

The Political Consequences of Wartime Sexual Violence: Evidence from a List Experiment

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Abstract

We present the first systematic study into the political effects of wartime sexual violence. Connecting unobtrusive measures from a list experiment to individual survivors' political action, we show that personal experience of sexual violence increases political participation. This effect is substantial in size, holds for institutionalized and non-institutionalized forms of political action, and is robust to unobserved confounding or sample selection bias. To understand why sexual victimization leads to political activism, we derive mechanisms from work on the legacies of violent conflict. Causal mediation analyses suggest that social preferences or 'post-traumatic growth' are insufficient explanations for the mobilizing effect of wartime sexual violence. Instead, survivors of sexual violence are mobilized through their involvement in civic networks. Stressing the agency of survivors, we contribute to the understanding of wartime sexual violence, the role of civil society in post-conflict politics and humanitarian policy.

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Introduction

Nadia Murad, a young Yazidi woman and recipient of the 2018 Nobel Peace Prize, shares a remarkable story. Abducted and forced into sexual slavery by ISIS in Northern Iraq, she not only overcame a traditional cultural taboo by speaking up about her ordeal. She also refused to be broken by her experience and instead turned into a visible political activist dedicated to bring justice to her people. Her story contradicts conventional wisdom on the effects of wartime sexual violence which often describes survivors as silent, isolated and passive.

Inspired by Nadia Murad's story, we turn to a significant research puzzle in the study of violent conflict and politics. Do victims of wartime sexual violence remain politically passive or do they mobilize as a consequence of their experience? The answer to this question has valuable theoretical and practical implications because political action is a means for coping with trauma, addressing grievances and, ultimately, shaping the future of post-conflict societies. It is also important, because sexual violence is a common feature of war which has been documented to varying degrees in armed conflicts around the globe (e.g., Butler, Gluch and Mitchell 2007; Cohen 2013*a,b*; Cohen and Nordås 2014; Green 2004; Leiby 2009*a,b*; Wood 2006, 2008, 2009, 2014; Koos 2017). Research on wartime sexual violence has made tremendous progress over the last years and contributed greatly to our understanding of its underlying causes and explanations (Baaz and Stern 2009; Butler and Jones 2016; Cohen 2013*a*; Hoover Green 2016). However, with the exception of Koos (2018), little knowledge exists on the consequences of wartime sexual violence. Our paper contributes to the closing of this research gap.

We present the first systematic study into the effects of wartime sexual violence on the political behavior of individual survivors. Studying the political effects of wartime sexual violence is a formidable task due to the well-known problem of underreporting. Many victims remain silent about their experiences, especially in traditional contexts

with rigid cultural norms concerning sexuality and gender roles (Krug et al. 2002). In addition, reporting personal experiences of sexual assault can be dangerous in (post-)conflict situations where perpetrators hold political power and victims must fear further reprisals for speaking out (Leiby 2009*b*).

To overcome this challenge in the study of downstream effects of sexual victimization in war, we tackle the problem of underreporting using a list experiment. This method is designed to elicit sensitive issues fraught with problems of social desirability, shame or fear of repression (Blair and Imai 2012; Glynn 2013). Traummüller, Kijewski and Freitag (2019) have pioneered the use of the list experiment in establishing prevalence rates and risk-factors of wartime sexual violence. In this study, we innovate by harnessing recent statistical methodology (Imai, Park and Greene 2015) to connect unobtrusive measures of wartime sexual violence to individual survivors' political participation.

Our results show that, counter to common beliefs, survivors of wartime sexual violence are neither socially isolated nor politically passive. To the contrary, personal experience of sexual assault during war is significantly related to higher levels of political participation. This effect is substantial in size and holds for both institutionalized and non-institutionalized forms of political action, ranging from active campaign work to participation in public demonstrations and protests. A careful sensitivity analysis suggests that the effect is indeed causal and a thought experiment rules out the threat of sample selection bias, further bolstering our finding.

To understand why sexual victimization leads to political activism, we derive general explanations from existing work on the legacies of violent conflict. According to this evolving literature, the civic consequences of conflict exposure are either driven by psychological changes in social preferences and 'post-traumatic growth' (e.g., Bauer et al. 2016; Blattman 2009; Gilligan, Pasquale and Samii 2014; Lupu and Peisakhin 2017) or by structural changes in social networks (e.g., Wood 2008).

Our theoretical contribution is to transfer these explanations to the specific domain of sexual violence and to evaluate their relative power in explaining the political behaviour of individual survivors. We operationalize these alternative psychological and structural mechanisms using causal mediation analyses and show that change in social preferences or ‘post-traumatic growth’ are insufficient explanations for the political mobilizing effect of wartime sexual violence. Instead, our evidence suggests that survivors of sexual violence are politically mobilized through their involvement in social networks or civic associations and thus points to the relevance of civil society.

In sum, this paper adds three valuable contributions to our understanding of wartime sexual violence and post-conflict societies. First, we contribute to the literature on wartime sexual violence by shifting the focus away from the perpetrators and toward the survivors. While existing work has stressed the incentives, strategies and practices of those engaging in sexual violence (Baaz and Stern 2009; Butler and Jones 2016; Cohen 2013*a*; Hoover Green 2016; Wood 2014), we turn to the agency of those victimized. All else equal, survivors of wartime sexual violence are highly active members of post-conflict society and make themselves heard through their political activism. This qualifies previous accounts which have cast victims as socially isolated and politically passive (Buss 2009; Diken and Laustsen 2005).

Second, our results provide novel insights concerning the perpetrators and the use of sexual violence as a ‘strategy of war’. While perpetrators may resort to sexual violence as a means of dominating, humiliating and breaking the will of opponent populations, survivors may show considerable resilience and thus, ultimately, prove this strategy futile. More importantly, the use of wartime sexual violence may provoke a backlash from victims who are likely to mobilize in response to their tribulation. This activism significantly increases the likelihood that perpetrators will be brought to justice after the war ends.

Third, we add a new perspective to the study of civil society and violent conflict. Previous research has stressed the importance of dense inter-ethnic networks of civic engagement for the containment and prevention of violent conflict (Varshney 2001, 2003). Our finding demonstrates how civic networks structure post-conflict politics and therefore also matter after the violence has ended. More generally, this study has wider implications for policy and humanitarian efforts in post-conflict societies. In underscoring the crucial role of civil society it shows that, next to economic recovery and the (re-)building of institutions, strengthening civic networks and associations is an important goal on the path towards recovery from violence.

The Legacies of Wartime Sexual Violence

Research into the civic legacies of violent conflict has produced a set of provocative insights over the last years. While war was previously described as “development in reverse” (Collier et al. 2003), a series of recent studies offer a fresh perspective on the consequences of violent conflict. Bellows and Miguel (2006, 2009) find that conflict affected households in Sierra Leone display much higher levels of civic and political engagement than un-affected households. Focusing on abducted child soldiers in Uganda, Blattman (2009) shows that experiences of violence substantially increase postwar social participation, voting and community leadership. Gilligan, Pasquale and Samii (2014) report that members of communities that suffered exposure to fatal violence during Nepal’s civil war are more pro-social in their relations with each others. A recent meta-analysis of 16 studies finds strong support for the notion that exposure to conflict increases civic participation (Bauer et al. 2016).

Little is known about the civic consequences of wartime sexual violence. Leading scholars of sexual violence stress that it is both theoretically and empirically distinct from other forms of political violence, such as killings or forced displacement (Cohen 2013*a*; Wood 2009). Sexual violence during war includes but is not limited to “[r]ape, sexual slavery, enforced prostitution, forced pregnancy, enforced sterilization, or any

other form of sexual violence of comparable gravity” (Wood 2014, 459). In addition to long lasting physical consequences (i.e., sexually transmitted diseases, unwanted pregnancies, infertility), survivors carry with them deep psychological scars of trauma, humiliation and shame (Cohen 2013a).

Since victims of wartime sexual violence are threatened by stigma and exclusion, it is widely believed that they remain socially isolated and politically passive (Buss 2009; Diken and Laustsen 2005). Unfortunately, the empirical basis for this claim remains weak. Studies are commonly based on a very limited number of interviews with only a few survivors Koos (2018) or rely on selective accounts that lack representativeness (Cohen and Green 2012). In addition, it is also theoretically questionable that victims and their communities remain socially and politically quiescent after the conflict ends and do little, if anything, to address their grievances.

In an important first systematic study of the *social* consequences of wartime sexual violence, Koos (2018) qualifies the notion that victims of sexual violence are socially excluded. He finds that households whose members were raped during the war in Sierra Leone engage in more pro-social behavior such as community involvement or contributions and donations. This may be explained as a rational coping strategy aiming to compensate stigma and to avoid social exclusion.¹ Yet, by relying on self-reported household data the study cannot rule out problems with underreporting and is silent on individual survivors.

In the following we consider the agency of survivors and develop an argument on the genuinely *political* consequences of wartime sexual violence. While social participation ensures social inclusion and support in the local community, political participation shapes political decision-making and collective outcomes more broadly. Understanding whether victims of wartime sexual violence remain politically passive

¹In the particular case of Sierra Leone social integration of survivors was aided by the active support from both the government and NGOs during the reconciliation process.

or decide to actively participate in politics sheds important light on the legacy of this form of violence and the political prospects of post-conflict societies.

Explaining Survivors' Political Action

Political action aims at influencing public opinion, political outcomes and government policy at large. Engaging with different political activities during the post-war period can help survivors cope with conflict induced trauma, articulate their grievances and bring about political change after the war ends. There are different ways in which survivors of wartime sexual violence can voice their political demands and realize their political goals. For instance, survivors can shape post-conflict politics by supporting, campaigning or promoting effective policies to protect victim rights and to safeguard other citizens from undergoing similar experiences. Victims can also encourage the monitoring and reporting of these atrocities through public protests, contacting representatives or signing petitions. This in turn may bring justice to other victims by singling out perpetrators and making them accountable for their wrongdoing. The diffusion of knowledge about wartime sexual violence through public awareness events informs civil society on how to help and relate to victims. This way, survivors' political activism also helps overcome the cultural stigma associated with sexual violence.

While it is in the best self-interest of survivors of wartime sexual violence to push for policies that address their grievances, this self-interest alone is insufficient to explain why they undertake political action. According to the well-known 'paradox of political participation', the probability that the participation of a single individual will be decisive for the desired political outcome is negligible (Downs 1957; Green and Shapiro 1994). As a result, it is not necessarily rational for individuals to get politically involved even if they benefit from the political outcome. In addition, survivors' engagement in political activities is not exempt from severe personal risks. Politically active individuals may compromise their safety, be singled out, and face

repercussions from state or government authorities. Political action may even lead to re-traumatizing experiences.

To understand why sexual victimization leads to political activism, we derive general explanations from existing work on the legacies of violent conflict. According to this evolving literature, the civic consequences of conflict exposure are either driven by psychological changes in social preferences and ‘post-traumatic growth’ (e.g., Bauer et al. 2016; Blattman 2009; Gilligan, Pasquale and Samii 2014; Lupu and Peisakhin 2017) or by structural changes in social networks (e.g., Wood 2008). Our theoretical contribution is to transfer these explanations to the specific domain of sexual violence and to evaluate their relative power in explaining the political behaviour of individual survivors. In this section, we classify these explanations into two groups: social preferences and social networks.²

Social Preferences

Existing research of the civic legacy of conflict suggests that exposure to violence may mobilize political action through the change in survivors’ *social preferences* (Bauer et al. 2016). While empirical evidence is still limited and refers to other forms of political violence, there are several versions of this argument that may also explain how experiences of wartime sexual violence impact political participation. They all share the notion that experiences of violence lead to a change in intrinsic motivations to serve the public good. In the following paragraphs we outline these versions and highlight their implications for victims of sexual violence.

A first version of this argument posits that experiences of wartime violence induce an increase in *social identification and in-group favoritism*. This change in social preferences motivates the desire to improve the welfare of one’s own in-group,

²This classification is in line with classical studies on the paradox of participation which point to *social preferences* (e.g., Fowler and Kam 2007) or *social networks* (e.g., Campbell 2013; Zuckerman 2005) as two possible explanations for political participation.

possibly at the expense of other groups (Bauer et al. 2016; Fowler and Kam 2007; Tajfel and Turner 1979; Tilly 2003). According to this view, survivors of wartime sexual violence will be willing to incur the costs of political participation because they believe that their actions will benefit their group in the post-war period (Henrich and Boyd 2001; Richerson and Boyd 2001). Such political participation motivated by in-group favoritism may be particularly pronounced in societies divided along ethnic lines (Tilly 2003).

An alternative version focuses on *altruistic social preferences*, where exposure to violence results in a preference to improve the general welfare after the conflict (e.g., Bauer et al. 2016; Fowler and Kam 2007). Gilligan, Pasquale and Samii (2014), for instance, show that the pro-social behavior in communities exposed to civil war in Nepal is driven by a sense of shared experience and collective coping. According to this explanation, survivors of wartime sexual violence will then be likely to become politically active because their actions will provide benefits to everyone, regardless of their group membership, and contribute to reconciliation and peace.

A final and closely related explanation refers to a psychological reaction to wartime violence known as *post-traumatic growth* (Joseph and Linley 2008; Tedeschi, Park and Calhoun 1998). This concept refers to the experience of positive change that occurs as a result of the struggle with highly challenging life crisis (Tedeschi and Calhoun 2004). Changes in social preferences related to post-traumatic growth include, among others, an improved self-concept, strengthened and warmer social relationships, and changes in life priorities. Post-traumatic growth has been documented in studies of former refugees and displaced persons (Powell et al. 2003), war veterans (Elder and Clipp 1989; Sledge, Boydstun and Rabe 1980), and youth exposed to terror incidents (Laufer and Solomon 2006). Post-traumatic growth may also explain the greater civic engagement of ex-combatants in Uganda (Blattman 2009), victims of displacement in Sierra Leone (Bellows and Miguel 2006, 2009) or insurgents in contested areas of El Salvador (Wood 2003). In so far as victims of wartime sexual violence experience

post-traumatic growth, this change in general outlook may also account for their active participation in post-conflict politics.

Social Networks

Experiences of wartime sexual violence may not only induce changes in social preferences but may also alter *social networks*. Social networks range from close family ties and informal support groups to formal memberships in organizations and civic associations (Putnam 1993, 2000; Granovetter 1973). Civil wars entail many social processes (such as the mobilization and recruitment of combatants, the fragmentation of local economies, and the transformation of gender roles) that reshape, destroy or lead to the creation of new social networks (Wood 2008). This transformation can also occur in direct response to the exposure to violence. Regarding experiences of wartime sexual violence, Koos (2018) convincingly demonstrates that affected households are motivated to ensure social integration through active community involvement. This compensatory social behavior is a rational strategy to “reduce stigma and avert social exclusion” (Koos 2018, 204).

Next to their immediate role for social integration and the provision of social support, social networks also have important ‘side-effects’ for political action. Communal groups and organizations foster active political participation by reducing the dilemmas of collective action and facilitating cooperation among members (Putnam 1993). In addition, social networks change the costs of participation by providing individuals with the necessary skills, resources, and information for effective political action and by increasing the likelihood that they will be recruited and mobilized for political participation (Campbell 2013; Verba, Schlozman and Brady 1995). In this sense, victims’ rational incentive to compensate their social stigma by increasing social participation may have an important knock-on effect of also increasing their political participation.

To sum up the discussion, we note that little research exists on the genuinely political consequences of wartime sexual violence. While victims are usually portrayed as isolated and passive, we turn to recent insights on the effects of violent exposure and transfer them to the realm of sexual violence. We hypothesize that survivors may politically mobilize as a result of their victimization. Two broad sets of factors may explain why experiences of sexual violence lead to an increase in political action. The mobilizing effect may be due to a change in social preferences (i.e. an increase in in-group favoritism, altruism or ‘post-traumatic growth’), a change in social and civic networks, or both. Before turning to the empirical analysis, we give a brief background on wartime sexual violence in our case of study.

Case: Wartime Sexual Violence in Sri Lanka

To study the politically mobilizing effect of wartime sexual violence, we turn to Sri Lanka which represents a particularly hard case. In May 2009, the Sri Lankan government claimed victory over the 26 year old civil war against the separatist group known as the Liberation Tigers of Tamil Eelam (LTTE). With approximately 100,000 fatalities, the war had significant impact on the population and the socio-political functioning of society (Glatz 2014). Recent reports indicate that large segments of the Sri Lankan population were systematically subjected to conflict-related sexual violence (HRW 2013; UN 2015).

The use of sexual violence during the conflict has been highly asymmetric (Wood 2006, 2009), with almost no reports documenting acts by the LTTE (UN 2015, 117). In contrast, reports suggest a systematic use of sexual violence by government forces against ethnic Tamils and Tamil-speaking Muslims, particularly in the last years and even after the end of the war (AI 2002; BHRC 2014; UN 2013; Wood 2009). Sexual violence occurred towards suspected members or collaborators of the LTTE in detention or during flight from the conflict area (ITJ 2015; Peel et al. 2000; Wood 2006; UN 2015). The occurrence of such sexual violence was so widespread that Human

Rights Watch (2013, 36) concluded that “there appears to be no category of Tamil who, once taken into custody, is immune from rape and other sexual violence.”

The predominant role of the government as a perpetrator of wartime sexual violence further exacerbates the notorious problem of underreporting due to cultural norms and gender roles (Krug et al. 2002; Leiby 2009*b*). Fear of social stigmatization and reprisals from perpetrators have kept both male and female rape victims silent (HRW 2013) and the true extent of sexual abuse during the war in Sri Lanka remains unknown (UN 2011, 44). In addition, the Sri Lankan government has demonstrated little interest in investigating its own crimes and in cooperating with NGOs to provide support to victims.

The existing reports on sexual violence have relied on interviews and testimonies of victims, individuals with information about such incidents, analyses of medical reports, rulings of the Supreme Court in fundamental rights cases and reports by investigative commissions (AI 2002; Peel et al. 2000; UN 2011). Some of these bodies faced government access restrictions conducting their research, forcing them to investigate the matter undercover or from abroad based on pre-existing testimonies and reports (HRW 2013; UN 2015). In the following we describe our empirical approach to studying this highly sensitive topic.

Data and Method

Survey

We rely on data by Traunmüller, Kijewski and Freitag (2019) who carried out a list experiment to study the prevalence and risk factors (but *not* the consequences) of wartime sexual violence in post-conflict Sri Lanka. The list experiment was embedded in a survey that took place in the first half of 2016, seven years after the Sri Lankan civil war had ended. The survey focused on general topics of social cohesion and political participation in post-conflict Sri Lanka and was not primarily designed to scrutinize

sexual violence. It was carried out using face-to-face interviews in both Sinhala and Tamil languages, across all 25 districts of Sri Lanka, including the areas at the center of the conflict. The selection of respondents followed a multi-stage stratified random sample procedure. Tamils were over sampled to guarantee reliable estimates for this important ethnic minority group. The final survey contains N=1,800 valid interviews.³

Explanatory Variable: An Unobtrusive Measure of Wartime Sexual Violence

The list experiment allows us to solve the difficult problem of underreporting sexual violence. It read as follows: *“Now we would like to ask you some more questions about what happened during the war. Please refer to the following list and tell me how many of these experiences happened to you during the war. Please don’t tell me which specific statements you believe to be true, only how many.”* Respondents were randomly assigned to either treatment or control group and then presented a list of several survey items (Blair and Imai 2012; Glynn 2013; Blair, Imai and Lyall 2014). While the control group only received three control items, the treatment group additionally received the sensitive item “I was personally sexually assaulted.” Inferences on the sensitive item are then drawn from a comparison of the responses between treatment and control group.⁴ Given that respondents do not openly disclose whether the sensitive item applies, they are less likely to under-report their experience due to feelings of shame or fear of legal consequences. The treatment group affirmed an average of .44 (Standard Error: .02) list items, while the control group did so for only .31(.02). Taking the difference of these two means results in an estimated 13.4(3.1) percent of the sample

³We provide detailed information on the survey in the SI.1, 3-5.

⁴Randomization ensures that treatment and control units are the same in all observable and unobservable characteristics. For this reason and under the assumption of ‘no design effect’ and ‘no liars’ any difference in response is attributed to the sensitive item.

that experienced personal sexual assault during the time of war (Traunmüller, Kijewski and Freitag 2019).⁵

As we detail further below, we use the predicted responses to the list experiment as our key explanatory variable. The questionnaire also included a direct question on sexual violence as part of a survey battery capturing war experiences.⁶ We use this additional item to compare the results between direct and indirect measures of wartime sexual violence. This demonstrates the importance of overcoming the problem of underreporting.

Outcome Variable

To study the effect of wartime sexual violence on political participation, we rely on an index that subsumes 22 different types of political actions. The question for political participation read: *“During the last 12 months, have you done any of the following?”* and was followed by a list of binary items, ranging from attending political rallies over contacting local government officials to participation in illegal protests. We use a simple additive index as our outcome measure for political participation. The scale ranges from 0 to 22 and has a mean of 1.59 and standard deviation of 2.46.⁷

Controls

Besides the list experiment and the political participation items, the survey included additional information on key respondent characteristics.⁸ We collected information on the standard socio-demographics like gender, age, and education, as well as information on respondents’ ethnic identity and region of living. Item non-response was not an issue for any of these variables. The sample is 58.9 percent female (N=1,060) with a mean

⁵See SI.3.1, 8 for results on the prevalence of wartime sexual violence.

⁶See SI.1.4,4, for the direct question. Respondents had the option to skip these questions, thus only those who were willing to speak about their war experience provided a response.

⁷See SI.2.1, 5, for further information on the outcome variable.

⁸See SI.2.2, 5-6, for coding description of the control variables.

age of 42.6 years (SD: 14.7). 26.6 percent have obtained A-levels or a higher educational degree (N=477). Tamils were oversampled to obtain reliable estimates for this ethnic group, due to its crucial role in the Sri Lankan conflict. The ethnic breakdown in the sample is 51.2 percent Sinhalese (N=921), 28.0 percent Sri Lankan Tamil (N=504), 11.2 Indian Tamil (N=202), and 9.6 Muslim Moor (N=173). A comparison of the sample to the official *2012 Housing and Population Census* of the *Sri Lankan Department of Census and Statistics* shows that it provides a good representation of the Sri Lankan population (Traunmüller, Kijewski and Freitag 2019).

We include province fixed effects in our model to account for any stable regional factor like past conflict intensity or ethnic composition that may confound the experience of wartime sexual violence and political participation.⁹ We further control for potentially confounding, pre-treatment variables that are related to the conflict and might affect both, the risk of sexual violence during war and levels of political participation. Respondents were asked whether they themselves or a family member had assisted an armed group during the war (4.6 percent, N=82), whether they had been displaced (29.2 percent, N=526) or whether they had experienced any other traumatic conflict-related event (29.6 percent, N=532, a considerable number of respondents were reluctant to provide such information: 6.8 percent, N=122).

Importantly, we control for (retrospective) pre-war political involvement and pre-war civic engagement to preclude the possibility that highly politically active people are more likely to be victimized during the war (as would be expected if state security forces targeted members and collaborators of the LTTE rebel group). 4.9 percent of respondents (N=89) reported that prior to the conflict they ‘often’ or ‘always’ discussed politics in their home and 2.3 percent stated they were active in an NGO before the war (N=42). These pre-war behaviors were asked together with the module on war experiences and therefore many respondents did not answer

⁹Due to computational issues with convergence, we were not able to include district level fixed effects.

questions about their pre-war political involvement (32.7 percent, N=588) or pre-war civic engagement (31.6 percent, N=569). However, given the importance of these particular controls for making causal claims about the effect of wartime sexual violence on political participation, we decide to accept the loss of observations in subsequent analyses. A full description of all variables is given in the Supplementary Information.

Statistical Analysis

The key methodological challenge we face in this paper is to relate the unobtrusively measured and indirectly inferred experience of sexual violence to individual political behavior, while controlling for potential confounding factors. To this end we rely on recently developed statistical techniques that incorporate the answers to list experiments in regression analyses (Blair and Imai 2012). Specifically, we include the predicted (latent) experience of sexual violence as an explanatory variable in regression models of political participation. We achieve this with a multivariate modeling strategy that simultaneously models the response to the sensitive list item, the control list items, and the outcome of interest (Imai, Park and Greene 2015).

More formally, the experience of wartime sexual violence is predicted using a model for the latent sensitive item, Z_i^* , and this model is jointly estimated with a model for outcome Y_i and a model for the observed item count C_i , yielding the following complete-data likelihood:

$$L(\theta, \gamma, \psi | T_i, X_i, Y_i, C_i, Z_i^*) = \prod_{i=1}^n \{f_\theta(Y_i | X_i, C_i - T_i, 1) h_\psi(C_i - T_i | X_i, 1) g_\gamma(X_i)\}^{Z_i^*} \\ \times \{f_\theta(Y_i | X_i, C_i, 0) h_\psi(C_i | X_i, 0) [1 - g_\gamma(X_i)]^{(1 - Z_i^*)}\}$$

where $g_\gamma(X_i)$ is a logistic sub-model for the sensitive item with covariates X_i and coefficient parameters γ , $h_\psi(C_i - T_i | X_i, Z_i^*)$ is a binomial sub-model for the control items with treatment status T_i , sensitive item Z_i^* , and coefficient parameters ψ , and $f_\theta(Y_i | X_i, C_i - T_i, Z_i^*)$ is the outcome model for political participation which

we take to be a normal linear model with coefficient parameters θ , including δ which captures the *average treatment effect* (ATE) of experiencing sexual violence on political participation. We choose a linear specification for the ease of interpretation and, importantly, the possibility of conducting a straightforward sensitivity analysis.¹⁰ In the following, we only report the estimates of the linear outcome equation.

Results

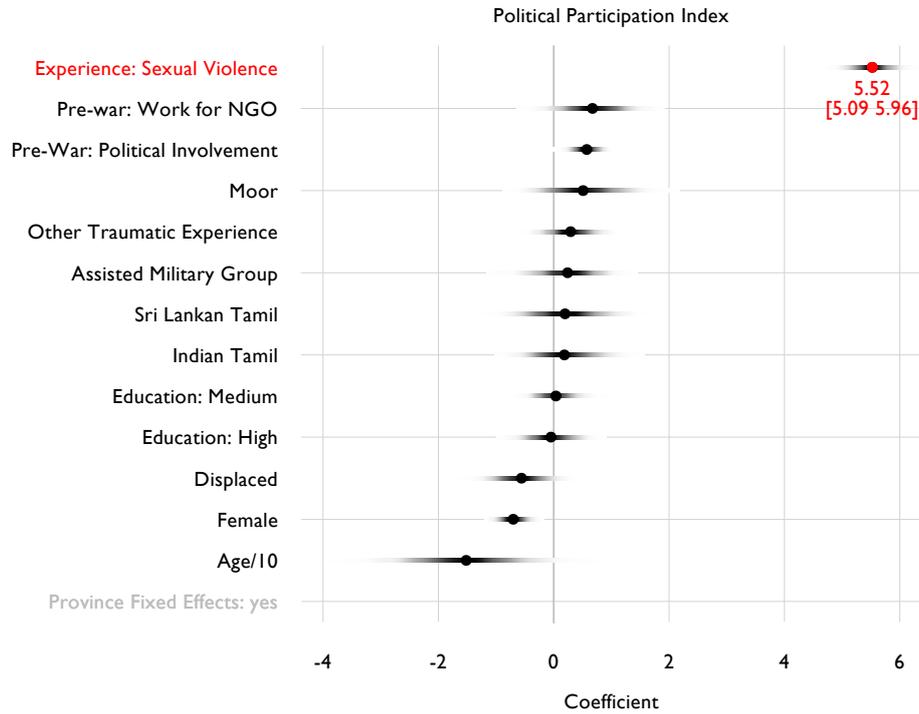
Political Consequences of Wartime Sexual Violence

Figure 1 presents our main results. Personal experience of wartime sexual violence is strongly and significantly related to heightened political participation. On average, survivors of sexual violence report around five additional types of political action than non-victims ($\beta = 5.52$, 95% CI: [5.09, 5.96]). Results do not change when we take the logarithm of the index of political participation: $\beta = .70$, 95% CI: [.45, .95]. In this case, experiencing wartime sexual violence doubles the number of political actions ($e^{.70} = 2$).

Since sexual violence during and after the conflict mostly targeted suspected members or collaborators of the LTTE, it is highly plausible to assume that victims and non-victims already differed in their pre-war political activism. For instance, more politically active individuals might have been more likely to assist an armed organization representing their ethnic group and thus more likely to experience victimization during the conflict. Indeed, while we do not find that pre-war political involvement predicts victimization in the sub-model for experiencing sexual violence during war, pre-war NGO activity is related to a higher risk of victimization (the logit coefficient is $\beta = 1.65$ [0.28, 3.02]). However, the politically mobilizing effect of wartime sexual violence also holds when controlling for the individuals' pre-war

¹⁰We estimate this joint model using the EM algorithm implemented in the R package “list” (Blair et al. 2015).

FIGURE 1 The effect of wartime sexual violence on political participation



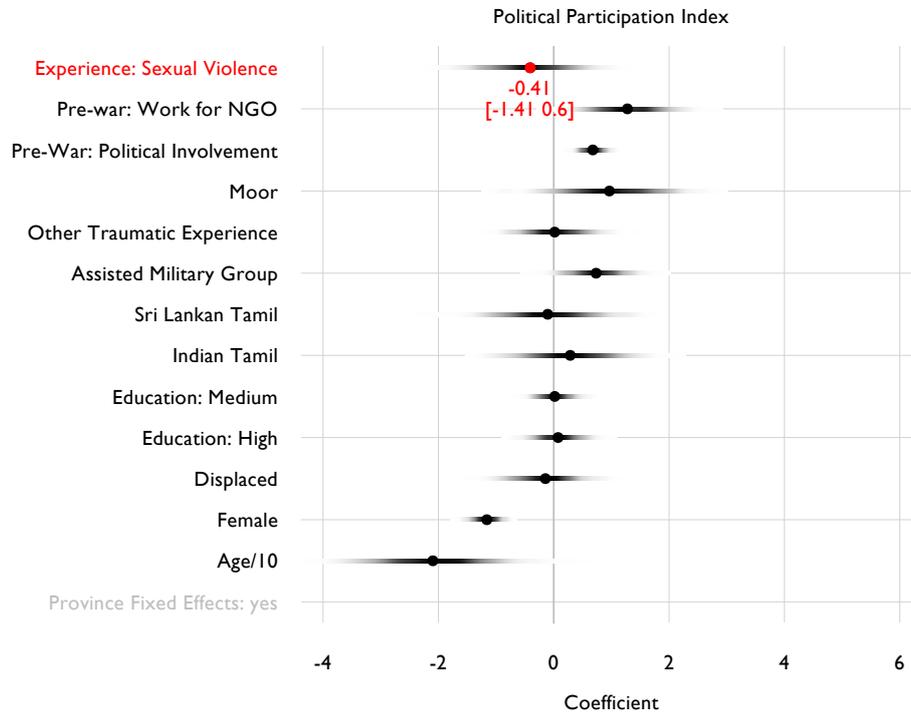
Note: Coefficients refer to the difference in reported political activities and are based on the estimations reported in SI.3.2, 8-9. Full inferential uncertainties were obtained by simulation.

political activities ($\beta = 0.57 [0.30, 0.84]$) and pre-war engagement in an NGO ($\beta = 0.67 [0.02, 1.32]$) as well as province fixed effects that capture any stable contextual characteristics related to the conflict and politics. Taken together these findings bolster a causal interpretation of the effect of wartime sexual violence. We will further probe potential threats to causal inference posed by unobserved confounding and sample selection in the following sections.

Regarding the other individual-level control variables, we find that females ($\beta = -0.70 [-0.97, -0.43]$) and older respondents ($\beta = -1.52 [-2.54, -0.50]$)¹¹ participate less in politics. Those who were displaced during the conflict also tend to be less politically involved ($\beta = -0.56 [-1.11, -0.01]$). Interestingly, we find no mobilizing effects of other war-related experiences, such as having assisted a military group or making other

¹¹We find no evidence for a quadratic relation between age and political participation.

FIGURE 2 The effect of wartime sexual violence on political participation using a direct measure of sexual violence



Note: Coefficients refer to the difference in reported political activities and are based on the estimations reported in SI.3.2, 8-9. Full inferential uncertainties were obtained by simulation.

traumatic experiences. Levels of education are also not related to increased political participation. Finally, there are no notable ethnic differences in political activity.

It is instructive to contrast our finding to a simple linear model which relies on a direct measure of experiencing wartime sexual violence as predictor for political participation (Figure 2). This analysis gives the results we would have received without our experimental measure of sexual violence. The coefficient for survivors of sexual violence is much smaller, negative and non-significant ($\beta = -0.41[-1.41, 0.59]$). This demonstrates the benefits of list experiments in assessing the consequences of wartime sexual violence. The effects of the remaining individuals covariates are more or less robust. A notable exception is collaboration with a military group which is now positively related to post-conflict political participation ($\beta = 0.73[0.10, 1.36]$). This effect is spurious because collaborators of the LTTE and their family members were among the high risk group for experiencing sexual violence during war, which is

not apparent when using a direct measure instead of a list experiment (Trautmüller, Kijewski and Freitag 2019).

Sensitivity to Unobserved Confounding

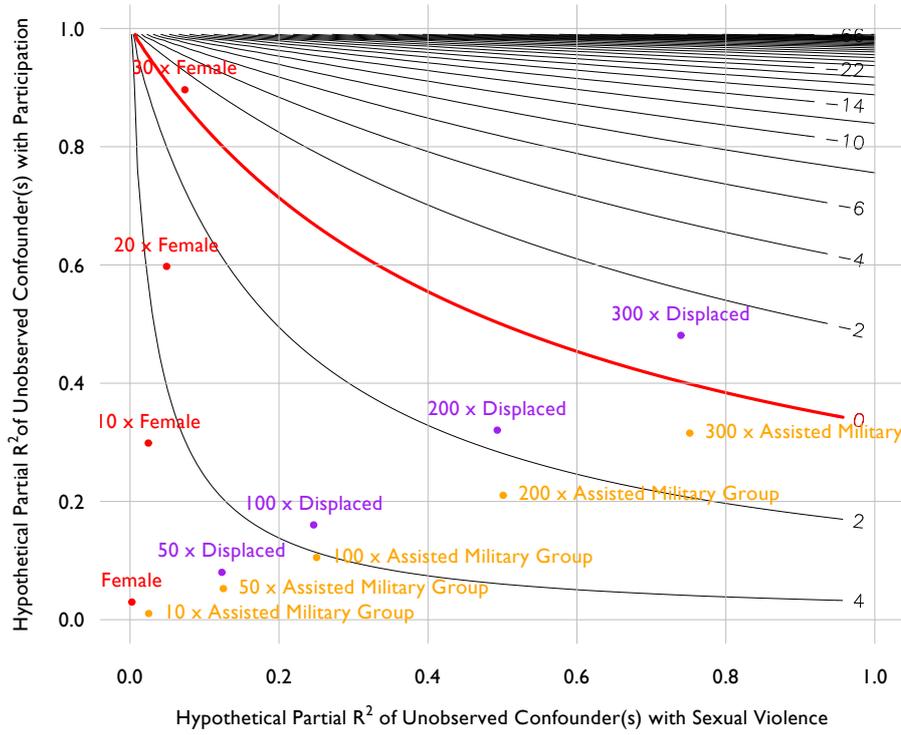
Our causal interpretation of the effect of wartime sexual violence on political participation rests on the assumption of no unobserved confounding. Given the observational nature of our data and the purposeful use of sexual violence by Sri Lankan state security forces, this assumption is almost certainly wrong. However, this does not necessarily invalidate our inference. In this section, we present a sensitivity analysis to assess the robustness of our result to the violation of this assumption. In other words, we ask what such a hypothetical unobserved confounder, U , must look like in order to call our result into question.¹²

An omitted confounder, U , that could jeopardize our causal claim must be related to both wartime sexual violence, Z^* , and political participation, Y . According to the omitted variable bias (OVB) formula, the size of the bias is the product of *impact times imbalance*: the strength of the relation between confounder and outcome times the difference in the confounder between those who did and those who did not experience wartime sexual violence. Following Cinelli and Hazlett (2020), we can re-express the two quantities in this product in more intuitive terms as hypothetical *partial R^2 s*. First, the amount variance left in political participation when taking into account all controls X , which is explained by the unobserved confounder, $R_{Y \sim U|X}^2$. And second, the amount of variance left in experiencing sexual violence when taking into account all controls, which is explained by the unobserved confounder, $R_{Z^* \sim U|X}^2$. The bias due to unobserved confounding can then be derived as

$$Bias = SE_{Z^*} * \sqrt{\frac{R_{Y \sim U|X}^2 R_{Z^* \sim U|X}^2}{1 - R_{Z^* \sim U|X}^2}} (df),$$

¹²For a similar approach, see Blattman (2009) or Bellows and Miguel (2009).

FIGURE 3 Assessing sensitivity to unobserved confounding



where SE_{Z^*} is the standard error of the coefficient of wartime sexual violence on political participation and df the degrees of freedom of the respective regression equation.

Figure 3 visualizes the net adjusted causal effect of this potential bias, $ATE_{adjusted} = ATE - Bias$, for different hypothetical levels of the partial R^2 s of a hypothetical unobserved confounder. The highlighted red line shows where this effect would be exactly zero and thus threaten our inference. So for instance, our causal effect would equal zero if an unobserved confounder were highly predictive of experiencing sexual violence with $R_{Z^* \sim U|X}^2 \approx .80$ while at the same time also explaining 40 percent of the variation in political participation not already explained by the controls, i.e. $R_{Y \sim U|X}^2 \approx .40$. Clearly, factors of this high explanatory power are quite unusual in the social sciences. We cannot think of one in the context of this particular application. We therefore believe that it is highly unlikely that such an unobserved confounder threatens our result.

Going a step further, we also assess how strong an unobserved confounder would have to be relative to actually observed covariates that we know are related to experiences of wartime sexual violence and/or political participation. Figure 3 shows these values next to each hypothetical unobserved confounder. To threaten our inference, such an omitted factor would have to be 30 times as powerful as respondent’s gender (‘female’) in explaining victimization and participation, and roughly 300 times as powerful as having been displaced during the war or having assisted a military group. Again, we do not think that such an explanatory factor exists. Instead, we believe that it is safe to assume that the relation between the personal experience of sexual violence and the level of political participation is indeed causal.

Sensitivity to Sample Selection

Another potential threat to causal inference is the possibility that less politically active individuals are more likely to die, to be displaced or to flee the country (Gilligan, Pasquale and Samii 2014). Thus, to test whether the effect of experiencing sexual violence during war on political participation is due to selection, we need to understand how this effect differs for the un-sampled population. We first note that unit non-response was virtually absent in our study. This means that we can exclude the possibility that victims that are particularly politically passive also refused to participate in the survey. Still, the survey sample would not cover Sri Lankan refugees at the time the survey took place, which according to the UN High Commissioner for Refugees (2016) figures amounted to 117,447 persons. When added to the 2016 Sri Lankan mid-year population of 21.2 million, this amounts to $p_{unsampled}=0.6$ percent of the total population.

To understand whether our result is driven by a selection effect, we again engage in counterfactual reasoning about what the un-sampled population could look like and how this would impact on our finding. Clearly, the logical possible upper bound for a scenario that runs against our finding would be a situation where everyone in the un-sampled population experienced sexual violence, ($Z_i=1$) politically participated at

the maximum if they did not experience sexual violence and completely abstained from participating if they did. Formally, participation without experience of sexual assault would amount to $Y_{0i}=22$ and with experience to $Y_{1i}=0$ for all i , thus resulting in an average treatment effect of $ATE_{unsampled}=-22$ for the un-sampled population. To see how this logical upper bound impacts the overall effect of wartime sexual violence on political participation, we look at the weighted average of this effect, i.e. $ATE = p_{sampled} \times ATE_{sampled} + p_{unsampled} \times ATE_{unsampled} = .994 \times 5.52 + .006 \times (-22) \approx 5.35$. Clearly, accounting for the potential issue of selection does not nullify a large and positive effect of experience sexual violence during war and political participation. Therefore, we reject selection as the mechanism driving our result.

Survivors' Type of Political Participation

To get a better sense of the rationale behind the mobilizing effect of wartime sexual violence, we take a look at different types of political action. We subjected the 22 items of the political participation index to a factor analysis. The results show three underlying factors to best explain the variation on the type of political participation.¹³ The first factor could be called *conventional* or *institutionalized* political participation. Items such participation in party activities, working for the campaign of a candidate or party, working or volunteering for a political party, and contacting a politician load particularly high on this dimension. The second factor subsumes more *un-conventional* or *non-institutionalized* forms of political participation, such as deliberately buying or boycotting certain products and participation in illegal protest activities. The third and final factor corresponds to *online* political participation and includes visiting websites of political organizations, participating in political activities on the Internet, and spreading political content via Twitter. We use standardized factor scores as outcome variables and estimate a separate model for each (Table 1).¹⁴

¹³See SI.3.3, 8, 10.

¹⁴We simplify the model specifications by only including a dummy variable for Tamil ethnicity and Eastern province.

TABLE 1 The effect of wartime sexual violence on types of political participation

	Type of political participation					
	Institutionalized		Non-Institution.		Online	
	Est.	S.E.	Est.	S.E.	Est.	S.E.
Wartime Sexual Violence	2.88	0.08	2.39	0.06	-0.06	0.22
Female	-0.33	0.05	0.04	0.05	-0.23	0.06
Age/10	-0.47	0.19	-0.29	0.18	-0.72	0.24
Education: Medium	0.04	0.07	0.00	0.07	0.02	0.13
Education: High	-0.01	0.08	-0.02	0.08	0.32	0.13
Tamil	0.07	0.06	-0.02	0.05	-0.13	0.07
Eastern Province	0.10	0.07	0.22	0.06	0.32	0.07
Assisted Military Group	0.13	0.11	-0.03	0.07	0.12	0.14
Other Traumatic Experience	0.00	0.08	0.26	0.07	0.18	0.08
Displaced	-0.10	0.08	-0.01	0.06	-0.27	0.07
Pre-War: Political Involvement	0.15	0.04	-0.06	0.04	-0.03	0.06
Pre-War: NGO	0.28	0.11	0.58	0.07	0.31	0.10
Intercept	0.03	0.16	0.04	0.15	0.43	0.21
N	1,081		1,081		1,081	

We find that experiencing sexual violence during war boosts both institutionalized political participation in parties or campaigns as well as non-institutionalized boycotts and protest activities. The effect sizes are large, with an increase of institutionalized participation by $\beta = 2.9$ standard deviations (95% CI: [2.7, 3.0]) and of non-institutionalized participation by $\beta = 2.4$ standard deviations ([2.3, 2.5]), respectively. In contrast, wartime sexual violence is not related to online political participation. As before, the mobilizing effect of experiencing sexual violence holds while controlling for pre-war political involvement and pre-war engagement in a NGO. Whereas pre-war political involvement is only related to increased participation through institutionalized channels just as party and campaign work, the pre-war engagement in a NGO is positively related to all types of post-conflict political participation.¹⁵

¹⁵Further analyses in SI.3.4, 11, reveal that the experience of sexual violence during war is not related to turnout in presidential, parliamentary or local elections.

Testing the Mechanism

In this section we evaluate several theoretical explanations connecting experiences of wartime sexual violence to political participation. We turn to causal mediation analysis and decompose the effect of sexual violence on political participation into two parts: an indirect or mediated effect that runs via a hypothesized mechanism and a direct effect that captures all possible remaining influences on their political behavior. We are interested in the *average causal mediation effect* (ACME) i.e. how individuals are politically mobilized compared to how individuals would be mobilized if we changed their social preferences or networks, while holding their actual experience of sexual violence constant. We also look at the *average natural direct effect* (ANDE) which, in contrast to the ACME, quantifies how the political participation for those having experienced sexual violence during war compares to those who did not, while holding constant their social preferences or networks (cf. Imai et al. 2011).¹⁶

The estimation of the different causal effects (ACME and ANDE) proceeds in several steps. We first assess whether experiences of wartime sexual violence lead to changes in social preferences and social networks. These models are of the same form as in the previous section with the notable exception that social preferences and networks now serve as outcome variables. In addition, we simplify the specifications by entering a simple dummy for Tamil ethnicity and a dummy for Eastern province instead of province fixed effects. This change was necessary to avoid convergence problems. In a second step, we model respondents' political participation including all variables as before while again simplifying ethnicity and province indicators. Importantly, these equations now include social preferences and networks as predictors of political participation (see SI.4.3-4, 13-16, for the estimation tables).

¹⁶We provide further details on causal mediation analyses and the formal definition of causal quantities in the SI.4.1-2, 11-13.

Based on the estimates from the two model equations, we employ the algorithm proposed by Imai et al. (2011) to calculate the ACME and ANDE. First, we predict social preferences and networks under the two conditions of experience or no experience of sexual violence (keeping all other variables at their empirical values). Second, we plug these predictions into the outcome formulas for the political participation scores, again setting the treatment variable to its two conditions (and leaving the remaining covariates at their empirical values). Inferential uncertainty from the first to the second equation and the resulting 95 percent confidence intervals for the ACMEs and ANDEs are obtained by running $s = 10,000$ simulations.

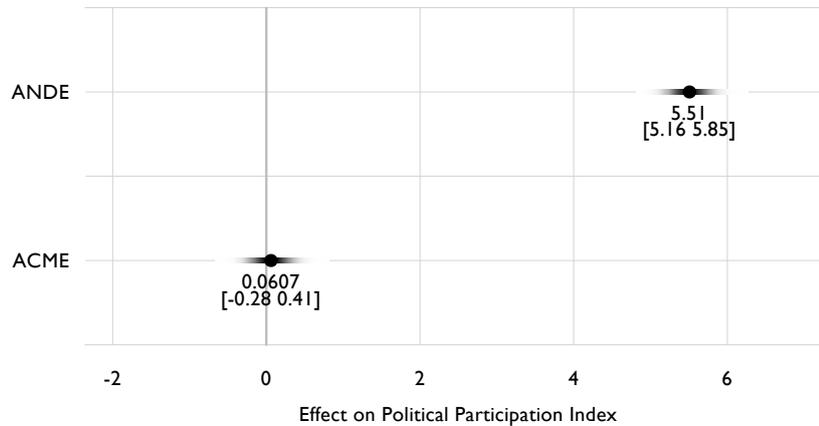
Social Preferences as Mediators

The first mechanism brought forward by existing work suggest that victims of sexual violence take up political action because of increased *social identification and in-group favoritism*. We measure social identification and in-group favoritism using several items of ethnic trust. Respondents were asked to indicate on a 7-point scale “*how much you trust people from various groups in Sri Lanka.*” We constructed a measure of in-group favoritism from their trust toward the following ethnic groups: Sinhalese, Sri Lankan Tamil, Indian Tamil, and Muslim Moor. In-group favoritism is thus the difference between the amount of trust in their own ethnic group minus their average trust in the remaining three ethnic groups. Perhaps not surprisingly, most Sri Lankans tend to trust their own ethnic in-group more than ethnic out-groups (see SI.5.1, 17-18, for a description of this variable).

Results from the causal mediation analysis are shown in Figure 4. We find that survivors of wartime sexual violence show significantly higher levels of in-group favoritism ($\beta = 0.39, p < .05$).¹⁷ However, in-group favoritism is not a significant predictor of political participation. As a result there is no significant mediation effect

¹⁷While experiencing sexual violence during war increases trust in one’s own ethnic in-group ($\beta = 0.34, p = .06$), it is not related to ethnic out-group trust.

FIGURE 4 First mechanism: In-group favoritism does not mediate the effect of wartime sexual violence on political participation



Note: The graphs show the average causal mediation effect (ACME) and the average natural direct effect (ANDE) of in-group favouritism on political participation along with inferential uncertainty. 95% confidence intervals in square brackets. Simulations are based on the estimations for the causal mediation analysis reported in SI.4.3, 13.

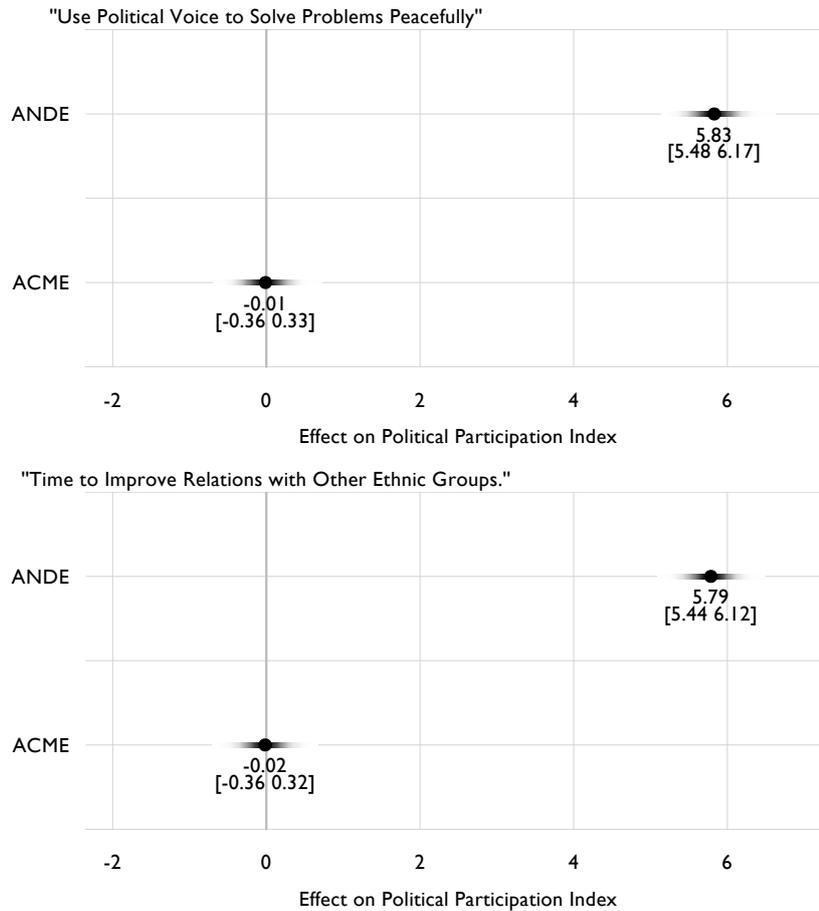
(ACME: 0.06 [-0.28, 0.41]), but a strong and significant direct effect (ANDE: 5.51 [5.16, 5.85]) of wartime sexual violence on political participation. In sum, social identification and in-group favoritism does not mediate the effect of wartime sexual violence on political participation.

The second mechanism posited by the literature is *altruistic social preferences*. To capture survivors' altruistic motivation for political participation as a means to shape post-conflict policies and reconciliation, we rely on two survey items. Respondents were asked in how far they agreed with the following statements using a four-point scale. The first reads “*In order to avoid such violent conflicts in the future, everyone now needs to use their political voice to solve problems peacefully*” and the second “*Now, after the war, it is time for my ethnic group to improve relations with other ethnic groups in this country.*” The two items are only weakly correlated ($r = .2$) and thus capture different aspects of post-conflict politics.¹⁸

Figure 5 shows the results from the causal mediation analysis. We find that experience of sexual violence significantly increases the desire for peaceful problem

¹⁸See SI.5.2, 17-18, for a description of these variables.

FIGURE 5 Second mechanism: Altruistic social preferences do not mediate the effect of sexual violence on participation

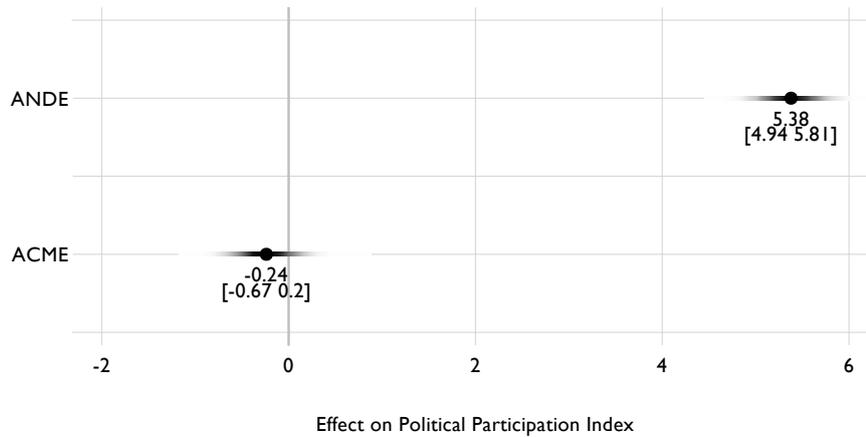


Note: The graphs show the average causal mediation effect (ACME) and the average natural direct effect (ANDE) of political voice (top plot) and improved inter-ethnic relation on political participation along with inferential uncertainty. 95% confidence intervals in square brackets. Simulations are based on the estimations for the causal mediation analysis reported in SI.4.3, 13-14.

solving but is unrelated to the desire for improving inter-ethnic relations. However, whereas the preference for improved inter-ethnic relations is related to higher levels of political participation, the preference for peaceful problem solving after the war is not. Taken together neither of the two altruistic social preferences are credible mediators of the effect of wartime sexual violence on political action.

The third and final social preference mechanism refers to a psychological reaction to wartime violence known as *post-traumatic growth*. To measure post-traumatic growth we rely on a short form of the *Postrumatic Growth Inventory* (Cann et al. 2010; Tedeschi and Calhoun 1996). This scale averages ten items included in the

FIGURE 6 Third mechanism: Post-traumatic Growth does not mediate the effect of sexual violence on participation



Note: The graphs show the average causal mediation effect (ACME) and the average natural direct effect (ANDE) of post-traumatic growth on political participation along with inferential uncertainty. 95% confidence intervals in square brackets. Simulations are based on the estimations for the causal mediation analysis reported in SI.4.3, 13, 15.

survey, which ask for personal changes that have occurred as a result of experiencing the war.¹⁹ A Cronbach's $\alpha = .93$ indicates very good scale reliability. However, since only respondents that actually reported any negative experiences during the war were asked these items, the number of observations available for analysis drops considerably (leaving us with $N = 685$).

We find that personal experience of wartime sexual violence is strongly and significantly related to higher levels of post-traumatic growth ($\beta = 1.19[0.70, 1.68]$). Survivors of sexual violence report that their general outlook on life has changed to the better as a result of their traumatic experience. However, the post-traumatic growth scale does not reliably predict political participation. If anything, post-traumatic growth is related to somewhat *lower* levels of political action ($\beta = -0.20[-0.44, 0.04]$). Figure 6 presents the ACME and ANDE of the relation between sexual violence, post-traumatic growth and political participation. While the estimated ANDE is again sizable and statistically significant (5.37, 95% CI: [4.94, 5.81]), the estimated ACME is not (-0.23 [-0.66, 0.20]). This suggests that, like the other possible explanations,

¹⁹See SI.5.3, 17,19, for a description of this variable.

post-traumatic growth does also not connect individual experiences of wartime sexual violence to higher levels of political participation.

Social Networks as Mediators

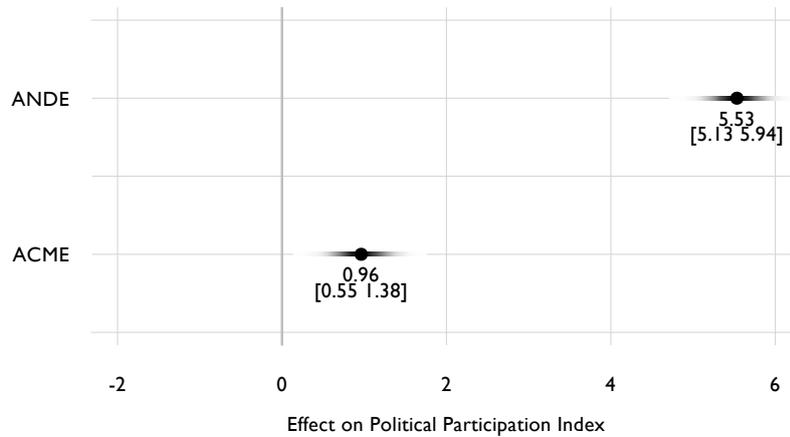
Counter to a prevalent notion in the literature on conflict exposure (Bauer et al. 2016), we find little evidence that changes in social preferences drive survivors' political participation. An alternative structural account stresses the role of social networks (Wood 2008). To evaluate whether the political consequences of wartime sexual violence are due to mobilization in social networks, we rely on a simple social participation index. The question reads: *“Now I am going to read off a list of voluntary organizations. For each organization, could you tell me whether you are an active member, a passive member or not a member of that type of organization?”* Respondents could chose from a list of 10 different types of organizations. We added all active memberships into an additive scale ranging from 0 to 10 (with a mean of 0.57 and standard deviation of 1.08).²⁰

The causal mediation analysis shows that survivors of wartime sexual violence have higher levels of social participation. On average, they are actively engaged in around 3.4 [3.2, 3.5] additional types of social organizations compared to non-victims. Importantly, active social participation is also significantly related to political participation ($\beta = 0.29[0.17, 0.41]$) in the second stage. Figure 7 presents the ACME and ANDE, respectively. Active participation in social networks significantly mediates the relation between experiences of wartime sexual violence and political participation (ACME: 0.96 [0.55, 1.38]).²¹

²⁰See SI.5.4, 19, for a description of this variable.

²¹The results stay robust when we exclude the item ‘political parties’ from the social participation index. The resulting coefficient in the mediator equation is $\beta = 3.2$ and in the outcome equation it is $\beta = 0.31$. The corresponding ACME is 0.98[0.59, 1.38].

FIGURE 7 Fourth mechanism: Social networks mediate the effect of sexual violence on political participation



Note: The graphs show the average causal mediation effect (ACME) and the average natural direct effect (ANDE) of social participation on the outcome political participation along with inferential uncertainty. 95% confidence intervals in square brackets. Simulations are based on the estimations for the causal mediation analysis reported in SI.4.4, 16.

Conclusion

We started this paper with an intriguing research puzzle. Is survivor of wartime sexual violence, political activist, and Nobel Peace Prize laureate Nadia Murad an example or an exception? Our results on the political consequences of wartime sexual violence suggests that she may well be both: an exception in her willingness to break the silence and an example in her political activism. Making use of a list experiment to circumvent the difficult problem of underreporting, our study on the political action of survivors of wartime sexual violence presents three main findings.

First, and counter to common belief, victims of wartime sexual violence are generally neither socially isolated nor politically passive. Our results demonstrate that, those who have personally experienced sexual violence during war constitute a politically highly mobilized group. Next to its substantial size, sensitivity analyses give us every reason to believe that this effect is causal. To our knowledge, this is the first systematic piece of evidence on the political consequences of wartime sexual violence. Our result thus sheds light into the legacy of this pernicious and difficult to study form of violence. While our findings are restricted to the population of post-conflict

Sri Lanka, they emanate from a particularly hard case. Because survivors are highly politically active even under these unfavourable conditions, we expect the effect to generalize to more favourable settings. Since sexual violence is a common feature of war (Cohen and Nordås 2014), our study also contributes to a better understanding of the political prospects of post-conflict societies more generally.

Second, we show that survivors engage in a wide range of political activities, especially those that are cost intensive in terms of time and resources. The forms of political participation they chose range from institutionalized activities like party work or political campaigning to more alternative forms of political activism including protests and boycotts. However, we find no effect on electoral turnout or online political participation. Our study thus complements and extends the finding on the social consequences of wartime sexual violence and the notion that survivors engage in compensatory social behavior (Koos 2018). We show that individual survivors not only seek to ensure social inclusion and support within their communities, but also aim at various ways to address grievances and to shape political outcomes. In this sense, political participation is an important coping strategy for survivors of wartime sexual violence.

Third, survivors of sexual violence are primarily mobilized through their involvement in social networks and civic organizations. This suggests that compensatory social participation may have important knock-on effects for political action. Regarding alternative causal mechanisms connecting wartime sexual violence to political action, we find little evidence for the notion that experience of violence increase participation through a change in social preferences or ‘post-traumatic growth’. This finding is particularly important given the strong focus on social preferences and emphasis on psychological arguments in the existing literature on conflict exposure (Bauer et al. 2016; Blattman 2009; Wood 2008).

Our results also have implications for policy. They may guide humanitarian efforts to support survivors of wartime sexual violence. Instead of treating victims as passive, dependent and unable, it is important to respect that survivors possess agency and are very well capable of voicing and addressing their grievances. Of course, this does not mean that survivors can do it alone or that their intrinsic motivation is sufficient for effective political action. To become politically active, survivors of wartime sexual violence rely on local community networks, civic organizations and NGOs for resources, information and recruitment. Promoting the civic inclusion of survivors can in turn increase the likelihood that perpetrators will be brought to justice. In addition, truth and reconciliation mechanisms will be more effective in healing trauma and in providing a solid ground for peace and human rights. This underscores the importance of policies targeted at strengthening civil society in post-conflict settings.

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Supporting Information (SI)

The Political Consequences of Wartime Sexual Violence: Evidence from a List Experiment

SI Contents

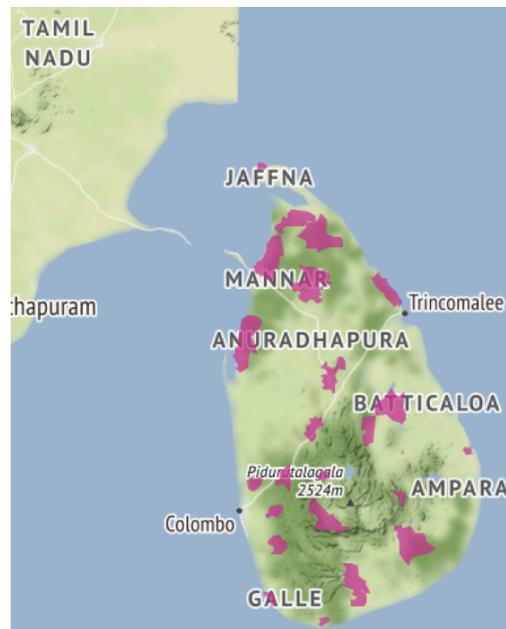
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SI.1 Information on the Survey

This section contains information about the survey that Traunmüller, Kijewski and Freitag (2019) carried out in Sri Lanka in the first half of 2016, seven years after the conflict between the Sri Lankan state and the Liberation Tigers of Tamil Eelam (LTTE) ended.

- 1) **The sample.** The survey took place across all 25 districts of Sri Lanka, including the areas of the Northern and Eastern provinces at the center of the conflict. The selection of respondents followed a multi-stage stratified random sample procedure. In each district, three lower level administrative units known as the Grama Niladhari (GN) divisions were randomly selected. From these, 24 households were randomly sampled based on the updated voter registry of the Election Commissioner Department of Sri Lanka. Finally, within the household the member with the last birthday and at least 18 years old was interviewed. If the relevant respondent was not present on that particular day, another day was selected to return to the same household and complete the interview. If the members of a selected household refused to participate in the study, the household was replaced by a new one using the same sampling procedure. Generally, non-response was not an issue. Tamils were over sampled to guarantee reliable estimates for this important ethnic minority group. Figure SI.1 shows the distribution of the randomly sampled areas.

FIGURE SI.1 Map of sampled areas in Sri Lanka.



Note: Areas in light red show the randomly sampled Grama Niladhari (GN) divisions for the survey.

- 2) **The list experiment.** The survey followed the existing literature to design and implement the list experiment (Kuklinski, Cobb and Gilens 1997; ?; Blair and Imai 2012; Glynn 2013). For the list experiment respondents were randomly assigned to

either treatment or control group and then presented a list of several survey items. Whereas the control group only received a number of control items, the treatment group additionally received the sensitive item along with control items.

The list experiment asked the following question: “Now we would like to ask you some more questions about what happened during the war. Please refer to the following list and tell me how many of these experiences happened to you during the war. Please don’t tell me which specific statements you believe to be true, only how many.”

The interviewers then showed the respondents a list with the following items:

- [1] I won money in a lottery or competition.
- [2] I was involved in an accident.
- [3] I received help from a stranger.

The list shown to the treatment group also included the sensitive item:

- [4] I was personally sexually assaulted.

All respondents were asked to count the number of items that apply to them or with which they agree. The reasoning behind this indirect question format is that victims of sexual violence understand the anonymity granted by it in the interview situation. Since respondents do not have to say openly whether the sensitive item applies and the interviewer has no way of knowing, victims are less likely to under-report their experience due to feelings of shame or fear of legal consequences. Traummüller, Kijewski and Freitag (2019) provide further information on randomization, sample balance, and a test for no design effect.

- 4) **The direct question.** The questionnaire also included a direct question on sexual violence as part of a survey battery capturing various direct war experiences. The direct question was asked after the list experiment (Eady 2017). The list experiment and the direct question were part of different sections in the questionnaire with five questions/item batteries between them to avoid any priming effects.

The question read: “During the period of war, from 1983 to 2009, which of the following things did you personally directly experience, see or witness with your own eyes and ears, directed at you, your family, or community?” The answers to the item “You becoming sexually assaulted” were coded “1” for “yes” and “0” for “no” to the item.

- 5) **The measure of sexual violence.** The measure used to capture sexual violence remains quite general and thus follows a definition that is broader than the frequently used legal definition of the *International Criminal Court* (2000) that includes rape, sexual slavery, forced pregnancy, and forced sterilization or abortion. Similar to Wood (2009) and the *Sexual Violence in Armed Conflict* (SVAC) data set (Cohen and Nordås 2014), it also captures other behaviors of physical violence such as sexual mutilation and sexual torture. Following Leiby (2009b), the measure

also includes experiences that do not involve direct physical violence such as sexual humiliation and sexual coercion.

In addition, the list experiment is silent about the perpetrators of the act of sexual violence. Thus, while it clearly refers to experiences that ‘happened during the war,’ it is not restricted to conflict-related sexual violence committed by armed groups. It is likely to elicit experiences of sexual violence committed by intimate partners, acquaintances, and strangers. The list experiment thus relies on an inclusive and low-threshold definition of sexual violence.

SI.2 Information on outcome and control variables: survey questions and coding

- 1) **The outcome variable: political participation.** The survey question for political participation read “During the last 12 months, have you done any of the following?” Then respondents were presented with a list of 22 binary items ranging from attending political meetings to participating in illegal protests. The items are (sorted in descending order by percentages in “yes” category, given in parentheses): attended a political meeting/rally (35.3), contacted a local government official (17.8), participate in party activities (17.6), contacted a politician (13.9), do voluntary work for a party (11.6), worked for the campaign of a candidate for office (8.5), contacted an political organisation (7.9), signed a petition (6.2), worked in a political party or action group (5.7), boycotted certain products (5.2), visited websites of political organizations or candidates (3.6), worn or displayed a campaign badge/sticker (3.2), taken part in a lawful public demonstration (3.2), participated in political activities over the internet (3.1), donate money to a party (2.9), deliberately bought certain products for political, ethical or environmental reasons (2.8), raised funds (2.2), worked in another political organization or association (2.1), taken part in a strike (1.9), cancel vote at the voting station (1.9), twitter political content (1.0), and participated in illegal protest activities (0.9).

We operationalized political participation as an additive index of these 22 different political actions. Figure SI.2 shows the frequency of the additive index for political participation.

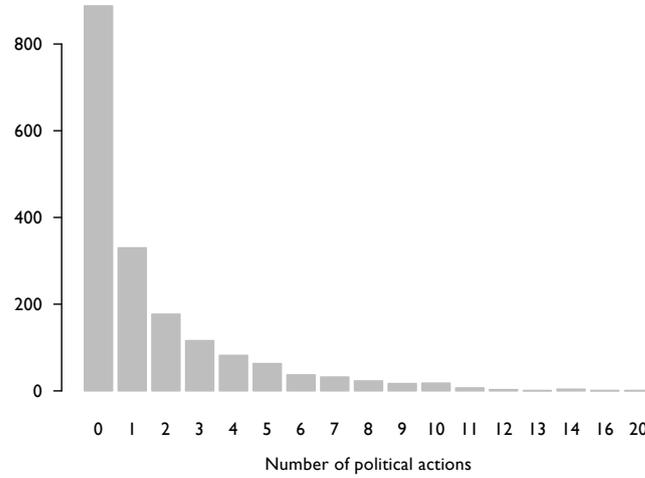
- 2) **Control variables: survey questions and coding.** Table SI.1 outlines information on the wording and the coding of survey items used as control variables in the main models.

SI.3 Additional analyses

This section provides information on additional analyses on the political consequences of sexual violence in Sri Lanka.

- 1) **The prevalence of wartime sexual violence.** We replicate Traunmüller, Kijewski and Freitag (2019) to obtain the prevalence of sexual violence. We thus compare the responses between treatment and control groups—without the

FIGURE SI.2 The outcome variable: Political participation



Note: The graphs shows the frequency of the number of political actions respondents engaged with in the preceding 12 months up to the survey.

respondents having to disclose their choice of item. We then drawn inferences on the sensitive item. Since randomization ensures that treatment and control units are the same in all observable and unobservable characteristics any difference in response must be attributed to the sensitive item.

Table SI.3.3 shows the mean number of list items affirmed by the treatment (.44) and the control (.31) groups. This results in an estimated difference-in-means of 13.4 percent of the sample that experienced personal sexual assault during the time of war. Table SI.3.3 also compares the results from the list experiment to the direct question item, where only 1.4 percent of respondents admit to a personal experience of sexual violence. The difference between the unobtrusive measure and the direct item is 12 percent. The list experiment thus revealed a prevalence of wartime sexual violence that is ten times higher than a direct question.

2) Survivors’ political participation. For the main estimations we followed multivariate modelling strategy proposed by Imai, Park and Greene (2015). This simultaneously models the response to the sensitive item, the control items and the outcome of interest (see also Imai, Park and Greene 2015). In particular, we include the predicted responses of experiences of sexual violence as an explanatory variable in the regression model of political participation (outcome equation). Table SI.3.4 present the results for each of these equations. The first column refers to the outcome equation for political participation (see also Figure 2 in the paper for the effects). The second, third and fourth columns present the (simultaneous) equation results for the latent sensitive item, the control items, and the direct item respectively.

3) Survivors’ type of political participation. We analyzed how survivors of wartime sexual violence try to influence political outcomes to better understand

TABLE SI.1 Control variables: Survey items and coding criteria

Variable	Wording and Coding
Gender	“[Interviewer: Please indicate the sex of the respondent]” Male 0 Female 1
Age	“How old are you? Please indicate in years.”
Education	“What is the highest level of school education you have achieved?” <i>Categorical Coding:</i> No formal level of education 0 Primary school 1 Junior secondary school (until grade 9) 2 GCE O-Level (grade 10-11) 3 GCE A-Level (grade 12-13) 4 BA level or equivalent 5 MA level or equivalent 6 Doctoral level or equivalent 7 Low Education 0-1 Medium Education 2-3
Ethnicity	“How would you describe your ethnic identity?” <i>Dummy Coding:</i> Sinhalese 0/1 Tamil 0/1 Moor 0/1
Province	<i>Categorical Coding:</i> Western 1 Central 2 Southern 3 North Western 4 North Central 5 Uva 6 Sabaragamuwa 7 Eastern 8 Northern 9
Assisted military group	“Did you assist the Sri Lankan army or other military groups during the war?” No 0 Yes 1
Other traumatic Experience	“Now we would like to ask you some questions about what happened between 1983 and 2009. These are not questions about your feelings, they are questions about what happened to you and what you experienced. We know that this is very personal, and we are troubled to ask, but we hope that you will think that it will be important to study how many people in this country had such experiences, and how they are related to people’s attitudes now.”

the rationale behind the mobilizing effect of wartime sexual violence. We subjected the 22 items that constitute the political participation index to a factor analysis. Table SI.3.5 shows the results. There are three underlying factors to best explain

TABLE SI.2 Control variables: Survey items and coding criteria (*continued*)

Variable	Wording and Coding
	Did you see or witness with your own eyes and ears a war-related event that involved actual or threatened death or injury to you or any member of your household to which you responded with intense fear, helplessness, or horror? No 0 Yes 1
Displaced	“Did you or any members of your household have to move as a result of the conflict?” No 0 Yes 1
Pre-war: Political Involvement	“In the time before the war, how often were politics discussed at your house?” Never 1 From time to time 2 Often 3 Always 4
Pre-war: NGO	“Before the war, did you or any member of your close family work as a humanitarian worker or for an NGO?” No 0 Yes 1

TABLE SI.3.3 Prevalence of wartime sexual violence: Result of the list experiment

	List Experiment	Direct Item
Mean Number of Items Treatment Group	.441 (.024)	
Mean Number of Items Control Group	.307 (.019)	
Estimated % Experiencing Sexual Assault	13.4 % (3.1)	1.4 % (0.3)
Difference Indirect-Direct	12.0% (3.1)	
Number of observations	1800	1424

Note: The table displays point estimates and standard errors within parentheses. The difference on the number of observations for the list experiment and the direct item is due to participants not answering the direct question.

the variation on the type of political participation. The first factor gathers political items that relate to *conventional* or *institutionalized* political participation. The second factor subsumes more *un-conventional* or *non-institutionalized* forms of political participation. The third and final factor corresponds to political participation *online*.

TABLE SI.3.4 Multivariate results on sexual violence victims’ political participation by individual equations

<i>Equations:</i>	Items							
	Outcome		Sensitive		Control		Direct	
Intercept	1.61	(0.53)	-1.53	(1.18)	-3.05	(0.41)	2.55	(0.58)
Female	-0.70	(0.14)	-1.41	(0.38)	-0.07	(0.11)	-1.16	(0.16)
Age/10	-1.52	(0.56)	-0.93	(1.33)	0.07	(0.43)	-2.10	(0.66)
Education: Medium	0.04	(0.20)	0.15	(0.50)	-0.11	(0.15)	0.02	(0.20)
Education: High	-0.05	(0.24)	0.33	(0.55)	-0.01	(0.18)	0.08	(0.25)
Ethnicity: Sri Lanka Tamil	0.20	(0.39)	-0.85	(0.81)	0.61	(0.28)	-0.10	(0.53)
Ethnicity: Indian Tamil	0.18	(0.34)	0.80	(0.64)	0.07	(0.26)	0.29	(0.52)
Ethnicity: Sri Lanka Moor	0.51	(0.39)	0.03	(0.88)	-0.09	(0.33)	0.96	(0.58)
Province: Central	-0.07	(0.32)	-1.68	(0.75)	-0.50	(0.39)	-0.57	(0.41)
Province: Southern	-0.14	(0.34)	-0.27	(0.62)	0.56	(0.33)	-0.17	(0.36)
Province: North Western	-0.51	(0.40)	-1.79	(1.03)	0.03	(0.39)	-0.75	(0.46)
Province: North Central	-0.19	(0.39)	-0.36	(0.68)	-1.05	(0.47)	-0.21	(0.39)
Province: Uva	-0.82	(0.47)	-0.38	(0.73)	1.77	(0.32)	-0.54	(0.48)
Province: Sabaragamuwa	-0.24	(0.36)	-0.66	(0.72)	-0.14	(0.37)	-0.40	(0.39)
Province: Eastern	0.29	(0.44)	-0.18	(1.03)	0.37	(0.32)	0.26	(0.57)
Province: Northern	0.06	(0.51)	-1.80	(1.28)	-0.27	(0.33)	-0.26	(0.63)
Assisted Military Group	0.24	(0.32)	0.81	(0.60)	0.58	(0.20)	0.73	(0.32)
Other Traumatic Experience	0.29	(0.24)	-0.05	(0.61)	0.13	(0.18)	0.02	(0.36)
Displaced	-0.56	(0.28)	0.59	(0.70)	0.52	(0.22)	-0.14	(0.35)
Pre-War: Political Involvement	0.57	(0.14)	0.28	(0.31)	0.37	(0.10)	0.68	(0.14)
Pre-war: NGO	0.67	(0.33)	1.65	(0.70)	0.12	(0.24)	1.28	(0.42)
Wartime Sexual Violence (Indirect Item)	5.52	(0.22)	–	–	–	–	–	–
Wartime Sexual Violence (Direct Item)	–	–	–	–	–	–	-0.41	(0.51)
N	1081		1081		1081		915	

Note: The table displays point estimates and standard errors within parentheses. For a visualization of the effects from model on the “Outcome” equation and the “Direct Item” equation see Figures 2 and 3 in the paper.

TABLE SI.3.5 Factor structure of political participation items (Oblimin rotation, based on tetrachoric correlation matrix)

	Factor		
	1	2	3
Participate in party activities	0.94		
Worked for the campaign of a candidate for office	0.94		
Worked in a political party or action group	0.93		
Do voluntary work for a party	0.91		
Contacted a politician	0.83		
Contacted an political organisation	0.74		
Worn or displayed a campaign badge/sticker	0.72		
Contacted a local government official	0.69		
Donate money to a party	0.63		
Taken part in a lawful public demonstration	0.55	0.32	
Attended a political meeting/rally	0.51		
Worked in another political organization or association	0.47	0.39	
Taken part in a strike	0.44	0.37	-0.35
Deliberately bought certain products		0.81	
Boycotted certain products		0.74	
Participated in illegal protest activities		0.72	
Raised funds		0.63	
Signed a petition		0.59	
Cancel vote at the voting station		0.39	
Visited websites of political organizations or candidates			0.82
Participated in political activities over the internet			0.81
Twitter political content			0.78

Note: The table displays factor loading estimates.

- 4) **Survivors’ participation in elections.** We also estimated whether the experience of sexual violence during war is related to turnout at presidential, parliamentary and local elections. Table SI.3.6 presents the results. Victims of sexual violence during war are not more likely to cast a vote at elections than non-victims.

TABLE SI.3.6 The effect of wartime sexual violence on election turnout

	Elections					
	Presidential		Parliamentary		Local	
Intercept	0.25	(0.07)	0.67	(0.06)	0.03	(0.08)
Female	-0.01	(0.02)	-0.01	(0.02)	0.00	(0.02)
Age/10	0.06	(0.08)	0.46	(0.08)	0.43	(0.09)
Education: Medium	-0.02	(0.03)	0.02	(0.03)	-0.02	(0.04)
Education: High	-0.02	(0.04)	-0.00	(0.03)	-0.03	(0.04)
Ethnicity: Tamil	0.54	(0.04)	0.04	(0.03)	0.54	(0.05)
Eastern Province	0.20	(0.03)	0.05	(0.03)	0.22	(0.03)
Assisted Military Group	0.02	(0.08)	0.07	(0.08)	-0.06	(0.06)
Other Traumatic Experience	0.10	(0.03)	-0.02	(0.03)	0.06	(0.03)
Displaced	0.11	(0.03)	-0.01	(0.03)	0.14	(0.03)
Wartime Sexual Violence	-0.06	(0.08)	0.03	(0.08)	0.03	(0.08)
Pre-War: Political Involvement	-0.06	(0.02)	0.00	(0.02)	-0.08	(0.02)
Pre-War: NGO	0.16	(0.07)	-0.02	(0.04)	0.19	(0.06)
N	1,081		1,081		1,081	

Note: The table displays point estimates and standard errors within parentheses.

SI.4 Probing the mechanisms

This section provides further information and the estimation outputs for the causal mediation analysis that help us evaluate the potential theoretical mechanisms connecting experiences of wartime sexual violence to political participation.

- 1) **Causal mediation analyses.** In the paper we evaluate several theoretical mechanism connecting experiences of wartime sexual violence to political participation. We do so through causal mediation analysis. We decompose the effect of sexual violence on political participation into two parts: an indirect or mediated effect that runs via a hypothesized mechanism and a direct effect that captures all possible remaining influences on their political behavior.

We first assess whether experiences of wartime sexual violence lead to changes in social preferences (in-group favoritism, altruistic social preferences and post-traumatic growth) and social networks (measured as active social participation in civic associations). We then model respondents’ political participation using a second equation including all variables as before, and now including social preferences and networks as predictors of political participation.

- 2) **Formal definition of causal quantities.** In the following we give a formal description of our causal mechanisms and define more precisely how we think about the effect of wartime sexual violence on political participation. Let $Y_i(t)$ denote the

potential value of the outcome for unit i under the treatment condition $T_i = t$. In our context, this specifies an individual's participation, given his or her experience of sexual violence during the conflict. $Y_i(t = 1)$ is the level of participation for an individual who personally experienced sexual violence and $Y_i(t = 0)$ how the exact same individual would participate if it did not have this experience. The effect of wartime sexual violence is then captured by $\tau_i(t) \equiv Y_i(t = 1) - Y_i(t = 0)$, the difference in individual i 's behavior with and without experience of sexual assault. Of course, we can only ever observe one of i 's potential participation at a given point in time, and since we are usually interested in the whole population, the actual quantity of interest is the average treatment effect (ATE): $\bar{\tau}(t) \equiv E[Y_i(t = 1) - Y_i(t = 0)]$ across all individuals.

In the causal mediation analysis, we now decompose this total effect in two parts: an indirect or mediated effect that runs via individuals' social preferences or social networks – and thus captures the theoretical mechanism – and a direct effect that captures all possible remaining influences on individuals' participation (cf. Imai et al. 2011). Formally, we introduce $M_i(t)$ to denote the potential *mediator* of unit i under the treatment condition $T_i = t$, i.e. individual i 's social preferences or networks. Thus, $M_i(t = 1)$ is an individual's preference (network) if they have experienced sexual violence and $M_i(t = 0)$ is the same individual's preference (network) if they have not. Then $Y_i(t, m)$ is the potential outcome if the treatment takes the value t and the mediator the value m . In our case, how a respondent participates given a particular experience and his or her particular preference (network).

We can now define the *indirect* or *causal mediation effect* as $\delta_i(t) \equiv Y_i(t, M_i(1)) - Y_i(t, M_i(0))$, for unit i and treatment status $t = 0, 1$. We are thus interested in the difference in respondents' political participation that would occur given an experience of sexual violence and the political action that would occur under the same condition but where the individuals' social preference (network) is different, namely as it would be without this experience. Put differently, this is the effect wartime sexual violence has on an individual's political participation that is only due to the change in social preference (network).

By fixing the experience and only changing the individual's social preference (network) we isolate our hypothesized mechanism from all other possible mechanisms through which wartime sexual violence may impact on participation (Imai et al. 2011). Again, we are interested in the *average causal mediation effect* (ACME) $\bar{\delta}(t)$, i.e. how the population participates compared to how the population would participate if we changed their social preference (network), while holding their actual experience constant.

There may exist alternative ways experiences of wartime sexual violence impact on individuals' political action. These alternatives are captured by the *natural direct effect* $\xi_i(t) \equiv Y_i(1, M_i(t)) - Y_i(0, M_i(t))$, for unit i and treatment status $t = 0, 1$. This is the change in an individual's political participation when changing the experience but holding his or her social preference (network) constant. The *average natural direct effect* (ANDE) $\bar{\xi}(t)$, therefore captures all effects of wartime sexual

violence that impact participation but which do not work through respondents' social preferences (networks).

3) Social preferences as mediators of wartime sexual violence and political participation. In the paper we identify three social preferences mechanism: social identification, altruistic social preferences, and post-traumatic growth. Table SI.4.1 shows the the estimations for the two stages of the causal mediation analysis for social identification (first mechanism). Tables SI.4.2 and SI.4.3 do the same for the altruistic social preferences mechanism (second mechanism). Finally, Table SI.4.4 shows the estimations for post-traumatic growth (third mechanism). Across tables, the mediator is first the outcome variable and then a predictor for political participation. We exclude variables on pre-war political involvement and social participation due to computational issues with perfect linear dependencies. The results suggest that none of the three social preferences mechanism accounts for the connection between individual experiences of wartime sexual violence and higher levels of political participation in post-war Sri Lanka (see also Figures 5, 6 and 7 in the paper).

TABLE SI.4.1 First mechanism: Causal Mediation Analysis for *in-group favouritism*

	Mediator		Outcome	
	In-group favouritism		Political Participation	
(Intercept)	2.21	(0.36)	1.63	(0.45)
Female	0.26	(0.12)	-0.77	(0.14)
Age/10	-0.39	(0.46)	-1.62	(0.53)
Education: Medium	0.19	(0.16)	0.06	(0.19)
Education: High	-0.16	(0.19)	-0.01	(0.23)
Ethnicity: Tamil	-0.89	(0.17)	0.22	(0.17)
Eastern Province	-0.94	(0.17)	0.38	(0.19)
Assisted Military Group	0.46	(0.29)	0.39	(0.33)
Displaced	0.64	(0.22)	-0.54	(0.23)
Other Traumatic Experience	0.10	(0.19)	0.40	(0.22)
Pre-War: Political Involvement	-	-	0.43	(0.12)
Pre-War: NGO	-	-	0.82	(0.31)
Wartime Sexual Violence	0.12	(0.36)	5.74	(0.22)
In/out group trust	-	-	0.07	(0.04)
N	1,062		1,062	

Note: The table displays point estimates and standard errors within parentheses.

TABLE SI.4.2 Second mechanism: Causal Meditation Analysis for *political voice*

	Mediator		Outcome	
	Political Voice		Political Participation	
(Intercept)	1.92	(0.14)	1.30	(0.47)
Female	-0.06	(0.04)	-0.69	(0.14)
Age/10	0.21	(0.17)	-1.61	(0.52)
Education: Medium	0.06	(0.06)	0.06	(0.19)
Education: High	0.08	(0.07)	-0.01	(0.23)
Ethnicity: Tamil	0.36	(0.06)	0.17	(0.17)
Eastern Province	0.20	(0.07)	0.23	(0.20)
Assisted Military Group	-0.11	(0.11)	0.22	(0.34)
Displaced	-0.10	(0.07)	-0.50	(0.22)
Other Traumatic Experience	0.01	(0.06)	0.39	(0.22)
Pre-war: Political Involvement	–	–	0.46	(0.12)
Pre-war: NGO	–	–	0.70	(0.32)
Wartime Sexual Violence	0.12	(0.15)	5.72	(0.22)
Political Voice to Solve Problems	–	–	0.22	(0.09)
N	1,071		1,071	

Note: The table displays point estimates and standard errors within parentheses.

TABLE SI.4.3 Second mechanism: Causal Meditation Analysis for *improved ethnic relations*

	Mediator		Outcome	
	Improved Ethnic rel.		Political Participation	
(Intercept)	1.80	(0.15)	1.30	(0.47)
Female	-0.07	(0.05)	-0.69	(0.14)
Age/10	0.08	(0.19)	-1.61	(0.52)
Education: Medium	0.05	(0.07)	0.06	(0.19)
Education: High	-0.05	(0.08)	0.01	(0.23)
Ethnicity: Tamil	0.20	(0.07)	0.17	(0.17)
Eastern Province	0.69	(0.08)	0.23	(0.20)
Assisted Military Group	-0.02	(0.13)	0.22	(0.34)
Displaced	-0.33	(0.09)	-0.50	(0.22)
Other Traumatic Experience	0.09	(0.08)	0.39	(0.22)
Pre-war: Political Involvement	–	–	0.46	(0.12)
Pre-wa: NGO	–	–	0.70	(0.32)
Wartime Sexual Violence	-0.08	(0.16)	5.72	(0.22)
Improved ethnic relations	–	–	0.22	(0.09)
N	1,073		1,073	

Note: The table displays point estimates and standard errors within parentheses.

TABLE SI.4.4 Third mechanism: Causal Meditation Analysis for *post-traumatic growth*

	Mediator		Outcome	
	Post-traumatic Growth		Political Participation	
(Intercept)	1.96	(0.19)	2.33	(0.62)
Female	-0.22	(0.07)	-0.70	(0.19)
Age/10	-0.18	(0.28)	-1.67	(0.70)
Education: Medium	-0.11	(0.09)	-0.09	(0.25)
Education: High	0.07	(0.11)	-0.05	(0.29)
Ethnicity: Tamil	0.01	(0.10)	0.05	(0.22)
Eastern Province	-0.54	(0.09)	0.01	(0.27)
Assisted Military Group	-0.26	(0.14)	0.26	(0.38)
Other Traumatic Experience	1.12	(0.13)	0.33	(0.30)
Displaced	0.65	(0.14)	-0.10	(0.31)
Pre-War: Political Involvement	–	–	0.40	(0.17)
Pre-War: NGO	–	–	1.02	(0.36)
Wartime Sexual Violence	1.39	(0.21)	5.89	(0.29)
Post-Traumatic Growth	–	–	-0.14	(0.12)
N	685		685	

Note: The table displays point estimates and standard errors within parentheses. The post-traumatic growth items were only asked to respondents who provided information on their war experiences. This explains the massive drop in observations.

4) **Social networks as mediators of wartime sexual violence and political participation.** The fourth theoretical mechanism relates to social networks rather than individual preferences. To evaluate whether the political consequences of wartime sexual violence are due to mobilization in social networks, we rely on a simple social participation index. Like the previous mechanisms, Table SI.4.5 shows the estimations for the two stages of the causal mediation analysis. We exclude variables on pre-war political involvement and social participation to be consistent with previous analyses. The results are different to the social preferences mechanisms previously tested. Active participation in social networks significantly mediates the relation between experiences of wartime sexual violence and political participation.

TABLE SI.4.5 Fourth mechanism: Causal Mediation Analysis for *social participation*

	Mediator		Outcome	
	Social Participation		Political Participation	
(Intercept)	0.18	(0.18)	1.55	(0.43)
Female	-0.13	(0.06)	-0.66	(0.13)
Age/10	0.37	(0.25)	-1.47	(0.51)
Education: Medium	0.18	(0.09)	0.01	(0.19)
Education: High	0.42	(0.09)	-0.13	(0.23)
Ethnicity: Tamil	0.07	(0.08)	0.12	(0.16)
Eastern Province	-0.35	(0.11)	0.51	(0.19)
Assisted Military Group	-0.06	(0.12)	0.07	(0.33)
Other Traumatic Experience	0.09	(0.08)	0.41	(0.23)
Displaced	-0.16	(0.08)	-0.47	(0.23)
Pre-War: Political Involvement	–	–	0.44	(0.12)
Pre-War: NGO	–	–	0.61	(0.34)
Wartime Sexual Violence	3.35	(0.09)	5.54	(0.22)
Social Participation	–	–	0.29	(0.06)
N	1,197		1,197	

Note: The table displays point estimates and standard errors within parentheses.

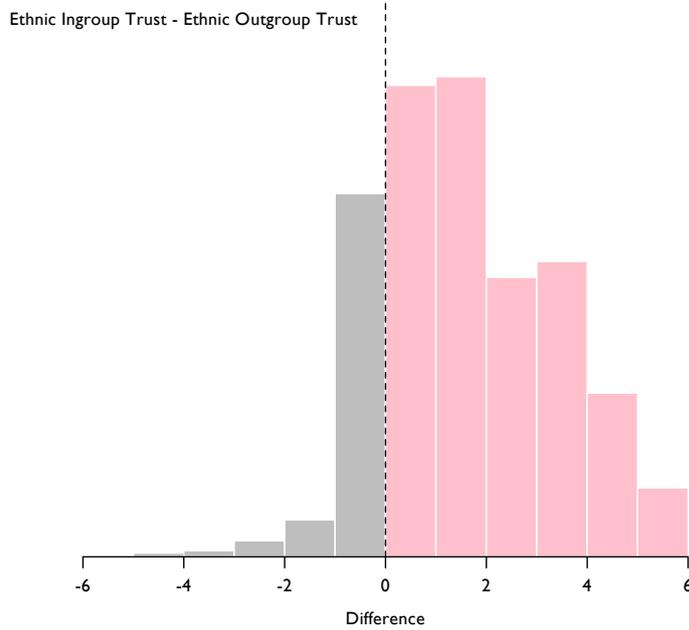
SI.5 Additional Figures on Mediating Factors

This section provides further descriptions of the mediator variables used in the causal mediation analyses to test the mechanisms of social preferences (in-group favoritism, altruistic social preferences and post-traumatic growth) and social networks (measured as active social participation in civic associations) on the political consequences of sexual violence in Sri Lanka.

1) **Social identification and in-group favoritism.** We use information from the survey to operationalize social identification and in-group favoritism. Respondents were asked to indicate on a 7-point scale “How much you trust people from various groups in Sri Lanka”. We constructed a measure of in-group favoritism from their trust toward the following ethnic groups: Sinhalese, Sri Lankan Tamil, Indian Tamil, and Muslim Moor. In-group favoritism is thus the difference between the

amount of trust in their own ethnic group minus their average trust in the remaining three ethnic groups. Figure SI.5.1 shows the distribution of this variable.

FIGURE SI.5.1 Social identification and in-group favoritism

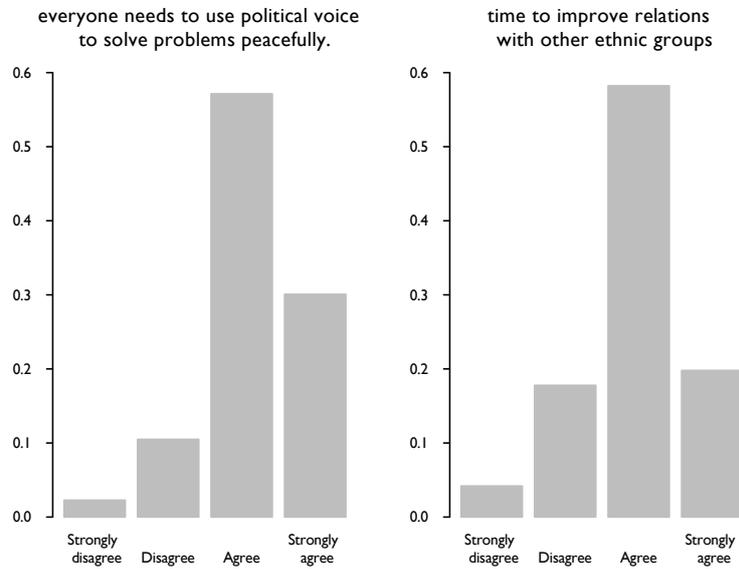


Note: Numbers in the x-axis depict the differences between in- and out-group trust. Positive numbers represent more in-group trust (red bars), while negative numbers do so for out-group trust (grey bars). Most Sri Lankans have higher trust in their own ethnic group than in any other out-groups.

- 2) **Altruistic social preferences.** We use two items from the survey to operationalize altruistic social preferences. Respondents were asked in how far they agreed with the following statements using a four-point scale. The first statement read “In order to avoid such violent conflicts in the future, everyone now needs to use their political voice to solve problems peacefully.” The second statement read “Now, after the war, it is time for my ethnic group to improve relations with other ethnic groups in this country.” Figure SI.5.2 shows the distribution of these variables.

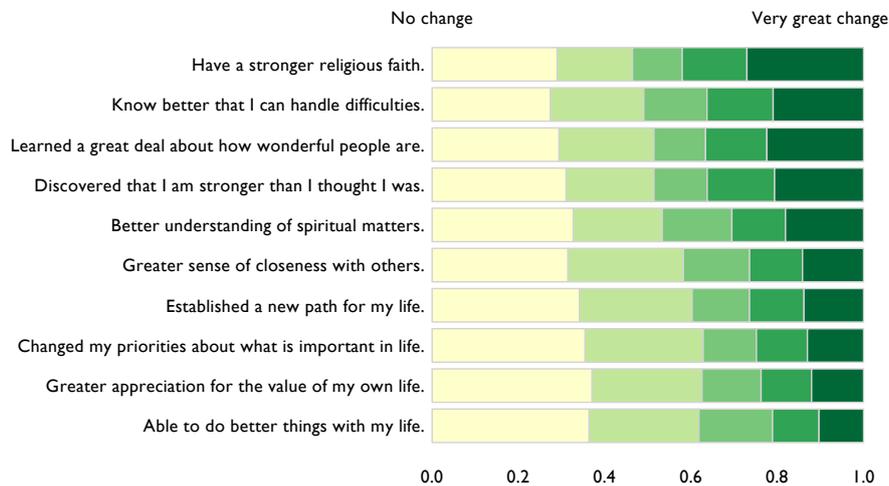
- 3) **Post-Traumatic Growth.** To measure post-traumatic growth we rely on a short form of the *Postrumatic Growth Inventory* (Cann et al. 2010; Tedeschi and Calhoun 1996). This scale averages ten items, included in the survey, which ask for personal changes that have occurred as a result of experiencing the war. Figure SI.5.3 shows these ten items and the average personal level of changed experienced. Based on these ten items, we run a correlation test to assess how similar they are at capturing post-traumatic growth. The result shows an $\alpha=.93$. This high level of correlation suggesting that the post-traumatic index offers a very good scale reliability.

FIGURE SI.5.2 Altruistic social preferences: political voice (left) and improved inter-ethnic relations (right)



Note: The graphs shows the distribution of responses for each survey item operationalizing altruistic social preferences. The two items are weakly correlated ($r = .2$), capturing different aspects of post-conflict politics.

FIGURE SI.5.3 Post-Traumatic Growth

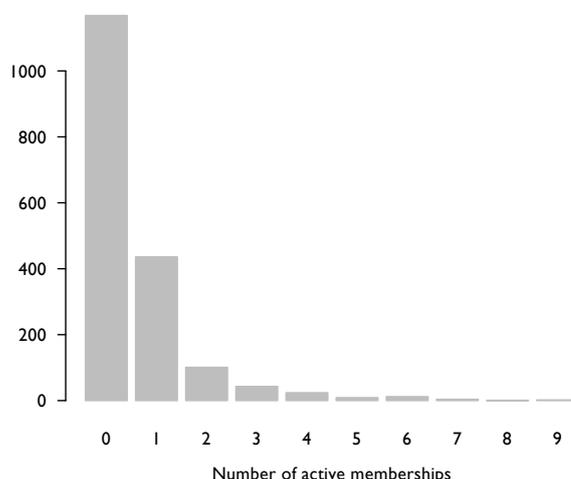


Note: For each survey item on personal change occurred as a result of experiencing war (y-axis), the x-axis depicts the average level of personal change. Higher number indicate instances of more dramatic change.

4) **Social networks.** We operationalize social networks as active social participation in civic associations. The survey question read “Now I am going to read off a list of voluntary organizations. For each organization, could you tell me whether you are an active member, a passive member or not a member of that type of organization?”

Respondents chose among 10 different organizations ranging from charity and social welfare to sport and outdoor activities. The complete list is as follows (sorted by percentages of active members as given in the parentheses): Charity or social-welfare organisation (e.g. women’s societies, Samurdhi, 21.9), other organisation (e.g. donation society, community development society, 28.6), sports club or outdoor activities club (7.9), religious organisation (7.3), youth societies (5.2), interest group or trade union (3.9), political parties (3.1), cultural organisation (music etc., 1.7), environmental or human rights organisation (1.1), and leisure or hobby organisation (0.3). We added all active memberships into an additive scale ranging from 0 to 10 (with a mean of 0.57 and standard deviation of 1.08). Figure SI.5.4 shows the frequency of active memberships respondents hold.

FIGURE SI.5.4 Active social participation in civic associations



Note: The graphs shows the frequency of respondents’ active memberships in social organizations.

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