: In general do you think people can be trusted?

Standard errors in parentheses, clustered by village of residence

	(1a) NO	(1b) IT DEPENDS	(1c) YES	p-value (yes = no)	(2a) NO	(2b) IT DEPENDS	(2c) YES	p-value (yes = no)
Socialized	-0.004 (.020)	.008 (.034)	-0.003 (.033)	{.981}				
Traumatized	-0.049* (.028)	.108** (.045)	-0.060 (.044)	{.850}				
Direct	-0.053** (.023)	.071* (.044)	-0.018 (.045)	{.532}				
Parental Trauma	-0.014 (.024)	.089** (.036)	-0.075** (.036)	{.210}				
Trauma, Direct					-0.049*** (.017)	.078*** (.029)	-0.029 (.029)	{.608}
Parental Trauma					-0.011 (.021)	.084*** (.031)	-0.073** (.029)	{.122}
Background [OMITTED]	✓	✓	✓					
Background, Socialized [OMITTED]					✓	✓	✓	
Traumatized = Direct (P-VALUE)	{.830}	{.361}	{.260}					
Trauma, Direct = Parental Trauma (P-VALUE)					{.066}	{.816}	{.125}	
Controls for age, individual characteristics, tribe and religion	✓	✓	✓		✓	✓	✓	
Village Controls	✓	✓	✓		✓	✓	✓	
District of birth, district of residence fixed effects	✓	✓	✓		✓	✓	✓	
Sample Avg Omitted Group	.116	.512	.372		.119	.502	.380	
Observations		3,411				3,412		

Notes: ***, ** and * denote significance at the 1%, 5%, and 10% levels. The table reports average marginal effects for the estimation sample from a multinomial Logit specification. Respondents are grouped based on their experience of conflict, further details can be found in figure 4. All specifications include a cubic polynomial in age, district of birth and district of residence fixed effects. Controls include dummy variables for: respondents belonging to each of the three largest tribes in our sample (Mende, Temne and Limba); respondents identifying as Muslim; respondents' father has completed junior secondary education; respondent belongs to a ruling family. Village controls include the number of households residing in the community and the average PPI score, the latter being an index capturing household wealth. Standard errors are clustered at the community level.

Table 5: Conflict and Self-Efficacy

OLS regression estimates

Dependent variable: self-efficacy measure

Standard errors in parentheses, clustered by village of residence

	(1) Self-Efficacy	(2) Self-Efficacy
Exposure to Conflict	.089* (.046)	
Trauma, Direct		.121** (.053)
Parental Trauma		.143*** (.054)
Sample Average Omitted group	0	0
Trauma and Direct = Parental Trauma (P-VALUE)		{.713}
Background + Socialized [OMITTED]		✓
Controls for age, individual characteristics, tribe and religion	✓	✓
Village Controls	✓	✓
District of birth, district of residence fixed effects	✓	✓
Observations	3,784	3,411

Note: ***, ** and * denote significance at the 1%, 5%, and 10% levels. The table reports OLS estimates. All specifications include a cubic polynomial in age, district of birth and district of residence fixed effects. Controls include dummy variables for: respondents belonging to each of the three largest tribes in our sample (Mende, Temne and Limba); respondents identifying as Muslim; respondents' father has completed junior secondary education; respondent belongs to a ruling family. Village controls include the number of households residing in the community and the average PPI score, the latter being an index capturing household wealth. Standard errors are clustered at the community level. The outcome variable is a summary index of several measures of efficacy. We measure efficacy across two dimensions. *Business Efficacy* is self-reported ability to perform the following tasks on a 10-points Likert scale: Run your own business; Identify business opportunities to start up a new business; Obtain credit to start up a new business or expand an existing business; Save in order to invest in future business opportunities; Make sure that your employees get the work done properly; Manage financial accounts; Bargain to obtain cheap prices when you are buying anything for business (inputs); Bargain to obtain high prices when you are selling anything for business (outputs); Protect your business assets from harm by others; Collecting the money someone owes you; Find information about paid work opportunities in your community. *Self-Efficacy* is captured by questions recording respondents' agreement with the following statements on a 10-points Likert scale: If I start working on a task, I definitely see the end of it no matter how difficult it is; While doing any task, it is important for me to do it better than others; If I have the chance, I would make a good leader; I want to be a respectful person in my village; I do not care what others think about my success or failure; I am in control of what happens in my life; I save regularly; A person can get rich by taking risks; I often make plans for the future; I believe that my future is determined by luck no matter how hard I work (reverse scale). Components are then aggregated in a Inverse Covariance Weighted Index (Anderson, 2008). In each column, the index is standardised with respect to the control group, i.e. effects can be interpreted as standard deviations from the control group's average.

Table 6: Conflict, Self-Efficacy and Trust

Multinomial logit, average marginal effects reported

Dependent variable: In general do you think people can be trusted?

Standard errors clustered by village of residence

	(1a) NO	(1b) IT DEPENDS	(1c) YES	(2a) NO	(2b) IT DEPENDS	(2c) YES
λ: Self-Efficacy	-0.001	.056***	-0.055***	.007	.052***	-.058***
	(.006)	(.010)	(.009)	(.006)	(.011)	(.010)
Exposure to Conflict	-.029	.073**	-.044*			
	(.017)	(.029)	(.027)			
Traumatized and Direct				-.050***	.072**	-.022
				(.017)	(.029)	(.029)
Parental Trauma				-.013	.078**	-.064**
				(.021)	(.031)	(.028)
p-value (λ yes = no)		{.000}			{.000}	
Controls for age, individual characteristics, tribe and religion	✓	✓	✓	✓	✓	✓
Village Controls	✓	✓	✓	✓	✓	✓
District of birth, district of residence fixed effects	✓	✓	✓	✓	✓	✓
Sample Avg Not Exp.	.121	.489	.390	.118	.502	.380
Observations		3,784			3,411	

Notes: ***, ** and * denote significance at the 1%, 5%, and 10% levels. The table reports average marginal effects for the estimation sample from a multinomial Logit specification. All specifications include a cubic polynomial in age, district of birth and district of residence fixed effects. Controls include dummy variables for: respondents belonging to each of the three largest tribes in our sample (Mende, Temne and Limba); respondents identifying as Muslim; respondents' father has completed junior secondary education; respondent belongs to a ruling family. Village controls include the number of households residing in the community and the average PPI score, the latter being an index capturing household wealth. Standard errors are clustered at the community level. The components of the Business Efficacy Index are self-reported ability to perform the following tasks on a 10-points Likert scale: Run your own business; Identify business opportunities to start up a new business; Obtain credit to start up a new business or expand an existing business; Save in order to invest in future business opportunities; Make sure that your employees get the work done properly; Manage financial accounts; Bargain to obtain cheap prices when you are buying anything for business (inputs); Bargain to obtain high prices when you are selling anything for business (outputs); Protect your business assets from harm by others; Collecting the money someone owes you; Find information about paid work opportunities in your community. The components of the Self-Efficacy Index are questions recording respondents' agreement with the following statements on a 10-points Likert scale: If I start working on a task, I definitely see the end of it no matter how difficult it is; While doing any task, it is important for me to do it better than others; If I have the chance, I would make a good leader; I want to be a respectful person in my village; I do not care what others think about my success or failure; I am in control of what happens in my life; I save regularly; A person can get rich by taking risks; I often make plans for the future; I believe that my future is determined by luck no matter how hard I work (reverse scale). Components are aggregated in a Inverse Covariance Weighted Index (Anderson, 2008). In each column, the index is standardised with respect to the control group, i.e. effects can be interpreted as standard deviations from the control group's average.

Table 7: Conflict, Anxiety and Satisfaction

Dependent variable Columns 1-8: Ever worry about...?

Dependent variable Column 9-14: Satisfaction indices

Standard errors in parentheses, clustered by village of residence

	Anxiety								Satisfaction					
	(1) Job	(2) Finding Husband	(3) Money	(4) Violence/Theft	(5) Job	(6) Finding Husband	(7) Money	(8) Violence/Theft	(9) Social	(10) Economic	(11) Life	(12) Social	(13) Economic	(14) Life
Exposure to Conflict	.034 (.023)	.005 (.024)	.029 (.022)	.062** (.025)					.118** (.055)	.101* (.056)	.158** (.061)			
Traumatized and Direct					.017 (.026)	-.019 (.027)	.040 (.027)	.095*** (.029)				.115* (.063)	.154** (.060)	.218*** (.068)
Parental Trauma					.005 (.026)	.019 (.028)	-.003 (.025)	.046 (.029)				.158*** (.056)	.141** (.058)	.275*** (.060)
Background and Socialized [OMITTED]					✓	✓	✓	✓				✓	✓	✓
Controls for age, individual characteristics, tribe and religion	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Village Controls	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
District of birth, district of residence fixed effects	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Sample Avg Omitted group	.572	.490	.751	.462	.603	.507	.774	.471	0	0	0	0	0	0
Observations			3,784				3,412		3,784	3,784	3,784	3,412	3,412	3,412

Notes: The table reports OLS estimates. In Columns 1 to 8, the outcome variables are dummies indicating whether the respondent ever worries about a specific topic or issue. In Columns 9 to 14 the outcome variables are indices of satisfaction computed over three spheres: social, economic, and life in general. The indices are inverse covariance weighted indices [Anderson 2008] constructed from questions asking respondents to rate their satisfaction on a Likert scale. The dimensions over which this questions are asked are: (i) Social: friends, family, community, house; (ii) Economic: own education, job, earnings, household finances, access to credit; (iii) Life: life as a whole, future prospects. The indices are standardised relative to the omitted group in each Column. All specifications include a cubic polynomial in age, district of birth and district of residence fixed effects. Controls include dummy variables for: respondents belonging to each of the three largest tribes in our sample (Mende, Temne and Limba); respondents identifying as Muslim; respondents' father has completed junior secondary education; respondent belongs to a ruling family. Village controls include the number of households residing in the community and the average PPI score, the latter being an index capturing household wealth. Standard errors are clustered at the community level.

Table 8: Victimization and Trust

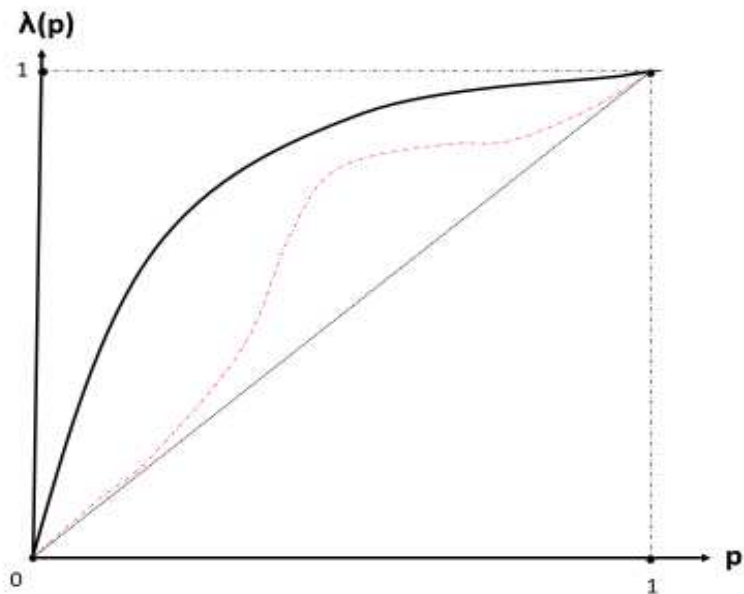
Column 1: OLS regression estimates, dependent variable = self-efficacy measure
Dependent variable Columns 2a-2c: In general do you think people can be trusted?
Standard errors in parentheses, clustered by village of residence

	(1) Self-efficacy	(2a) NO	(2b) IT DEPENDS	(2c) YES
Victimized: Fighting in the area	.012 (.090)	.002 (.030)	.107** (.047)	-.108** (.044)
Victimized: Personally harmed	-.144 (.090)	.072 (.049)	-.054 (.054)	-.019 (.053)
Victimized: Family harmed	.130** (.062)	-.002 (.024)	-.022 (.034)	.024 (.035)
Victimized: Internally displaced	.100 (.079)	-.086*** (.025)	.157*** (.041)	-.071 (.045)
Victimized: Refugee overseas	.179* (.102)	-.096*** (.015)	.009 (.058)	.087 (.058)
Sample Avg VICT==0	0	.116	.512	.372
Controls for age, individual characteristics, tribe and religion	✓	✓	✓	✓
Village Controls	✓	✓	✓	✓
District of birth, district of residence fixed effects	✓	✓	✓	✓
Observations	1,879		1,879	

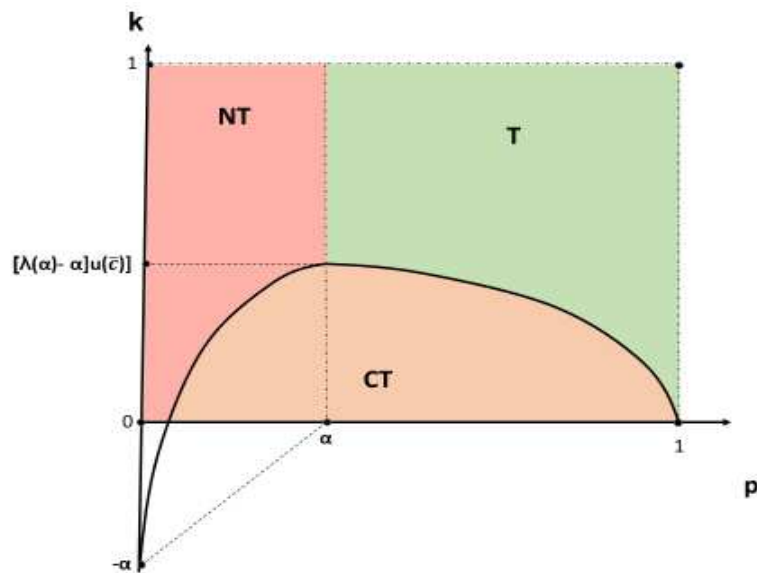
Note: ***, ** and * denote significance at the 1%, 5%, and 10% levels. Column 1 reports OLS estimates, where the dependent variable is our index of self-efficacy. Column 2a through 2c report AMEs from a multinomial Logit specification, where the dependent variable is our key measure of trust in others. All specifications include a cubic polynomial in age, district of birth and district of residence fixed effects. Controls include dummy variables for: respondents belonging to each of the three largest tribes in our sample (Mende, Temne and Limba); respondents identifying as Muslim; respondents' father has completed junior secondary education; respondent belongs to a ruling family. Village controls include the number of households residing in the community and the average PPI score, the latter being an index capturing household wealth. Standard errors are clustered at the community level. In Column 1, the outcome variable is a summary index of several measures of efficacy. We measure efficacy across two dimensions. *Business Efficacy* is self-reported ability to perform the following tasks on a 10-points Likert scale: Run your own business; Identify business opportunities to start up a new business; Obtain credit to start up a new business or expand an existing business; Save in order to invest in future business opportunities; Make sure that your employees get the work done properly; Manage financial accounts; Bargain to obtain cheap prices when you are buying anything for business (inputs); Bargain to obtain high prices when you are selling anything for business (outputs); Protect your business assets from harm by others; Collecting the money someone owes you; Find information about paid work opportunities in your community. *Self-Efficacy* is captured by questions recording respondents' agreement with the following statements on a 10-points Likert scale: If I start working on a task, I definitely see the end of it no matter how difficult it is; While doing any task, it is important for me to do it better than others; If I have the chance, I would make a good leader; I want to be a respectful person in my village; I do not care what others think about my success or failure; I am in control of what happens in my life; I save regularly; A person can get rich by taking risks; I often make plans for the future; I believe that my future is determined by luck no matter how hard I work (reverse scale). Components are then aggregated in a Inverse Covariance Weighted Index (Anderson, 2008). In each column, the index is standardised with respect to the control group, i.e. effects can be interpreted as standard deviations from the group that experienced no victimization. All victimization measures are self-reported and measured in 2014.

Figure 1: Framework for Understanding Trust Preferences

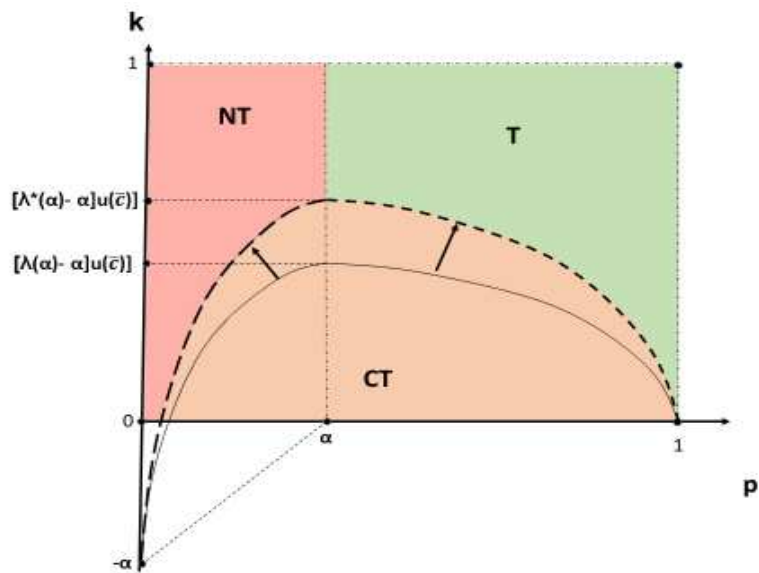
A. Persuasion



B. Equilibrium



C. Comparative Static: Increase in Self Efficacy



D. Comparative Static: Less Extreme Beliefs over Others

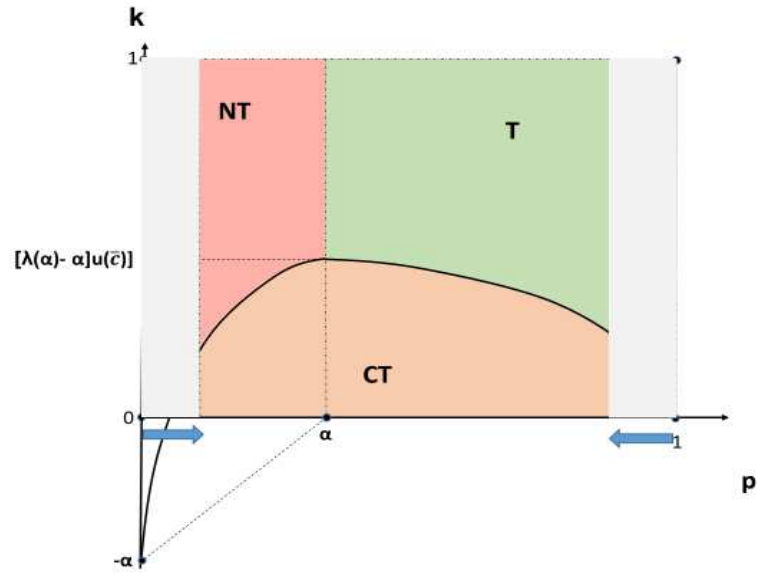
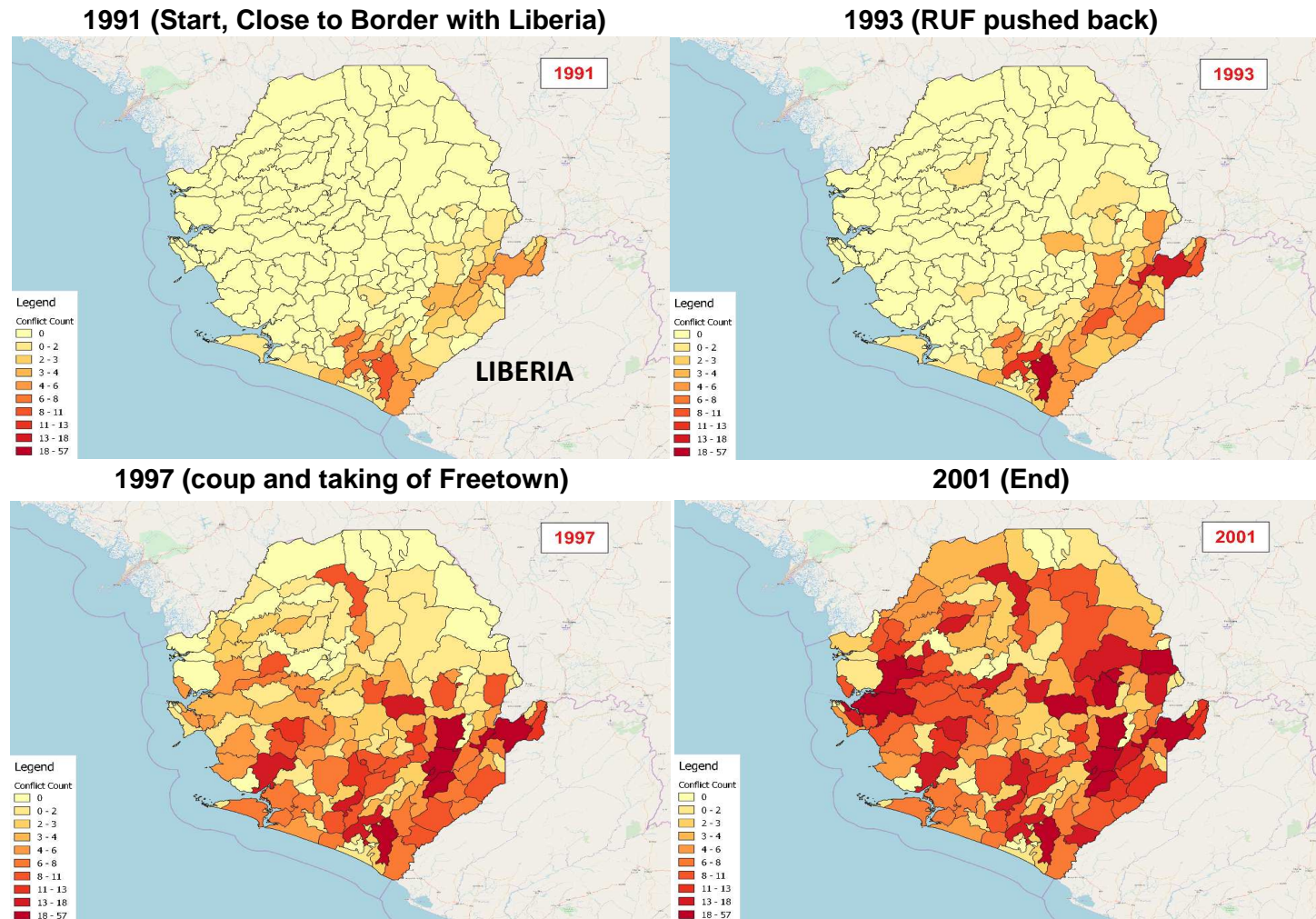


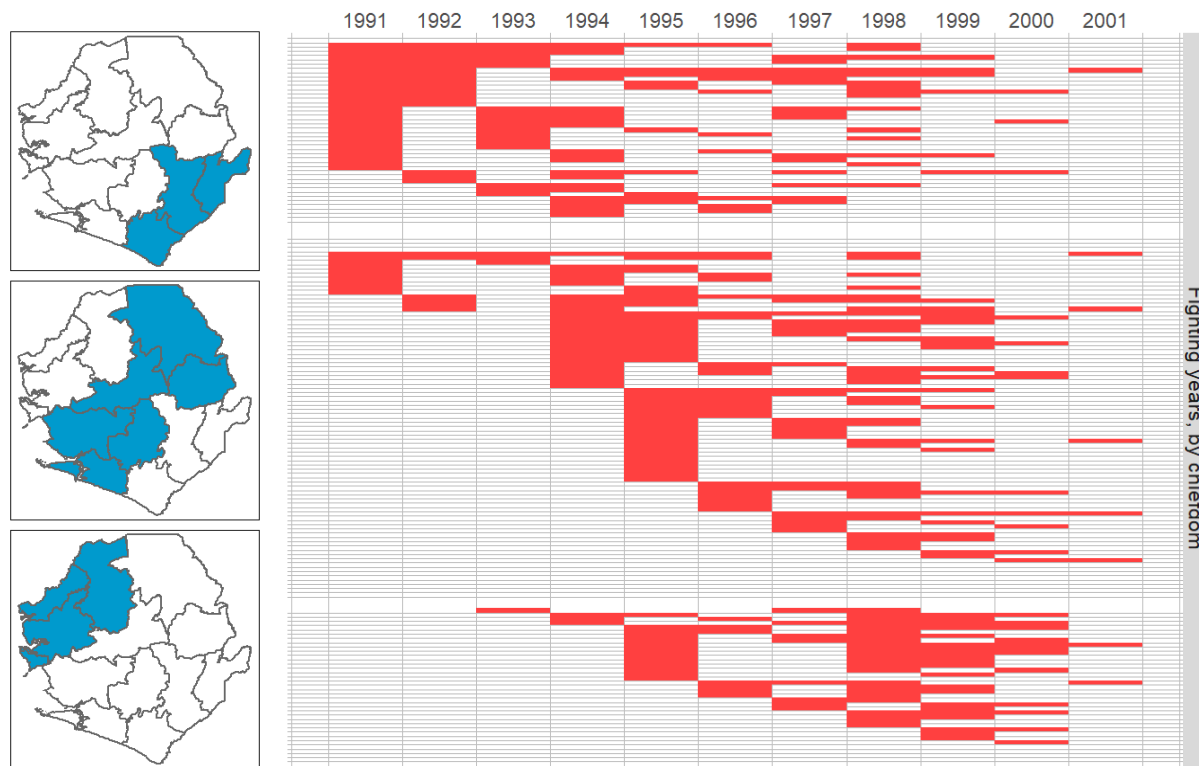
Figure 2: Cumulative Fighting Intensity, by Chiefdom



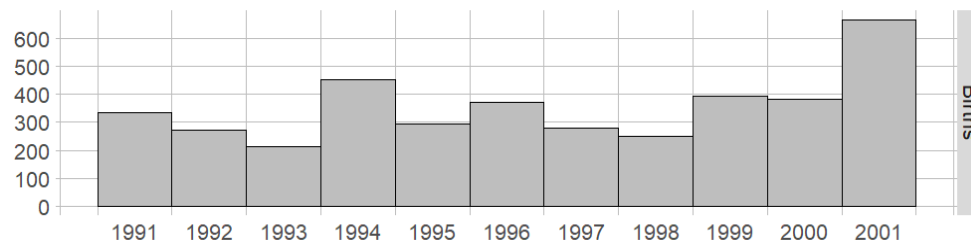
Notes: Data from the Uppsala Conflict Data Program (UCDP). The maps portray the cumulative number of episodes of conflict, at the chiefdom level, at the end of four key years of the Sierra Leonean civil war. In this context, an episode of conflict is defined as the use of armed force by an organized actor against another, or against civilians, that resulted in at least 1 death. The conflict started in 1991 when the Revolutionary United Front (RUF) began taking control of the country, with limited opposition from the Sierra Leone Army (SLA). In 1993 a government offensive supported by ECOMOG pushed the RUF back towards the Liberian border. Notwithstanding this effort, RUF regained territories, approaching the capital Freetown in 1995. In 1997, dissidents within the SLA formed the Armed Forces Revolutionary Council (AFRC) and staged a successful coup with RUF's blessing, leading to rebels conquering the capital. A UN peace keeping mission was deployed in 1999 and, joined by British forces in 2000, they quickly regained control of country. The last episode of conflict was recorded in 2001, and the war was declared to be over in January 2002.

Figure 3: Time Series Variation in Conflict

Panel A. Fighting by year and Chiefdom



Panel B. Sample year of birth



Notes: The central panel reports, for each year, which chiefdoms experienced any episode of fighting (source: UCDP). The bottom panel reports year of birth of respondents in our sample.

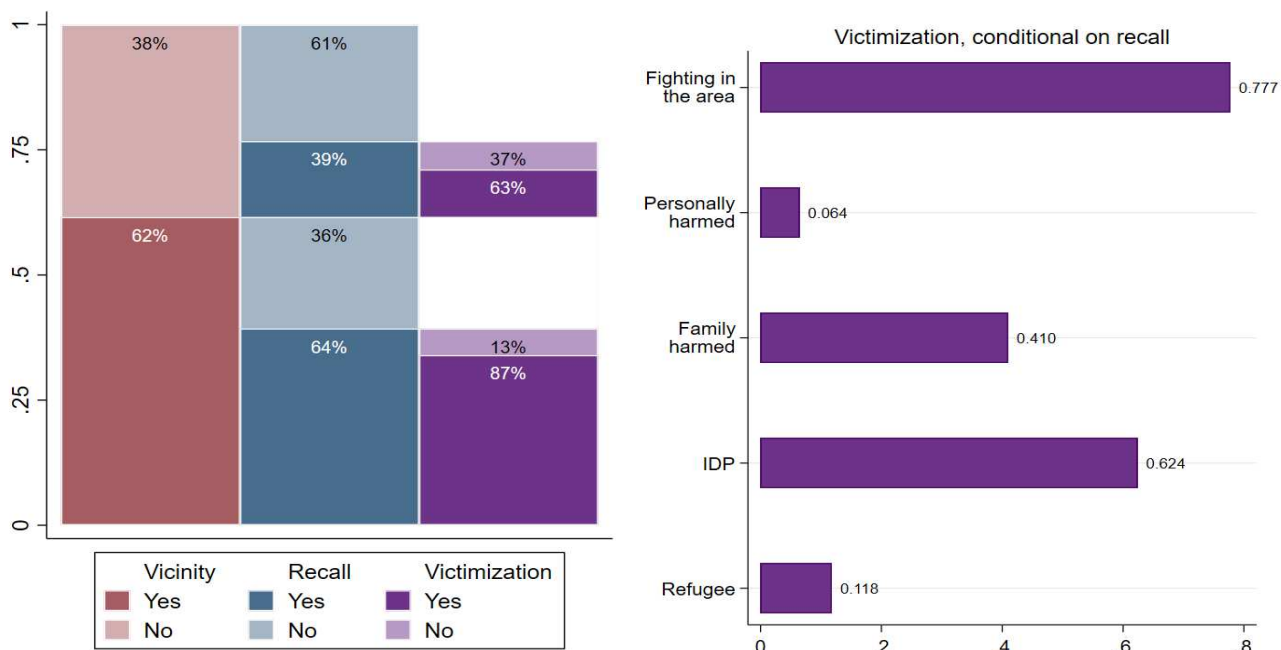
Region 1: Pujehun, Kenema, Kailahun.

Region 2: Bonthe, Moyamba, Bo, Tonkolili, Kono, Koinadugu.

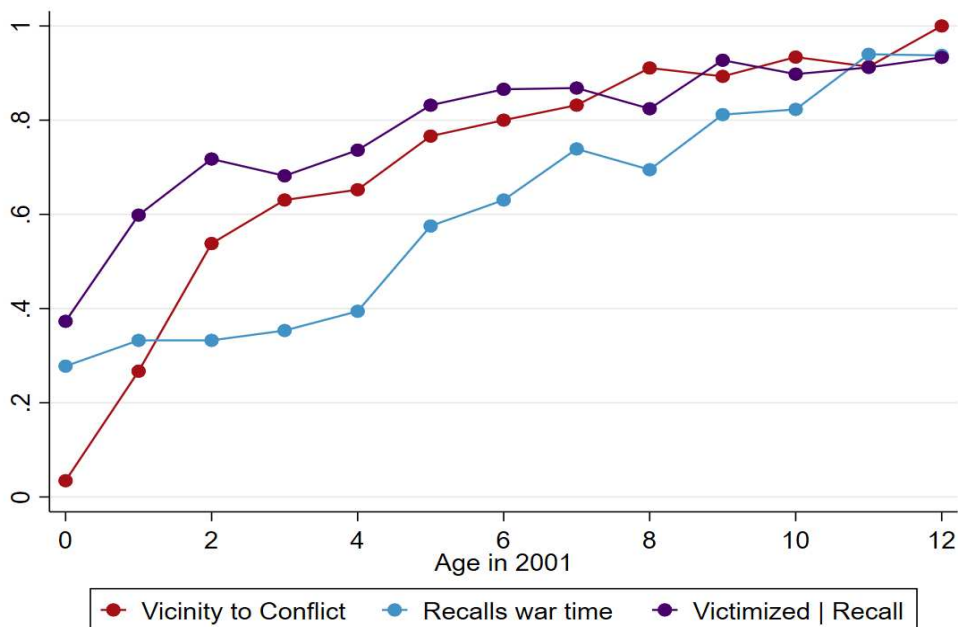
Region 3: Western Urban, Western Rural, Port Loko, Kambia, Bombali.

Figure 4: Victimization

A. Victimization

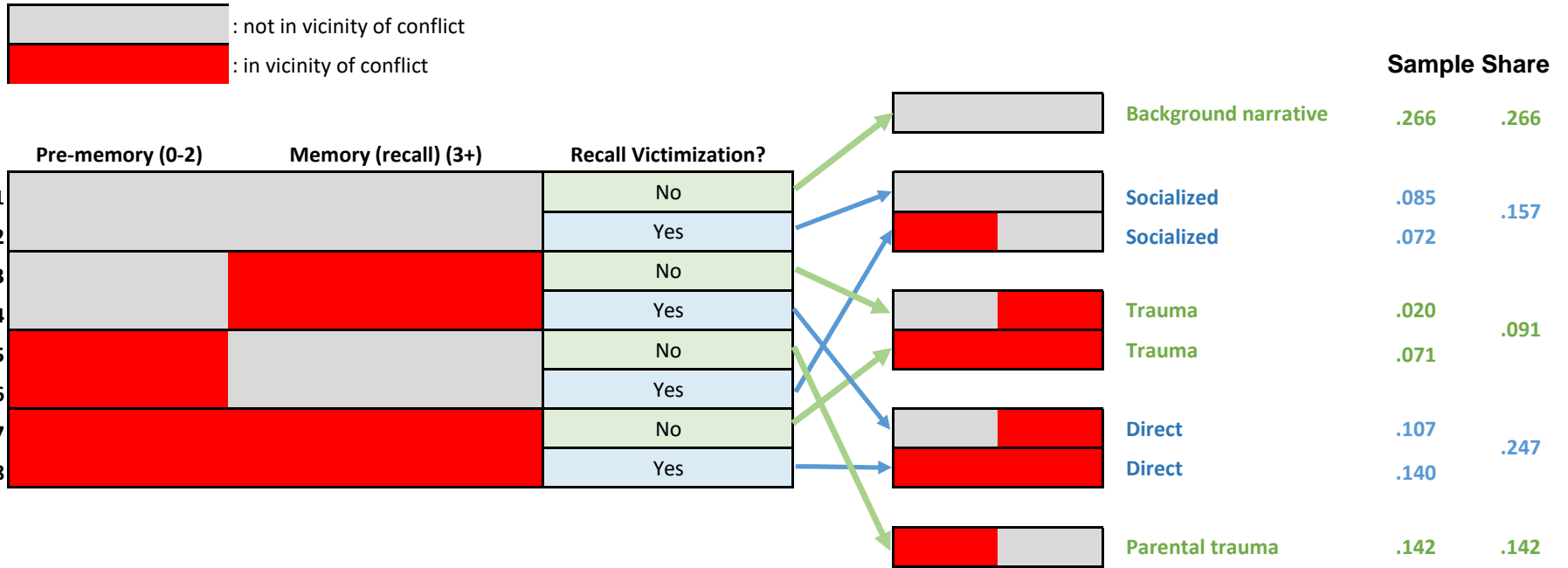


B. Victimization, by Age at End of Civil War



Notes: Panel A (left) reports sample averages for being in the vicinity of conflict, recalling wartime experience and victimization. Vicinity to conflict is computed by matching self-reported migration journals with conflict data from UCDP. The match is performed at the chiefdom-year level. Respondents are identified as recalling their civil war experience if they answered at least one of the questions on victimization, as opposed to answering "don't know/don't remember" to all five questions. The sample shares shown are conditional on vicinity status. The third set of bars shows the share of the sample reporting any form of victimization, conditional on vicinity status and on recalling war time. Panel A (right) shows details on the five form of victimization for which data was collected. Sample share are conditional on recalling war time. Panel (B) shows sample shares for the three variables - vicinity, recall, and victimization - conditional on respondent's age in 2001, the year when the last episode of violence took place.

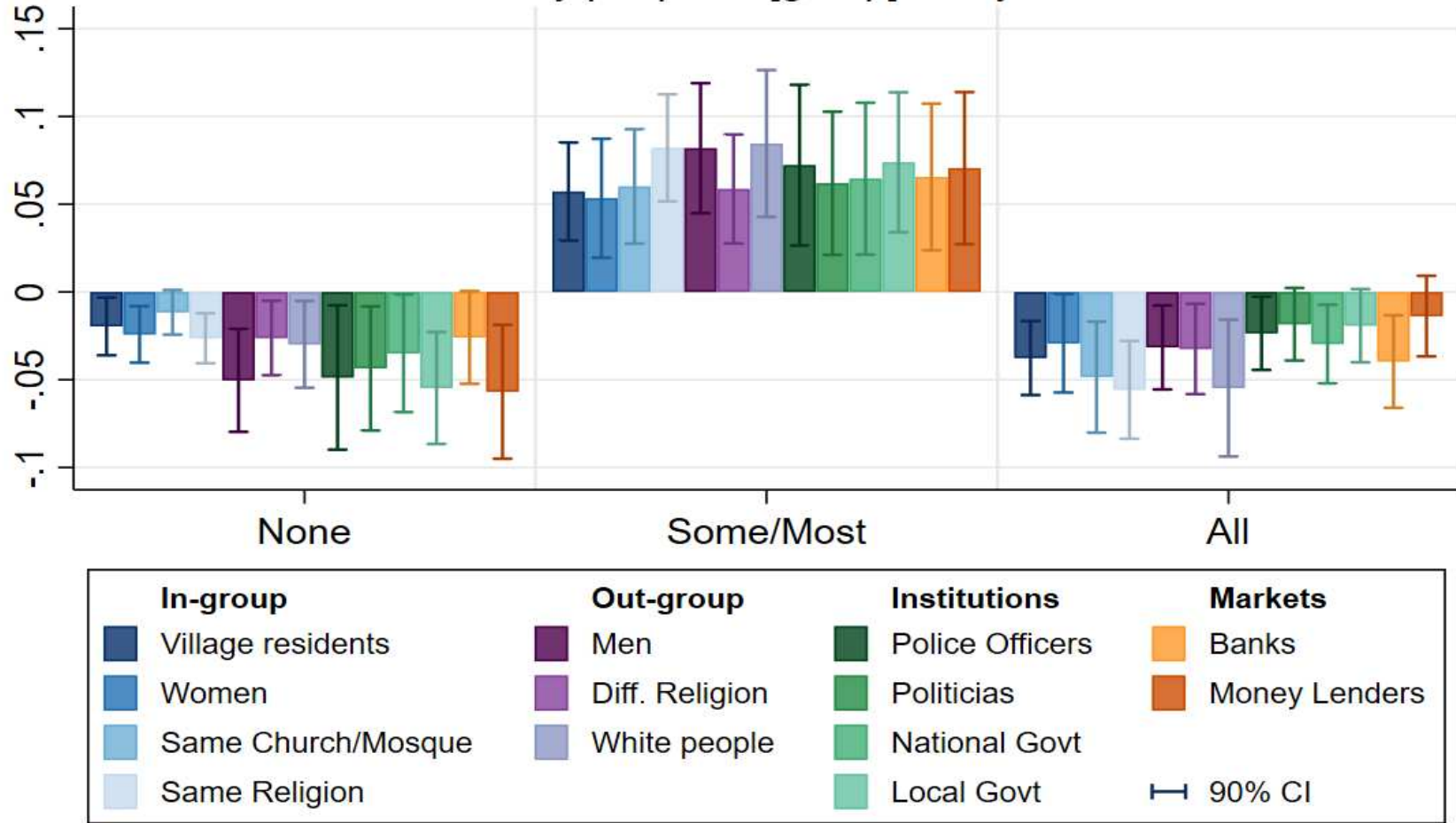
Figure 5: Constructing Experiences of Conflict



Notes: Vicinity to conflict is measured using data from migration journals, which record every Chiefdom respondents lived in for at least six months, since birth. A respondent is in the vicinity of conflict if at least one episode of violence took place in her Chiefdom of residence. Victimization is measured over five dimensions: personal harm, family members harmed, fighting in the area of residence, internal displacement, refugee abroad. We asked respondents whether they experienced each form of victimization, and the possible answers were: (i) "did not live in Sierra Leone", (ii) "too young/don't remember", (iii) "no", and (iv) "yes". Respondents are classified as recalling victimization if they answered "yes" to at least one type of victimization. They are then split into *Socialised* and *Direct Experience* based on their vicinity to conflict. Respondents who answer "too young/don't remember" to all five types of victimization are classified as not recalling any victimization. They form the *Background Narrative*, *Trauma* and *Parental Trauma* groups based on their vicinity to conflict. We also consider those respondents that answered "no" to each victimization question, i.e. those respondents that recall not being victimized at all. These respondents enter the *Background Narrative* and *Parental Trauma* groups depending on the vicinity status. For these two experiences, both *not recalling victimization* or *recalling not being victimized* fit within the assigned classification given that they were either not in the vicinity of conflict or too young to remember. The exception is the *Trauma* group, where we do not include those respondents recalling explicitly not being victimized (answering "no" to every question) even if they were in the vicinity of conflict from age 3 onwards, as this specific case does not fit within the type of experience that characterizes this group.

Figure 6: Vicinity to Conflict and Trust in Groups

"How many people in [group] can you trust"



Notes: The figure reports average marginal effects from a multinomial Logit specification, with 90% confidence intervals. The outcome variable is the answer to the following question: "How many people in [group] can you trust?". This is coded to take three categorical value. All specifications include a cubic polynomial in age, district of birth and district of residence fixed effects. Controls include dummy variables for: respondents belonging to each of the three largest tribes in our sample (Mende, Temne and Limba); respondents identifying as Muslim; respondents' father has completed junior secondary education; respondent belongs to a ruling family. Village controls include the number of households residing in the community and the average PPI score, the latter being an index capturing household wealth. Standard errors are clustered at the community level.

Table A1: Literature Review (studies covered in Bauer *et al.* 2016 meta-analysis)

Paper	Country	Conflict	Sample	Time since war exposure	Age of Exposure	Measure of Exposure
This paper	Sierra Leone	Civil war (1991–2002)	~4,000 young women	12 years	0-9	1) Self-reported 2) Geo-reference via migration and conflict data
Annan, Blattman, Mazurana, and Carlson (2011)	Uganda	Lord's Resistance Army (LRA) insurgency (1986–2006)	Representative sample of youth, some of whom were conscripted by LRA; N = 613	~7 years	adolescence, early adulthood (abduction for conscription purpose)	Self-reported abduction by LRA; questions about 17 specific acts of violence, experienced or perpetrated, on self and family
Bauer, Cassar, Chytilová, and Henrich (2014)	Georgia and Sierra Leone	Georgia: war with Russia over South Ossetia (2008) Sierra Leone: civil war (1991–2002)	Georgia: children; N = 565 Sierra Leone: adult population; N = 586	Georgia: 6 months Sierra Leone: 8 years	Georgia: 3-12 Sierra Leone: 0-75	Self-reported victimization and displacement
Bauer, Fiala, and Lively (2014)	Uganda	Lord's Resistance Army insurgency (1986–2006)	Young men, some of whom were conscripted by LRA; N = 337	5 years	Abducted from childhood to later years. 10-50	Self-reported abduction by LRA; questions about 17 specific acts of violence, experienced or perpetrated, on self and family
Bellows and Miguel (2006, 2009)	Sierra Leone	Civil war (1991–2002)	Nationally representative sample; N = 10,496	3–5 years	All adults/no age range information	Self-reported questions used to create a victimization index and number of reported attacks and battles within each chiefdom as another violence measure.
Blattman (2009)	Uganda	Lord's Resistance Army insurgency (1986–2006)	Young men, some of whom were conscripted by LRA; N = 741	~5 years	Abducted from childhood to later years. Mean age of abduction=15 yrs	Self-reported violence related questions
Cassar, Grosjean, and Whitt (2013)	Tajikistan	Civil war (1992–1997)	Adult population; N = 426	13 years	Ages 0-64	Self-reported violence related questions
Cecchi, Leuvel, Voors, and van der Wal (2015)	Sierra Leone	Civil war (1991–2002)	Youth male street football players; N = 162	8 years	Ages 1-23	Self-reported questions used to create a victimization index
De Luca and Verpoorten (2015a)	Uganda	Lord's Resistance Army insurgency (1986–2006)	Nationally representative sample; N = 4,671	12 years	All adults/no age range information	External violent acts reports - ACLED
De Luca and Verpoorten (2015b)	Uganda	Lord's Resistance Army insurgency (1986–2006)	Nationally representative sample; N = 4,671	12 years	All adults/no age range information	External violent acts reports - ACLED
Gilligan, Pasquale, and Samii (2014)	Nepal	Civil war (1996–2006)	Household heads; N = 252	3 years	14-76	Village Development Committees-level fatality figures
Gneezy and Fessler (2012)	Israel	Israel–Hezbollah war (2006)	Senior citizens; N = 50	1 year	Senior citizens that were not called into military service	Experiment before and after war - no spatial conflict data used
Grosjean (2014)	35 countries in Europe, the Caucasus, and Central Asia	WWII (1939–45); Yugoslav wars (1991–95); Kosovo war (1998–99); Tajik civil war (1992–97); Chechen wars (1994–2009); Kyrgyzstan clashes (2010)	Nationally representative samples; N = 38,864	5 months–65 years	Mostly parent/grandparent exposure	Self-reported survey questions on if you or parents or grandparents were harmed
Grossman, Manekin, and Miodownik (2015)	Israel	Israeli–Palestinian conflict (1967+)	Former soldiers who enlisted between 1998–2003 and 2004–2009; N = 2,334	1–12 years	21-33	Health rankings assigned in the IDF recruitment process as an instrument for combat exposure
Rohner, Thoenig, and Zilibotti (2013)	Uganda	Lord's Resistance Army insurgency (1986–2006)	Nationally representative sample; N = 2,431	8 years	Ages 10-73	Fighting events reported in ACLED
Voors et al. (2012)	Burundi	Civil war (1993–2005)	Household heads, N = 287	4–6 years	Ages 2-85	1) Self-reported community level conflict victimization from village level focus groups 2) self-reported household level conflict questions used for a victimization index
Voors and Bulte (2014)	Burundi	Civil war (1993–2005)	Adult population; N = 874	4 years	14-85	Self-reported questions used to create a victimization index

Table A1: Literature Review Continued (other studies)

Paper	Country	Conflict	Sample	Time since war exposure	Age of Exposure	Measure of Exposure
This paper	Sierra Leone	Civil war (1991–2002)	~4,000 young women	12 years	0-9	1) Self-reported. 2) Geo-reference via migration and conflict data
Callen et al. (2014)	Afghanistan	Civil war, focus on period between 2002-2010	1127 adults near polling stations	0 years	All adults/no age range information	Incident records of the International Security Assistance Force, a multilateral military body present since December 2001
Hartman and Morse (2008)	Liberia	Civil war (1990-2003)	1280 adults across 64 villages	10 years	15-65	Self-reported violence related questions
Jakiela and Ozier (2019)	Kenya	Post election crisis 2008	N=5049	1 year	13-30	Self-reported violence related questions
Kim and Lee (2014)	Kenya	Kenya war (1950-1953)	N=7047	50 years	0-31	Population data from 1949 census + civilian injuries and casualty data
Moya (2018)	Columbia	Modern conflict in Columbia (1985 - ongoing)	N=284 IDPs	0-10 years (average 2.5 years)	All adults/no age range information	Self-reported violence related questions
Not eligible for met-analysis						
De Juan and Pierskalla (2016)	Nepal	Civil war (1996–2006)	Nationally representative sample; N = 8,822	0–7 years	All adults/no age range information	Number of total killings per VDC. Information is taken from the Informal Sector Services Center (INSEC). Use respondent's GPS info to match with VDCs
Hartman and Morse (2020)	Liberia	Civil war (1989–2003)	Adult population; N ~ 1,600	10 years	All adults/no age range information	Self-reported exposure to violence questions
Shewfelt (2009)	Indonesia, Bosnia and Hercegovina, United States (Vietnam veterans)	Indonesia: insurgency in Aceh (1976–2005) B&H: civil war (1992–1995) United States: Vietnam war (1955–1975)	Indonesia: N = 1,752 Bosnia: nationally representative sample; N = 3,580. United States: male Vietnam theater veterans; N = 1,171	2–11 years		
Other forms of violence						
Bateson (2012)	70 countries	Crime victimization	Latin America: 39,238 United States and Canada: 3,000 Africa: 27,713 Europe: 17,088 Asia: 16,725		All adults/no age range information	Self-reported crime victimization
Becchetti, Conzo, and Romeo (2014)	Kenya	Kenyan crisis, post-election violence (2007–2008)	Nairobi slum-dwellers; N = 404		All adults/no age range information	Self-reported crime victimization, divided into 3 categories: i) direct or indirect harm; ii) economic losses; iii) forced relocation
Hopfensitz and Miquel-Florensa (2014)	Colombia	Colombian conflict (1964+)	Coffee farmers; N = 260		All adults/no age range information	Displacement history. Also linked to average homicide rate over the last 10 years
Rojo-Mendoza (2014)	Mexico	Crime victimization	Nationally representative sample; N = 7,416			

Table A2: Attrition

Dependent Variable = 1 if respondent is tracked 2014-16
 OLS estimates, standard errors in parentheses

	(1)	(2)	(3)
Trust: No	-.015 (.017)	-.018 (.017)	
Trust: It depends	.012 (.011)	.006 (.012)	
Does not recall			-.006 (.012)
Individual Controls	No	Yes	Yes
Tribe and Religion	No	Yes	Yes
Village Controls	No	Yes	Yes
F-tests: p-values on joint significance:			
Individual Controls		{.055}	{.061}
Tribe and Religion		{.000}	{.000}
Village Controls		{.008}	{.009}
Mean of outcome variable	.838	.838	.838
Observations	5,376	4,979	4,979

Notes: *** denotes significance at 1%, ** at 5%, and * at 10%. Results from a regression where the outcome variable is a dummy equal to 1 if the respondent not tracked at endline (2016). All specifications include a cubic polynomial in age, district of birth and district of residence fixed effects. Controls include dummy variables for: respondents belonging to each of the three largest tribes in our sample (Mende, Temne and Limba); respondents identifying as Muslim; respondents' father has completed junior secondary education; respondent belongs to a ruling family. Village controls include the number of households residing in the community and the average PPI score, the latter being an index capturing household wealth. Standard errors are clustered at the community level.

Table A3: Correlates of Exposure to Conflict

Standard errors in parentheses, clustered by village of residence

Outcome: Sample:	Panel A: Geo-Matched Exposure				Panel B: Self-Reported Victimization						
	Conflict Exposure (any)	Exposure Intensity (Tobit)	Conflict Exposure (any)	Exposure Intensity (Tobit)	Recall	Any Victimization	Personally Harmed	Family Harmed	Refugee	Internally Displaced	Fighting in the area
	(1)	Full (2)	Victimization (3)	(4)	(5)	(6)	(7)	(8)	Victimization (9)	(10)	(11)
Age (AME)	.106*** (.004)	3.78*** (.251)	.079*** (.004)	2.74*** (.251)	.045*** (.005)	.044*** (.005)	.003 (.003)	.028*** (.007)	-.003 (.003)	.042*** (.006)	.042*** (.006)
Father's H-Education (mother)	-.009 (.020)	-.016 (.596)	-.010 (.030)	.081 (.810)	.003 (.026)	.027 (.028)	.027 (.020)	-.021 (.038)	.040 (.025)	-.006 (.036)	.017 (.030)
Ruling Family	-.006 (.016)	-.207 (.616)	-.019 (.021)	-.957 (.722)	-.006 (.019)	.020 (.020)	.019 (.016)	.015 (.030)	.046** (.022)	-.017 (.029)	.010 (.026)
F-tests: p-values on joint significance											
Parental Characteristics	{.890}	{.817}	{.807}	{.341}	{.759}	{.836}	{.776}	{.465}	{.832}	{.829}	{.871}
Tribe	{.000}	{.000}	{.000}	{.000}	{.021}	{.384}	{.643}	{.348}	{.000}	{.000}	{.062}
Religion	{.789}	{.682}	{.908}	{.563}	{.477}	{.424}	{.222}	{.079}	{.168}	{.102}	{.050}
District of birth FE	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
District 2014 FE	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Sample Mean	.626	6.47	.729	8.08	.443	.850	.065	.402	.120	.615	.764
Observations	3,784	3,517	2,107	1,954	3,784	2,107	1,975	1,993	1,980	1,953	1,925

Notes: *** denotes significance at 1%, ** at 5%, and * at 10%. All victimization measures are self-reported. Geo-matched exposure intensity is defined as the total number of war-related episodes of violence that took place in the chiefdom where the respondent was residing, as reported by the UCDP. Column (3) and (4) repeat the analysis for the subsample of respondents that completed the victimization module in its entirety. Coefficients estimated via OLS, unless otherwise specified. Age is controlled for via a cubic polynomial, and the table reports average marginal effects. The education control is a dummy equal to one if respondents' father has completed junior secondary. The variable Ruling Family is a dummy equal to 1 if the respondent belongs to one of the families whose members can run for the role of paramount chief. These families were recognised and empowered by the British Colonial Administration in 1896. Paramount chiefs are elected by local notables, their mandate is for life and they represented the only form of local administration until local councils were formed in 2004. Their powers include collecting taxes, overseeing the judicial system and allocating land. Each regression includes a set of dummies for each three major tribes, a dummy equal to 1 if respondents identify as Muslim, district of birth and district of residence fixed effects. Standard errors are clustered at the community level.

Table A4: Intensive Margin of the Geo-coded Exposure to Conflict and Trust

Multinomial logit, average marginal effects reported

Dependent variable: In general do you think people can be trusted?

Standard errors in parentheses, clustered by village of residence

	(1a) NO	(1b) IT DEPENDS	(1c) YES	(2a) NO	(2b) IT DEPENDS	(2c) YES
Exposure to Conflict, intensive (Number of Episodes, asinh transf.)	-0.008 (.006)	.022** (.010)	-.014 (.010)			
Exposure to Conflict, intensive (Number of casualties, asinh transf.)				-.008** (.003)	.011** (.006)	-.004 (.006)
p-value (yes = no)		{.602}			{.538}	
Age	✓	✓	✓	✓	✓	✓
Indiv. Controls	✓	✓	✓	✓	✓	✓
Tribe & Religion	✓	✓	✓	✓	✓	✓
Village Controls	✓	✓	✓	✓	✓	✓
District of birth FE	✓	✓	✓	✓	✓	✓
District 2014 FE	✓	✓	✓	✓	✓	✓
Sample Avg Not in the vicinity of conflict	.119	.498	.383	.120	.497	.384
Observations		3,517			3,517	

Note: ***, ** and * denote significance at the 1%, 5%, and 10% levels. Columns 1a-1c use the total number of episodes of violence experienced during the war, while Columns 2a-2c use the total number of deaths that took place in each respondent's chiefdom(s) of residence. Given the large mass at zero and the long tail for each of the two variables, we employ inverse hyperbolic sine transformations. All specifications include a cubic polynomial in age, district of birth and district of residence fixed effects. Controls include dummy variables for: respondents belonging to each of the three largest tribes in our sample (Mende, Temne and Limba); respondents identifying as Muslim; respondents' father has completed junior secondary education; respondent belongs to a ruling family. Village controls include the number of households residing in the community and the average PPI score, the latter being an index capturing household wealth. Standard errors are clustered at the community level.

Table A5: Robustness

Dependent variable: In general do you think people can be trusted?
Standard errors in parentheses, clustered by village of residence

	Multinomial Logit, AME			Probit, AME	LPM	
	(1a) NO	(1b) IT DEPENDS	(1c) YES	(2) IT DEPENDS	(3) IT DEPENDS	(4) IT DEPENDS
Exposure to Conflict	-.027*	.077***	-.050*	.077***	.077**	.046***
	(.017)	(.029)	(.028)	(.030)	(.030)	(.017)
<i>Alternative clustering of standard errors:</i>						
<i>district of birth</i>	(.017)	(.037)	(.037)			
<i>age</i>	(.017)	(.026)	(.023)			
<i>robust</i>	(.016)	(.023)	(.022)			
Age	✓	✓	✓	✓	✓	✓
Controls for age, individual characteristics, tribe and religion	✓	✓	✓	✓	✓	✓
Village Controls	✓	✓	✓	✓	✓	✓
District of birth, district of residence fixed effects	✓	✓	✓	✓	✓	✓
Enumerator fixed effects						✓
Sample Avg Not Exp.	.121	.489	.390	.489	.489	.489
Observations		3,784		3,784	3,784	3,784

Note: ***, ** and * denote significance at the 1%, 5%, and 10% levels. All specifications include a cubic polynomial in age, district of birth and district of residence fixed effects. Controls include dummy variables for: respondents belonging to each of the three largest tribes in our sample (Mende, Temne and Limba); respondents identifying as Muslim; respondents' father has completed junior secondary education; respondent belongs to a ruling family. Village controls include the number of households residing in the community and the average PPI score, the latter being an index capturing household wealth. Standard errors are clustered at the community level.

Table A6: Vicinity to Conflict and Trust

Multinomial logit, average marginal effects reported

Dependent variable: In general do you think people can be trusted?

Standard errors in parentheses, clustered by village of residence

	Within 50km			Within 100km		
	(1a) NO	(1b) IT DEPENDS	(1c) YES	(2a) NO	(2b) IT DEPENDS	(2c) YES
Vicinity to Conflict - Distance Weighted	-0.007 (.010)	.027* (.016)	-0.020 (.015)	-0.017 (.018)	.021 (.021)	-0.004 (.014)
Age	✓	✓	✓	✓	✓	✓
Indiv. Controls	✓	✓	✓	✓	✓	✓
Tribe & Religion	✓	✓	✓	✓	✓	✓
Village Controls	✓	✓	✓	✓	✓	✓
District of birth FE	✓	✓	✓	✓	✓	✓
District 2014 FE	✓	✓	✓	✓	✓	✓
Observations		2,906			3,293	

Notes: ***, ** and * denote significance at the 1%, 5%, and 10% levels. The table reports average marginal effects for the estimation sample from a multinomial Logit specification. The vicinity variables are the sum on the number of episodes of violence experienced within the stated threshold, weighted by the inverse of the distance between the chiefdom's centroid and the location where fighting took place. The logarithm of these measures are then standardised and coefficients can be interpreted as effect sizes. We present results for different cutoffs, with a the average Chiefdom size corresponding to a threshold of 22km. All specifications include a cubic polynomial in age, district of birth and district of residence fixed effects. Controls include dummy variables for: respondents belonging to each of the three largest tribes in our sample (Mende, Temne and Limba); respondents identifying as Muslim; respondents' father has completed junior secondary education; respondent belongs to a ruling family. Village controls include the number of households residing in the community and the average PPI score, the latter being an index capturing household wealth. Standard errors are clustered at the community level.

Table A7: Indecisiveness, Social Networks

OLS regression estimates

Outcomes: Neutral Answers, Life Satisfaction module

Standard errors in parentheses, clustered by village of residence

	Indecisiveness		Network Degree			
	(1) Neutral Answer, Any	(2) Neutral Answers, Share	(3) Friends	(4) Intimate Topics	(5) Work	(6) Credit
Exposure to Conflict	-.056* (.029)	-.003 (.008)	.015 (.072)	.044 (.046)	.052 (.060)	.058 (.076)
Sample Average Omitted group	.608	.112	1.96	.847	.833	.877
Controls for age, individual characteristics, tribe and religion	✓	✓	✓	✓	✓	✓
Village Controls	✓	✓	✓	✓	✓	✓
District of birth, district of residence fixed effects	✓	✓	✓	✓	✓	✓
Observations	3,784	3,784		2,529		

Notes: ***, ** and * denote significance at the 1%, 5%, and 10% levels. The table reports OLS estimates. The dependent variables in columns 1 and 2 are derived from a set of questions measuring respondents' satisfaction along a number of dimensions. The questions are phrased as follows: "How do you feel about [category]?". The available categories are: own education, family, friends, job, income, own dwelling, own school, own community, future prospects, family's financial situation, access to credit, and life as a whole. Available answers belong to a 7-points Likert scale, ranging from very happy/optimistic to very sad/pessimistic. The middle of the scale is labelled as "neutral". Columns 3-6 report Tobit estimates of the impact of conflict exposure on respondents' network degree. This was measured at endline, in 2016, for a random subset of respondents who were asked to list the people they consider friends, they speak about intimate topics with, they can discuss work issues and opportunities with, or they can discuss issues related to finances and credit. All specifications include a cubic polynomial in age, district of birth and district of residence fixed effects. Controls include dummy variables for: respondents belonging to each of the three largest tribes in our sample (Mende, Temne and Limba); respondents identifying as Muslim; respondents' father has completed junior secondary education; respondent belongs to a ruling family. Village controls include the number of households residing in the community and the average PPI score, the latter being an index capturing household wealth. Standard errors are clustered at the community level.

Table A8: Sources of Variation in Exposure to Conflict

Linear Probability Model

Dependent variable: In general do you think people can be trusted? (=1 if it depends)

Standard errors clustered by village of residence

	Age 14-25 (1)	Geography of Birth (2) (3)		Migration (4) (5)	
Exposure to Conflict	.079** (.031)	.074** (.036)	.075** (.039)	.085*** (.031)	.109*** (.040)
Exposure to Conflict x Born into district bordering Liberia		.007 (.046)			
Exposure to Conflict x Born into region 2			-.101** (.051)		
Exposure to Conflict x Born into region 3			.060 (.051)		
Exposure to Conflict x Migrated during civil war				-.074 (.063)	
Exposure to Conflict x Migrated after civil war					-.043 (.038)
Controls for age, individual characteristics, tribe and religion	✓	✓	✓	✓	✓
Village Controls	✓	✓	✓	✓	✓
District of birth, district of residence fixed effects	✓	✓	✓	✓	✓
Sample Avg Not Exp.	.513	.490	.498	.489	.498
Observations	3,216	3,784	3,784	3,517	3,784

Note: ***, ** and * denote significance at the 1%, 5%, and 10% levels. The table reports average marginal effects for the estimation sample from a multinomial Logit specification. All specifications include a cubic polynomial in age, district of birth and district of residence fixed effects. Controls include dummy variables for: respondents belonging to each of the three largest tribes in our sample (Mende, Temne and Limba); respondents identifying as Muslim; respondents' father has completed junior secondary education; respondent belongs to a ruling family. Village controls include the number of households residing in the community and the average PPI score, the latter being an index capturing household wealth. Standard errors are clustered at the community level. The geographical regions correspond to those detailed in Figure 2. Standard errors are clustered at the community level.

Table A9: Placebo and IV Specifications

Multinomial logit, average marginal effects reported

Dependent variable: In general do you think people can be trusted?

Standard errors in parentheses, clustered by village of residence

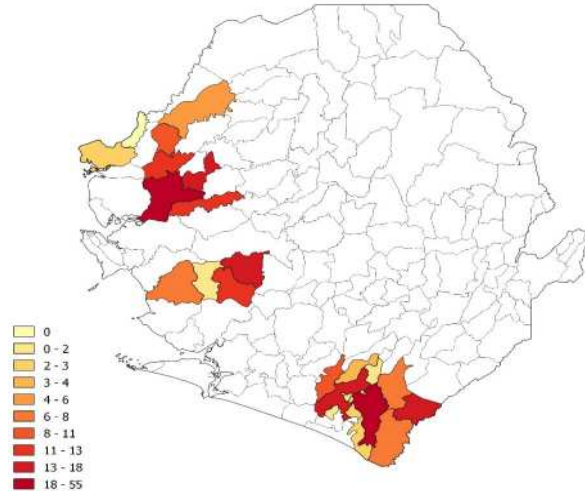
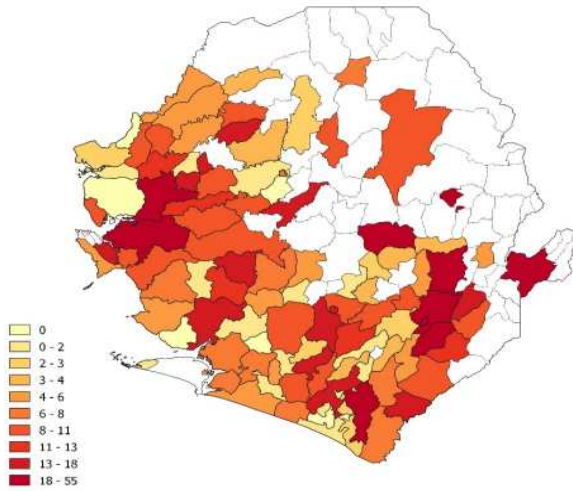
	Placebo: YoB+5			IV	IV
	(1a) NO	(1b) IT DEPENDS	(1c) YES	(2) IT DEPENDS	(3) IT DEPENDS
Exposure to Conflict	-0.015 (.096)	-0.066 (.121)	.080 (.124)	.136** (.063)	.165*** (.063)
p-value (yes = no)		{.608}			
Controls for age, individual characteristics, tribe and religion	✓	✓	✓	✓	✓
Village Controls	✓	✓	✓	✓	✓
District of birth FE	✓	✓	✓		
District 2014 FE	✓	✓	✓	✓	✓
IV: Distance from first episode at birth				✓	✓
IV: Distance from Freetown at birth					✓
IV: F-Stat / {p-value}				32.7 / {.000}	34.5 / {.000}
Sample Avg Not in the vicinity of conflict	.116	.481	.404	.509	.509
Observations		2,061		3,705	3,705

Note: ***, ** and * denote significance at the 1%, 5%, and 10% levels. The table reports average marginal effects for the estimation sample from a multinomial Logit specification (Columns 1a-1c), and 2SLS estimates (Columns 2 and 3). Columns 1a-1c report a placebo test whereby year of birth and the date of each migration spell is increased by 5 years before matching this information with UCDP data and compute vicinity to conflict. We restrict the estimation sample to those respondent who would still have been born no later than 2001 according to this placebo year of birth. The last two columns reports 2SLS estimates. We use two sets of instruments for vicinity to conflict: a set of dummy variables for each year of the conflict and equal to 1 from respondents' year of birth onwards, interacted with either distance between place of birth and location of first episode of violence in 1991, or distance between place of birth and Freetown. All specifications include a cubic polynomial in age, and district of residence fixed effects. Controls include dummy variables for: respondents belonging to each of the three largest tribes in our sample (Mende, Temne and Limba); respondents identifying as Muslim; respondents' father has completed junior secondary education; respondent belongs to a ruling family. Village controls include the number of households residing in the community and the average PPI score, the latter being an index capturing household wealth. Standard errors are clustered at the community level.

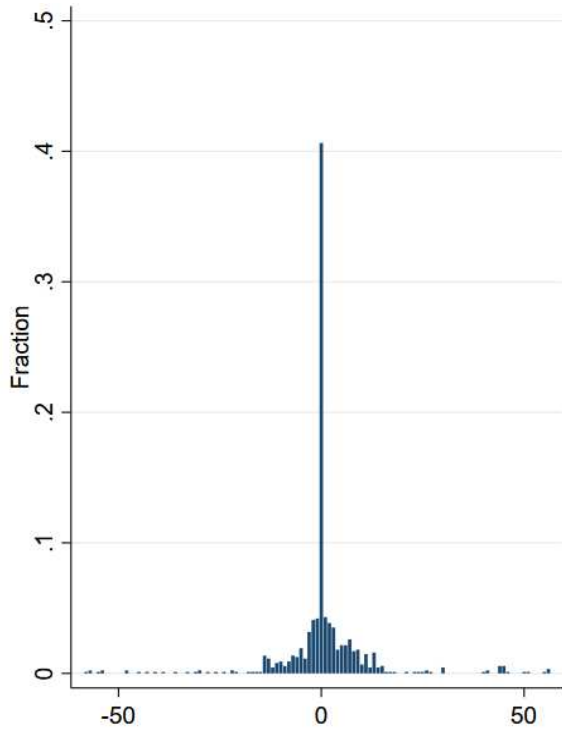
Figure A1: Migration Histories

A. Respondents' Chiefdom of Birth

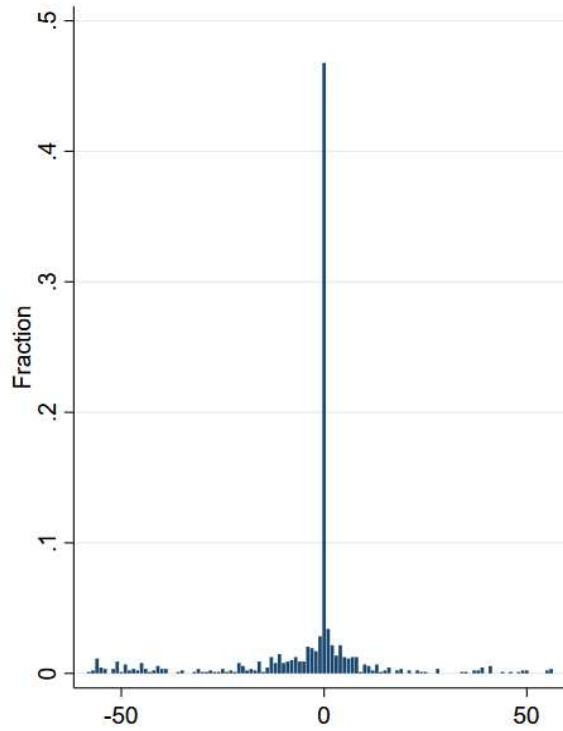
B. Respondents' Chiefdom of Residence, 2016



C. Past Conflict Intensity, Origin Minus Destination



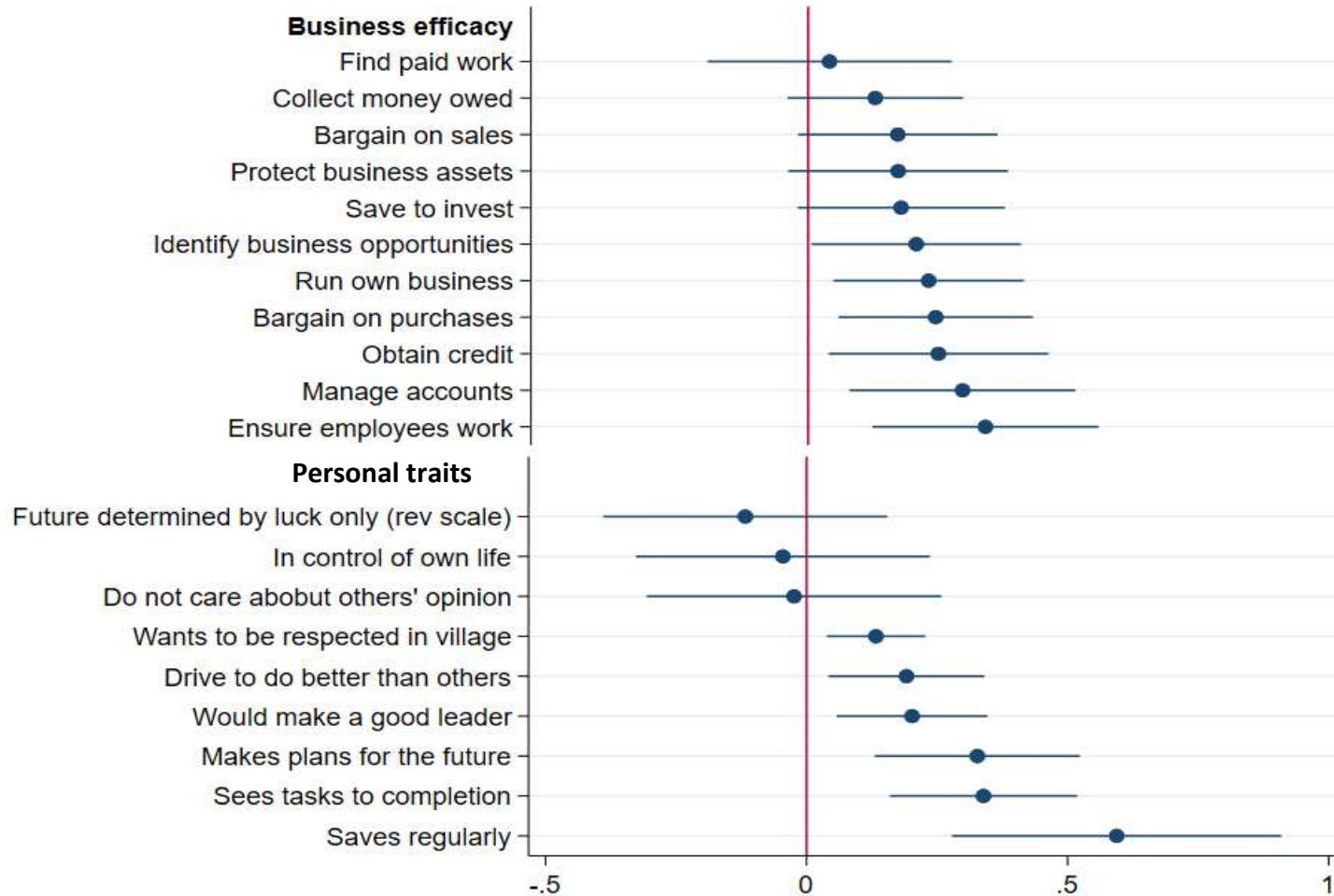
D. Future Conflict Intensity, Post migration



Notes: Panel A shows cumulative conflict intensity for all chiefdoms where at least one respondent was born. Panel B shows the same data for the chiefdoms where sampled respondents currently live. Cumulative conflict intensity is defined as the total number of violent episodes that took place in a Chiefdom between 1991 and 2001. A violent episode is defined as the use of force by an organized group, against another group or civilians, that resulted in at least one casualty. Panel C and D shows data for 921 migration spells that took place between 1991 and 2000. For each spell, we compute (i) difference in total number of episodes of violence between chiefdom of origin and of destination at the time of migration, (ii) difference in total number of episodes of violence taking place in the two chiefdoms after the migration spell.

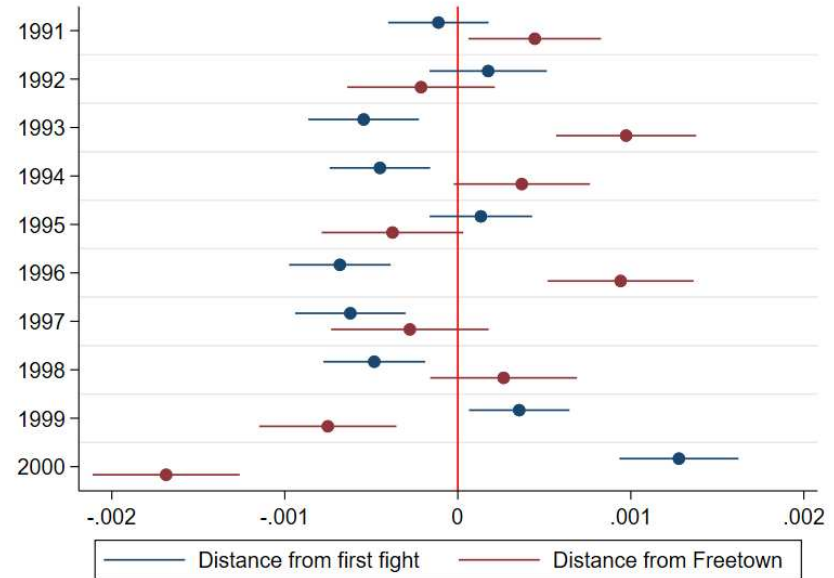
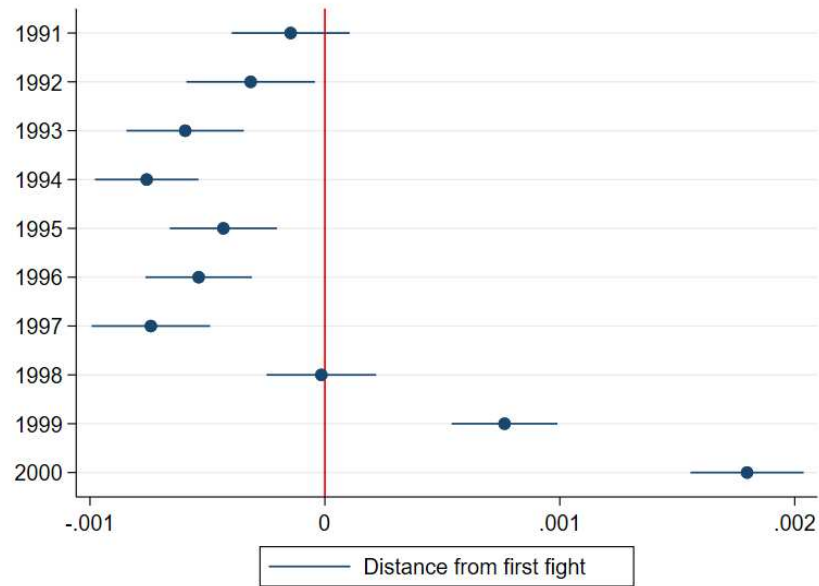
Figure A2: Components of Self-Efficacy

OLS coefficients of Vicinity to Conflict
Effect sizes, 90% confidence intervals



Notes: OLS coefficients with 90% confidence intervals. The outcome variables are the self-reported ability to perform a range of business-related tasks (top panel), and agreement with a sequence of statements about oneself, measured on a 10 point scale and later standardized. Estimates obtained by regressing each of these measures on vicinity to conflict. All specifications include a cubic polynomial in age, district of birth and district of residence fixed effects. Controls include dummy variables for: respondents belonging to each of the three largest tribes in our sample (Mende, Temne and Limba); respondents identifying as Muslim; respondents' father has completed junior secondary education; respondent belongs to a ruling family. Village controls include the number of households residing in the community and the average PPI score, the latter being an index capturing household wealth. Standard errors are clustered at the community level.

Figure A3: IV, First Stage Estimates



Notes: Each picture show first stage coefficient estimates from the IV models reported. For convenience, we report only the coefficients on the instruments, with 90% confidence intervals. These instruments are constructed by multiplying a vector of dummy variables, one for each year between 1991-2000 and equal from the respondent year of birth onward, with two distance measures. In the left panel, the distance used is between place of birth and the first episode of violence recorded in UCDP data, which took place in Pujehun district in 1991. In the right hand panel, we the previous measure as well as the distance between the respondent's place of birth and Freetown, Sierra Leone's capital.