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War and Social Attitudes: Revisiting Consensus Views

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Abstract:
We study the long-run effects of conflict on social attitudes, with World War II in Central and Eastern Europe as our setting. Much of earlier work has relied on self- reported measures of victimization, which are prone to endogenous misreporting. With our own survey-based measure, we replicate established findings linking victimization to political participation, civic engagement, optimism, and trust. Those findings are reversed, however, when tested instead with an objective measure of victimization based on historical reference material. Thus, we urge caution when interpreting survey- based results from this literature as causal.

Keywords: conflict, social attitudes, World War II

JEL Classification: D74, N44, P20

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1 Introduction

In recent years researchers have paid considerable attention to the impact of conflict on social attitudes. Bauer et al. (2016) have conducted an influential meta-analysis of this body of work in which 17 sets of results are combined to examine the impact of war on social behaviors (including civic engagement, political participation, and trust). War is generally found to subsequently improve indicators of prosociality, except in the case of trust. Conflict has been reported to positively affect political and civic engagement (Bellows and Miguel 2009; Blattman 2009; Cassar et al. 2013; De Luca and Verpoorten 2015a; Gilligan et al. 2014; Grosjean 2014), while negatively affecting trust (Besley and Reynal-Querol 2014; Cassar et al. 2013; De Juan and Pierskalla 2016; Grosjean 2014; Nunn and Wantchekon 2011; Rohner et al. 2013) and optimism (Bozzoli et al. 2011).[1] But much of this literature has relied upon retrospective survey-based (subjectively reported) conflict victimization data. This is particularly true of work examining civic and political engagement (Bellows and Miguel 2009; Blattman 2009; Cassar et al. 2013; Grosjean 2014; Voors et al. 2012). By contrast, objective measures of victimization have typically been used in work examining trust and optimism.

While most studies have argued at length that violence is not selected on the basis of social outcomes, none have discussed the possibility that measurement error in the retrospective victimization measure *is* selected on that basis. We draw from well-established research in psychology to explore the possibility that recall bias can explain common findings in the conflict literature. The resulting mechanism is simple and intuitive. The following types of individuals may be more likely to perceive, remember, or exaggerate exposure to conflict:[2] (i) the civicly engaged; (ii) the politically engaged; (iii) the less trusting; and (iv) the pessimistic. Under such circumstances, measurement error would be correlated with any (or all) of the traits (i)-(iv), and results based on cross-sectional survey data would be consequently biased.

[1] De Luca and Verpoorten (2015b) suggest that conflict negatively affects trust *and* civic engagement.
[2] See Neugebauer and Ng (1990) for a general discussion.

Results based on non-self-reported victimization data, on the other hand, would be free of that particular source of bias. We motivate this methodological concern by drawing upon the psychology literature in the next section, where we also discuss the implications for scholarship on conflict more broadly.

In this paper, we explore the aforementioned endogeneity problem by introducing an *objective* measure of violence, which we compare to a retrospective self-reported measure. The former measure comes from Ellis (1993), a historical military atlas documenting the Second World War in great detail. The latter measure is from the 2010 EBRD-World Bank Life in Transition Survey, conducted across 29 transition countries. The overlap between these sources enables us to incorporate into our analysis 15 countries from Central and Eastern Europe.

Our empirical setting presents three advantages. First, we possess both objective and subjective victimization data covering the same area and time period, which permits us to explore the relative shortcomings of the latter (conditional on the validity of the former). Second, the survey data allow us to control for a wide variety of observable characteristics that may be correlated with objective targeting of violence, propensity to misreport, and social preferences. These include employment status, health, educational attainment, urbanity, and parental background (such as education and membership in the former communist party). Third, we can include sub-national regional dummies. Our results are therefore unlikely to be driven by fixed national or sub-national characteristics which may explain both the prevalence of conflict and cultural attitudes.

This paper makes one methodological contribution, and two smaller substantive contributions. Methodologically, we demonstrate that replacing self-reported victimization data with objective data based on historical reference material leads to a reversal of common findings relating conflict to social attitudes. Moreover, the point estimate of the effect of self-reported victimization declines once we include individual characteristics potentially cor-

related with misreporting. These patterns are robust across behavioral outcomes and model specifications, and suggest earlier work based on survey data may be subject to endogenous misreporting.

Substantively, most previous authors have shown that the impact of violence on civic engagement and political participation is positive, using self-reported victimization data (Bellows and Miguel 2009; Blattman 2009; Cassar et al. 2013; Grosjean 2014). Notable exceptions include De Luca and Verpoorten (2015a,b) and Gilligan et al. (2014), whose analyses rely instead on *objective* sources of conflict data. Once we invoke objective conflict data, however, the positive effect of conflict on civic/political engagement is reversed. Our paper thus questions a relationship commonly identified in the literature, and offers a clear methodological rationale as to why earlier findings could be mistaken. Lastly, to our knowledge we are the first to examine the *long-run* effects of conflict on optimism. Highlighting the importance of this endeavor, our long-run findings (based on objective victimization) reverse the short-run negative impact of conflict on optimism reported in Bozzoli et al. (2011). Heterogeneous effects of conflict over time, or across research settings, could explain this discrepancy.

The rest of this paper is structured as follows. Section two motivates our methodological concern by drawing upon psychology research on selection related to recall of negative events. From the perspective of new insights gained, we then discuss relevant research on conflict, and potential sources of endogeneity. Section three presents our data, and section for describes the conceptual framework used to address the methodological challenge identified in section two. Section five presents our main results, and section six offers some robustness exercises. Finally, section seven concludes.

2 Attitude-based measurement error

Hardt and Rutter (2004) present a meta-analysis of studies evaluating the validity of retrospective accounts of adverse childhood experiences. They find that the literature reports substantial measurement error associated with those subjective measures of victimization, and that the error is nonrandom with respect to individual characteristics in some settings (e.g. gender in Widom and Courtois (1997); mental health in Robins et al. (1985)). In other work, recall accuracy of childhood psychiatric diagnoses is found to be influenced by gender (Fendrich et al. 1990; Masia et al. 2003), and by the psychiatric health of parents (Fendrich et al. 1990). In yet another strand of research, the personality of subjects themselves is found to impose a directional bias on the nature of their selected memories (Bradley and Mogg 1994; Brewin et al. 1993; Matt et al. 1992). In our application, this could imply those with negative outlooks (i.e. those with political grievances, pessimism, or low trust) selectively recall negative experiences such as conflict victimization. The meta-analysis of Hardt and Rutter (2004) finds that significant associations between retrospectively reported adverse experiences and later outcomes (such as depression, pain, and poor social functioning) degenerate once official reports of those experiences are analyzed instead. Our paper presents analogous findings for the literature linking conflict to social attitudes.

Hardt and Rutter (2004) note that bias in retrospective measures of abuse (victimization) is particularly pronounced when recall relies heavily on judgment or interpretation. This has generally been true for the conflict literature addressed in this paper. Blattman (2009) uses a survey-based measure of abduction in which, for instance, an individual being forcefully stopped by a rebel group to provide directions also qualifies as abduction. Many of the effects of victimization in Blattman (2009) appear driven by violent acts witnessed (rather than perpetrated or received), which can be interpreted relatively loosely. Bellows and Miguel (2009) consider victimization as whether any household members were injured or

turned into refugees during the conflict. Not only might the terms 'injury' or 'refugee' be interpreted idiosyncratically, but the authors themselves suggest that respondents adopt a wide understanding of the term 'household', to include extended family members as well. The same critique would apply to Cassar et al. (2013) who also refer to injury of household members in their survey-based determination of victimization. Voors et al. (2012) count *non-physical* violence towards any household member (including theft, forced labor, etc.) in their survey-based measure, which may also permit a liberal interpretation of what constitutes victimization.

In light of the insights gleaned from psychology, we argue a greater scope for interpretation of survey questions opens the possibility for selective recall bias in the associated measure of victimization. This brings into question earlier findings, since measurement error is then nonrandom with respect to correlates of the outcome. The use of self-reported victimization data need not be problematic if recall bias were purely a function of *observable* characteristics for which the researcher can control. In our application of interest, the source of confound may closely relate to the outcome of interest, however, in that both can be attitudinal factors. As such, this complication merits empirical exploration.

3 Data

3.1 Dependent variables

For data on attitudes, we use the Life in Transition Survey II (LiTS). This is a nationally representative survey which covers 29 post-communist countries. Across Central and Eastern Europe, we include in our analysis 15 countries which experienced significant disruption from World War II battle activity.[3] The survey was conducted by the European Bank for

[3]These are Belarus, Bulgaria, Czech Republic, Estonia, Hungary, Latvia, Lithuania, Moldova, Poland, Romania, Russia, Serbia, Slovak Republic, Slovenia and Ukraine.

Reconstruction and Development and the World Bank in 2010. Sampling for the LiTS was carried out as follows. Respondents (aged 18 and above) are drawn randomly, using a two-stage sampling method with primary and secondary sampling units.

The primary sampling units (PSUs) are electoral districts, polling station territories, census enumeration districts, or geo-administrative divisions. Most countries have a minimum of 50 PSUs, with each containing around 20 responding households (approximately 1,000 observations per country). Russia, Ukraine, Serbia, and Poland each have 75 PSUs containing around 20 responding households each (approximately 1,500 observations per country), while Estonia, Slovakia and the Czech Republic have over 100 PSUs. In total, our sample contains 17,492 observations across 1,208 PSUs. The head of the household or another knowledgeable household member answered the Household Roster and questions about housing and expenses. All other modules were answered by a randomly drawn adult from the household with no substitutions possible, using a minimum of three repeat visits if an interview could not be conducted.[4]

For comparability with prior work, we gather relevant questions from the LiTS and classify them into four broad categories. We measure 'political participation' with three variables: (i) *Protest*: an index capturing whether the respondent would attend a lawful demonstration, participate in a strike, or sign a petition, on a scale of 1 (would never do) to 3 (have done); (ii) *Member party*: a dummy for whether the respondent is a member of a political party; and (iii) *Voting*: an indicator capturing whether the respondent voted in the last (national, local or presidential) election. 'Civic engagement' is measured by (i) *Social capital*: an index capturing the number of voluntary organizations of which the respondent is a member, ranging from 0 to 8; and (ii) *Friends*: the frequency with which the respondent meets up with friends on a scale of 1 (less than once a month) to 5 (on most

[4]The other modules are: Attitudes and Values; Climate Change; Labor, Education and Entrepreneurial Activity; Governance; and Miscellaneous Questions.

days). 'Optimism' is operationalized as a measure of (i) *Life satisfaction*: how satisfied the respondent is with his/her life, on a scale of 1 (completely dissatisfied) to 10 (completely satisfied); and (ii) *Effort*: a dummy for whether the respondent believes that effort and hard work, or intelligence and skills (as opposed to political connections or breaking the law) are important for success. We use two variables to capture 'trust': (i) *Trust people*: the extent to which the respondent believes that people can be trusted, on a scale of 1 (complete distrust) to 5 (complete trust); and (ii) *Trust institutions*: an index capturing the extent to which the respondent trusts a variety of institutions, such as parliament, police, banks, and the financial system, on a scale of 1 to 5.

3.2 Independent variables

Subjective conflict measure Our subjective conflict measure, *WW2 (subj)*, is drawn from the LiTS. It is a dummy indicating whether the respondent, or any of his/her parents or grandparents, were physically injured or killed during the Second World War. On average, around 34.6% of respondents in our data set recalled direct victimization or victimization at the family level. It is notable that the average survey respondent was born approximately 17 years after the end of WW2. As such, the effects we measure here are essentially intergenerational, and might therefore be considered diluted on that basis. However, other studies have detected long-term effects of conflict on social attitudes (e.g. Besley and Reynal-Querol (2014); Cassar et al. (2013); Grosjean (2014); Nunn and Wantchekon (2011)). Moreover, Bauer et al. (2016) contend that "the impacts of exposure do not diminish with time; indeed, if anything, the opposite seems to be true" (p. 250).

Objective conflict measure Our objective data on conflict during World War II are compiled at the PSU level and come from the historical volume of Ellis (1993). This reference offers the most thorough account of battles and maneuvers, with consistent coverage of the

entire Second World War. It has been widely used by economists, political scientists and historians (Alvarez-Cuadrado 2008; Cook 2002; Kesternich et al. 2014; Rockoff 2012). It provides dynamic maps depicting the locations of frontlines, battles, and other strategic phenomena. Together the maps comprise comprehensive coverage of Central and Eastern Europe, and of all other regions involved in the war. Figure 1 is an example of one dynamic map from this volume, depicting the westward movement of the Eastern Front between July 4th and December 23rd 1943.

Unfortunately, the locations of some important indicators of victimization (e.g. mass killings; concentration camps) are not depicted in this reference. To our knowledge, no comprehensive database currently documents these historical events in our setting. Our analysis would indeed be strengthened if a source analogous to the Armed Conflict Location and Event Data Project (ACLED) also covered Europe during WW2. The advantage of our setting, however, lies in the availability of both objective and subjective victimization measures across the study region. To our knowledge, no equivalent subjective sources exist for either Africa or Asia (where comprehensive data on objective victimization are available).

We project each map from Ellis (1993) onto a data set consisting of geo-coded spatial markers for the LiTS PSUs. We then establish a buffer zone with a 15-km radius around each PSU to ascertain whether it was exposed to any type of fighting. As a first step, we are thus able to compute a binary measure of exposure to WW2 conflict. We then weigh this measure to reflect the number of individual incidents to which each PSU was exposed. As such, our objective conflict measure is a count variable reflecting the sum of various attacks and defensive operations incurred by a PSU (including counterattacks, encirclements, and failed attacks).[5]

The average PSU experienced 0.534 events (with a maximum of 6 and a standard devi-

[5]Here we implicitly impose homogeneous effect sizes across various forms of violence. Hoddie and Smith (2009) suggest violence heterogeneity can be important when examining effects on trust.

ation of 0.984). For robustness, we recalculate our indicator for violence exposure by using instead a 30-km and 45-km radius.[6] To our knowledge, the resulting dataset constitutes the most accurate and comprehensive data on WW2 conflict based on an objective measure.[7] Figure 2 presents the geographic distribution of our objective conflict measure across PSUs. Since our identification strategy relies on variation within sub-national regions, we drop countries in which insufficient variation is present (mostly located in the Western USSR). The countries included in our final sample are thus: Belarus, Bulgaria, Czech Republic, Estonia, Hungary, Latvia, Lithuania, Moldova, Poland, Romania, Russia, Serbia, Slovakia, Slovenia and Ukraine.

Other variables Drawing on the LiTS data, we control for a variety of additional respondent-level and family-level characteristics which may be correlated with both conflict targeting, reporting, and attitudes. Demographics are captured by age, marriage (dummy), gender (male dummy), and self-reported health status (on an increasing scale from -5 to -1). Socio-economic status is captured by employment (dummy), a variable measuring self-reported income (on a scale of 1-10), and secondary/university education (dummy). Parental background is proxied by controls for the full-time years of the respondent's father's and mother's education, and whether the respondent or any members of his/her family were members of the communist party. To reduce confounding effects from selective migration, we include: (i) a dummy for whether the respondent has ever moved (*moved (ever)*); and (ii) a dummy capturing whether the respondent, or any of his/her parents or grandparents were forced to move during the Second World War (*moved (WW2)*).

To alleviate location-based confound, we also include dummies for sub-national adminis-

[6]Regression results (unreported) with these two alternative indicators are very similar to those using the 15-km radius.

[7]Kesternich et al. (2014) draw on the same source to construct a measure indicating the presence of a frontline within a sub-national region (in Western Europe only). This binary indicator is then weighted by the months covered in the corresponding map in Ellis (1993). However, these data are far less granular than our data as they only vary at the level of sub-national regions.

trative regions and controls for latitude, longitude, and whether the respondent resides in an urban locality. We obtain data on PSU latitude and longitude from Nikolova and Simroth (2015). Summary statistics for all variables are presented in Table 1.[8]

4 Conceptual framework

It is instructive to begin by comparing the congruency of our objective and subjective measures of violence. In order to do so, we aggregate our self-reported measure to the PSU level. 24.1% of the variation in self-reported victimization is explained by PSU residence (30% for those with no history of migration). Across PSUs, the correlation between the objective and subjective alternatives is just 0.113 (yet highly significant). Recalculating the PSU average for the subjective measure by excluding those with observable migration histories does not meaningfully change this correlation. Granted, our two variables are not exactly equivalent in that one measures the incidence of violence, and the other victimization. Still, so long as violence implies victimization, the measures should be highly correlated in the absence of significant error. Bellows and Miguel (2009) report an analogous correlation of 0.3 between objective and subjective measures, without offering elaboration. But we contend the misalignment between these measures is extremely important for inference since it can derive from non-random bias in the retrospective measure.

Our particular subjective measure of victimization (also used by Grosjean (2014)) is based on the survey question: *'Were you, your parents or your grandparents physically injured or killed during the Second World War?'*. This question is arguably less vague than others relied upon in this literature, but could nevertheless suffer from selective interpretation. The term 'physical injury', for instance, could be restricted to serious debilitating or life-threatening harm to some, while to others it could be expanded to include minor injuries.

[8]Summary statistics at the country-level are offered in Tables A1 and A2. Results are robust to dropping the few respondents who report that their parents have more than 20-25 years of full-time education.

So long as the propensity to adopt a strict/liberal interpretation of the term is correlated with attitudes such as trust, optimism, civic engagement, or political participation, then we are left with nonrandom measurement error. But as previously discussed, this selective interpretation is not a necessary condition to generate bias in estimates based on subjective measures. If certain personality types (i.e. the least engaged) forgot, or never paid attention to, accounts of victimization in the first place, then our bias is still ever-present. Under this directional bias, we should see (as we do) that correlations based on retrospective measures of victimization collapse when an objectively based measure is used instead. We now turn to regression models to test this argument in detail.

We first focus on specifications using the self-reported measure of exposure to conflict. In order to do so, we adopt the following estimation model:

$$Y_{ipr} = \alpha_r + \beta_1 C^s_{ipr} + \gamma \boldsymbol{X_{ipr}} + \epsilon_{ipr} \tag{1}$$

Here the attitudinal outcome Y of individual i in PSU p of sub-national region r is taken to depend on a region-specific effect α_r, a vector of individual characteristics $\boldsymbol{X_{ipr}}$, self-reported exposure to conflict C^s_{ipr}, and idiosyncratic error ϵ_{ipr}. Standard errors are clustered at the level of sub-national regions, and survey weights, which ensure that the data are representative at the country level, are included in all specifications.[9]

The coefficient of interest is β_1, which has typically been interpreted as the impact of conflict on attitudes, conditional on conflict incidence not being selected on the basis of the outcomes Y, or individual characteristics correlated with those outcomes and not captured in $\boldsymbol{X_{ipr}}$. But this identifying assumption overlooks the possibility that self-reported exposure to conflict may not sufficiently reflect *actual* exposure to conflict. Insofar as the reporting error for conflict is correlated with the outcome Y, or some correlates of Y, then we are still

[9]Note that PSU-level clusters are nested within the corresponding region-level clusters. The small number of observations within PSU precludes us from clustering the errors at the PSU level.

left with an endogeneity issue in model 1. In order to address this potential problem, which has not been discussed in previous work on conflict, we introduce a second model:

$$Y_{ipr} = \alpha_r + \beta_2 C^o_{pr} + \gamma \boldsymbol{X_{ipr}} + \epsilon_{ipr} \tag{2}$$

The above model addresses our endogeneity problem because conflict in (2) - C^o_{pr} - is no longer self-reported, but rather objectively measured using third-party (historical) reference material. Of course, we are still left with the possibility that actual violence is targeted at areas in which certain social attitudes prevail - the typical identification challenge cited for model (1), and addressed in part by including sub-national regional effects. We therefore interpret β_2 as an improved estimate of the impact of conflict on attitudinal outcomes, net of selection effects related to (deliberate or accidental) recall bias suffered by the estimate β_1.[10]

5 Results

Prior to estimating the full models of equations 1 and 2 above, we begin the analysis with more parsimonious specifications. From models 1 and 2 we drop the control vector $\boldsymbol{X_{ipr}}$, to calculate our key bivariate correlations allowing for region-specific intercepts. We first test the correlation between conflict and political/civic engagement using our subjective measure of victimization. Columns 1-3 of Table 2 demonstrate that all measures of political participation are positively correlated with self-reported victimization, which reflects the findings of previous research (Bellows and Miguel 2009; Blattman 2009; Grosjean 2014). The results of the subsequent two columns (4-5) are weakly consistent with earlier evidence positively

[10]The improvement to identification in model 2 comes at the cost of introducing measurement error via migration. We address this concern in the robustness section. It is also noteworthy that identification here relies on sufficient within-region variation of PSU-level conflict. In a model attempting to explain PSU-level conflict with region dummies alone, an R^2 of 0.48 is obtained. Hence, more than half of the variation is explained by sub-regional characteristics.

associating civic engagement to victimization (Bellows and Miguel 2009; Blattman 2009; Cassar et al. 2013; Grosjean 2014). Once we opt for an objective measure of violence (Table 3), the relationships between victimization and political/civic engagement are essentially reversed. The data now suggest those exposed to violence are *less* likely to protest, join political parties, or meet with friends.[11]

We next introduce the control vector $\boldsymbol{X_{ipr}}$ into model 1, to assess whether observable characteristics can account for 'bias' in β_1. Indeed, when conditioning on individual characteristics in Table 4, the coefficient estimates of β_1 drop in magnitude in columns 1-3. This is consistent with observable traits driving both political participation and positive recall of victimization. Reassuringly, covariates such as health, employment, and education are mostly positively associated with political and civic engagement, and the corresponding point estimates are often large and stable across models (for a given outcome variable). In Table 5 we estimate model 2 with individual controls included. When doing so, the point estimates of the impact of conflict remain comparatively stable, although some precision is lost. With or without controls, there is little indication that objective conflict strengthens political or civic engagement. If anything, the relationship appears to run in the opposite direction. Together we interpret tables 2-5 as evidence of positive bias in β_1, stemming from selective misreporting among the politically and civicly (dis)engaged. We therefore extend caution towards the interpretation of earlier findings linking political/civic engagement to conflict based entirely on self-reported victimization data.

We next explore the impact of conflict on our measures of optimism. We again present bivariate results first, followed by the full model. In Table 6, we find a negative effect of subjective victimization on optimism. From our methodological perspective, we interpret this as evidence that pessimistic individuals are more likely to report that their families

[11] We also estimate model 2 allowing for non-linear effects of objective conflict by introducing a squared term (this cannot be done for the *binary* subjective indicator). The results in Tables A3 and A4 offer no evidence for heterogeneous impacts over the range of conflict.

had been victimized. Interestingly, when we instead use the objective measure of conflict in columns 1-2 of Table 7, the relationship is reversed. Those locations in which conflict was more severe are characterized by *greater* optimism among inhabitants. This finding adds to evidence suggesting that conflict reduces optimism in the short-run, but not necessarily in the medium-run (Bozzoli et al. 2011). The reversal of the relation between conflict and optimism when moving from subjective to objective indicators may constitute further evidence that self-reported victimization is subject to selective reporting bias (notwithstanding findings from Bozzoli et al. (2011), using *objective* victimization data). Moreover, when controlling for observable individual characteristics in columns 1-2 of Table 8, the relationship between optimism and self-reported victimization vanishes (declining in magnitude and statistical significance). This suggests misreporting could indeed differ across individuals differentiated by these characteristics. The positive effects of objective conflict on optimism, by contrast, are robust to the inclusion of controls in columns 1-2 of Table 9.

Finally, we turn to indicators of interpersonal and institutional trust. Prior research demonstrates a robust negative relationship between various measures of trust and exposure to conflict (Besley and Reynal-Querol 2014; Cassar et al. 2013; Grosjean 2014; Nunn and Wantchekon 2011). Our bivariate tests in columns 3-4 of Table 6 are consistent with earlier findings. Our interpretation of these results, by contrast, is that less trusting individuals are more likely to self-report victimization. When we substitute the objective measure of conflict in Table 7, the relationship is reversed. Again, controlling for observable individual characteristics leads to substantial declines in the magnitude of the point estimate for β_1 (this time, however, the same is true of β_2 estimated in Table 7).

In sum, regardless of the social behavior examined, results based on self-reported victimization are reversed when an objective measure of conflict exposure is used instead. Point estimates for the effects of subjective victimization generally decline in magnitude when controlling for individual characteristics, suggesting the latter may account for the bias in

estimated effects. Of course, alternative interpretations of our results are possible, but our explanation is simple, intuitive, and grounded in established findings from psychology.

6 Robustness

6.1 Migration

While our objective measure for violence remedies the potential reporting bias associated with survey-based measures of victimization, it may suffer from measurement error due to migration. If a survey respondent or their family moved since WW2, then the prior incidence of conflict in their current PSU of residence would not reflect actual exposure to violence. Rather, in that case our objective measure would reflect the fact that the respondent and their family reside in, and are conditioned by, a war-affected locality. One might therefore consider the impact of conflict to manifest through two channels: the first being a personalized (family) experience with war, and the second being the broader institutional and social ramifications of war. To the extent that migration since WW2 is prevalent, then our estimated effects capture the impact of war as manifested at the locality level (i.e., the location-specific effects). It is beyond the scope of this paper to determine whether the effects of conflict on attitudes significantly differ according to the channel by which they are manifested. However, we attempt to address measurement concerns at least partially in several ways.

From the LiTS we can determine whether the respondent or their family moved since WW2. In case of either movement, our objective violence measure no longer captures personalized exposure for that individual. The extent of remaining *locality-level* effects reflected in that measure is determined by when the migration took place. In the extreme, if the respondent moved into the PSU in which they were surveyed one day before LiTS was administered, our objective measure would not capture locality-level effects for that individual.

If, on the other hand, migration took place immediately following the end of WW2, then that individual (with their family) would have been subjected to approximately 65 years of local conditioning. In that case, identifying off our objective measure would purely capture effects manifested through the broader institutional/social channels. Given that this measurement error is more pronounced for those having recently moved, for robustness we re-estimate our results excluding from our sample those ever having moved in their lifetime (but including in the sample those whose families were forced to move during World War II). Our results (unreported) remain qualitatively intact, although our estimates for the positive effects of violence on optimism are less precise (potentially due to sample size, which is approximately halved).

One outstanding concern in our main results is that migration (and therefore measurement error in the objective measure) is nonrandom with respect to (correlates of) the outcome. To address this, we control for individual and family migration (due to WW2). Our identification is based on variation within nonmigrants, and on variation within migrants, and *not* based on migrant-nonmigrant comparisons. Still, our results could be biased towards zero if those most heavily affected (in terms of attitudes) by conflict are likely to displace themselves into areas not affected by conflict. This is a possibility we cannot rule out entirely, but we can assert that migration was limited under communism in our region of interest, both internally and externally (Janos 2000). Moreover, less than 20% of respondents had families forcibly relocated as a result of World War II. As such, the contamination of non-affected PSUs by conflict-affected migrants should not be so severe as to completely wash away an otherwise valid result linking objective victimization to attitudes.

6.2 Decomposition of indices

Our results demonstrate that the positive impact of self-reported victimization on political and civic engagement is essentially reversed once we substitute an objective measure of

violence. Bust these results are partially based on indices we construct. One might therefore wonder whether these are general findings, or artefacts of the particular indices employed. In the appendix we therefore present results for the individual components of the respective indices. Table A5 demonstrates that all forms of political engagement in the *protest* index are positively correlated with self-reported victimization. Table A6 shows that the positive correspondence between *social capital* and victimization is driven mainly by involvement with artistic, professional, environmental, and youth associations (with positive but insignificant effects in most other columns). Once we adopt the objective measure for conflict exposure in Table A7, the positive correlation with each and every form of protest (from Table A5) vanishes. The analogous is true when comparing columns 3, 5, 6, and 8 between Tables A6 and A8. Hence, our results are not a byproduct of index construction, and are quite robust across various submeasures of political and civic engagement.

6.3 Additional robustness checks

We first explore whether our results are driven by the different levels of aggregation of our subjective conflict measure (at the individual level) as compared to the objective measure (at the PSU level). In Tables A9 and A10 we aggregate the subjective measure to the PSU level, and rerun our full model for each outcome variable. Comparing Tables A9 and A10 with Tables 4 and 8, respectively, we do not observe strong differences across results. In most cases, the sign of the effect is preserved, even if statistical significance is diminished. It is difficult to compare effect sizes across tables because the interpretation of the subjective victimization variable itself changes under aggregation. In Tables A9 and A10, the self-reported measure of victimization captures average perceptions within a PSU. Since only 24% of variation in the self-reported measure is attributable to PSU-level characteristics, this average is a rough proxy for the underlying individual assessments. We do not theorize on whether average perceptions within a locality should influence social behaviors of the

individual; this line of inquiry departs from our main purpose of demonstrating evidence of reporting bias *at the individual level*.[12]

In Tables A11 - A12 we replicate the results from the baseline specifications, but include simultaneously the objective and subjective determinants of victimization. Even though the sample size drops slightly, results are very similar to those when we include each conflict measure one at a time. The effects of subjective victimization are robust to including objective exposure, and this is consistent with our interpretation of the subjective measure reflecting personalized response bias.

7 Conclusion

We revisit the literature linking conflict victimization and social attitudes. In particular, we question the survey-based measures used widely in this line of inquiry and make use of a psychology literature which has demonstrated severe misreporting in retrospective accounts of adverse childhood experiences. Most importantly, the propensity to misreport has been linked to various individual characteristics, including attitudinal factors. Consequently, we argue that endogenous misreporting can explain, at least to some extent, the impact of conflict on civic and political engagement. We replicate earlier findings in a new setting, based on our own survey-based measure. But when we instead use an objective measure of victimization, based on historical reference material, the effects are reversed.

The same discrepancy between results generated from subjective and objective measures of conflict also holds when examining optimism and trust. Further, we find that conflict has a positive effect on optimism in the long run, which is counter to short-run findings. Last, we find little evidence supporting the commonly-held view that conflict exposure negatively

[12]Upon aggregating our measures, any effects working at the individual level are diluted, and potentially countered/strengthened by effects operating at a higher level of aggregation (like spillovers). To explore this issue adequately would require a degree of nuance outside the scope of this paper (in part, due to data limitations on the spatial precision of conflict).

affects trust. Our results thus warn researchers and policymakers to be more cautious in accepting 'stylized facts' relating conflict to social attitudes.

Our findings are based on conflict measured as strategic phenomena during World War II, including attacks, counterattacks, defensive operations, and encirclements. To the extent that earlier findings are simply not generalizable to our setting (geographically, or by type of conflict), then our work serves to question the external, rather than internal, validity of earlier research. There are indeed reasons to expect heterogeneous effects between civil conflict and international war; between victimization of children and adults; between exposure of perpetrators and recipients of violence; and so on. Remarkably, Bauer et al. (2016) indicate that they "see little systematic difference by the type of violence experienced... The results appear to hold for men and women, as well as children and adults exposed to violence, and are remarkably similar for both the victims and perpetrators of violence" (p. 250). Our concerns regarding the internal validity of earlier findings are thus not outweighed by those regarding comparability of our results to findings produced in other conflict contexts.

A related concern is whether victimization in psychology is sufficiently comparable to victimization in conflict, such that our methodological concerns are valid. From the psychology literature, we have drawn upon research on the validity of self-reports concerning individual trauma, including domestic, sexual, and physical abuse. We are unable to test directly whether similar recall bias occurs at the individual level when recounting exposure to conflict, but see no reason to expect otherwise. Moreover, non-conflict incidents of trauma including crime and natural disasters carry similar implications for social attitudes as conflict itself (Bauer et al. 2016), and so our comparison is also justifiable on that basis.

As discussed, recall bias can become less severe under stricter, more careful methods of elicitation. Various survey design practices could be developed in the future to reduce this form of confound. In recent years, there have been extensive efforts to improve the measurement of conflict in household surveys (see for instance, the reviews in Brück et al.

(2010) and Brück et al. (2015)). At any rate, it is instructive to rely on objective, verifiable means of identifying victimization as much as possible. If self-reported measures must be used, it would be well-advised to address potential endogeneity arising from selective misreporting. To this effect, researchers can even explicitly model misreporting following the novel approaches of Almada et al. (forthcoming) and Nguimkeuy et al. (2016). We expect this area of research to grow as awareness spreads regarding the severity of this important yet oft-overlooked source of endogeneity.

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Figure 1: **Example of battle map**
Source: Ellis (1993). *The Eastern Front: The Russians bounce the Dnieper 4 July - 23 December 1943.*

Figure 2: **Geographic distribution of objective conflict measure across LiTS PSUs**
Notes: Fine black points mark PSUs without significant WW2 battle activity. Larger orange dots indicate PSUs within 15-km of an attack, counterattack, defensive operation, or encirclement. The size of the dot is proportional to the intensity of battle activity.

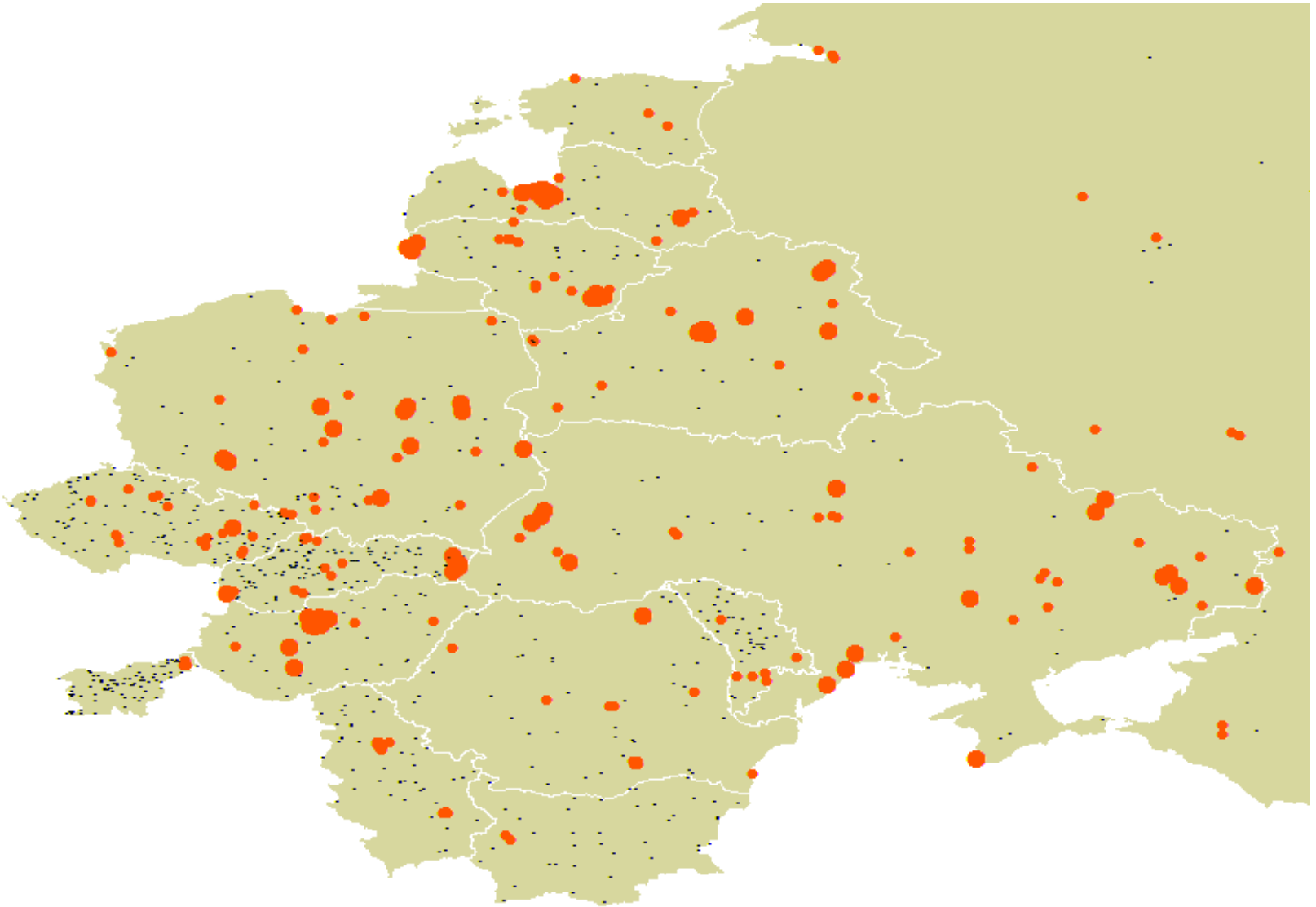

Table 1: **Summary statistics, all countries**

Variable	**Mean**	**SD**	**Min**	**Max**
Protest	1.49	0.54	1.00	3.00
Member party	0.03	0.18	0.00	1.00
Voting	0.82	0.39	0.00	1.00
Social capital	0.20	0.56	0.00	8.00
Friends	3.60	1.05	1.00	5.00
Life satisfaction	5.32	2.06	1.00	10.00
Effort	0.70	0.46	0.00	1.00
Trust people	2.98	1.01	1.00	5.00
Trust inst.	2.77	0.81	1.00	5.00
WW2 (subj)	0.35	0.48	0.00	1.00
WW2 (obj)	0.57	1.01	0.00	6.00
Male	0.38	0.49	0.00	1.00
Health	-2.63	0.94	-5.00	-1.00
Employed	0.53	0.50	0.00	1.00
Income	4.26	1.66	1.00	10.00
Secondary	0.46	0.50	0.00	1.00
University	0.41	0.49	0.00	1.00
Father's education	9.24	4.30	0.00	50.00
Mother's education	8.94	4.41	0.00	46.00
Communist	0.23	0.42	0.00	1.00
Move (ever)	0.41	0.49	0.00	1.00
Move (WW2)	0.19	0.39	0.00	1.00
Urban	0.63	0.48	0.00	1.00
Age	48.11	17.76	18.00	99.00
Married	0.55	0.50	0.00	1.00

Source: LiTS 2010.

Table 2: Subjective victimization, political participation, and civic engagement

	(1) Protest	(2) Member party	(3) Voting	(4) Social capital	(5) Friends
WW2 (subj)	0.078***	0.006*	0.028***	0.032**	−0.042
	(0.012)	(0.004)	(0.008)	(0.014)	(0.027)
Region dummies	✓	✓	✓	✓	✓
R-sq	0.201	0.024	0.122	0.050	0.111
Number of observations	15260	15107	14093	15261	15082

Notes: OLS coefficients are reported. Standard errors clustered at the level of subnational regions are in parentheses. Controls for PSU latitude and longitude are included but not shown. Significance levels: * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

Table 3: Objective victimization, political participation, and civic engagement

	(1) Protest	(2) Member party	(3) Voting	(4) Social capital	(5) Friends
WW2 (obj)	-0.020^{**}	-0.004^{*}	0.006	0.008	-0.054^{**}
	(0.009)	(0.002)	(0.007)	(0.012)	(0.021)
Region dummies	✓	✓	✓	✓	✓
R-sq	0.191	0.027	0.114	0.052	0.107
Number of observations	15271	15076	14180	15273	15070

Notes: OLS coefficients are reported. Standard errors clustered at the level of subnational regions are in parentheses. Controls for PSU latitude and longitude are included but not shown. Significance levels: * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

Table 4: Subjective victimization, political participation, and civic engagement (with individual controls)

	(1) Protest	(2) Member party	(3) Voting	(4) Social capital	(5) Friends
WW2 (subj)	0.044***	−0.001	0.018**	0.035**	−0.006
	(0.014)	(0.005)	(0.008)	(0.014)	(0.032)
male	0.047***	0.015***	−0.011	−0.013	0.130***
	(0.012)	(0.003)	(0.007)	(0.017)	(0.022)
health	0.021***	0.005*	−0.003	0.026**	0.095***
	(0.007)	(0.003)	(0.005)	(0.011)	(0.014)
employed	0.099***	0.005	0.038***	0.073***	−0.038
	(0.016)	(0.005)	(0.011)	(0.014)	(0.034)
income	−0.000	0.000	0.006**	0.012**	0.034***
	(0.004)	(0.001)	(0.003)	(0.006)	(0.010)
secondary	0.080***	0.013*	0.031	−0.011	−0.016
	(0.021)	(0.007)	(0.021)	(0.011)	(0.050)
university	0.148***	0.024***	0.079***	0.122***	−0.087
	(0.024)	(0.009)	(0.026)	(0.021)	(0.056)
father's education	0.003	−0.001	0.001	−0.001	0.004
	(0.002)	(0.001)	(0.002)	(0.003)	(0.005)
mother's education	0.002	0.001	−0.003*	0.007*	0.001
	(0.002)	(0.001)	(0.002)	(0.004)	(0.006)
communist	0.091***	0.026***	0.012	0.007	0.000
	(0.016)	(0.006)	(0.010)	(0.015)	(0.027)
Moved (ever)	0.012	−0.000	0.013	0.026	−0.076***
	(0.015)	(0.004)	(0.008)	(0.020)	(0.028)
Moved (WW2)	0.078***	0.015**	0.016	0.067***	0.017
	(0.015)	(0.006)	(0.014)	(0.025)	(0.037)
Region dummies	✓	✓	✓	✓	✓
R-sq	0.228	0.040	0.137	0.079	0.134
Number of observations	9538	9464	8871	9539	9474

Notes: OLS coefficients are reported. Standard errors clustered at the level of subnational regions are in parentheses. Controls for PSU latitude and longitude, urbanity, age, age squared and marital status are included but not shown. Significance levels: * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

Table 5: Objective victimization, political participation, and civic engagement (with individual controls)

	(1) Protest	(2) Member party	(3) Voting	(4) Social capital	(5) Friends
WW2 (obj)	−0.019	−0.001	0.006	−0.008	−0.060**
	(0.012)	(0.002)	(0.007)	(0.014)	(0.029)
male	0.055***	0.017***	−0.016***	−0.022	0.122***
	(0.011)	(0.004)	(0.006)	(0.016)	(0.025)
health	0.021***	0.006**	−0.002	0.026**	0.094***
	(0.008)	(0.003)	(0.006)	(0.011)	(0.015)
employed	0.094***	0.004	0.039***	0.080***	−0.022
	(0.015)	(0.005)	(0.011)	(0.015)	(0.037)
income	−0.001	0.000	0.008***	0.010	0.037***
	(0.005)	(0.001)	(0.003)	(0.006)	(0.010)
secondary	0.082***	0.011*	0.036*	−0.018	−0.006
	(0.024)	(0.006)	(0.020)	(0.013)	(0.053)
university	0.149***	0.020**	0.080***	0.125***	−0.080
	(0.027)	(0.009)	(0.026)	(0.023)	(0.060)
father's education	0.005**	−0.001	0.000	−0.001	0.006
	(0.002)	(0.001)	(0.001)	(0.004)	(0.006)
mother's education	0.001	0.001	−0.003*	0.007*	−0.001
	(0.002)	(0.001)	(0.002)	(0.004)	(0.007)
communist	0.093***	0.026***	0.008	0.017	−0.003
	(0.017)	(0.006)	(0.011)	(0.015)	(0.030)
Moved (ever)	0.010	0.001	0.015	0.007	−0.085***
	(0.016)	(0.004)	(0.009)	(0.014)	(0.029)
Moved (WW2)	0.082***	0.013**	0.020	0.067***	−0.016
	(0.015)	(0.006)	(0.015)	(0.024)	(0.038)
Region dummies	✓	✓	✓	✓	✓
R-sq	0.220	0.045	0.131	0.085	0.129
Number of observations	8596	8528	8046	8597	8533

Notes: OLS coefficients are reported. Standard errors clustered at the level of subnational regions are in parentheses. Controls for PSU latitude and longitude, urbanity, age, age squared and marital status are included but not shown. Significance levels: * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

Table 6: Subjective victimization, optimism, and trust

	(1) Life satisfaction	(2) Effort	(3) Trust people	(4) Trust inst.
WW2 (subj)	-0.124^{**}	-0.023^{**}	-0.030	-0.052^{***}
	(0.055)	(0.011)	(0.025)	(0.019)
Region dummies	✓	✓	✓	✓
R-sq	0.156	0.072	0.059	0.152
Number of observations	15259	14042	14489	15145

Notes: OLS coefficients are reported. Standard errors clustered at the level of subnational regions are in parentheses. Controls for PSU latitude and longitude are included but not shown. Significance levels: * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

Table 7: Objective victimization, optimism, and trust

	(1) Life satisfaction	(2) Effort	(3) Trust people	(4) Trust inst.
WW2 (obj)	0.147***	0.029***	0.034*	0.012
	(0.046)	(0.010)	(0.020)	(0.014)
Region dummies	✓	✓	✓	✓
R-sq	0.164	0.076	0.061	0.143
Number of observations	15269	13987	14437	15109

Notes: OLS coefficients are reported. Standard errors clustered at the level of subnational regions are in parentheses. Controls for PSU latitude and longitude are included but not shown. Significance levels: * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

Table 8: Subjective victimization, optimism, and trust (with individual controls)

	(1) Life satisfaction	(2) Effort	(3) Trust people	(4) Trust inst.
WW2 (subj)	−0.006	−0.007	−0.010	−0.018
	(0.046)	(0.012)	(0.035)	(0.021)
male	−0.116***	−0.038***	−0.049*	−0.069***
	(0.037)	(0.012)	(0.025)	(0.017)
health	0.413***	0.011	0.078***	0.059***
	(0.027)	(0.008)	(0.018)	(0.011)
employed	0.064	−0.021**	0.029	−0.024
	(0.047)	(0.010)	(0.025)	(0.021)
income	0.512***	0.034***	0.080***	0.084***
	(0.023)	(0.004)	(0.010)	(0.008)
secondary	0.212***	−0.006	0.044	−0.025
	(0.077)	(0.021)	(0.043)	(0.033)
university	0.480***	−0.023	0.158***	−0.002
	(0.084)	(0.023)	(0.051)	(0.035)
father's education	0.017*	−0.003	−0.002	−0.004
	(0.009)	(0.002)	(0.006)	(0.003)
mother's education	0.001	0.004**	0.008	0.005
	(0.008)	(0.002)	(0.005)	(0.003)
communist	0.042	−0.046***	−0.006	−0.025
	(0.051)	(0.015)	(0.034)	(0.019)
Moved (ever)	0.162***	−0.005	−0.015	−0.002
	(0.051)	(0.012)	(0.026)	(0.017)
Moved (WW2)	0.105**	−0.028*	−0.001	−0.062**
	(0.048)	(0.017)	(0.036)	(0.026)
Region dummies	✓	✓	✓	✓
R-sq	0.369	0.101	0.097	0.207
Number of observations	9538	8908	9105	9483

Notes: OLS coefficients are reported. Standard errors clustered at the level of subnational regions are in parentheses. Controls for PSU latitude and longitude, urbanity, age, age squared and marital status are included but not shown. Significance levels: * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

Table 9: Objective victimization, optimism, and trust (with individual controls)

	(1) Life satisfaction	(2) Effort	(3) Trust people	(4) Trust inst.
WW2 (obj)	0.089**	0.032***	0.012	0.004
	(0.039)	(0.011)	(0.024)	(0.014)
male	−0.124***	−0.041***	−0.032	−0.066***
	(0.042)	(0.012)	(0.026)	(0.019)
health	0.406***	0.009	0.074***	0.056***
	(0.028)	(0.008)	(0.018)	(0.012)
employed	0.061	−0.019	0.008	−0.038
	(0.050)	(0.012)	(0.028)	(0.024)
income	0.515***	0.031***	0.087***	0.089***
	(0.023)	(0.004)	(0.011)	(0.008)
secondary	0.221***	0.000	0.025	−0.028
	(0.077)	(0.023)	(0.040)	(0.036)
university	0.497***	−0.016	0.155***	−0.001
	(0.085)	(0.025)	(0.042)	(0.039)
father's education	0.015	−0.004*	−0.002	−0.006*
	(0.010)	(0.002)	(0.006)	(0.003)
mother's education	0.000	0.006***	0.010*	0.006
	(0.010)	(0.002)	(0.005)	(0.004)
communist	0.059	−0.043***	−0.017	−0.041*
	(0.057)	(0.015)	(0.034)	(0.021)
Moved (ever)	0.173***	0.000	−0.010	0.002
	(0.054)	(0.012)	(0.027)	(0.020)
Moved (WW2)	0.075	−0.029	−0.005	−0.067**
	(0.055)	(0.018)	(0.033)	(0.030)
Region dummies	✓	✓	✓	✓
R-sq	0.379	0.107	0.101	0.191
Number of observations	8596	8027	8183	8543

Notes: OLS coefficients are reported. Standard errors clustered at the level of subnational regions are in parentheses. Controls for PSU latitude and longitude, urbanity, age, age squared and marital status are included but not shown. Significance levels: * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

Table A1: Summary statistics by country

Country	WW2 (subj)	WW2 (obj)	male	health	employed	income	secondary	university
Belarus	0.64	1.16	0.38	-2.69	0.69	4.61	0.18	0.81
	0.48	1.15	0.49	0.73	0.46	1.49	0.38	0.39
Bulgaria	0.15	0.05	0.37	-2.54	0.47	3.79	0.40	0.56
	0.35	0.22	0.48	0.95	0.50	1.66	0.49	0.50
Czech Republic	0.11	0.17	0.39	-2.30	0.71	5.04	0.76	0.17
	0.32	0.40	0.49	0.92	0.45	1.43	0.43	0.38
Estonia	0.37	0.48	0.29	-2.74	0.48	4.32	0.36	0.47
	0.48	0.50	0.45	0.89	0.50	1.37	0.48	0.50
Hungary	0.21	0.96	0.40	-2.74	0.44	3.89	0.43	0.29
	0.41	1.45	0.49	0.95	0.50	1.53	0.50	0.45
Latvia	0.40	1.48	0.41	-2.79	0.55	3.84	0.45	0.44
	0.49	1.36	0.49	0.85	0.50	1.59	0.50	0.50
Lithuania	0.20	0.97	0.33	-2.82	0.46	4.04	0.49	0.27
	0.40	0.99	0.47	0.94	0.50	1.59	0.50	0.44
Moldova	0.43	0.13	0.36	-3.02	0.43	4.22	0.55	0.36
	0.50	0.34	0.48	0.97	0.50	1.70	0.50	0.48
Poland	0.33	0.74	0.47	-2.44	0.49	5.00	0.53	0.32
	0.47	1.38	0.50	0.98	0.50	1.71	0.50	0.47
Romania	0.27	0.27	0.43	-2.78	0.41	3.95	0.45	0.26
	0.44	0.49	0.50	1.05	0.49	1.64	0.50	0.44
Russia	0.61	0.20	0.30	-2.79	0.59	3.92	0.26	0.71
	0.49	0.43	0.46	0.75	0.49	1.65	0.44	0.45
Serbia	0.34	0.27	0.44	-2.49	0.50	3.91	0.59	0.20
	0.47	0.45	0.50	1.03	0.50	1.66	0.49	0.40
Slovakia	0.13	0.21	0.38	-2.16	0.69	5.20	0.69	0.23
	0.34	0.64	0.49	0.85	0.46	1.53	0.46	0.42
Slovenia	0.19	0.03	0.44	-2.28	0.53	4.58	0.60	0.23
	0.39	0.18	0.50	0.89	0.50	1.52	0.49	0.42
Ukraine	0.61	0.99	0.30	-2.85	0.51	3.55	0.24	0.73
	0.49	1.11	0.46	0.80	0.50	1.43	0.43	0.45

Source: LiTS 2010. For each country, means (first row) and standard deviations (second row) for selected variables are reported.

Table A2: Summary statistics by country (continued)

Country	father's educn	mother's educn	communist	move (ever)	move (WW2)	urban	age	married
Belarus	10.14	10.02	0.23	0.33	0.19	0.73	39.31	0.55
	4.33	4.15	0.42	0.47	0.39	0.45	15.48	0.50
Bulgaria	8.77	8.43	0.32	0.47	0.07	0.69	51.25	0.61
	3.75	3.82	0.47	0.50	0.26	0.46	17.07	0.49
Czech Republic	11.41	10.88	0.29	0.30	0.13	0.77	45.01	0.52
	3.88	3.76	0.45	0.46	0.34	0.42	15.03	0.50
Estonia	9.05	9.16	0.24	0.68	0.40	0.59	51.96	0.44
	4.24	4.20	0.43	0.47	0.49	0.49	19.86	0.50
Hungary	9.30	8.83	0.13	0.36	0.14	0.70	52.84	0.45
	3.96	3.69	0.33	0.48	0.35	0.46	17.85	0.50
Latvia	9.02	9.15	0.19	0.62	0.36	0.74	50.43	0.44
	4.19	4.35	0.39	0.49	0.48	0.44	18.63	0.50
Lithuania	7.74	7.76	0.14	0.52	0.23	0.62	52.07	0.51
	6.33	6.73	0.34	0.50	0.42	0.48	18.16	0.50
Moldova	7.17	7.10	0.15	0.37	0.11	0.40	50.21	0.60
	3.75	4.03	0.36	0.48	0.32	0.49	17.64	0.49
Poland	9.46	9.59	0.09	0.28	0.27	0.47	48.35	0.63
	3.86	4.16	0.29	0.45	0.45	0.50	17.54	0.48
Romania	7.63	6.99	0.32	0.42	0.10	0.58	50.11	0.59
	4.00	3.97	0.47	0.49	0.30	0.49	18.08	0.49
Russia	9.96	9.86	0.31	0.41	0.22	0.73	46.71	0.52
	4.40	4.52	0.46	0.49	0.41	0.44	17.74	0.50
Serbia	8.52	7.22	0.39	0.40	0.15	0.56	49.31	0.58
	4.38	4.63	0.49	0.49	0.35	0.50	17.18	0.49
Slovakia	11.96	11.62	0.22	0.28	0.09	0.66	41.50	0.58
	3.06	2.99	0.42	0.45	0.28	0.47	13.37	0.49
Slovenia	9.93	9.44	0.12	0.40	0.17	0.58	45.51	0.56
	3.73	3.73	0.32	0.49	0.38	0.49	17.49	0.50
Ukraine	9.13	9.13	0.28	0.36	0.21	0.65	47.12	0.54
	4.17	4.20	0.45	0.48	0.41	0.48	18.22	0.50

Source: LiTS 2010. For each country, means (first row) and standard deviations (second row) for selected variables are reported.

Table A3: Objective victimization (with squared term), political participation, and civic engagement

	(1) Protest	(2) Member party	(3) Voting	(4) Social capital	(5) Friends
WW2 (obj)	−0.033	−0.002	−0.001	−0.023	−0.056
	(0.032)	(0.006)	(0.019)	(0.026)	(0.059)
WW2 (obj)^2	0.005	0.000	0.003	0.005	−0.001
	(0.011)	(0.001)	(0.005)	(0.010)	(0.023)
male	0.055***	0.017***	−0.016***	−0.022	0.122***
	(0.011)	(0.004)	(0.006)	(0.016)	(0.025)
health	0.021***	0.006**	−0.002	0.026**	0.094***
	(0.008)	(0.003)	(0.006)	(0.011)	(0.015)
employed	0.094***	0.004	0.039***	0.080***	−0.022
	(0.015)	(0.005)	(0.011)	(0.015)	(0.037)
income	−0.001	0.000	0.008***	0.010	0.037***
	(0.005)	(0.001)	(0.003)	(0.006)	(0.010)
secondary	0.082***	0.011*	0.036*	−0.018	−0.006
	(0.024)	(0.006)	(0.020)	(0.013)	(0.053)
university	0.149***	0.020**	0.080***	0.126***	−0.080
	(0.027)	(0.009)	(0.026)	(0.023)	(0.060)
father's education	0.005**	−0.001	0.000	−0.001	0.006
	(0.002)	(0.001)	(0.001)	(0.003)	(0.006)
mother's education	0.001	0.001	−0.003*	0.007*	−0.001
	(0.002)	(0.001)	(0.002)	(0.004)	(0.007)
communist	0.093***	0.026***	0.008	0.017	−0.003
	(0.017)	(0.006)	(0.011)	(0.015)	(0.030)
Moved (ever)	0.010	0.001	0.015	0.007	−0.085***
	(0.016)	(0.004)	(0.009)	(0.014)	(0.029)
Moved (WW2)	0.082***	0.013**	0.020	0.067***	−0.016
	(0.015)	(0.006)	(0.015)	(0.024)	(0.038)
Region dummies	✓	✓	✓	✓	✓
R-sq	0.220	0.045	0.131	0.085	0.129
Number of observations	8596	8528	8046	8597	8533

Notes: OLS coefficients are reported. Standard errors clustered at the level of subnational regions are in parentheses. Controls for PSU latitude and longitude, urbanity, age, age squared and marital status are included but not shown. Significance levels: * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

Table A4: Objective victimization (with squared term), optimism, and trust

	(1) Life satisfaction	(2) Effort	(3) Trust people	(4) Trust inst.
WW2 (obj)	−0.083	0.047*	0.038	−0.012
	(0.113)	(0.024)	(0.066)	(0.050)
WW2 (obj)^2	0.060	−0.005	−0.009	0.005
	(0.036)	(0.008)	(0.022)	(0.015)
male	−0.124***	−0.041***	−0.032	−0.066***
	(0.042)	(0.012)	(0.026)	(0.019)
health	0.406***	0.009	0.074***	0.056***
	(0.028)	(0.008)	(0.018)	(0.012)
employed	0.061	−0.019	0.008	−0.038
	(0.050)	(0.012)	(0.028)	(0.024)
income	0.515***	0.031***	0.087***	0.089***
	(0.023)	(0.004)	(0.011)	(0.008)
secondary	0.224***	0.000	0.024	−0.028
	(0.078)	(0.023)	(0.040)	(0.036)
university	0.499***	−0.017	0.155***	−0.001
	(0.085)	(0.025)	(0.042)	(0.039)
father's education	0.015	−0.004*	−0.002	−0.006*
	(0.010)	(0.002)	(0.006)	(0.003)
mother's education	−0.000	0.006***	0.010*	0.006
	(0.010)	(0.002)	(0.005)	(0.004)
communist	0.060	−0.043***	−0.017	−0.041*
	(0.057)	(0.015)	(0.034)	(0.021)
Moved (ever)	0.172***	0.000	−0.009	0.001
	(0.054)	(0.012)	(0.027)	(0.020)
Moved (WW2)	0.076	−0.030	−0.005	−0.067**
	(0.056)	(0.018)	(0.033)	(0.030)
Region dummies	✓	✓	✓	✓
R-sq	0.379	0.107	0.101	0.191
Number of observations	8596	8027	8183	8543

Notes: OLS coefficients are reported. Standard errors clustered at the level of subnational regions are in parentheses. Controls for PSU latitude and longitude, urbanity, age, age squared and marital status are included but not shown. Significance levels: * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

Table A5: Subjective victimization and *protest* (disaggregated)

	(1) demonstrations	(2) strike	(3) petitions
WW2 (subj)	0.057***	0.028**	0.046**
	(0.018)	(0.014)	(0.019)
male	0.080***	0.037***	0.024
	(0.015)	(0.012)	(0.016)
health	0.031***	0.019**	0.012
	(0.010)	(0.008)	(0.009)
employed	0.093***	0.115***	0.089***
	(0.022)	(0.016)	(0.016)
income	0.001	−0.006	0.004
	(0.005)	(0.006)	(0.006)
secondary	0.081***	0.050**	0.110***
	(0.027)	(0.024)	(0.025)
university	0.134***	0.107***	0.204***
	(0.032)	(0.030)	(0.028)
father's education	0.006*	0.002	0.002
	(0.003)	(0.003)	(0.003)
mother's education	0.000	0.002	0.003
	(0.002)	(0.002)	(0.003)
communist	0.083***	0.058***	0.133***
	(0.021)	(0.020)	(0.018)
Moved (ever)	0.016	0.002	0.019
	(0.016)	(0.014)	(0.020)
Moved (WW2)	0.073***	0.062***	0.100***
	(0.016)	(0.016)	(0.023)
Region dummies	✓	✓	✓
R-sq	0.139	0.174	0.232
Number of observations	9538	9538	9538

Notes: OLS - Coefficients are reported. Standard errors clustered at the level of subnational regions are in parentheses. Controls for PSU latitude and longitude, urbanity, age, age squared and marital status are included but not shown. Significance levels: * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

Table A6: Subjective victimization and *social capital* (disaggregated)

	(1) church	(2) sport	(3) art	(4) labor union	(5) env.	(6) prof. assoc.	(7) hum. org.	(8) youth
WW2 (subj)	0.001	0.002	0.012***	−0.002	0.004*	0.008**	0.005	0.005*
	(0.007)	(0.004)	(0.004)	(0.004)	(0.002)	(0.004)	(0.005)	(0.002)
male	−0.028***	0.030***	−0.008**	−0.009*	0.002	0.003	−0.006**	0.004
	(0.006)	(0.006)	(0.003)	(0.005)	(0.002)	(0.004)	(0.003)	(0.003)
health	0.003	0.013***	0.003*	−0.000	0.000	0.004*	0.001	0.002
	(0.004)	(0.005)	(0.002)	(0.003)	(0.002)	(0.003)	(0.002)	(0.002)
employed	−0.004	−0.004	0.010**	0.043***	0.002	0.025***	0.006**	−0.004
	(0.007)	(0.007)	(0.005)	(0.005)	(0.002)	(0.004)	(0.003)	(0.003)
income	0.001	0.004**	0.002*	0.001	−0.001	0.004***	0.000	0.001
	(0.003)	(0.002)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
secondary	−0.011	0.003	−0.002	−0.009	0.002	0.002	0.004	−0.001
	(0.010)	(0.005)	(0.004)	(0.007)	(0.002)	(0.003)	(0.004)	(0.003)
university	0.003	0.017***	0.024***	0.009	0.010***	0.033***	0.021***	0.004
	(0.011)	(0.006)	(0.005)	(0.008)	(0.003)	(0.005)	(0.007)	(0.004)
father's education	−0.000	0.001	0.000	0.000	−0.000	−0.002	−0.001*	0.000
	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.000)
mother's education	−0.000	0.001	0.001	0.001	0.000	0.002	0.002*	0.001
	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.000)
communist	−0.019***	0.005	0.003	0.008**	−0.000	0.008*	0.004	−0.002
	(0.007)	(0.005)	(0.004)	(0.004)	(0.002)	(0.004)	(0.004)	(0.002)
Moved (ever)	0.014*	−0.004	0.000	0.009**	0.001	0.004	0.002	−0.001
	(0.007)	(0.006)	(0.004)	(0.004)	(0.002)	(0.004)	(0.005)	(0.002)
Moved (WW2)	0.020**	0.002	0.006	0.014**	0.003	0.004	0.012*	0.007*
	(0.009)	(0.006)	(0.006)	(0.005)	(0.002)	(0.005)	(0.007)	(0.004)
Region dummies	✓	✓	✓	✓	✓	✓	✓	✓
R-sq	0.104	0.077	0.032	0.054	0.017	0.042	0.034	0.030
Number of obs	9539	9539	9539	9539	9539	9539	9539	9539

Notes: OLS coefficients are reported. Standard errors clustered at the level of subnational regions are in parentheses. Controls for PSU latitude and longitude, urbanity, age, age squared and marital status are included but not shown. 'env.' refers to membership in environmental organizations, while 'hum. org.' refers to membership in humanitarian organizations. Significance levels: * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

Table A7: Objective victimization and *protest* (disaggregated)

	(1) demonstrations	(2) strike	(3) petitions
WW2 (obj)	−0.017	−0.010	−0.031
	(0.013)	(0.010)	(0.020)
male	0.087***	0.038***	0.039***
	(0.015)	(0.013)	(0.014)
health	0.030***	0.022**	0.010
	(0.011)	(0.009)	(0.010)
employed	0.085***	0.113***	0.084***
	(0.021)	(0.017)	(0.017)
income	0.003	−0.006	0.001
	(0.006)	(0.006)	(0.006)
secondary	0.072**	0.048*	0.127***
	(0.031)	(0.027)	(0.025)
university	0.125***	0.104***	0.217***
	(0.034)	(0.032)	(0.030)
father's education	0.006**	0.005**	0.003
	(0.003)	(0.002)	(0.003)
mother's education	0.000	0.000	0.003
	(0.003)	(0.002)	(0.003)
communist	0.088***	0.061***	0.130***
	(0.021)	(0.021)	(0.018)
Moved (ever)	0.011	−0.001	0.020
	(0.017)	(0.015)	(0.022)
Moved (WW2)	0.080***	0.066***	0.098***
	(0.016)	(0.018)	(0.021)
Region dummies	✓	✓	✓
R-sq	0.138	0.168	0.224
Number of observations	8596	8596	8596

Notes: OLS coefficients are reported. Standard errors clustered at the level of subnational regions are in parentheses. Controls for PSU latitude and longitude, urbanity, age, age squared and marital status are included but not shown. Significance levels: * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

Table A8: Objective victimization and *social capital* (disaggregated)

	(1) church	(2) sport	(3) art	(4) labor union	(5) env.	(6) prof. assoc.	(7) hum. org.	(8) youth
WW2 (obj)	0.002	−0.005	−0.001	0.002	−0.001**	0.000	−0.004	−0.002
	(0.009)	(0.003)	(0.003)	(0.005)	(0.001)	(0.002)	(0.003)	(0.001)
male	−0.030***	0.027***	−0.009**	−0.012**	0.002	0.003	−0.007**	0.003
	(0.007)	(0.004)	(0.003)	(0.005)	(0.002)	(0.004)	(0.003)	(0.003)
health	0.005	0.009***	0.003*	0.001	0.001	0.003	0.002	0.003
	(0.004)	(0.003)	(0.002)	(0.003)	(0.002)	(0.002)	(0.003)	(0.002)
employed	−0.003	−0.001	0.008	0.047***	0.002	0.025***	0.006**	−0.004
	(0.008)	(0.005)	(0.005)	(0.006)	(0.002)	(0.004)	(0.003)	(0.003)
income	0.002	0.003*	0.001	0.001	−0.001*	0.004**	0.001	0.001
	(0.004)	(0.002)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
secondary	−0.012	0.003	−0.002	−0.010	0.000	0.001	0.002	−0.001
	(0.010)	(0.007)	(0.004)	(0.006)	(0.002)	(0.003)	(0.004)	(0.003)
university	0.000	0.018***	0.027***	0.012	0.008**	0.034***	0.021**	0.005
	(0.011)	(0.006)	(0.007)	(0.008)	(0.003)	(0.006)	(0.008)	(0.003)
father's education	0.001	0.001*	−0.000	0.001	−0.000	−0.002	−0.001	−0.000
	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.000)
mother's education	−0.001	0.001	0.001*	0.001	0.001	0.002	0.001	0.001***
	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.000)
communist	−0.020**	0.008*	0.006	0.009**	0.001	0.009*	0.005	−0.002
	(0.008)	(0.005)	(0.005)	(0.004)	(0.002)	(0.005)	(0.004)	(0.002)
Moved (ever)	0.013*	−0.010**	−0.001	0.006	−0.000	0.002	0.000	−0.002
	(0.008)	(0.004)	(0.004)	(0.005)	(0.002)	(0.004)	(0.004)	(0.002)
Moved (WW2)	0.020**	0.000	0.008	0.011*	0.004	0.008	0.009**	0.005
	(0.009)	(0.005)	(0.006)	(0.006)	(0.003)	(0.006)	(0.004)	(0.004)
Region dummies	✓	✓	✓	✓	✓	✓	✓	✓
R-sq	0.111	0.075	0.035	0.058	0.021	0.045	0.040	0.032
Number of obs	8597	8597	8597	8597	8597	8597	8597	8597

Notes: OLS coefficients are reported. Standard errors clustered at the level of subnational regions are in parentheses. Controls for PSU latitude and longitude, urbanity, age, age squared and marital status are included but not shown. 'env.' refers to membership in environmental organizations, while 'hum. org.' refers to membership in humanitarian organizations. Significance levels: * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

Table A9: Subjective victimization (aggregated at PSU level), political participation, and civic engagement

	(1) Protest	(2) Member party	(3) Voting	(4) Social capital	(5) Friends
WW2 (subj) PSU	0.129***	−0.020*	0.064*	0.071	−0.120
	(0.040)	(0.012)	(0.034)	(0.045)	(0.105)
male	0.047***	0.014***	−0.011	−0.013	0.125***
	(0.012)	(0.003)	(0.007)	(0.017)	(0.023)
health	0.021***	0.005*	−0.002	0.026**	0.095***
	(0.007)	(0.003)	(0.005)	(0.011)	(0.014)
employed	0.098***	0.004	0.039***	0.073***	−0.030
	(0.016)	(0.005)	(0.011)	(0.014)	(0.033)
income	0.000	0.000	0.006**	0.012**	0.032***
	(0.004)	(0.001)	(0.003)	(0.006)	(0.009)
secondary	0.081***	0.014**	0.030	−0.014	−0.022
	(0.021)	(0.007)	(0.021)	(0.011)	(0.050)
university	0.148***	0.025***	0.078***	0.117***	−0.092*
	(0.024)	(0.009)	(0.026)	(0.021)	(0.054)
father's education	0.003	−0.001	0.000	−0.001	0.004
	(0.002)	(0.001)	(0.001)	(0.003)	(0.005)
mother's education	0.002	0.001	−0.002	0.007*	0.001
	(0.002)	(0.001)	(0.002)	(0.004)	(0.006)
communist	0.089***	0.026***	0.010	0.008	−0.003
	(0.015)	(0.005)	(0.010)	(0.014)	(0.027)
Moved (ever)	0.014	−0.000	0.013*	0.027	−0.077***
	(0.014)	(0.004)	(0.008)	(0.020)	(0.028)
Moved (WW2)	0.083***	0.015***	0.020	0.064***	0.025
	(0.014)	(0.005)	(0.014)	(0.022)	(0.037)
Region dummies	✓	✓	✓	✓	✓
R-sq	0.229	0.040	0.139	0.078	0.134
Number of observations	9745	9669	9059	9746	9680

Notes: OLS coefficients are reported. Standard errors clustered at the level of subnational regions are in parentheses. Controls for PSU latitude and longitude, urbanity, age, age squared and marital status are included but not shown. Significance levels: * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

Table A10: Subjective victimization (aggregated at PSU level), optimism, and trust

	(1) Life satisfaction	(2) Effort	(3) Trust people	(4) Trust inst.
WW2 (subj) PSU	0.042	−0.012	−0.071	0.104
	(0.197)	(0.053)	(0.113)	(0.084)
male	−0.116***	−0.037***	−0.048*	−0.066***
	(0.037)	(0.012)	(0.026)	(0.017)
health	0.417***	0.011	0.079***	0.060***
	(0.025)	(0.007)	(0.018)	(0.011)
employed	0.065	−0.020*	0.032	−0.031
	(0.047)	(0.010)	(0.026)	(0.021)
income	0.510***	0.034***	0.080***	0.086***
	(0.022)	(0.004)	(0.010)	(0.008)
secondary	0.219***	−0.000	0.037	−0.023
	(0.078)	(0.021)	(0.043)	(0.032)
university	0.480***	−0.016	0.156***	−0.002
	(0.084)	(0.023)	(0.052)	(0.035)
father's education	0.017*	−0.003	−0.002	−0.004
	(0.009)	(0.002)	(0.006)	(0.003)
mother's education	0.002	0.004**	0.008	0.005
	(0.009)	(0.002)	(0.005)	(0.003)
communist	0.048	−0.047***	−0.011	−0.031
	(0.052)	(0.014)	(0.032)	(0.019)
Moved (ever)	0.162***	−0.005	−0.009	−0.000
	(0.051)	(0.012)	(0.025)	(0.018)
Moved (WW2)	0.103**	−0.028*	−0.001	−0.078***
	(0.048)	(0.016)	(0.031)	(0.027)
Region dummies	✓	✓	✓	✓
R-sq	0.368	0.099	0.097	0.208
Number of observations	9745	9103	9299	9687

Notes: OLS coefficients are reported. Standard errors clustered at the level of subnational regions are in parentheses. Controls for PSU latitude and longitude, urbanity, age, age squared and marital status are included but not shown. Significance levels: * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

Table A11: Objective and subjective victimization, political participation, and civic engagement

	(1) Protest	(2) Member party	(3) Voting	(4) Social capital	(5) Friends
WW2 (obj)	−0.019	−0.001	0.007	−0.007	−0.056*
	(0.012)	(0.002)	(0.007)	(0.014)	(0.029)
WW2 (subj)	0.033**	0.001	0.018*	0.041***	−0.020
	(0.016)	(0.006)	(0.010)	(0.014)	(0.034)
male	0.056***	0.017***	−0.016***	−0.020	0.125***
	(0.012)	(0.004)	(0.006)	(0.017)	(0.025)
health	0.021***	0.006**	−0.002	0.028**	0.092***
	(0.008)	(0.003)	(0.006)	(0.011)	(0.015)
employed	0.094***	0.005	0.037***	0.079***	−0.029
	(0.015)	(0.005)	(0.011)	(0.014)	(0.038)
income	−0.000	−0.000	0.008***	0.011*	0.038***
	(0.005)	(0.001)	(0.003)	(0.006)	(0.010)
secondary	0.080***	0.009	0.036*	−0.017	0.004
	(0.025)	(0.006)	(0.020)	(0.013)	(0.053)
university	0.145***	0.020**	0.081***	0.130***	−0.068
	(0.027)	(0.009)	(0.027)	(0.023)	(0.061)
father's education	0.005**	−0.001	0.001	−0.001	0.005
	(0.002)	(0.001)	(0.001)	(0.004)	(0.006)
mother's education	0.001	0.000	−0.003**	0.007*	−0.001
	(0.002)	(0.001)	(0.002)	(0.004)	(0.007)
communist	0.094***	0.026***	0.008	0.014	0.007
	(0.017)	(0.006)	(0.011)	(0.016)	(0.029)
Moved (ever)	0.008	0.001	0.015	0.004	−0.083***
	(0.016)	(0.004)	(0.009)	(0.014)	(0.030)
Moved (WW2)	0.072***	0.012*	0.012	0.064***	−0.006
	(0.016)	(0.007)	(0.016)	(0.024)	(0.039)
Region dummies	✓	✓	✓	✓	✓
R-sq	0.219	0.045	0.130	0.088	0.130
Number of observations	8411	8344	7873	8412	8349

Notes: OLS coefficients are reported. Standard errors clustered at the level of subnational regions are in parentheses. Controls for PSU latitude and longitude, urbanity, age, age squared and marital status are included but not shown. Significance levels: * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

Table A12: Objective and subjective victimization, optimism, and trust

	(1) Life satisfaction	(2) Effort	(3) Trust people	(4) Trust inst.
WW2 (obj)	0.097***	0.032***	0.009	0.007
	(0.037)	(0.011)	(0.025)	(0.014)
WW2 (subj)	0.020	−0.007	0.001	−0.016
	(0.042)	(0.013)	(0.037)	(0.022)
male	−0.124***	−0.042***	−0.035	−0.068***
	(0.042)	(0.013)	(0.027)	(0.019)
health	0.400***	0.009	0.073***	0.057***
	(0.028)	(0.008)	(0.018)	(0.012)
employed	0.056	−0.020*	0.005	−0.033
	(0.051)	(0.012)	(0.028)	(0.024)
income	0.518***	0.031***	0.087***	0.088***
	(0.024)	(0.004)	(0.011)	(0.008)
secondary	0.213***	−0.005	0.030	−0.031
	(0.076)	(0.023)	(0.042)	(0.037)
university	0.495***	−0.025	0.155***	−0.005
	(0.085)	(0.024)	(0.044)	(0.040)
father's education	0.015	−0.004*	−0.002	−0.006*
	(0.010)	(0.002)	(0.007)	(0.003)
mother's education	−0.001	0.005**	0.009	0.005
	(0.010)	(0.002)	(0.006)	(0.004)
communist	0.050	−0.042***	−0.014	−0.037*
	(0.056)	(0.016)	(0.035)	(0.021)
Moved (ever)	0.173***	−0.001	−0.016	−0.001
	(0.054)	(0.012)	(0.028)	(0.020)
Moved (WW2)	0.064	−0.029	−0.007	−0.059*
	(0.052)	(0.018)	(0.040)	(0.030)
Region dummies	✓	✓	✓	✓
R-sq	0.380	0.109	0.101	0.192
Number of observations	8411	7854	8011	8361

Notes: OLS coefficients are reported. Standard errors clustered at the level of subnational regions are in parentheses. Controls for PSU latitude and longitude, urbanity, age, age squared and marital status are included but not shown. Significance levels: * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.