WARWICK

ECONOMICS

QAPEC

Quantitative and Analytical Political Economy Research Centre

Discussion Paper Series

The impact of exposure to armed conflict on altruistic and parochial preferences

Arzu Kibris, Harry Pickard & Neslihan Uler

Date November 2024

No: 24

QAPEC

Quantitative and Analytical Political Economy Research Centre

Department of Economics
University of Warwick, Coventry,
CV4 7AL, United Kingdom

https://warwick.ac.uk/fac/soc/economics/research/centres/qapec/discussionpapers

The impact of exposure to armed conflict on altruistic and parochial preferences*

Arzu Kibris † Harry Pickard‡ Neslihan Uler§

Abstract

How does exposure to armed conflict shape individuals' prosocial behavior toward different identity groups? We study this question using a natural experimental setting that exogenously exposes individuals to armed conflict while isolating individual-level mechanisms from broader societal changes. Through an incentivized lab-in-the-field donation experiment with a representative sample, we measure altruistic and parochial preferences. We show that conflict exposure significantly reduces donations to out-group recipients. Further analysis reveals this parochial effect stems primarily from war traumas. We identify several individual-level psychological mechanisms driving these results, including heightened negative perceptions of the out-group, increased aggression, and greater authoritarianism. Our findings demonstrate the lasting effects of violent conflict on prosocial behavior, with implications for social cohesion and post-conflict recovery.

---

*This study is part of a project that has received funding from the European Research Council (ERC), PI Arzu Kibris, under the European Union's Horizon 2020 research and innovation programme (EXPOVIBE-ERC-STG-2015_677627). This paper has been pre-registered at the AEA RCT Registry (AEARCTR-0004418). We thank Alexander De Juan, Soeren Henn, Yusufcan Masatlioglu, Jonathan Meer, Marc Rockmore, Matthew Walker, Till Weber, Daniel Zizzo, and the participants of the IDCM Workshop at University of Maryland, the 2022 North American ESA Meetings, and seminar participants at Newcastle and Durham for their helpful comments. We also thank graduate students Michael Gibson and Ariel Listo for proofreading the paper.

†Department of Politics and International Studies, University of Warwick, Coventry CV4 7AL, United Kingdom; a.kibris@warwick.ac.uk

‡Newcastle University Business School, Newcastle University, 5 Barrack Road, Newcastle upon Tyne, NE1 4SE, United Kingdom; harry.pickard@newcastle.ac.uk

§Department of Agricultural and Resource Economics, University of Maryland, 7998 Regents Drive, 2106 Symons Hall, College Park, MD 20742; neslihan@umd.edu

1 Introduction

Armed conflicts run deep in their consequences. It is now widely acknowledged that those consequences extend to social life and concern how society members relate to and regard each other, their capacity for collective action, and their will to live together. In other words, we know that armed conflicts change "the social cohesion landscape" (Wood, 2008) in host societies. Social cohesion is the "the glue that holds a society together" (Janmaat, 2011). Thus, understanding how it responds to an armed conflict is critical for determining the prospects of the society to eschew entrapment in recurrent violence and to achieve peaceful resolution with sustainable and speedy economic, political, and social recovery. We offer significant contributions to that understanding by identifying and explaining the causal effects of armed conflict exposure on the altruistic behaviors of the average adult male randomly selected from the population.

The extant literature offers conflicting views on the nature of the social legacies of armed conflicts. On the one hand, studies from various disciplines have shown positive effects of violence on prosociality measured as civic and political engagement, collective action, trustworthiness, interpersonal trust, and generosity (Bellows and Miguel, 2006, 2009; Blattman, 2009; Annan et al., 2011; Voors et al., 2012; Jha and Wilkinson, 2012; Gilligan et al., 2014; Bauer et al., 2014, 2016, 2018; Vélez et al., 2016). On the other hand, there is growing empirical evidence of non-cooperative responses to exposure, especially when it comes to cooperation with, and prosociality toward, out-group members (Whitt and Wilson, 2007; Rohner et al., 2013a,b; Grosjean, 2014; De Juan and Pierskalla, 2016; Kijewski and Freitag, 2018; Hager et al., 2019; Conzo and Salustri, 2019; Mironova and Whitt, 2021; Cecchi et al., 2016).

This contrast stems from the inherent challenges associated with identifying the individual level social effects of conflict exposure and the underlying mechanisms. The

first challenge originates from endogeneity and selection biases. The possibility that individuals might be systematically self-selecting into conflict exposure on the basis of their prosocial inclinations renders it extremely difficult, if not impossible, to rule out spurious associations and to identify causal relations between exposure and prosociality.

Even when such hurdles are overcome and a causal link is established, the mechanisms behind that link remain obscure (Bauer et al., 2014; Gilligan et al., 2014). The effects of armed conflicts work through a combination of individual and societal level transformations. At the societal level, armed conflicts can impinge upon people's behaviors and attitudes through incentives and constraints created by the war environment. Conflict-induced scarcities and security concerns can create a demand for prosociality leading to an "increase in community-level social cohesion as the difficulties of war force neighbors to band together, create new collective coping arrangements that foster cooperation in order to defend themselves, and cope with the negative consequences of war" (Gilligan et al., 2014). These collective coping arrangements are likely to be reflected in social institutions as well and give rise to prosocial norms and expectations that further promote cohesion. The same environment, however, might also breed uncertainty and mistrust which might then reflect negatively on expected returns to cooperation (Cassar et al., 2013; Rohner et al., 2013a,b; De Luca and Verpoorten, 2015; De Juan and Pierskalla, 2016). War-induced changes in population composition might be another societal level channel to explain the observed effects. One can, for example, find a heightened prosociality in communities where violence has purged the less prosocial out or vice versa. Alongside these pathways, armed conflicts can also trigger individual level mechanisms such as changes in preferences, beliefs, or income.

As these channels might be carrying effects in different directions, their clear identification is imperative for explaining the observed effects and for reconciling the contradictory findings in the literature. However, it is challenging to separate and study them in iso-

lation, since they operate simultaneously in most conflict and post-conflict environments thereby confounding each other.

In this paper, we address these challenges with an innovative study that builds on a natural experiment setting that is created by the military institutions and the long running civil conflict in Turkey. Turkey has a strict and centralized conscription system that mandates each and every male citizen residing in the country to serve in the Armed Forces when he comes of age. A young man becomes draft eligible when he turns 20 and typically gets inducted before the age of 22 to serve at a military base determined by a deployment lottery. The military regulations state that, conditional on the needs of the military and on the province of registration of draftees, the deployment assignment is orthogonal to pre-enlistment characteristics.[1] Through this system, an estimated 14 million men were drafted in the 1984-2011 period to serve for a duration of 15 to 18 months and about 25% of them were deployed to bases in the center of a deadly armed conflict between the Turkish state and the insurgent Kurdistan Workers' Party (PKK).

This setting creates a natural experiment in which ordinary civilians get randomly exposed to an armed conflict environment as combatants for a significant period of their young adult lives. We build on this vast experiment with a field survey to identify the unbiased causal effects of armed conflict exposure (ACE) on altruistic behavior towards in-group and out-group members, and to investigate the mechanisms behind the effects we observe. We have several unique capabilities. First, because the draft system in Turkey mandates that every healthy male citizen serves in the Armed Forces and assigns them to service locations via a deployment lottery, we identify the causal effect of ACE for the average adult male randomly picked from the population.

Second, we capitalize on the geographical concentration of the conflict in the southeast

[1]These rules are stated in the Conscription Law (Law Number: 1111), which was originally legislated in 1927. https://www.mevzuat.gov.tr/MevzuatMetin/1.3.1111.pdf

of the country, and by sampling from peaceful provinces in the west, we eliminate the potential bias that may stem from unobserved exposure in civilian roles, allowing construction of clean treatment and control groups.[2] More importantly, the same sampling design enables us to rule out the potential influence conflict-induced macroenvironmental transformations can exert on prosocial behaviors. While societal mechanisms are expected to be fully active for inhabitants of conflict locations, because we surveyed individuals who had isolated and limited duration exposure during military service and who otherwise lived in peaceful areas with no conflict-related destruction, scarcity, or security concerns, societal mechanisms either do not apply or play a minimal role in our case. Without such environmental confounders, we then identify the individual level mechanisms and directly observe the change in social preferences.

Third, the richness of our data and the design of our incentivized lab-in-the-field experiment allow us to conduct a detailed and robust exploration of the effects of conflict exposure on altruistic behavior with attention to group identity differentials.

Our data come from the Exposure to Violence and Individual Behavior-Conscript Veterans (EXPOVIBE-CV) survey conducted in western Turkey in late 2019 with randomly selected adult male respondents who completed their mandatory military service sometime between 1984 and 2011 (Kibris, 2019). The EXPOVIBE-CV collected data on a wide range of socioeconomic and demographic characteristics, as well as the military service history and experience of respondents. Embedded in the survey, an incentivized lab-in-the-field experiment was conducted with a randomly selected subsample to elicit altruistic preferences as an indicator of prosociality. Specifically, respondents were required to decide how much of a given endowment they would donate to an anonymous needy family

[2]This is important because if individuals in the control group are also exposed to violence (even if more moderately relative to the treatment group), one cannot understand the complete effect of armed conflict on individual preferences (Jakiela and Ozier, 2019).

under different prices of giving and in/out-group recipient scenarios. By systematically varying the price of giving and whether the recipient family belongs to the conflict-related in-group or the out-group, altruistic preferences were measured in a robust and complete manner and the role of group identities was examined.

Our exposure measure identifies whether a respondent had been deployed to a base in the conflict zone or not. We start our statistical analyses by showing the exogeneity of exposure and demonstrating via balance tests that deployment to the conflict zone is indeed orthogonal to pre-deployment characteristics of draftees such as height, ethnic background, landownership, age at enlistment, military rank, birth quarter, and training duration.

After providing evidence on the validity of our identification strategy, we move on to our main research question, the effects of conflict exposure on prosociality observed through altruistic donations. Compared to those who served in peaceful locations, we find conflict zone veterans to donate significantly less to the out-group recipient. This negative effect however, disappears when the recipient belongs to the in-group, and while not statistically significant at the conventional levels, the results suggest some in-group favoritism.

We undertake an extensive set of robustness exercises to test the sensitivity of these findings including replication on arguably cleaner subsamples; accounting for potential spillover effects; testing for chance observations by randomly shuffling exposure; testing for potential outliers by removing one draft cohort or service location at a time; Oster's (2019) methodology to address the selection on observable and unobservables; clustering standard errors at different levels; and controlling for potential non-response biases. Our results are robust to each of these exercises, further raising our confidence in our conclusions.

To further probe the nature of exposure, we next differentiate between conflict zone

veterans according to their direct combat experiences. The results become strikingly clear and demonstrate the strong parochial turn in the social preferences of those who experienced the traumas of direct combat during their services. Such individuals donate substantially and significantly more (less) when asked to help out an in-group (out-group) recipient.

We then examine the potential explanatory mechanisms. Relying on questions on personal characteristics and attitudes included in the survey, we find exposed individuals to exhibit significantly higher levels of aggressive and authoritarian tendencies. These individuals also find the out-group identity significantly more distant to their own. Finally, we observe suggestive evidence of depressive feelings in exposed veterans. Given the findings in the literature on the close associations between anxiety, aggression, anger, and authoritarian attitudes and the attitudes towards the in- vs. out-groups, these findings extend the psychological outcomes of conflict exposure, likely engendered by war traumas, as important explanations for the parochial effects we observe on altruism.

While these findings at first sight may seem to contrast the arguments in the literature that people exposed to war violence to behave more cooperatively and altruistically after war (Bauer et al., 2016), we believe they in fact compliment them in important ways. First of all, our findings suggest that their positive observations are most likely driven by the boost in demand for cooperation in conflict environments created by war-induced resource scarcities and security concerns. We show that once such macroenvironmental channels are inactive, war exposure in and of itself does not promote altruism. Second, our results reveal that effects depend on the level and type of exposure as well as on group identities. Therefore, to fully understand the change in social preferences one needs to correctly identify and account for such differentials.

The main contribution of our paper is regarding the impact of exposure to armed conflict on prosociality, but we also contribute significantly to a recent literature on the sta-

bility of economic preferences that explores whether and how individual preferences are affected by shocks such as natural disasters (Eckel et al., 2009; Cassar et al., 2017; Hanaoka et al., 2018; Beine et al., 2020), economic downturns (Malmendier and Nagel, 2011; Fisman et al., 2015), violent crime (Nasir et al., 2017; Brown et al., 2019), inequality (Pickard et al., 2024), and pandemics (Drichoutis and Nayga, 2021; Shachat et al., 2021). All these literature strands share a common focus and question the effects of shocks on preferences, however, due to drastic differences in the nature of the contexts they analyze, it is not possible to generalize their findings to armed conflicts (Voors et al., 2012). Our study, thus, complements the literature on preference stability in significant ways by providing detailed, causal answers for this very important context that concerns millions of people around the world.[3]

2 Research Design

2.1 The Conscription System and the Civil Conflict in Turkey

Since 1984, Turkey has been suffering from an insurgency campaign led by the separatist guerrilla organization, the Kurdistan Worker's Party (PKK). Founded with the goal of establishing an independent Kurdish state, the PKK has been waging war against the Turkish state for almost 40 years in the eastern and south-eastern regions claiming the area to be the ethnic homelands of the country's Kurdish minority. The armed conflict between the

[3]Most works in this literature suffer from similar biases and challenges that we explained earlier. An individual might (for various reasons) choose to live in an earthquake or tsunami region; individuals with certain risk preferences and prosocial characteristics might be more likely to get sick or stay healthy in a pandemic. Moreover, a natural disaster or a pandemic changes the society as a whole; people might bond together to help each other, or they might socially distance and isolate; or new social norms (like putting on masks to protect others) might evolve. Such selection and endogeneity biases as well as societal changes confound individual level mechanisms. In addition, since multiple mechanisms could simultaneously play a role, it is usually very difficult to pin down the impact of traumatic events on individual preferences.

Turkish state and the PKK has so far claimed about 25,000 combatant casualties among Turkish military members (about 7,500) and PKK recruits (nearly 17,500) (Kibris, 2021). In response to ever-increasing violence, the Turkish authorities declared a state of emergency (OHAL) in the epicenter of the conflict, placing the area under military rule. The OHAL region spans the 13 provinces in southeast Turkey, including Adıyaman, Batman, Bingöl, Bitlis, Diyarbakır, Elazığ, Hakkari, Mardin, Muş, Siirt, Şırnak, Tunceli, and Van, as shown in the left-hand panel of Figure 1. The declaration of the state of emergency boosted the powers of the military in the region, allowing it to undertake extensive measures that would not be possible otherwise, thereby rendering the OHAL area the official conflict zone (Bezci and Öztan, 2016).

Turkey has a draft army and a mandatory military service system. A young man becomes eligible for the draft when he turns 20 and typically get inducted into the military before the age of 22. Once enlisted, the drafted young men first get classified into military branches and occupations, and accordingly, into training centers which, for security purposes, are in the western regions. The classification is conducted by the Military Enrolment Services of the Turkish Defence Ministry on anonymized records, and it is conditional on educational qualities of draftees to meet the needs of the Armed Forces across its branches and tasks. Detailed information on the draft procedures can be found in the official instruction brochures produced by the Ministry of Defence.[4] We present a flowchart of these official instructions in Appendix B.

Upon completion of a basic training program that lasts 1 to 3 months, conscripts are sent to military bases all over the country to serve their terms. The required duration of service ranged between 15 to 18 months in the 1984-2012 period. Importantly, conditional on the needs and availabilities of the military and on the province of registration of draftees, the base assignments are done randomly via a lottery system which is publicly known

[4] Available here and here.

as the "base lottery" (Mater, 1998 pp.13, 42, 114, 131, 136; Dündar and Anwar, 2021).[5] As they were conducted in public, recordings of such base-lottery ceremonies can still be found on social media outlets (see https://www.youtube.com/watch?v=D3w4i07_Wj4 as an example).

Through this system, an estimated 14 million men were drafted in the 1984-2012 period to service a duration of 15 to 18 months and about 25% of them were deployed to bases in the conflict zone.

Because sending their sons to the army involves serious risks, this assignment system and its fairness have always been under scrutiny by the public and the media in Turkey (Yıldırımkaya, 2010; Kibris, 2011). Therefore, the randomness of base assignments is a feature of the draft system that has always carried great political costs. Anecdotal evidence supports the non-discriminatory nature of the system. The list of fallen soldiers in the conflict zone includes close relatives of high-level politicians and army officials.[6] Also, the fact that the military has long been the most trusted institution in Turkey attests to the fairness perception of the public with regard to military practices (Esmer, 1999; Adaman et al., 2005).

Another relevant question regarding the exogeneity of assignment is whether one can evade the draft or manipulate the timing or location of his service. In most countries with a universal conscription, like Israel or South Korea, a significant shares of eligible men can avoid active-duty service. Young Turkish men, however, have severely limited options

[5]Mater's book, which was banned in Turkey shortly after publication, contains interviews with 42 ex-conscripts who had been deployed to intense conflict areas during their service. The interviews contain frequent references to the "lottery". A recently published biography of the current President Erdogan mentions how he was relieved when he had drawn a base in Istanbul in his base lottery (Dündar and Anwar, 2021, p. 98).

[6]A recent example is a secretary of state whose first cousin died in 2007 in a PKK attack on the Çeltikli outpost in Bitlis during his military service, see here.

to circumvent the system.[7] Health related exemptions are subject to close scrutiny and requires a panel of military doctors to approve the diagnosis of an incapacitating health problem.[8] Moreover, evaders not only face legal consequences, but they are also shunned by society via social rejection (Altınay and Bora, 2002). They cannot legally hold paid employment either, since employers are required by law to condition hiring on the provision of a valid military discharge certificate.[9] Moreover, draft evaders, and those who help them, risk arrest and imprisonment of up to three years if found guilty by a military court.[10] Therefore, the conscription system in Turkey constitutes a rare exception in which all Turkish men, except a small fraction due to incapacitating health issues and illegal evasion, are inducted into the system (Akyürek, 2010).

We should, however, note that the system allows individuals to postpone their service until they complete their formal higher education. Although everyone gets the draft call at the age of 20, those who are still in formal higher-education by then are allowed to postpone enlistment until they complete their education if they do so before turning 30 (Official Gazette of the Republic of Turkey, 1927, 2019). Therefore, induction largely takes place after the completion of formal schooling (Yildirim and Erdinc, 2007; Akyürek, 2010). Moreover, while draftees with less than a college degree serve full terms as rank and file soldiers, college graduates do their service either as full-term sub-lieutenants or they serve half-term as rank and file depending on the needs of the Armed Forces in that

[7]Exemptions on religious, physical, psychological, or lawful grounds are possible in the Israeli system. Also, the Israeli High Court of Justice ruled in 2002 that refusal to serve on conscientious or political grounds was legal, see here. The South Korean system incorporates a broader definition of compulsory service that includes social work, research, full-time reserve enlistment, and industrial technical service.

[8]What constitutes an incapacitating health problem is defined in regulations (Turkish Armed Forces, Health Capability Regulation, Official Gazette 29530, 12 November 2015).

[9]See here.

[10]The Military Penal Code enacted by the law number 1,632 states that evading service is punishable by up to three years in prison, and employing a fugitive is punishable by up to two years in prison, see here.

draft period. [11] What is relevant for our purposes is that all conscripts are subject to the deployment lottery regardless of their educational attainment, rank, and/or service duration. Therefore, this differential handling due to formal education does not threaten our identification. As induction mainly occurs upon the completion of formal schooling, which is a key input for the military in determining the branch and occupation classifications, and which is an observable characteristics available in our data, our results are unbiased as long as we control for educational attainment.

2.2 Exposure to Armed Conflict

Our study builds on this vast natural experiment with a field survey conducted by the first author in Turkey in 29 western provinces with 5,024 randomly selected men who completed their military service sometimes between 1984 and 2012. The focus on the 1984-2012 period is both because the 1990's was the most intense period of the conflict and because the Turkish army has been going through structural change since 2012. With new legislation enacted in late 2011, the Turkish military started recruiting professional soldiers on fixed-term contacts to replace conscripts, especially in conflict zones, as part of a move towards a professional army (Official Gazette of the Republic of Turkey, 2011). With professional soldiers in place, civilians were granted the option to pay to reduce their service to basic training only.

Sampling was carried out by the Turkish Institute of Statistics (TurkStat) in proportion to province populations using the offices Address-Based Census Registry system as the sampling frame. To capture isolated exposure to the conflict during military service and to eliminate confounding by macroenvironmental transformations, only provinces that are outside of the conflict zone with negligible in-migration from conflict area were sampled.

[11] Those who serve half-term, however, make up a small percentage of the overall population. Our data reflects that 93 percent of men conscripted between 1984 and 2011 served full term.

The right-hand panel of Figure 1 shows the sample distribution with the distribution of total combatant casualties and visualizes the clear separation between the sampling and the conflict zone.

Our main measure of exposure to conflict, *Conflict Zone*, is an indicator variable that takes value 1 if the veteran was deployed to a base in the state of emergency area, and 0 otherwise. The geographical distribution of respondent's military placement by province is shown in Figure 2. 24.8% of respondents in the main EXPOVIBE-CV sample declared to have served in the conflict zone, and attesting to the randomness of selection into the donation experiment, we observe a very similar percentage (24.4%) among those in the experiment subsample.

Additionally, to better understand the roles played by the different dimensions of veterans' exposure, we probe the service history of respondents via questions on combat experiences. Specifically, the survey asked respondents if they engaged in armed combat, witnessed others being hurt or killed in armed combat during service, or were personally injured. We observe the prevalence of such experiences to be 16%, 15%, and 2%, respectively both in the main EXPOVIBE-CV sample and the field experiment subsample. Based on the responses, we create two indicator variables: conflict zone service *with* direct combat experience and conflict zone service *without* direct combat experience. These variables are particularly illuminating as direct combat experience imply a more negative interaction with the out-group.

2.3 Altruistic Preferences

Embedded in EXPOVIBE-CV, a lab-in-the-field experiment was conducted with a randomly selected subsample of 1,283 respondents to elicit their altruistic preferences. Individuals were given an endowment of 2,500 TL and were asked whether they would

like to make a charitable donation out of this endowment.[12] Following Eckel and Grossman (1996), who argue that altruism is more likely to kick in when individuals are given a charitable cause instead of being matched with another participant in the experiment whose need and/or worthiness of generosity is unknown, we asked our respondents to decide how much of their endowment they would like to donate (if any) to a family in need residing in a specific province. At the time of the experiment, 2,500 TL was slightly higher than the *monthly* legal minimum wage in Turkey and corresponded to approximately $450. To measure in/out-group bias, we had two treatments which differed only in terms of where the recipient family lived. Respondents were randomly assigned to one of these two treatments (i.e., we followed a between-subjects design). In the *out-group* treatment, participants were assigned to a family in Hakkari, a province in the heart of the conflict region with nearly 90% ethnically Kurdish population.[13] In the *in-group* treatment, participants were assigned to a recipient family in Amasya, a province with nearly 100% ethnically Turkish population in a non-conflict region in the northwest. Therefore, the implied ethnic identity of the recipient family is Turkish in our in-group treatment, whereas it is Kurdish in the out-group treatment. We present the experimental instructions in Appendix A.

In both treatments individuals were asked to make donation decisions under four different systems. In system 1, the family was to receive the same amount as the donation. In system 2 (3), the participant's donation was matched one-to-one (two-to-one) and, therefore, the family was to receive twice (three times) the amount donated. In system

[12]Ethic approvals were received from the European Research Council Executive Agency, the Humanities and Social Sciences Research Ethics Committee of the University of Warwick and the Research Ethnics Committee of Sabancı University.

[13]The ethnically Turkish population in Hakkari is mainly composed of military personnel and appointed public servants and their families, and as such they make up the relatively wealthy populations of the province.

4, the family was to receive only half of the donated amount. Note that each system corresponds to a different price of giving: it is 1 in the first system; $\frac{1}{2}$ in the second; $\frac{1}{3}$ in the third; and 2 in the fourth. Our measure of altruism, Y_j, is the amount donated under each j price system. That is, we measure four donation decisions per respondent. To ensure incentive-comparability, the system to be implemented was determined by the respondents randomly picking a card from a deck of four cards numbered 1 to 4 after they made their donations under all systems (Azrieli et al., 2018).

Compared to the single donation design that previous related work most commonly employs, our multiple price setup allows us to develop a more comprehensive understanding of altruism. By varying prices, we can observe the variation in individuals' altruism levels at a finer level. For example, an individual who refrains from donating when the price is one may do so when it is less costly for him to do good, and as such he will still be more altruistic compared to an individual who never donates. Such differentials, however, are unlikely to be captured with a standard single donation design. Moreover, collecting several observations from the same individual helps us reduce measurement error.

To elicit truthful responses, we followed two important procedures. First, subjects had complete privacy while making their donation decisions. They wrote down their donations on the questionnaire form which did not contain any personally identifying information, and then securely sealed their forms. Second, the experiment was incentivized. One participant from the in-group treatment and one from the out-group treatment were randomly selected to be paid, and their donation decisions were implemented. Specifically, participants were told that 1 out of 625 participants would be randomly selected after the field work is completed and that those selected would have their donations realized and receive the amount they kept for themselves. While it might be argued that this type of probabilistic incentivization might lead to higher donations overall, it is unlikely to bias treatment comparisons (which is what matters for our purposes).

Of the 1,283 (651 in-group, 632 out-group treatment) randomly chosen survey respondents, 49 (24 in the in-group, 25 in the out-group treatment) refused to participate in the game.[14] We show below in discussing the robustness of our results that refusal to play is not associated with exposure.

It is worth noting that the questions on military service and the instructions for the field game were carefully worded to avoid any possible emotional priming effect. The questions on military service do not contain any reference to the ethnic conflict. Similarly, the field game contains no references to the conflict or to the ethnic identity of the receiver. Moreover, the questions on military service were posed early in the survey and were followed by a long list of other questions on various socioeconomic characteristics before respondents were asked to play the donation game.

To ensure our preference measure provides a meaningful ranking of individuals, we conduct a simple validity check. In Appendix Table D.1, we show that behavior in our experiment is highly correlated with income. This helps confirm the validity of our measure since one would expect donations to respond to individual incomes.

3 Empirical Analysis

3.1 Econometric Models

Our field experiment involves four donation decisions per participant, so we estimate the impact of conflict exposure on altruistic donations using OLS with individual random effects. This approach allows us to control for unobserved individual-specific factors

[14] To make sure that the targeted sample size is achieved, slightly more than 1250 survey respondents were randomly selected for the donation experiment. To preserve the odds of winning that we had declared, we kept the ids of 16 of those who refused to participate in the game included in the prize draws to have 625 id numbers in each draw.

that may influence donation decisions across all four observations for each participant. Random effects are preferred here because our treatments (conflict exposure and in/out-group identities) vary *between* individuals, not within. We formalize this estimation strategy in Equation 1.

$$\begin{aligned} Y_{i,j} = \mu + \theta \text{ Conflict Zone}_i + \gamma \text{ Out-group}_i + \tau(\text{Conflict Zone}_i \times \text{Out-group}_i) \\ + \beta_1 \mathbf{X}_i + \beta_2 \mathbf{Z}_i + \beta_3 P_j + \alpha_i + \epsilon_{i,j} \end{aligned} \tag{1}$$

where $Y_{i,j}$ is the donation by veteran i under the price system j; *Conflict Zone*$_i$ is our exposure indicator based on deployment to a base in the state of emergency region; *Out-group*$_i$ is the out-group treatment indicator; and P_j are donation specific controls that capture the price of donation j.

The vector $\mathbf{X}_i$ contains our conditional random assignment (CRA) covariates, which includes fixed effects for the draft year, birth province, branch of service, military occupation, a half-term service indicator, and years of schooling. Regarding the service location assignment of draftees, the Armed Forces declare that conditional on the branch of service and military occupation, conscripts are randomly deployed to different military bases, excluding those in their province of registration, across the country. Hence the CRA variables include the branch of service, military occupation, and birth province fixed effects. Education attainment is included since education is the main determinant of one's military branch and occupation. Given that the staffing needs of the military, which is a function of real-life events and security needs in different parts of the nation, determine the number of deployments to each military base, the service timing fixed effects are included. The vector $\mathbf{Z}_i$ contains plausibly exogenous characteristics, including height, ethnicity, landownership, draft age, conscript rank, and training duration in months. The military rules state that conscript rank is unrelated to deployment assignment. Moreover,

as it is determined prior to induction by the regulations in place, training duration should also be exogenous. Finally, μ is the constant and $\epsilon_{i,j}$ is the idiosyncratic error term that is clustered at the service province level.

3.2 Evidence on the Exogeneity of Deployment

The randomization of service location assignment implies that the pre-deployment characteristics of draftees should be unrelated to assignment to the conflict zone. We formally test this conjecture in Table 1 by conducting balance tests of pre-deployment covariates on both the main EXPOVIBE-CV sample and the field experiment subsample. The covariates include height, ethnicity, landownership, conscription age, military rank, and training duration. Column (1) presents the mean and standard deviations of pre-deployment characteristics for those who did not serve in the conflict zone. Columns (2) presents the same but for those who did serve in the conflict zone. Column (3) and (4) report the difference in means and p-values for pairwise t-tests, respectively. Columns (5) to (8) repeat the same exercise in the field experiment subsample.

The results strongly support the orthogonality of exposure to pre-deployment characteristics. The only statistically significant difference, albeit very small in magnitude, comes from training duration. It should be noted that this finding is in line with the additional internal safety training those randomly selected for deployment to the conflict zone receive against potential attacks by the PKK during travel to their service base (Mater, 1998, p.42). Moreover, F-tests of joint significance confirm that the pre-deployment characteristics jointly are not statistically significant predictors of treatment status.

These tests, therefore, provide support for our argument that the natural experiment can identify the causal impact of armed conflict exposure on a randomly selected male from the target population, allowing us to generalize our findings to large segments of the population.

3.3 Conflict Exposure and Donations

Table 2 presents OLS estimates, with individual random effects, of Equation 1. In columns (1)-(3) we report estimates for *Conflict Zone* alone, and in columns (4)-(6), we report estimates after interacting *Conflict Zone* with the out-group treatment dummy, *Out-group*. We start with a specification that includes our main variables of interest and then progressively add CRA, pre-deployment and donation controls.

The results in columns (1)-(3) suggest that being randomly allocated to serve in the conflict zone reduces the amount donated though this is close to zero and not statistically significant in any of the specifications. Turning next to the estimates in columns (4)-(6) that account for the recipient identity treatment embedded within the donation game, the results are particularly revealing. Focusing on our preferred specification in column (6), the coefficient for the interaction term (τ) is negative and statistically significant. This captures the difference in the effect of conflict zone service when moving from an in-group to out-group framing of the recipient. The estimate implies that individuals who served in the conflict zone donated approximately 233 TL less when the donation benefits a needy household that belongs to the out-group compared to when it benefits a needy household that belongs to the in-group. The effect size is also economically meaningful. Translated, it implies a reduction of 14% of the mean donation (1,635 TL) or 26% of a standard deviation (909 TL).

Perhaps more intuitively, we can examine the marginal effect of *Conflict Zone* for the in-group and out-group treatments separately. We present these graphically in Figure 3. In the out-group treatment, service in the *Conflict Zone* causes a 136 TL reduction in donations relative to those who did not serve in the conflict zone. This is inferred from the sum of the estimates of θ and τ. We also find some weak evidence of in-group favoritism: those who served in the conflict zone show an increase in donations under the in-group treatment (θ alone), although this effect is not statistically significant.

All in all, our findings from Table 2 provide compelling evidence that exposure to conflict causes an increase in parochialism, reflected mainly through out-group derogation in altruistic behavior. Moreover, the fact that we can detect an effect 10 to 25 years after exposure is striking and reveals the enduring effects of war.

3.4 Robustness Tests and Further Insights

In this section, we probe the robustness of our main findings.

One threat to our identification might be a violation of the stable unit treatment value assumption (SUTVA). This might occur if there are spillover effects from the conflict zone into neighboring provinces, which would bias our estimates. We perform a simple, but powerful test of this assumption by interacting our out-group treatment indicator with an indicator for whether a veteran served in a province neighboring the conflict zone. Table 3 shows that service next to the official conflict zone has no significant effect on altruistic behavior, irrespective of whether the in- or out-group treatment was assigned. As such, there is no geographic interference between those randomly assigned to the conflict zone and those not.

Next, in Table 4 we examine the stability of our estimates in a variety of more homogeneous, and therefore, arguably "cleaner" subsamples. We do so across a sample of those drafted between the age of 18 and 25, i.e., in their impressionable years; those who did not defer their conscription, so were drafted before age 22; those ethnically Turkish; those who served a full term; those who are not charity members; those not currently serving in the armed forces; and those who were conscripted to the land service (as opposed to air or naval service). Across all subsamples, except the land service which generates stronger results, the estimates are very close to the baseline. The land service results might be stronger because land service would naturally bring a conscript relatively closer to the out-group during combat and therefore raises the saliency of the negative experience, which

then manifests as lower altruism toward the out-group in later life.

We provide further robustness tests and more details in Appendix D. In Figures D.1 and D.2 we check the sensitivity of our estimates to removing one military province and one draft (birth) cohort at a time. In all instances, the estimates remain very similar to those in Table 2.

In Table D.2 and Figure D.3 we explore whether our findings vary with price as participants were asked to make multiple donation decisions each under a different price of giving. To this end, we repeat the main analysis for each of the four donation decisions separately using OLS. We observe that the effect is virtually unchanged and thus indicates that altruism toward the out-group is not much affected by the costs of donating. Our results are also fully robust using to average across the four donation decisions made by each veteran, as shown in Table D.3 and Figure D.4.

We check the sensitivity to using alternative clustering of standard errors at the following levels: individual; training province; individual by draft cohort; and individual by training province. In all cases, as shown in Figure D.5, the standard errors are almost identical and our inferences are unchanged.

Next, we explore response biases. In Table D.4 we show that the 49 cases of refusal to play the donation game are unrelated to conflict service or out-group treatment assignment. Next, we use the method proposed by Oster (2019) to investigate the role of unobservables. In Table D.5 we show strong evidence that unobservable factors are unlikely to negate our findings. Finally, we implement a randomization inference test where we randomly shuffle conflict zone service status 1,000 times whilst keeping in/out-group treatment status constant. We re-estimate a treatment effect for each shuffle and plot the distribution. The results, shown in Figure D.6, suggest that the observed relationship is highly unlikely to be a product of chance.

3.5 The Role of Direct Combat Experience

Exposure to an armed conflict in a combatant role entails two main dimensions both of which can impact social preferences. The first one is military socialization, which comes with training, indoctrination, and social interactions in a vigilant combat environment and as such is shared by all who serve in the conflict zone. The second is direct experiences of combat violence and while the probability of such experiences are dramatically high for those deployed to conflict areas, they are, nonetheless, not common to all. These experiences are psychologically traumatic, and it is well established in the psychology literature that traumas can lead to changes in worldviews as they lead us to re-evaluate our fundamental assumptions about ourselves, others, and our relationships (Carmil and Breznitz, 1991; Tedeschi and Calhoun, 2004; Janoff-Bulman, 1992). While exposure to life-threatening violence can cause people to strive for warmer relations with others, it can also feed perceptions of threat and vulnerability leading to reduced sociality (Janoff-Bulman, 1992). In other words, through the traumatizing experience of armed violence, direct combat exposure can impact social preferences. Supporting arguments are provided by the evolutionary theories of inter-group competition which argue that wars may have been responsible for the emergence of adaptive psychological properties and social norms geared towards survival by the calcification of interdependent groups. Accordingly, armed conflicts are expected to transform prosocial preferences in a parochial way to dictate within group cohesion while promoting derogation of outsiders (Choi and Bowles, 2007; Henrich, 2020). We test these arguments by exploring whether the negative effects we observe are explained by direct combat experiences (DCE) during service.

To this end, we break down conflict zone service assignment into two: with and without DCE. Of those deployed to the conflict zone, 57% report having at least one direct

experience of armed combat.[15] We show in Appendix Table C.2 that respondents within these more detailed exposure categories do not exhibit any significant differences from those who were deployed to peaceful areas in terms of their pre-deployment characteristics indicating that our natural experiment may also allow us to identify not only the effects of service in conflict areas but also the effects of having direct experiences of combat during service.[16]

To assess the role of direct combat experiences, we estimate an augmented version of Equation 1:

$$\begin{aligned} Y_{i,j} = \mu + \theta_x \text{Conflict Zone}_i^x + \gamma\ \text{Out-group}_i + \tau_x(\text{Conflict Zone}_i^x \times \text{Out-group}_i) \\ + \beta_1 \mathbf{X}_i + \beta_2 \mathbf{Z}_i + \beta_3 P_j + \alpha_i + \epsilon_{i,j} \end{aligned} \tag{2}$$

where $x \in \{\text{No DCE}, \text{DCE}\}$. That is, x denotes whether or not a given veteran has direct combat experience whilst serving in the Conflict Zone.

The results are presented in Table 5. We find that the effects of service in the conflict zone on donations are driven by those with direct combat experience, which strongly supports our theoretical argument about traumas triggering changes in worldviews and social preferences. The interaction between conflict zone service with combat experience and the out-group treatment yields a significant negative effect of 441 TL. This means that veterans who both served in the conflict zone and experienced direct combat exhibit substantially lower contributions when randomized to the out-group treatment relative to their counterparts who experienced identical combat conditions but were assigned to the in-group. The estimated effect size is now substantial and corresponds to 27% of the mean donation

[15] We observe a very similar distribution in the main EXPOVIBE-CV sample with 56% of conflict zone veterans reporting at least one direct combat experience during their service.

[16] We also show in Appendix Table D.7 that conflict zone deployment dramatically increases the likelihood of such experiences by about 40 percentage points.

and almost 50% of a standard deviation.

As before, a clearer way to read these findings is by looking at the marginal effect of each type of conflict zone service for each treatment group. As shown in Figure 4, the parochial nature of changed donation behavior becomes clear. Within the in-group treatment, veterans with DCE in the combat zone donate 217 TL *more* than those who served in peaceful locations. Contrastingly, within the out-group treatment, veterans with DCE in the combat zone donate 224 TL *less* than those with no conflict exposure.

Overall, veterans who experienced direct combat exhibit divergent patterns of giving behavior that are contingent upon the recipient's group identity. This result implies that a highly salient negative encounter with the out-group fosters parochialism that persists for years.

3.6 Mechanisms

To understand how conflict affects parochial behavior, we next examine potential channels of impact. As discussed, exposure to conflict is likely to operate through multiple mechanisms at the individual and environmental level, and while it is typically not possible to study these mechanisms in isolation, our identification strategy allows us to do so. Since we study the residents of peaceful environments with no physical destruction caused by the conflict, our respondents do not suffer any conflict-induced risks or threats to personal security, property-right or social networks in their daily lives. We are, therefore, able to minimize the role of potential macro-environmental channels and focus on individual level mechanisms.

The first individual level mechanism we explore is out-group perception. Whilst the out-group treatment is worded such that it implies that the needy family are Kurdish, we can explicitly test whether worsening perceptions of the Kurds are driving the reduction in donations when the implied ethnic identity of the recipient is Kurdish. For this pur-

pose, we rely on responses to the EXPOVIBE-CV survey question "For everyone, there are identities that are distant. Please indicate whether you think the following identities are distant to you. Do you find the Kurdish identity distant?". We define an indicator variable that takes value 1 if the respondents replies "yes", and 0 for "no".

The second potential mechanism relates to authoritarian preferences. There is strong evidence linking authoritarianism to in-group loyalty and out-group derogation. Individuals with authoritarian dispositions prioritize the cohesion and stability of their in-group, perceiving support for out-groups as a threat to group unity. This dynamic, rooted in a desire to maintain strict social hierarchies, leads to an "us vs. them" mentality, where in-group loyalty is maintained at the expense of out-group inclusion (Feldman and Weber, 2023; Gøtzsche-Astrup and Hogg, 2024). We elicit authoritarian preferences using three survey items each of which require the respondents to indicate on a 5-point Likert scale how much they agree with the statement. We define our outcomes corresponding to the responses to "What our country really needs is a strong, decisive leader who can eradicate the bad and put us in our correct path"; "Obedience and respect to authority is the most important value that children need to learn"; and "The key to living well is obedience, discipline and compliance with ethical behavior", respectively, with the answers ranging from value 1 "I do not agree at all" to 5 "I agree completely".

The third mechanism we explore is anger and aggression. Studies provide evidence linking aggression to lower levels of empathy and a greater likelihood of favoring punitive actions, particularly toward out-groups (Simas et al., 2020). Individuals who exhibit aggressive tendencies often show reduced empathy, which can contribute to harsher, more punitive attitudes toward out-groups. Emotions like anger and anxiety exacerbate the empathy gap, particularly toward out-group members, leading to dehumanization and an increased likelihood of supporting punitive measures against these groups (Arceneaux, 2017). To test the validity of these arguments, we exploit the answers to three survey ques-

tions which require respondents to indicate on a 5-point Likert scale how accurate the following self-descriptions are. We define our outcomes corresponding to the responses to "If I have to resort to violence to protect my rights, I will"; "Given enough provocation, I may hit another person"; and "I am [not] an even-tempered person"[17], with answers ranging from value 1 "I am not like this at all" to 5 "I am completely like this".

The fourth mechanism we investigate is mental health. There is evidence that links mental health issues to a narrower social focus and negatively biased outlook, especially towards out-groups. Studies demonstrate that anxiety can increase in-group favoritism and out-group hostility in political contexts (Albertson and Gadarian, 2015), while psychological threat can enhance in-group focus (Hetherington and Suhay, 2011). Kibris and Goodwin (2024) conduct a detailed exploration of the mental health outcomes of Turkish conscript veterans and report evidence of depressive symptomatology in those who served in high conflict intensity environments. Our measure is based on a series of six questions designed to understand the mental well-being of veterans. The questions required the respondents to indicate respectively on a 5-point Likert scale how often in the past week they felt lonely; not interested in anything; sad; worthless;hopeless; and suicidal. We binarize each question with the top two categories "A lot" and "Quite a lot" taking value 1, and 0 otherwise. We then construct a composite depression index by summing the binarized responses across all six domains, yielding a score ranging from 0 to 6, with higher scores indicating poorer mental health.

The results are shown in Table 6. Here, we report OLS specifications from the full EXPOVIBE-CV survey sample because the analysis does not require donations data. The evidence obtained suggests that service in the conflict zone increases one's distance from the out-group, escalates authoritarian stances, and generally heightens aggressive behavior. To get a handle on the magnitude of these estimates, *Conflict Zone* increases the prob-

[17]This question is reverse coded to align with the other questions.

ability of feeling distant to the Kurdish identity by 3 percentage points, on average, which is about 14% of the mean value of the dependent variable. The estimates in columns (4) and (5) correspond to an effect size that is approximately 10% and 6% of a standard deviation in the outcome, respectively. Finally, in column (8), we find that conflict zone service appears to elevate depressive symptoms, but this is not statistically significant at conventional levels.[18]

We acknowledge that there might be a human capital-based explanation behind our main results. For example, conflict exposure may affect prospects in the labor and/or marriage markets thereby creating economic constraints on or capabilities and incentives for altruistic behavior. To test such mechanisms, we run separate regressions with employment status, marital status and total income as dependent variables. The results, displayed in Appendix Table D.6, do not yield any significant evidence to suggest any role for these factors in explaining our findings.

4 Conclusion

In this study, we examine the causal impact of armed conflict exposure on the prosociality of the average adult male randomly picked from a population inhabiting a peaceful environment where conflict-induced demand for cooperation is absent. We exploit a novel natural experiment delivered by the deployment lottery embedded in the Turkish conscription system and the deadly civil conflict that has long been going on in the southeastern parts of the country. Our data comes from an innovative survey conducted with a randomly selected representative sample of adult male residents of provinces outside of the conflict zone. Our design enables us to identify clean and isolated exposure to armed

[18]Suicide is considered a sin in Islam. Therefore, the question on suicidal thoughts may suffer from response biases. The estimated coefficient on the Depression Index becomes significant at the 10% level when the suicide question is not included in the Index.

conflict during service in the Armed Forces, and to nullify the potential effects of war that may operate through the social ecology. Therefore, we identify the effect of exposure to conflict in and of itself, and we decipher the potential explanatory channels these impacts work through without the confounding role of the macroenvironmental effects of war.

By combining the natural and lab-in-the-field experiments, we demonstrate that exposure to armed conflict causes a parochial response to prosocial behavior. We find that those who were drafted to the conflict zone donate less to the out-group than they give to the in-group. This parochial effect becomes even more pronounced among those who experienced direct combat during their service. We provide evidence that this disparity in donations can be explained by deteriorated perceptions of the out-group and increased hostile attitudes, as well as psychological distress. More generally, our findings reveal the enduring effects of war, since we find significant impacts that persist after 10 to 25 years after exposure.

Our findings have important implications for societies that conscript civilians and deploy them for combat operations away from home (Ertola Navajas et al., 2022; Bove et al., 2024). The recent mobilization of approximately 300,000 Russian civilians for deployment in Ukraine provides a relevant example (Mironova and Whitt, 2021). These individuals, like our study subjects, were deployed with minimal military training and little choice in their participation.

Relatedly, given that our subjects were civilians assigned to combat roles with minimal training, we believe our results extend beyond professional soldiers to civilian populations. This broader applicability is particularly relevant in modern warfare, where the traditional boundary between civilians and combatants has become increasingly blurred due to the irregular nature of contemporary conflicts (Kao and Revkin, 2023).

5 References

Adaman, F., Çarkoğlu, A., and Şenatalar, B. (2005). *Toplumun kamu yönetimine, kamu hizmetlerine ve reforma bakışı*. TESEV.

Akyürek, S. (2010). Zorunlu askerlik ve profesyonel ordu. *Bilgesam Yayınları, Rapor*, (24).

Albertson, B. and Gadarian, S. K. (2015). *Anxious politics: Democratic citizenship in a threatening world*. Cambridge University Press.

Altınay, A. G. and Bora, T. (2002). Ordu, militarizm ve milliyetçilik.

Annan, J., Blattman, C., Mazurana, D., and Carlson, K. (2011). Civil War, Reintegration, and Gender in Northern Uganda. *Journal of Conflict Resolution*, 55(6):877–908.

Arceneaux, K. (2017). Anxiety reduces empathy toward outgroup members but not ingroup members. *Journal of Experimental Political Science*, 4(1):68–80.

Azrieli, Y., Chambers, C., and Healy, P. (2018). Incentives in Experiments: A Theoretical Analysis. *Journal of Political Economy*, 126(4):1472–1503.

Bauer, M., Blattman, C., Chytilová, J., Henrich, J., Miguel, E., and Mitts, T. (2016). Can War Foster Cooperation? *Journal of Economic Perspectives*, 30(3):249–274.

Bauer, M., Cassar, A., Chytilová, J., and Henrich, J. (2014). War's Enduring Effects on the Development of Egalitarian Motivations and In-Group Biases. *Psychological Science*, 25(1):47–57.

Bauer, M., Fiala, N., and Levely, I. (2018). Trusting Former Rebels: An Experimental Approach to Understanding Reintegration after Civil War. *The Economic Journal*, 128:1786–1819.

Beine, M., Charness, G., Dupuy, A., and Joxhe, M. (2020). Shaking Things Up: On the Stability of Risk and Time Preferences. Discussion Paper 13084, IZA.

Bellows, J. and Miguel, E. (2006). War and Institutions: New Evidence from Sierra Leone. *African Economic Development*, 96(2):394–399.

Bellows, J. and Miguel, E. (2009). War and local collective action in Sierra Leone. *Journal of Public Economics*, 93:1144–1157.

Bezci, E. B. and Öztan, G. G. (2016). Anatomy of the Turkish emergency state: A continuous reflection of Turkish raison d'état between 1980 and 2002. *Middle East Critique*, 25(2):163–179.

Blattman, C. (2009). From Violence to Voting: War and Political Participation in Uganda. *American Political Science Review*, 103(2):231–247.

Bove, V., Di Leo, R., and Giani, M. (2024). Military culture and institutional trust: Evidence from conscription reforms in europe. *American Journal of Political Science*, 68(2):714–729.

Brown, R., Montalva, V., Thomas, D., and Velasquez, A. (2019). Impact of Violent Crime on Risk Aversion: Evidence from the Mexican Drug War. *The Review of Economics and Statistics*, 101(5):892–904.

Carmil, D. and Breznitz, S. (1991). Personal trauma and world view: Are extremely stressful experiences related to political attitudes, religious beliefs, and future orientation? *Journal of Traumatic Stress*, 4(3):393–405.

Cassar, A., Grosjean, P., and Whitt, S. (2013). Legacies of violence: Trust and market development. *Journal of Economic Growth*, 18:285–318.

Cassar, A., Healy, A., and von Kessler, C. (2017). Trust, Risk, and Time Preferences After a Natural Disaster: Experimental Evidence from Thailand. *World Development*, 94:90–105.

Cecchi, F., Leuveld, K., and Voors, M. (2016). Conflict Exposure and Competitiveness: Experimental Evidence from the Football Field in Sierra Leone. *Economic Development and Cultural Change*, 64(3).

Choi, J. K. and Bowles, D. (2007). The coevolution of parochial altruism and war. *Science*, 318(5850):636–640.

Conzo, P. and Salustri, F. (2019). A war is forever: The long-run effects of early exposure to World War II on trust. *European Economic Review*, 120:103313.

De Juan, A. and Pierskalla, J. (2016). Civil war violence and political trust: Microlevel evidence from Nepal. *Conflict Management and Peace Science*, 33(1):67–88.

De Luca, G. and Verpoorten, M. (2015). Civil war, social capital and resilience in Uganda. *Oxford economic papers*, 67(3):661–686.

Drichoutis, A. and Nayga, R. J. (2021). On the stability of risk and time preferences amid the COVID-19 pandemic. *Experimental Economics*, pages 1–36.

Dündar, C. and Anwar, M. (2021). Erdogan.

Eckel, C. and Grossman, P. (1996). Altruism in Anonymous Dictator Games. *Games and Economic Behavior*, 16(2):181–191.

Eckel, C. C., El-Gamal, M. A., and Wilson, R. K. (2009). Risk loving after the storm: A Bayesian-Network study of Hurricane Katrina evacuees. *Journal of Economic Behavior & Organization*, 69(2):110–124.

Ertola Navajas, G., López Villalba, P. A., Rossi, M. A., and Vazquez, A. (2022). The long-term effect of military conscription on personality and beliefs. *Review of Economics and Statistics*, 104(1):133–141.

Esmer, Y. (1999). *Devrim, Evrim, Statüko: Türkiye'de Sosyal, Siyasal, Ekonomik Degerler*. Türkiye Ekonomik ve Sosyal Etüdler Vakfı.

Feldman, S. and Weber, C. (2023). 733Authoritarianism and Political Conflict. In *The Oxford Handbook of Political Psychology*. Oxford University Press.

Fisman, R., Jakiela, P., and Kariv, S. (2015). How did distributional preferences change during the Great Recession? *Journal of Public Economics*, 128:84–95.

Gilligan, M. J., Pasquale, B. J., and Samii, C. (2014). Civil War and Social Cohesion: Lab-in-the-Field Evidence from Nepal. *American Journal of Political Science*, 58(3):604–619.

Grosjean, P. (2014). Conflict and Social and Political Preferences: Evidence from World War II and Civil Conflict in 35 European Countries. *Comparative Economic Studies*, 56:424–451.

Gøtzsche-Astrup, O. and Hogg, M. A. (2024). Psychology of Authoritarianism. In *The Oxford Handbook of Authoritarian Politics*. Oxford University Press.

Hager, A., Krakowski, K., and Schaub, M. (2019). Ethnic riots and prosocial behavior: Evidence from Kyrgyzstan. *American Political Science Review*, 113(4):1029–1044.

Hanaoka, C., Shigeoka, H., and Watanabe, Y. (2018). Do Risk Preferences Change? Evidence from the Great East Japan Earthquake. *American Economic Journal: Applied Economics*, 10(2):298–330.

Henrich, J. P. (2020). *The WEIRDest People in the World: How the West Became Psychologically Peculiar and Particularly Prosperous*. New York: Farrar, Straus, and Giroux.

Hetherington, M. J. and Suhay, E. (2011). Authoritarianism, threat, and americans' support for the war on terror. *American Journal of Political Science*, 55(3):546–560.

Jakiela, P. and Ozier, O. (2019). The impact of violence on individual risk preferences: Evidence from a natural experiment. *Review of Economics and Statistics*, 101(3):547–559.

Janmaat, J. (2011). Social cohesion as real-life phenomenon: Assessing the explanatory power of the universalist and particularist perspectives. *Social Indicators Research*, 100:61–83.

Janoff-Bulman, R. (1992). *Shattered Assumptions: Towards a New Psychology of Trauma*. New York: Free Press.

Jha, S. and Wilkinson, S. (2012). Does combat experience foster organizational skill? Evidence from ethnic cleansing during the partition of South Asia. *American Political Science Review*, 106(4):883–907.

Kao, K. and Revkin, M. R. (2023). Retribution or reconciliation? post-conflict attitudes toward enemy collaborators. *American Journal of Political Science*, 67(2):358–373.

Kibris, A. (2011). Funerals and elections: The effects of terrorism on voting behavior in turkey. *Journal of Conflict Resolution*, 55(2):220–247.

Kibris, A. (2019). Exposure to political violence and individual behavior. Research Project.

Kibris, A. (2021). The geo-temporal evolution of violence in civil conflicts: A micro analysis of conflict diffusion on a new event dataset. *Journal of Peace Research*, 58(5):885–899.

Kibris, A. and Goodwin, R. (2024). The long-term effects of war exposure on psychological health: An experimental study with turkish conscript veterans. *Social Science & Medicine*, 340:116453.

Kijewski, S. and Freitag, M. (2018). Civil War and the Formation of Social Trust in Kosovo: Posttraumatic Growth or War-related Distress? *Journal of Conflict Resolution*, 62(4):717–742.

Malmendier, U. and Nagel, S. (2011). Depression Babies: Do Macroeconomic Experiences Affect Risk Taking? *The Quarterly Journal of Economics*, 126(1):373–416.

Mater, N. (1998). *Mehmedin Kitabi*. Metis Yayinlari, Istanbul.

Mironova, V. and Whitt, S. (2021). Conflict and parochialism among combatants and civilians: Evidence from Ukraine. *Journal of Economic Psychology*, 86:102425.

Nasir, M., Rockmore, M., and Tan, C. M. (2017). Do the Lessons From Micro-Conflict Literature Transfer to High Crime Areas? Examining Mexico's War on Drugs. *Journal of Development Studies*, 56(1):26–44.

Official Gazette of the Republic of Turkey (1927). 12-17 July 1927. No: 631-635.

Official Gazette of the Republic of Turkey (2011). 08 June 2011. No:27958.

Official Gazette of the Republic of Turkey (2019). 26 June 2019. No: 30813.

Oster, E. (2019). Unobservable selection and coefficient stability: Theory and evidence. *Journal of Business & Economic Statistics*, 37(2):187–204.

Pickard, H., Dohmen, T., and Van Landeghem, B. (2024). Inequality and risk preference. *Journal of Risk and Uncertainty*, pages 1–27.

Rohner, D., Thoenig, M., and Zilibotti, F. (2013a). Seeds of distrust: conflict in Uganda. *Journal of Economic Growth*, 18(3):217–252.

Rohner, D., Thoenig, M., and Zilibotti, F. (2013b). War signals: A theory of trade, trust, and conflict. *Review of Economic Studies*, 80(3):1114–1147.

Shachat, J., Walker, M. J., and Wei, L. (2021). How the onset of the Covid-19 pandemic impacted pro-social behaviour and individual preferences: Experimental evidence from China. *Journal of Economic Behavior & Organization*, 190:480–494.

Simas, E. N., Clifford, S., and Kirkland, J. H. (2020). How empathic concern fuels political polarization. *American Political Science Review*, 114(1):258–269.

Tedeschi, R. G. and Calhoun, L. G. (2004). Posttraumatic growth: Conceptual foundations and empirical evidence. . *Psychological Inquiry*, 15(1):1–18.

Voors, M. J., Nillesen, E. E. M., Verwimp, P., Bulte, E. H., Lensink, R., and Van Soest, D. P. (2012). Violent Conflict and Behavior: A Field Experiment in Burundi. *American Economic Review*, 102(2):941–964.

Vélez, M., Trujillo, C., Moros, L., and Forero, C. (2016). Prosocial Behavior and Subjective Insecurity in Violent Contexts: Field Experiments. *PLoS ONE*, 11(7):e0158878.

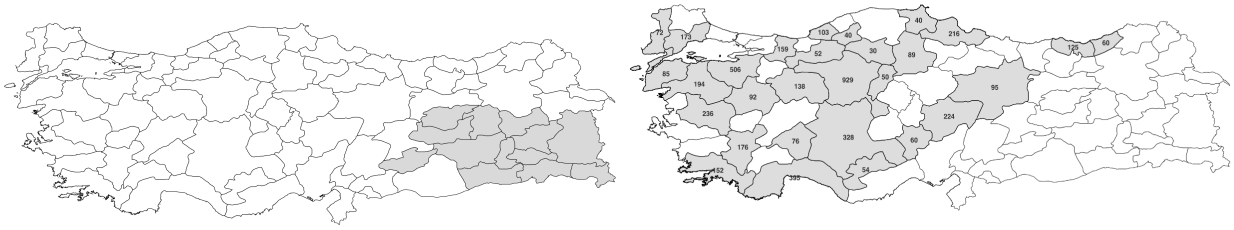
Whitt, S. and Wilson, R. (2007). The Dictator Game, Fairness and Ethnicity in Postwar Bosnia. *American Journal of Political Science*, 51(3):655–668.

Wood, E. J. (2008). The Social Processes of Civil War: The Wartime Transformation of Social Networks. *Annual Review of Political Science*, 11:539–561.

Yildirim, J. and Erdinc, B. (2007). Conscription in turkey. *The Economics of Peace and Security Journal*, 2(1).

Yıldırımkaya, G. (2010). Neden zengin çocukları şehit olmuyor?

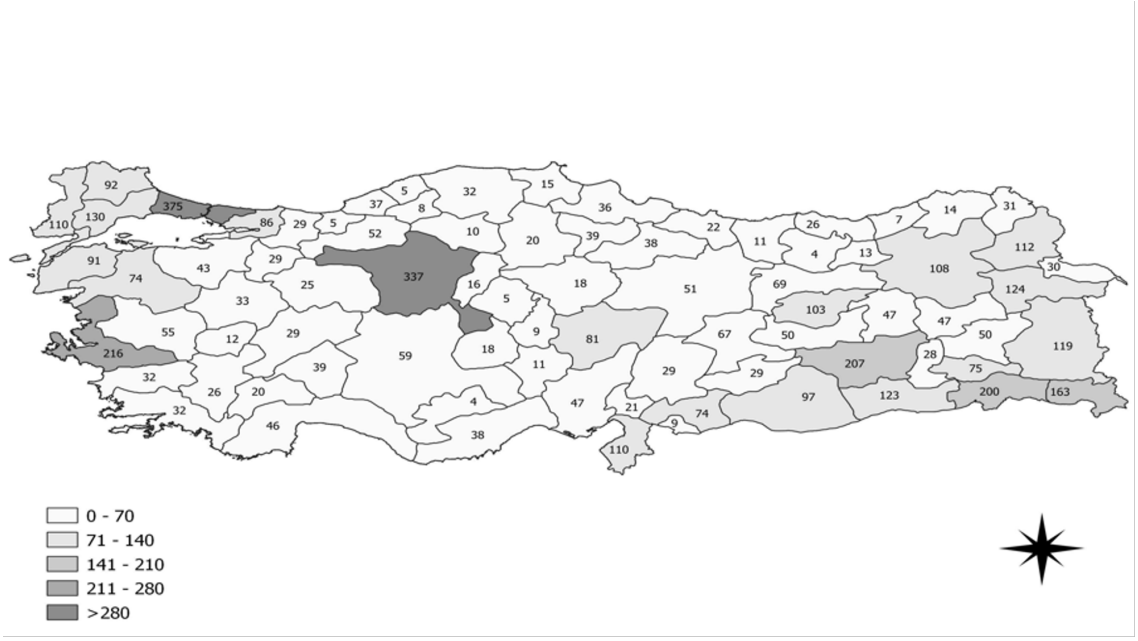
Figure 1: The distribution of conflict and the EXPOVIBE-CV sample



The conflict zone Sample distribution

Notes: The left-hand figure shows the officially designated conflict zone region. The right-hand figure shows the number of respondents in each province for EXPOVIBE-CV respondents.

Figure 2: Geographical distribution of the military placements of respondents



Notes: The figure shows the number of military placements in each province for EXPOVIBE-CV respondents.

Table 1: Evidence on the exogeneity of Conflict Zone deployment

	EXPOVIBE-CV sample				Experiment sample			
	Control (1)	Treatment (2)	Diff. (3)	p-value (4)	Control (5)	Treatment (6)	Diff. (7)	p-value (8)
Height (cm)	175.379	175.741	-0.362	0.209	175.572	175.182	0.39	0.34
	[9.158]	[6.628]			[7.794]	[6.54]		
Kurdish ethnicity	0.067	0.069	-0.002	0.306	0.061	0.069	-0.008	0.69
	[0.202]	[0.234]			[0.231]	[0.262]		
Other minority ethnicity	0.007	0.007	0.001	0.581	0.008	0.003	0.004	0.805
	[0.077]	[0.041]			[0.087]	[0.055]		
Land owner	0.219	0.209	0.011	0.682	0.206	0.206	0	0.301
	[0.431]	[0.367]			[0.333]	[0.241]		
Conscription age	20.646	20.495	0.151	0.509	20.58	20.45	0.13	0.832
	[2.06]	[1.953]			[1.793]	[2.505]		
Training duration (months)	2.609	2.765	-0.156	0.000	2.634	2.794	-0.16	0.018
	[1.214]	[1.028]			[0.9]	[0.747]		
Rank: Rank and file	0.067	0.053	0.014	0.113	0.059	0.062	-0.003	0.691
	[0.264]	[0.1]			[0.235]	[0.154]		
Rank: Sergeant	0.136	0.132	0.005	0.783	0.132	0.137	-0.006	0.661
	[0.404]	[0.324]			[0.364]	[0.281]		
Rank: Sub-lieutenant	0.011	0.009	0.002	0.789	0.012	0.007	0.005	0.8
	[0.129]	[0.109]			[0.126]	[0.074]		
Birth quarter: 2	0.253	0.249	0.003	0.833	0.248	0.223	0.025	0.452
	[0.374]	[0.342]			[0.392]	[0.496]		
Birth quarter: 3	0.232	0.237	-0.004	0.767	0.217	0.216	0.001	0.855
	[0.381]	[0.395]			[0.377]	[0.412]		
Birth quarter: 4	0.172	0.154	0.017	0.171	0.173	0.155	0.018	0.311
	[0.35]	[0.284]			[0.461]	[0.283]		
F-test of joint significance (p-value)				0.076				0.489
No. of observations	3,639	1,199	4,838		902	291	1,193	

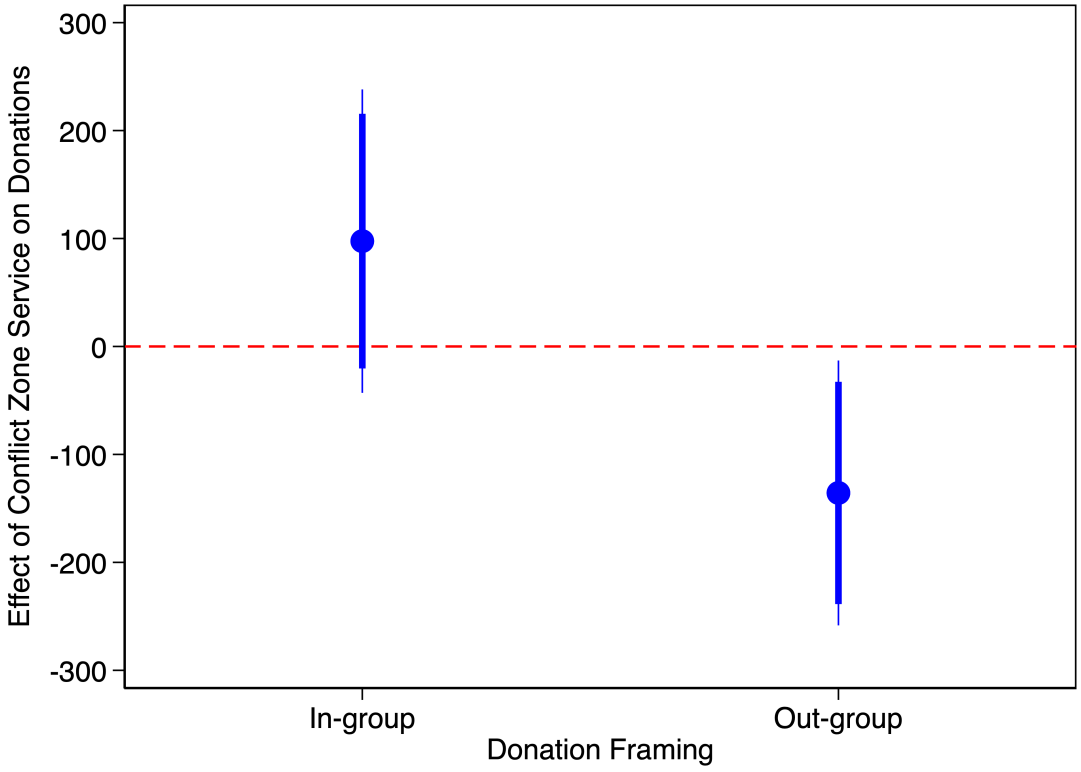
Notes: In columns (1), (2), (5) and (6) means and standard deviations in brackets by treatment status are presented. In column (3) and (7) normalized differences are obtained by controlling for educational attainment, draft year, military branch and occupation, and birth province fixed effects. p-values for normalized differences, adjusted for clustering on the province of service, are reported in (4) and (8). * $p < 0.1$; ** $p < 0.05$; *** $p < 0.01$.

Table 2: Conflict exposure and altruistic donations

	Donation					
	(1)	(2)	(3)	(4)	(5)	(6)
Conflict Zone	-39.178	-16.451	-16.451	67.043	97.593	97.593
	(43.132)	(44.847)	(44.856)	(64.898)	(71.696)	(71.711)
Out-group				53.553	69.158	69.158
				(53.816)	(53.695)	(53.707)
Conflict Zone × Out-group				-218.373**	-233.264**	-233.264**
				(95.042)	(99.598)	(99.619)
CRA controls	✓	✓	✓	✓	✓	✓
Pre-service controls		✓	✓		✓	✓
Donation controls			✓			✓
No. of observations	4,896	4,764	4,764	4,896	4,764	4,764

Notes: Standard errors are clustered at the military province level and are reported in parentheses; * $p < 0.1$; ** $p < 0.05$; *** $p < 0.01$.

Figure 3: Marginal effect of conflict exposure on altruistic donations



Notes: The dependent variable is the amount donated. All specifications include CRA, pre-service and donation controls. Thick (thin) lines denote statistical significance at the 90% (95%) level.

Table 3: Conflict exposure and altruistic donations: Spillovers

	Donation		
	(1)	(2)	(3)
Conflict Zone	-6.523	-6.387	102.872
	(47.768)	(47.771)	(74.781)
Neighbouring Conflict Zone	65.394	7.760	37.670
	(56.640)	(74.362)	(75.053)
Out-group		-2.550	60.526
		(49.396)	(61.374)
Neighbouring Conflict Zone × Out-group		112.551	50.953
		(80.326)	(83.689)
Conflict Zone × Out-group			-224.316**
			(103.756)
CRA controls	✓	✓	✓
Pre-service controls	✓	✓	✓
Donation controls	✓	✓	✓
No. of observations	4,764	4,764	4,764

Notes: Standard errors are clustered at the military province level and are reported in parentheses; * $p < 0.1$; ** $p < 0.05$; *** $p < 0.01$.

Table 4: Conflict exposure and altruistic donations: Heterogeneity

	Donation							
	Full sample (1)	18–25 (2)	No deferred conscription (3)	Turkish (4)	Full term of service (5)	No charity (6)	No current armed forces (7)	Land service (8)
Conflict Zone	97.593	95.390	88.916	96.404	89.360	73.566	93.751	153.424**
	(71.711)	(70.310)	(83.810)	(76.772)	(74.586)	(75.190)	(70.440)	(71.499)
Out-group	69.158	63.271	74.039	59.602	52.228	62.966	74.790	108.863**
	(53.707)	(54.073)	(52.298)	(60.600)	(57.416)	(56.996)	(53.832)	(51.271)
Conflict Zone × Out-group	-233.264**	-250.249***	-245.970**	-233.490**	-231.389**	-223.877**	-239.463**	-307.454***
	(99.619)	(94.864)	(109.138)	(97.054)	(101.131)	(110.570)	(98.927)	(93.713)
CRA controls	✓	✓	✓	✓	✓	✓	✓	✓
Pre-service controls	✓	✓	✓	✓	✓	✓	✓	✓
Donation controls	✓	✓	✓	✓	✓	✓	✓	✓
No. of observations	4,764	4,640	4,088	4,316	4,600	4,528	4,752	4,460

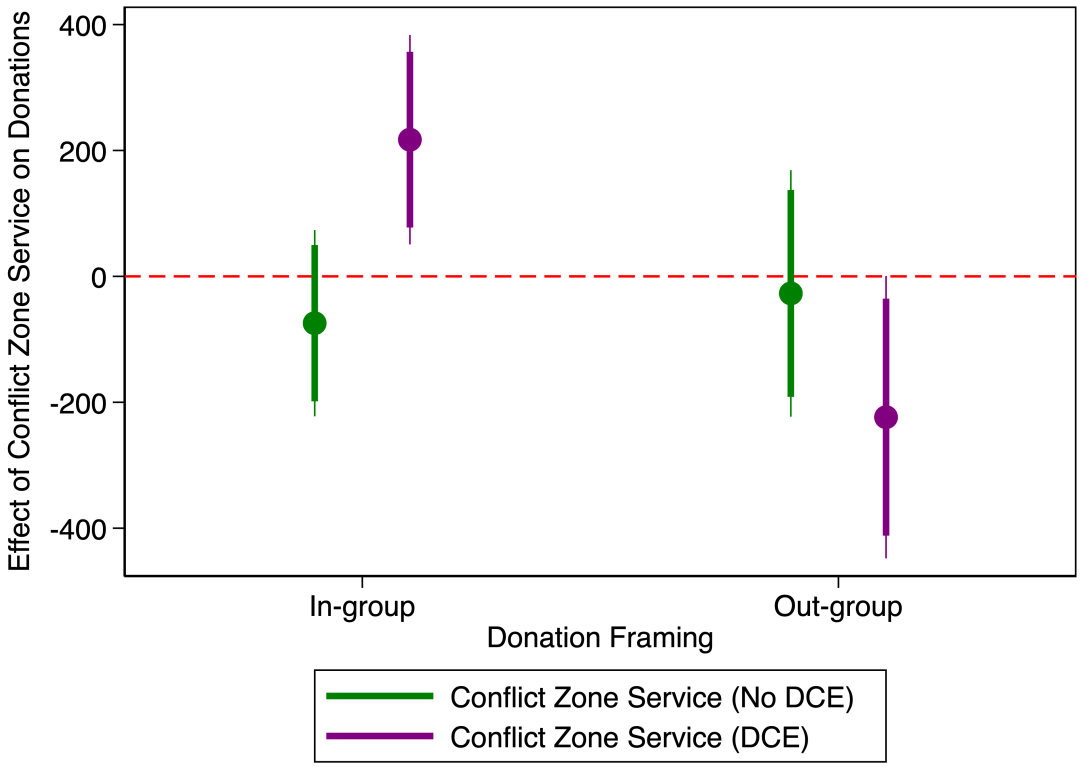
Notes: Standard errors are clustered at the military province level and are reported in parentheses; * $p < 0.1$; ** $p < 0.05$; *** $p < 0.01$.

Table 5: Conflict exposure, direct combat experience and altruistic donations

	Donation		
	(1)	(2)	(3)
Conflict Zone (No DCE)	-95.628	-74.336	-74.336
	(80.327)	(75.459)	(75.475)
Conflict Zone (DCE)	179.837**	217.161**	217.161**
	(74.984)	(84.862)	(84.881)
Out-group	54.328	70.222	70.222
	(53.812)	(53.745)	(53.757)
Conflict Zone (No DCE) × Out-group	72.181	47.275	47.275
	(154.397)	(145.411)	(145.443)
Conflict Zone (DCE) × Out-group	-433.149***	-440.795***	-440.795***
	(133.998)	(146.300)	(146.332)
CRA controls	✓	✓	✓
Pre-service controls		✓	✓
Donation controls			✓
No. of observations	4,896	4,764	4,764

Notes: Standard errors are clustered at the military province level and are reported in parentheses; * $p < 0.1$; ** $p < 0.05$; *** $p < 0.01$.

Figure 4: Marginal effect of direct combat experience on altruistic donations



Notes: The dependent variable is the amount donated. All specifications include CRA, pre-service and donation controls. Thick (thin) lines denote statistical significance at the 90% (95%) level.

Table 6: Conflict exposure and altruistic donations: Potential mechanisms

	Out-group identity	Authoritarianism			Aggression			Mental health
	Distant to Kurds	Strong Leader	Child Obedience	Disciplined Living	Defensive Violence	Provoked Aggression	Uneven Temper	Depression Index
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Conflict Zone	0.030**	0.071*	0.120***	0.094**	0.140***	0.125***	0.042	0.060
	(0.012)	(0.042)	(0.042)	(0.044)	(0.047)	(0.047)	(0.042)	(0.038)
CRA controls	✓	✓	✓	✓	✓	✓	✓	✓
Pre-service controls	✓	✓	✓	✓	✓	✓	✓	✓
R-squared	0.150	0.083	0.125	0.146	0.077	0.081	0.103	0.072
No. of observations	4,718	4,779	4,787	4,791	4,823	4,826	4,808	4,816

Notes: Standard errors are clustered at the military province level and are reported in parentheses; * $p < 0.1$; ** $p < 0.05$; *** $p < 0.01$.

The impact of exposure to armed conflict on altruistic and parochial preferences

Supplementary Appendix

For Online Publication

Arzu Kibris
University of Warwick, UK

Harry Pickard
Newcastle University, UK

Neslihan Uler
University of Maryland, US

Contents

A Field Experiment Instructions

Version (1):

In this part of our survey, we have a donation game.

There is a needy family is Amasya. We will give you 2,500 TL as your endowment. You can donate any portion of this endowment to this family. The amount that you do not donate will be yours to keep.

There are 4 different types of donation mechanism.

In the **first mechanism** this family will receive the amount that you donate. The amount that you do not donate will be yours.

In the **second mechanism**, we will match your donation one-to-one and, therefore, this family will receive **twice the amount that you donate**. The amount that you do not donate will be yours.

In the **third mechanism, we will match** your donation two to one, and therefore, this family receive **three times the amount that you donate**. The amount that you do note donate will be yours.

In the **fourth mechanism** this family will receive **only half of the amount that you donate,** the other half will disappear. Similarly, the amount that you do not donate will be yours.

Now, please write down in the places that are shown below the amount that you would like to donate to this family in Amasya out of your 2,500 TL endowment under each mechanism.

When you are done writing your donation amounts, you will be asked to randomly draw one of these cards you see here numbered from 1 to 4. This will determine which mechanism we will be using for this donation game.

We play this donation game with 625 participants just like you. When our survey study

is over, each of these 625 participants' survey forms will be randomly assigned an ID number by a computer. The donation amount made by the participant whose form is assigned the number 300 will be donated to this needy family under the mechanism randomly selected by this participant. The amount that is not donated will be given to this participant in person as a gift card. This process is under the guarantee of Sabanci University.

Now please answer the four questions below by writing how much you would like to donate under each of the donation mechanisms. To preserve the anonymity of your donations decisions, fold the paper along the dashed line and then give it back to me.

———————— Please fold the page here when you enter your answers ————————

Question	**Answer**
1. The family in need will receive the exact amount you donate. How much of the 2500TL would you like to donate to the needy family in Amasya?	*From the 2500TL endowment, I donate .....TL to the family in need in Amasya and I am keeping the rest for myself.*
2. The family in need will receive twice the amount you donate. How much of the 2500TL would you like to donate to the needy family in Amasya?	*From the 2500TL endowment, I donate .....TL to the family in need in Amasya and I am keeping the rest for myself.*
3. The family in need will receive three times the amount you donate. How much of the 2500TL would you like to donate to the needy family in Amasya?	*From the 2500TL endowment, I donate .....TL to the family in need in Amasya and I am keeping the rest for myself.*
4. The family in need will receive half the amount you donate. How much of the 2500TL would you like to donate to the needy family in Amasya?	*From the 2500TL endowment, I donate .....TL to the family in need in Amasya and I am keeping the rest for myself.*

Version (2):

The same as Version (1), except the family in need is located in Hakkari, which is a province at the heart of the conflict region with a nearly 90% ethnically Kurdish population (outgroup treatment).

B Conscription Procedures by the Turkish Ministry of Defence

Those who will be inducted at each period are determined.

↓

Registration and necessary documents of all who are planned to be inducted are completed.

↓

All records on draftees are anonymized and encrypted. The classification of draftees to their branches is conducted on anonymized records by the Military Enrolment Services of the Turkish Defence Ministry.

↓

Anonymized records of draftees are transferred to the commands of the forces they are assigned to.

↓

The force commands determine the exact induction date and training centers of those assigned to them.

↓

The Military Enrolment Services of the Turkish Defence Ministry de-encrypts the records to announce the classification and training center assignment results to draftees.

↓

Training up to 3 months followed by the deployment lottery.

↓

Deployment to service bases.

C Descriptive statistics

Table C.1 and Figure C.1 provide summary statistics for the donation amount, by donation decision, used in our analysis. Table C.2 shows a balance test between the control group and conflict zone service with, and without, direct combat experience.

Table C.1: Donation summary statistics

	Mean	S.D.	Min.	Max.	Median	N
Donation 1	1670.37	896.69	0.00	2500.00	2000.00	1,224
Donation 2	1627.46	898.14	0.00	2500.00	2000.00	1,224
Donation 3	1610.95	907.67	0.00	2500.00	2000.00	1,224
Donation 4	1643.16	929.77	0.00	2500.00	2000.00	1,224

Notes: The price systems are 1, 1/2, 1/3 and 2, respectively.

Figure C.1: Mean donation under each price system

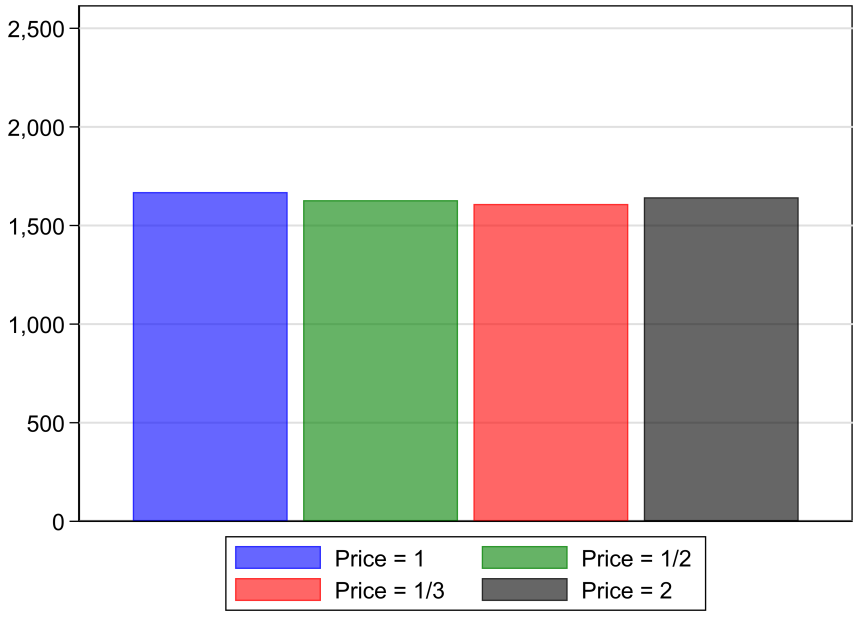


Table C.2: Evidence on the exogeneity of Conflict Zone with direct combat

		Conflict Zone without DCE			Conflict Zone with DCE		
	Control	Treatment	Diff.	p-value	Treatment	Diff.	p-value
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Height (cm)	175.572	175.435	0.137	0.193	174.994	0.578	0.836
	[7.794]	[7.435]			[5.176]		
Kurdish ethnicity	0.061	0.073	-0.012	0.887	0.066	-0.005	0.634
	[0.231]	[0.241]			[0.24]		
Other minority ethnicity	0.008	0	0.008	0.475	0.006	0.002	0.95
	[0.087]	[0]			[0.074]		
Land owner	0.206	0.185	0.021	0.827	0.222	-0.015	0.149
	[0.333]	[0.347]			[0.297]		
Conscription age	20.58	20.548	0.031	0.847	20.377	0.203	0.709
	[1.793]	[2.023]			[1.746]		
Training duration (months)	2.634	2.734	-0.1	0.001	2.838	-0.204	0.157
	[0.9]	[0.643]			[0.806]		
Rank: Rank and file	0.059	0.048	0.01	0.886	0.072	-0.013	0.41
	[0.235]	[0.219]			[0.143]		
Rank: Sergeant	0.132	0.137	-0.005	0.808	0.138	-0.006	0.72
	[0.364]	[0.328]			[0.288]		
Rank: Sub-lieutenant	0.012	0.008	0.004	0.542	0.006	0.006	0.914
	[0.126]	[0.082]			[0.072]		
Birth quarter: 2	0.248	0.274	-0.026	0.958	0.186	0.063	0.226
	[0.392]	[0.486]			[0.306]		
Birth quarter: 3	0.217	0.21	0.008	0.925	0.222	-0.004	0.778
	[0.377]	[0.494]			[0.41]		
Birth quarter: 4	0.173	0.129	0.044	0.335	0.174	-0.001	0.63
	[0.461]	[0.315]			[0.312]		
F-test of joint significance (p-value)				0.754			0.791
No. of observations	902	124	1,026		167	1,069	

Notes: In columns (1), (2) and (5) means and standard deviations in brackets by treatment status are presented. In column (3) and (6) normalized differences are obtained by controlling for educational attainment, draft year, military branch and occupation, and birth province fixed effects. *p*-values for normalized differences, adjusted for clustering on the province of service, are reported in (4) and (7).

D Robustness Tests and Further Insights

Income and Donations

In Table D.1, we estimate OLS regressions for each of the four donation decisions using a categorical measure of income as the key explanatory variable. Value 1 of the income categories corresponds to an average monthly income of 0-1,000TL and value 9 represents income of over 8,000TL per month. As expected, income is positively and significantly associated with the size of the donation. Moreover, whilst price of giving is 1 or below, the results are not so different. But when the cost of giving increases to 2 in column (4), the donation is significantly below that when the cost is 1 in column (1).

Table D.1: Income and altruistic donations

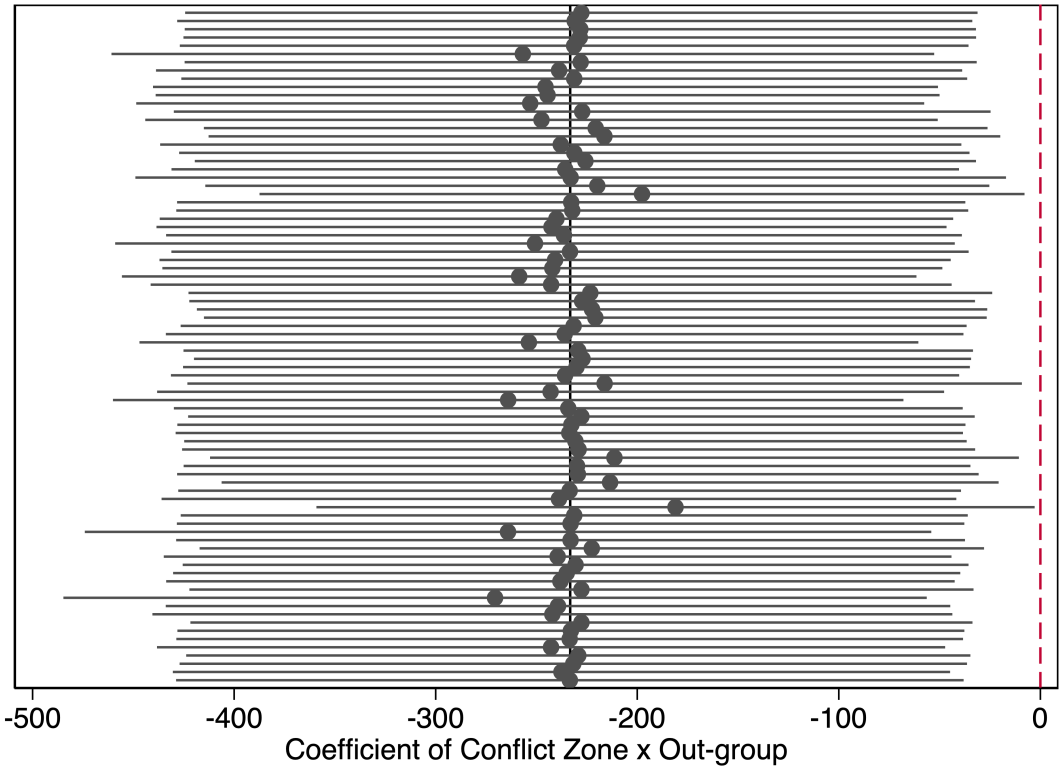
	Donation 1 (1)	Donation 2 (2)	Donation 3 (3)	Donation 4 (4)
Total income	72.447***	63.370***	63.217***	43.468*
	(20.375)	(20.619)	(19.174)	(23.449)
Donation controls	✓	✓	✓	✓
CRA controls	✓	✓	✓	✓
Pre-service controls	✓	✓	✓	✓
No. of observations	4,256	4,256	4,260	4,248

Notes: Standard errors are clustered at the military province level and are reported in parentheses; * $p < 0.1$; ** $p < 0.05$; *** $p < 0.01$.

Excluding Military Provinces and Draft Cohorts

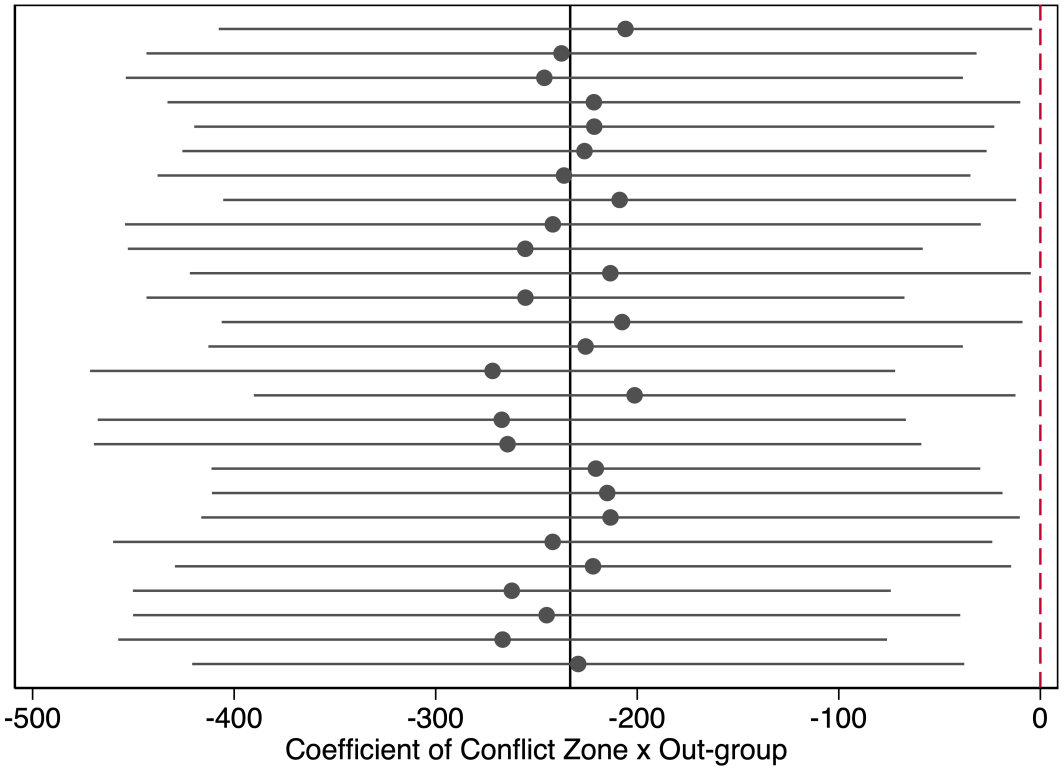
In Figures D.1 and D.2, we check whether the conflict-induced effect on donations can be attributed to individuals from a particular military province or draft cohort. First, we re-estimate our baseline model after dropping one of each of the 82 in-sample military provinces. The coefficient for each of the regressions is presented in Figure D.1 with the baseline coefficient marked as the vertical black line. Irrespective of the province excluded, the conflict effect with the out-group frame on donations is tightly centered around the baseline value and statistically significant at least at the 5% level. Second, using the same approach, we drop each draft cohort from 1980-2010 and re-estimate the baseline specification. Again, the coefficient of interest remains negative and highly significant, as shown in Figure D.2.

Figure D.1: Excluding military provinces



Notes: Each coefficient is from a regression that excludes one military province at a time. The lines denote statistical significance at the the 95% level.

Figure D.2: Excluding draft cohorts



Notes: Each coefficient is from a regression that excludes one draft cohort at a time. The lines denote statistical significance at the the 95% level.

Conflict Effect by Donation Decision

In this section, we check whether the key effect is driven by a certain donation decision given the changing price of donation. To check this, we estimate OLS regressions[1], with CRA and pre-service controls, on each of the four donation decisions. As in the main analysis, we present the main results and marginal effect of *Conflict Zone* over the in/out-group framing. The results are shown in Table D.2 and Figure D.3. Overall, our inferences are unchanged: we find that when the donation decision is framed for the out-group, conflict zone service decreases the amount donated. This suggests that observed relationship is not driven by differences in the cost of making a donation.

We also check the robustness of our results to averaging the four donations of the veteran. The results are entirely robust to this exercise as shown in Table D.3 and Figure D.4.

[1] All findings are fully robust to using a PPML estimator and available on request.

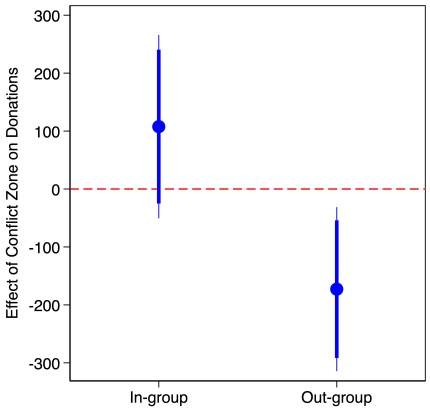
Table D.2: Conflict exposure and altruistic donations: By donation game

	Donation					
	(1)	(2)	(3)	(4)	(5)	(6)
Panel A: Donation 1						
Conflict Zone	-29.633	-29.633	-29.633	104.449	104.449	104.449
	(50.774)	(50.774)	(50.774)	(80.815)	(80.815)	(80.815)
Out-group				59.514	59.514	59.514
				(57.454)	(57.454)	(57.454)
Conflict Zone × Out-group				-275.068**	-275.068**	-275.068**
				(112.279)	(112.279)	(112.279)
Panel B: Donation 2						
Conflict Zone	7.288	7.288	7.288	134.225	134.225	134.225
	(51.405)	(51.405)	(51.405)	(82.421)	(82.421)	(82.421)
Out-group				65.034	65.034	65.034
				(59.871)	(59.871)	(59.871)
Conflict Zone × Out-group				-260.084**	-260.084**	-260.084**
				(114.139)	(114.139)	(114.139)
Panel C: Donation 3						
Conflict Zone	-2.091	-2.091	-2.091	102.562	102.562	102.562
	(47.837)	(47.837)	(47.837)	(78.609)	(78.609)	(78.609)
Out-group				84.850	84.850	84.850
				(61.470)	(61.470)	(61.470)
Conflict Zone × Out-group				-213.250**	-213.250**	-213.250**
				(105.223)	(105.223)	(105.223)
Panel D: Donation 4						
Conflict Zone	-41.369	-41.369	-41.369	49.136	49.136	49.136
	(51.336)	(51.336)	(51.336)	(77.837)	(77.837)	(77.837)
Out-group				67.236	67.236	67.236
				(57.215)	(57.215)	(57.215)
Conflict Zone × Out-group				-184.653*	-184.653*	-184.653*
				(109.344)	(109.344)	(109.344)
CRA controls	✓	✓	✓	✓	✓	✓
Pre-service controls		✓	✓		✓	✓
No. of observations	1,191	1,191	1,191	1,191	1,191	1,191

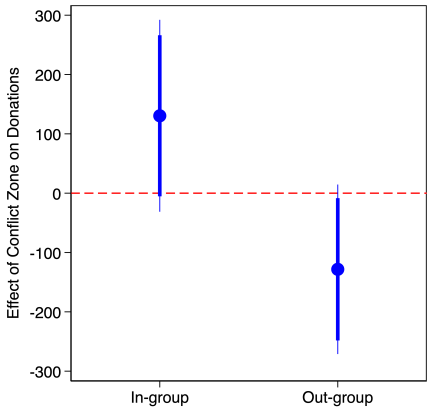
Notes: OLS estimates. The dependent variable in each panel is the donation in the respective game. The price systems are 1, 1/2, 1/3 and 2, respectively. Standard errors are clustered at the military province level and are reported in parentheses; * $p < 0.1$; ** $p < 0.05$; *** $p < 0.01$.

Figure D.3: Conflict exposure and altruistic donations: By donation game

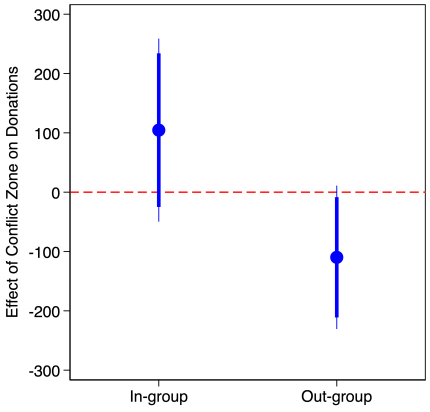
(a) Donation 1



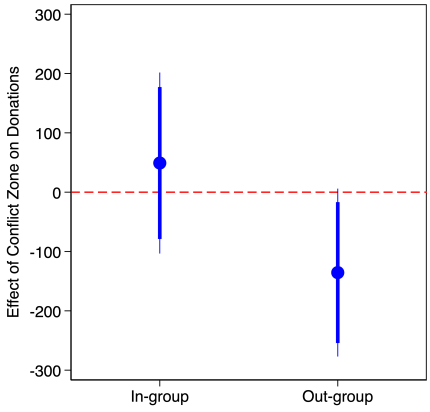
(b) Donation 2



(c) Donation 3



(d) Donation 4



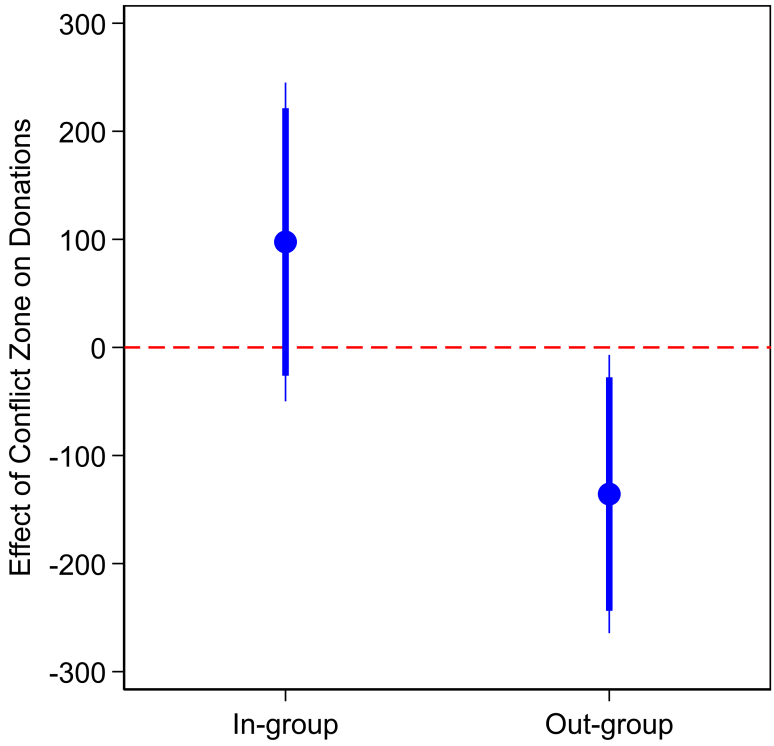
Notes: The dependent variable is the amount donated under each price system as listed in the sub-titles. The price systems are 1, 1/2, 1/3 and 2, respectively. All specifications include CRA and pre-service controls. Thick (thin) lines denote statistical significance at the 90% (95%) level.

Table D.3: Conflict exposure and altruistic donations: averaging donations

	Average donation					
	(1)	(2)	(3)	(4)	(5)	(6)
Conflict Zone	-16.451	-16.451	-16.451	97.593	97.593	97.593
	(47.036)	(47.036)	(47.036)	(75.251)	(75.251)	(75.251)
Out-group				69.158	69.158	69.158
				(56.358)	(56.358)	(56.358)
Conflict Zone × Out-group				-233.264**	-233.264**	-233.264**
				(104.537)	(104.537)	(104.537)
CRA controls	✓	✓	✓	✓	✓	✓
Pre-service controls		✓	✓		✓	✓
R-squared	0.169	0.169	0.169	0.172	0.172	0.172
No. of observations	1,191	1,191	1,191	1,191	1,191	1,191

Notes: Standard errors are clustered at the military province level and are reported in parentheses; * $p < 0.1$; ** $p < 0.05$; *** $p < 0.01$.

Figure D.4: Conflict exposure and altruistic donations: average donation

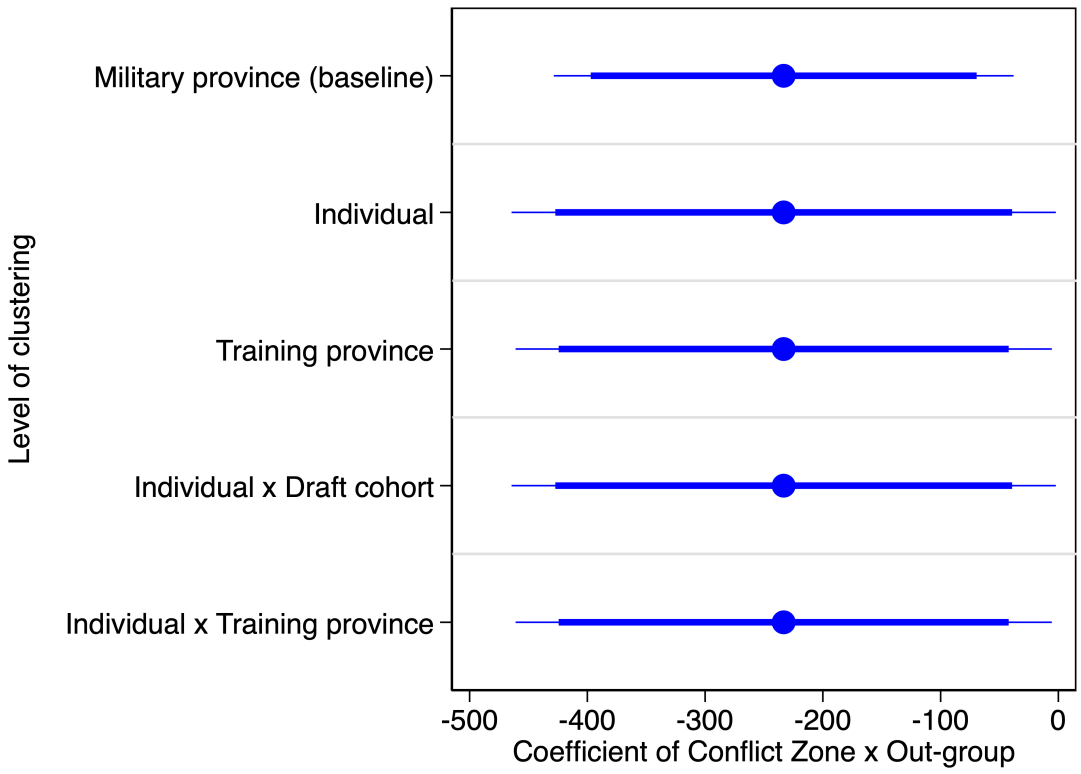


Notes: The dependent variable is the amount donated. Thick (thin) lines denote statistical significance at the 90% (95%) level.

Alternative Error Clustering

In all of our main analysis, we have clustered the standard errors at the military province level. In this section, we check the robustness to using several alternative types of standard errors. Specifically, we cluster at the following levels: individual; training province; individual-by-draft cohort; and individual-by-training province. As shown in Figure D.5, our results are virtually identical to those in our baseline specification and always highly statistically significant.

Figure D.5: Conflict exposure and altruistic donations: Alternative error clustering



Notes: The dependent variable is the amount donated. Thick (thin) lines denote statistical significance at the 90% (95%) level.

Refusal to Play

In this section, we check how conflict is related to the decision to not play the donation games. We have a total of 49 refusals, which is less than 1% of those originally marked to play the donation games. We create a binary indicator that takes value 1 if an individual refused to play, and run a linear probability model. The results in Table D.4 provide evidence that conflict, of any degree, is unrelated to the decision to play the games. Moreover, assignment to the in- or out-group treatment is also statistically insignificant. This exercise mitigates any self-selection concerns.

Table D.4: Conflict exposure and altruistic donations: Refusal to play

	Refusal to play							
Sample:	Both treatments				In-group treatment		Out-group treatment	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Conflict Zone	-0.004		-0.001		-0.003		0.001	
	(0.011)		(0.011)		(0.021)		(0.019)	
Conflict Zone (No DCE)		-0.015		-0.013		-0.028		-0.002
		(0.014)		(0.015)		(0.020)		(0.027)
Conflict Zone (DCE)		0.004		0.008		0.015		0.003
		(0.015)		(0.016)		(0.027)		(0.025)
Out-group			0.008	0.008				
			(0.011)	(0.011)				
CRA controls	✓	✓	✓	✓	✓	✓	✓	✓
Pre-service controls	✓	✓	✓	✓	✓	✓	✓	✓
R-squared	0.118	0.119	0.129	0.130	0.232	0.234	0.193	0.193
No. of observations	1,273	1,273	1,239	1,239	626	626	613	613

Notes: Standard errors are clustered at the military province level and are reported in parentheses; * $p < 0.1$; ** $p < 0.05$; *** $p < 0.01$.

Further inference checks

In Table D.5 we assess the role of unobservables. We present the bias-adjusted coefficient (serving as an upper bound). For this adjustment, we set Rmax at 1.3 times the R-squared from the model controlling for observable factors. Additionally, we report Oster's delta, which quantifies the relative influence of unobservable factors compared to observables needed to fully attribute our results to omitted variable bias. Our analysis reveals minimal shifts in the coefficient. Moreover, the delta values consistently exceed the conventional threshold of 1, often used as a rule of thumb. This is strong evidence that unobservable factors are unlikely to negate our findings.

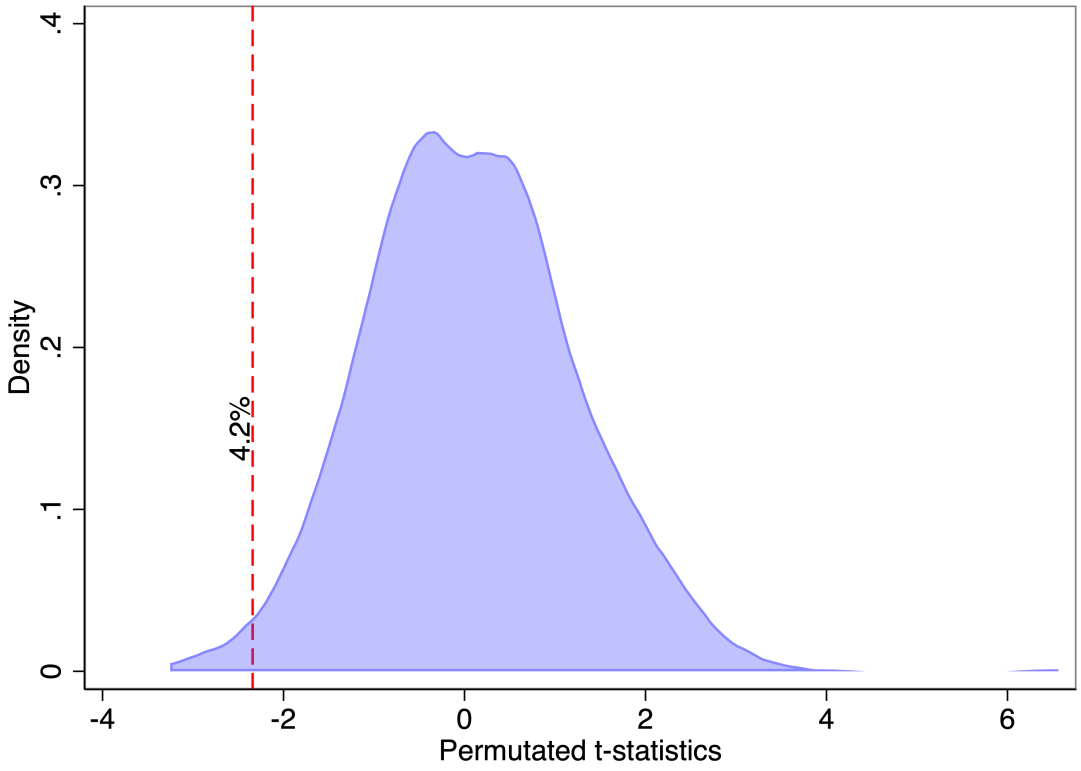
Next, we conduct a randomization inference test, which provides a robust method for statistical inference without relying on parametric assumptions. We performed 1,000 repetitions, randomly shuffling the conflict zone service assignment while maintaining the original distribution and keeping the in-out-group treatment constant. The distribution of t-values is shown in Figure D.6. The test yields a p-value of 0.042, indicating that only 4.2% of the simulated t-statistics are more extreme than our observed t-statistic and suggests that the observed relationship is highly unlikely to be a product of chance.

Table D.5: The role of unobservables

	Donation
Conflict Zone × Out-group	-233.264**
	(99.619)
Beta lower bound	-233.264
Beta upper bound (δ=1 Rmax=1.3 × R)	-376.658
Treatment effect excludes 0	Yes
Delta (Rmax=1.3 × R)	7.611
R-squared	0.157
Observations	4,764

Notes: Standard errors are clustered at the military province level and are reported in parentheses; * $p < 0.1$; ** $p < 0.05$; *** $p < 0.01$.

Figure D.6: Permutation effect estimates



Notes: The figure shows the distribution of t-statistics for the variable *Conflict Zone* × *Out-group* from permutation tests that randomly shuffle *Conflict Zone* 1,000 times, whilst keeping the in/out-group treatment constant. The reference line shows the proportion of times that the permuted t-statics are at least as extreme as under the observed data.

Alternative Mechanisms

In this section, we explore some alternate channels of which conflict exposure may exacerbate parochial behavior. We test a human-capital based explanation, as set out in the main paper. We regress our measure of conflict exposure on an indicator for being employed; an indicator for being married; and a categorical measure of total income. The results, shown in Table D.6, rule out any human-capital explanation for our results. There is no evidence of conflict service affecting the level of human capital.

Table D.6: Conflict exposure and altruistic donations: Alternative mechanisms

	Employed (1)	Married (2)	Total income (3)
Conflict Zone	-0.014	-0.014	-0.035
	(0.008)	(0.017)	(0.054)
CRA controls	✓	✓	✓
Pre-service controls	✓	✓	✓
R-squared	0.096	0.126	0.187
No. of observations	4,834	4,837	4,285

Notes: Standard errors are clustered at the military province level and are reported in parentheses; * $p < 0.1$; ** $p < 0.05$; *** $p < 0.01$.

Conflict Zone Deployment as a Predictor of Direct Combat Experience

This section examines whether deployment to an active combat zone predicts direct combat experience. The EXPOVIBE-CV survey measured direct combat experience through three key questions about veterans' regular service: their involvement in armed combat, their exposure to injuries or casualties among others, and whether they suffered personal wounds. We converted each type of combat experience into a binary variable, where 1 indicates the veteran experienced that form of combat and 0 indicates they did not. We also created an overall combat experience variable, where 1 represents experiencing any of the three types of combat, and 0 otherwise. Using linear probability models, we analyse how conflict zone service affected these combat outcomes in both the main EXPOVIBE-CV and experiment samples.

Table D.7 presents our findings. The *Conflict Zone* variable shows positive and highly significant results across all measures. Notably, columns (4) and (8) indicate that random assignment to conflict zone service increases the probability of experiencing direct combat by approximately 40 percentage points. These results clearly demonstrate that conflict zone service strongly predicts direct combat experience.

Table D.7: Conflict exposure and direct combat experience

	EXPOVIBE-CV sample				Experiment sample			
	Armed conflict (1)	Witnessed casualties (2)	Injured (3)	Any combat (4)	Armed conflict (5)	Witnessed casualties (6)	Injured (7)	Any combat (8)
Conflict Zone	0.348***	0.307***	0.049***	0.409***	0.383***	0.319***	0.034***	0.448***
	(0.041)	(0.032)	(0.010)	(0.043)	(0.040)	(0.036)	(0.011)	(0.048)
CRA controls	✓	✓	✓	✓	✓	✓	✓	✓
Pre-service controls	✓	✓	✓	✓	✓	✓	✓	✓
R-squared	0.282	0.228	0.066	0.287	0.365	0.298	0.109	0.370
No. of observations	4,819	4,819	4,819	4,819	1,236	1,236	1,236	1,236

Notes: Standard errors are clustered at the military province level and are reported in parentheses; * $p < 0.1$; ** $p < 0.05$; *** $p < 0.01$.