

Working Paper No. 189

How does exposure to conflict events shape social trust? A spatiotemporal approach

by Jacob S. Lewis and Sedef A. Topal | October 2021

Working Paper No. 189

How does exposure to conflict events shape social trust? A spatiotemporal approach

by Jacob S. Lewis and Sedef A. Topal | October 2021

Jacob S. Lewis is an assistant professor at Washington State University. Email: js.lewis@wsu.edu

Sedef A. Topal is a doctoral candidate at Washington State University. Email: sedefasli.topal@wsu.edu

Abstract

This article examines how proximate exposure to violent conflict events affects levels of social trust. We argue that since exposure to conflict heightens perceptions of threat, individuals who were proximately exposed to conflict events should exhibit lower levels of generalized and out-group social trust than individuals not subject to such exposure. We also argue that individuals subject to exposure to conflict should show higher levels of in-group social trust due to existential concerns that increase their desire to find security within their group. Using geocoded survey data from more than 25,000 respondents in 16 African countries surveyed in 2005 and from the Armed Conflict Location Event Database, we draw spatiotemporal buffers around each respondent. We find that exposure to violent conflict events reduces all forms of social trust across all models. Such findings run counter to arguments suggesting that proximate exposure to violent conflict increases in-group social trust.



Introduction

Theories in political psychology predict that experiences of conflict are inimical to the development and maintenance of social trust. For those whose lives are upended by terrorism, civil war, and other forms of violent conflict, it may be difficult to extend trust far beyond one's close friends and family, particularly in regions where the possibility of future attacks looms large. Existing experimental research has convincingly argued and demonstrated that, when exposed to conflict and threat, individuals draw firm lines between those in their ethnic in-group and those who are deemed to be in their out-group. Other lines of field-based research, however, suggest that as conflicts fade, civic participation may flourish among those with direct conflict experience. These seemingly contrary findings suggest that the relationship between conflict and social trust merits additional attention.

We address this by examining how exposure to violent conflict events corresponds with self-reported levels of generalized, in-group, and out-group trust in individuals who were proximately exposed to said events. We draw on data of geocoded surveys across Africa and draw a series of spatial and temporal buffers around each respondent. Then, using data from the Armed Conflict Location Event Database, we measure the proximate exposure of each respondent to violent conflict events within these different windows. We argue that because proximate exposure to violent conflict events increases perceptions of threat, individuals who are exposed should report lower levels of generalized, in-group, and out-group social trust. We also argue that the effect of such exposure decays over time.

We test our hypotheses using a series of multilevel statistical models and find strong support for three of our four hypotheses. Specifically, our results are concordant with expectations that such exposure is inversely correlated with generalized and out-group trust, though counter to expectations, we find that conflict also corresponds with reduced in-group trust. We find evidence of our hypothesized temporal decay. Because our research design measures proximate exposure to conflict in temporal windows before the date of each respondent's interview, it reduces potential concerns of endogeneity. We include a large series of alternative testing specifications that provide evidence of the robustness of our findings.

This study makes a series of contributions to the literature. First, it employs temporally sensitive spatial methods that provide a highly granular look at the importance of how time and space shape the impact of violent events on the psychology of individuals living in conflict-prone countries. To the best of our knowledge, this is the first study to use such sensitive and individual-level spatial methods. Second, we find evidence that even in-group trust is reduced by proximate exposure to conflict, which runs counter to most intergroup theories of social and political psychology.

Proximate conflict exposure and social trust

How might exposure to conflict events affect social trust? We identify three major lines of research. The first line of research has found that conflict reduces associational memberships (de Luca & Verpoorten, 2015a, 2015b) and generalized social trust in local communities (Cassar, Grosjean, & Whitt, 2011). Rothstein and Uslaner (2011) suggest that socio-economic inequality deteriorates the sense of shared destiny and fundamental values among individuals. Civil conflict is likely to erode social cohesion and cooperation due to the weakening dynamics of social equality as an inevitable outcome of war and destruction. The second line predicts that individuals who have war-related experiences tend to demonstrate a significant level of cooperation and contribute to the public good in their community (Bauer et al., 2016; Gilligan,

Pasquale, & Samii, 2014). Conflict is assumed to develop empathy and altruistic behaviours among the victims of violence. Finally, the third line of work has shown that conflict promotes in-group trust and solidarity (Bauer, Cassar, Chytilová, & Henrich, 2014) while simultaneously reducing out-group social trust (Ali, Khan, & Meo, 2020; Voors & Bulte, 2014). In Uganda, the victims of civil conflict have shown sharpened ethnic identity but low levels of trust toward the members of other ethnic groups (Rohner, Thoenig, & Zilibotti, 2013a, 2013b). In brief, conflict appears to strengthen within-group ties, exacerbate between-group differences, and promote hostility toward outsiders.

Building upon this third line of research, we assume that proximate exposure to conflict events may attenuate generalized and out-group social trust by stimulating tendencies toward in-group preference and out-group bias. We focus on the third line because a substantial amount of existing literature shows that the impact of exposure to conflict is likely to vary across the diverse forms of social trust. The third line of research helps investigate the simultaneous effects of conflict on in-group solidarity and generalized and out-group social trust. Multiple theoretical linkages explain the origins of in-group favouritism and out-group discrimination. These linkages can be found in realistic group conflict theory (RGCT), social identity theory (SIT), and terror management theory (TMT). RGCT argues that in-group favouritism and out-group discrimination result from intergroup competition for finite resources whereas SIT predicts that simple group membership provokes positive in-group and negative out-group bias in the absence of intergroup competition. Thus, neither RGCT nor SIT specifically addresses how proximate exposure to conflict might affect the forms of social trust. Unlike RGCT and SIT, TMT helps analyze the traumatic effects of conflict events on individuals as a result of their reminded mortality. Proponents of TMT posit that reminders of mortality lead individuals to express more conservative political views (Hirschberger & Ein-Dor, 2006; Landau et al., 2004), engage more readily in stereotyping (Renkema, Stapel, Maringer, & van Yperen, 2008), increase engagement with close social networks (Goodwin, Willson, & Gaines, 2005), and provoke a defense of one's personally held worldview (Greenberg, Simon, Pyszczynski, Solomon, & Chatel, 1992). At its core, TMT proposes that exposure to reminders of one's mortality leads individuals to develop and maintain existentially defensive and stable worldviews that reinforce the primacy of their self-esteem and often the importance of their salient social group.

We expect that proximate exposure to conflict events – ranging from armed battles to incidents of terror – constitutes a trauma that serves as a reminder of mortality. A substantial body of research in the field of political psychology and conflict processes has focused on the way in which exposure to conflict can leave long-lasting psychological traumas (Daphna-Tekoah & Harel-Shalev, 2017; Montiel, 2000; Rinker & Lawler, 2018; Thomas et al., 2016; Voci, Hadziosmanovic, Cakal, Veneziani, & Hewstone, 2017). In some cases, traumatic experiences may encourage pro-social behaviours (Blattman, 2009), but in many others, they constrict intentions of civic engagement (Green & Merle, 2013).

The literature on TMT and trauma generally supports the assertion that exposure to reminders of mortality and traumatic events is likely to produce a strong defense of one's worldview and a turn inward toward identifying with one's in-group. It is likely the case that this is amplified in regions in which diverse groups compete vigorously for access to state resources, such as public goods, access to jobs, and political power. When resources are scarce, politically relevant ethnic group linkages may become extremely salient (Posner, 2004, 2005), reinforcing worldviews that focus on maintaining perceptions of ethnic group superiority and deservedness. Worldviews that incorporate ethnic identity, when exposed to TMT stimulants such as conflict events, are likely to promote in-group favouritism and out-group bias.

On the one hand, exposure to conflict events may heighten the perception of threats to the survival of an ethnic group and its identity, stimulate fears of collective extinction and assimilation among group members, and strengthen the group's sense of interdependence and

commonality (Bar-Tal & Halperin, 2013; Nets-Zehngut & Bar-Tal, 2014; Zeitzoff, 2014). As existential concerns increase one's desire to find security within one's group, identity concerns increase the need for the protection of one's positive self-image, and thereby one's positive group distinctiveness. In short, once one's mortality is made salient by exposure to conflict, personal identity transforms into group identity; as a result, the group becomes more cohesive. On the other hand, intergroup competition for finite resources creates a clear sense of "us" against "them." Prejudice against out-groups can emerge from intergroup competition or when group status is threatened (Maddux, Galinsky, Cuddy, & Polifroni, 2008). Exposure to conflict events may escalate the rivalry between ethnically distinct groups, enhance the perception of threat to group status, and create negative stereotypes and biases against out-groups.

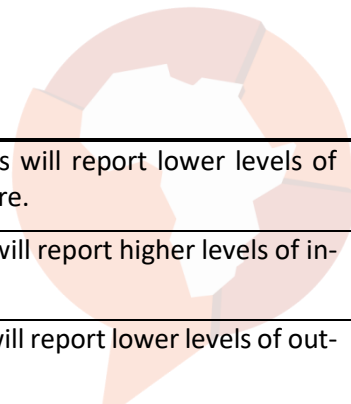
Consistent with these arguments, we posit that in ethnically diverse regions, such as those found throughout most of Africa, the general impact of proximate exposure to a conflict will be to enhance perceptions of in-group and out-group difference, leading to lower levels of generalized and out-group social trust. Embedded within our theory are two second-level arguments, relating to spatial and then temporal distance. Regarding spatial distance, we argue that any trauma caused by proximate exposure to conflict is moderated through spatial distance. By proximate exposure, we refer to those individuals who may not directly experience a conflict event but live close enough to an event that it is likely to alter their psychology. Work by Rosenboim, Benzion, Shahrabani, and Shavit (2012) has shown that in the wake of rocket attacks, individuals who live outside of the affected region and were not directly affected demonstrate psychological effects consistent with the attacks.

Recent research has also found that the effect of exposure to conflict on social trust may vary across the locations of individuals. Individuals' post-war experiences in Kosovo imply that the level of social trust is lower in municipalities where ethnic cleansing was conducted than in municipalities that were less affected by the conflict (Kijewski & Freitag, 2018). Individuals in highly affected regions exhibit comparatively higher in-group trust but show lower out-group trust than individuals in moderately and least affected regions (Ali et al., 2020). Beber, Roessler, and Scacco (2014) have concluded that in Sudan, Northerners directly exposed to riot violence due to residential proximity are more likely to support separation from the South, "not because they have become more moderate, but because they are no longer willing to live in close proximity to Southerners." In short, the closer a conflict event is to an individual, the stronger an effect it should have on that individual's overall levels of social trust. Thus, we stress that individuals subject to proximate exposure of conflict events will report higher levels of in-group trust and lower levels of generalized and out-group social trust than individuals not subject to such exposure.

In addition to this spatial window, we also assume that the psychological impact of conflict events is temporally moderated. We predict that the more time has passed since a conflict event, the lower the salience of that event and thus the lower the effects of proximate exposure. There is an existing scholarship that suggests that such "normalization" can occur. Peleg, Regens, Gunter, and Jaffe (2011) have reported that following sustained exposure to terrorist attacks in Israel during the Second Intifada, investors in the stock market returned to "normal" behaviour, despite the presence of violent attacks that would otherwise be expected to cause financial instability.

The existing literature strongly suggests that proximate exposure to conflict affects all levels of social trust. Concordant with the literature, we assume that the psychological effects of conflict events may travel across spatial and temporal distances. We thus hypothesize that individuals proximately exposed to a conflict event within a spatiotemporal window should report lower levels of social trust than their compatriots who have not experienced such proximate exposure.

Pursuant to the logic expounded above, we propose the four hypotheses listed in Table 1.

**Table 1: Hypotheses**

H1	Individuals subject to proximate exposure to conflict events will report lower levels of generalized trust than individuals not subject to such exposure.
H2	Individuals subject to proximate exposure to conflict events will report higher levels of in-group trust than individuals not subject to such exposure.
H3	Individuals subject to proximate exposure to conflict events will report lower levels of out-group trust than individuals not subject to such exposure.
H4	The size of the effect of proximate exposure on trust will diminish as temporal windows expand in duration.

Data and testing strategy

Dependent variables: Social trust

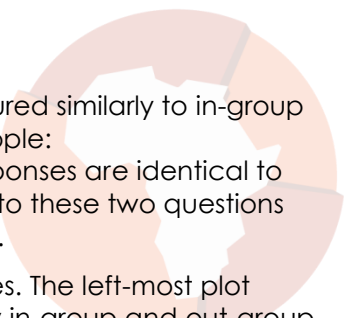
To test our hypotheses, we draw data from two primary sources. Our theory makes a series of predictions about the effects of proximate exposure to conflict on three main dependent variables: (a) generalized social trust, (b) in-group social trust, and (c) out-group social trust. To test individual levels of social trust, we obtained geocoded data from the Afrobarometer survey project, which conducts rounds of surveys across multiple African countries every few years. The geocoded data provide the precise time and date of each interview, which permits us to examine the proximate exposure of each survey respondent to conflict events using a series of shifting spatiotemporal windows. Round 3 of the Afrobarometer data asks a series of social trust questions that correspond to our interest in generalized social trust, in-group social trust, and out-group social trust. As such, we draw from Round 3, which includes 25,397 participants across 16 countries.¹

Generalized social trust is measured via the following question: “Generally speaking, would you say that most people can be trusted or that you must be very careful in dealing with people?” The two primary answers available to respondents are: “You must be very careful,” indicating low generalized social trust, and, “Most people can be trusted,” indicating high generalized social trust.² This measurement of social trust is widely used within the social sciences (Rosenberg, 1956; Uslaner, 1999, 2013). Descriptive statistics indicate that generalized trust is extremely low in the 16 countries included in the data. Of the 25,397 respondents, only 3,986 responded that “most people can be trusted,” whereas 19,824 stated that “you must be very careful.” There are 1,587 NA values comprising respondents who answered that they “don’t know” or refused to answer altogether or for whom the data were missing. Overall, this paints a relatively bleak picture of generalized social trust.

In-group social trust is measured via the following question: “How much do you trust each of the following types of people: People from your own ethnic group?” Unlike the question on generalized social trust, the responses to this question are more granular. From lowest to highest, they include, “Not at all,” “Just a little,” “Somewhat,” and “A lot.”

¹ The list of countries and dates can be found on the Afrobarometer website: https://afrobarometer.org/sites/default/files/survey_manuals/afrobarometer-survey-schedule-r1-r7-fieldwork-years.pdf.

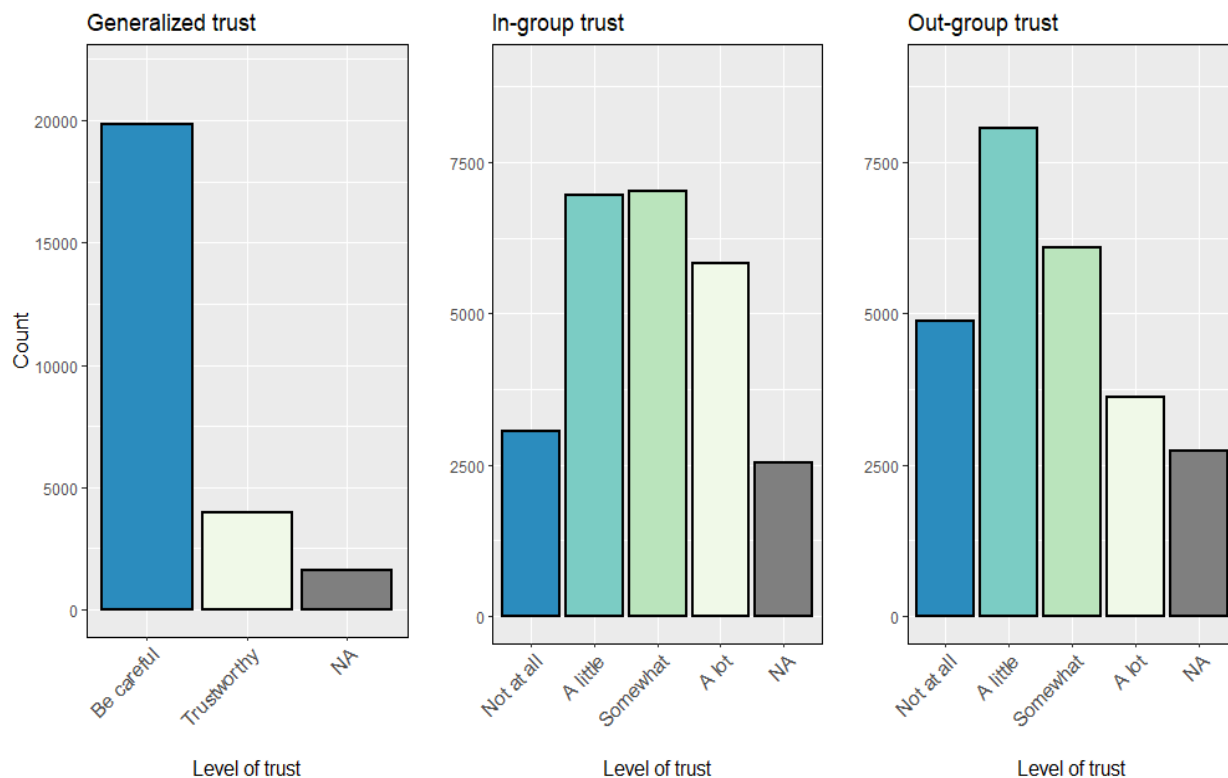
² Three additional values are possible: “Don’t know,” “Refused to answer,” and “Missing data.”



Our final measure of trust is out-group social trust. This question is structured similarly to in-group social trust: “How much do you trust each of the following types of people: [Ghanaian/Kenyan/etc.] from other ethnic groups?” The potential responses are identical to those of the in-group social trust question. The granularity of responses to these two questions reveals nuance that is obscured in the generalized social trust variable.

Below, Figure A displays the distribution of the three social trust variables. The left-most plot displays generalized trust, while the central and right-most plots display in-group and out-group trust, respectively. This figure demonstrates how important the phrasing and response portfolio of a question can be. The phrasing of the generalized trust question and the dichotomous nature of the portfolio of possible responses seems to produce a dire view of trust in Africa in which few people trust anyone. On the other hand, the in-group and out-group trust variables demonstrate a substantial amount of variation, with most respondents indicating that they trust members of their in-group and out-group either “a little” or “somewhat.” A Pearson’s correlation indicates that in-group and out-group trust variables are highly correlated with one another.³ The in-group and out-group trust variables are moderately correlated with generalized trust.⁴

Figure A: Distribution of social trust variables



³ 0.683, statistically significant at the 99.9% confidence level

⁴ 0.243 with in-group trust, significant at the 99.9% confidence level; 0.253 with out-group trust, significant at the 99.9% confidence level

Independent variable of interest: Proximate exposure to conflict

We draw from the Armed Conflict Location Event Data (ACLED) (Raleigh, Linke, Hegre, & Karlsen, 2010) to generate our measures of proximate exposure to conflict. ACLED is a widely used data set in conflict studies and collects highly granular data across much of the world. The ACLED data are geocoded and include the date and location of each event. ACLED includes three broad categories of events within the database. "Violent Events" include various types of battles, explosions, remote violence, and violence against civilians. "Demonstration Events" comprise various types of protests and riots. Finally, "Non-Violent Actions" largely consist of "strategic developments" such as agreements, the establishment of headquarters, arrests, etc. Because our theory focuses on conflict events and speaks primarily to research that has measured the impact of civil war on trust, we subset the data to include only "Violent Events."

We define proximate exposure via an ordinal variable that measures levels of exposure to conflict within a series of spatiotemporal buffers centered on each respondent. In total, we test 12 spatiotemporal buffers comprising four spatial buffers ranging from 25km to 250km as well as three temporal buffers ranging from three months to 12 months (Table 2). This approach provides granularity with regard to examining whether proximate exposure is filtered differently via either spatial or temporal windows. Individual respondents can thus receive different values for proximate exposure based on distance holding time constant or based on time holding distance constant.

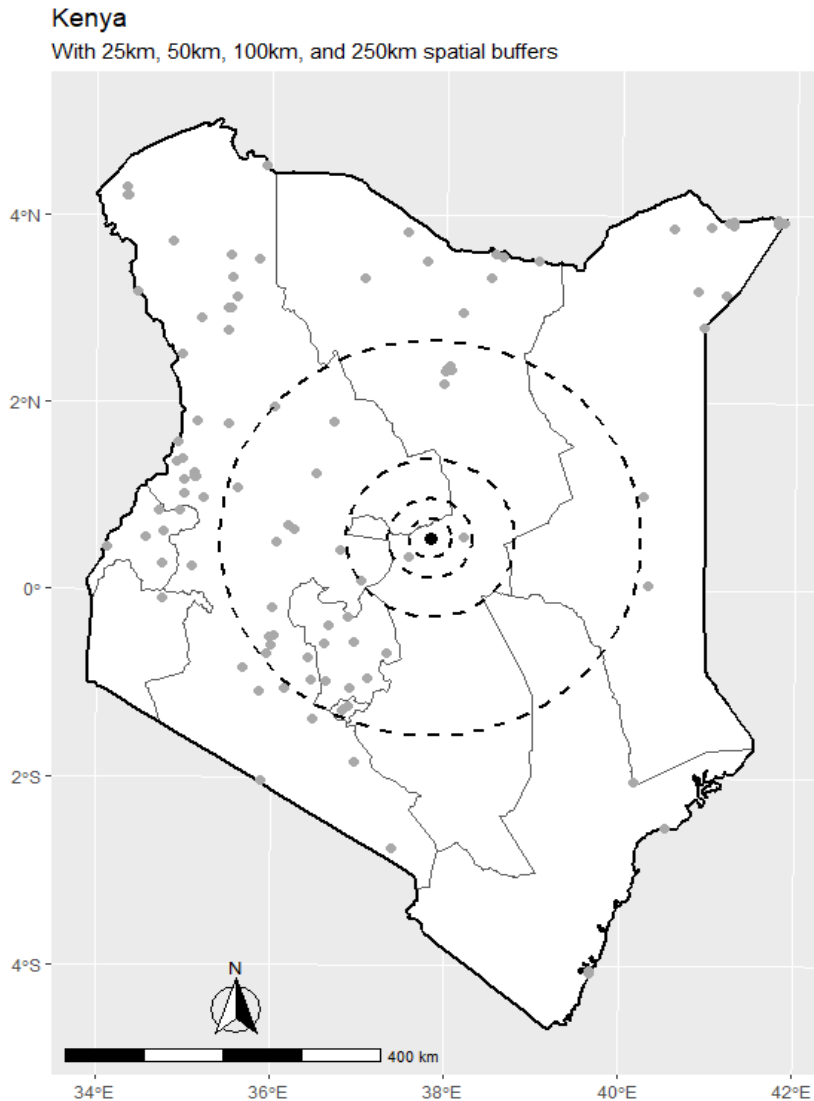
Table 2: Spatial and temporal components of spatiotemporal buffers

Spatial buffer	Temporal buffer
25 kilometers	3 months
50 kilometers	6 months
100 kilometers	12 months
250 kilometers	

We recognize that trauma can last a long time, and we do not expect that all trauma associated with exposure to conflict will fade within a year. Our temporal buffers are designed to allow us to test whether spatial decay exists rather than to capture completely the long-term contours of exposure to conflict. In order to visualize the buffers, we draw the 25km, 50km, 100km, and 250km buffers on a map of Kenya below in Figure B.

For the sake of demonstration, we center each of the three buffers around the geographic centroid of Kenya. The centroid is drawn as a large black dot in the center of the map. Each buffer is drawn in a dashed line. We also plot violent ACLED events in gray on the map to demonstrate how spatial buffers increase proximate exposure as they expand. For the sake of simplicity, we have drawn these buffers within a single country; however, most citizens do not live at the geographical center of a country. Many live on their country's border with other countries. The advantage to our approach to the analysis is that our buffers capture events that occur in both the home country and neighbouring countries for respondents who live close to those borders.

Figure B: Spatial buffers

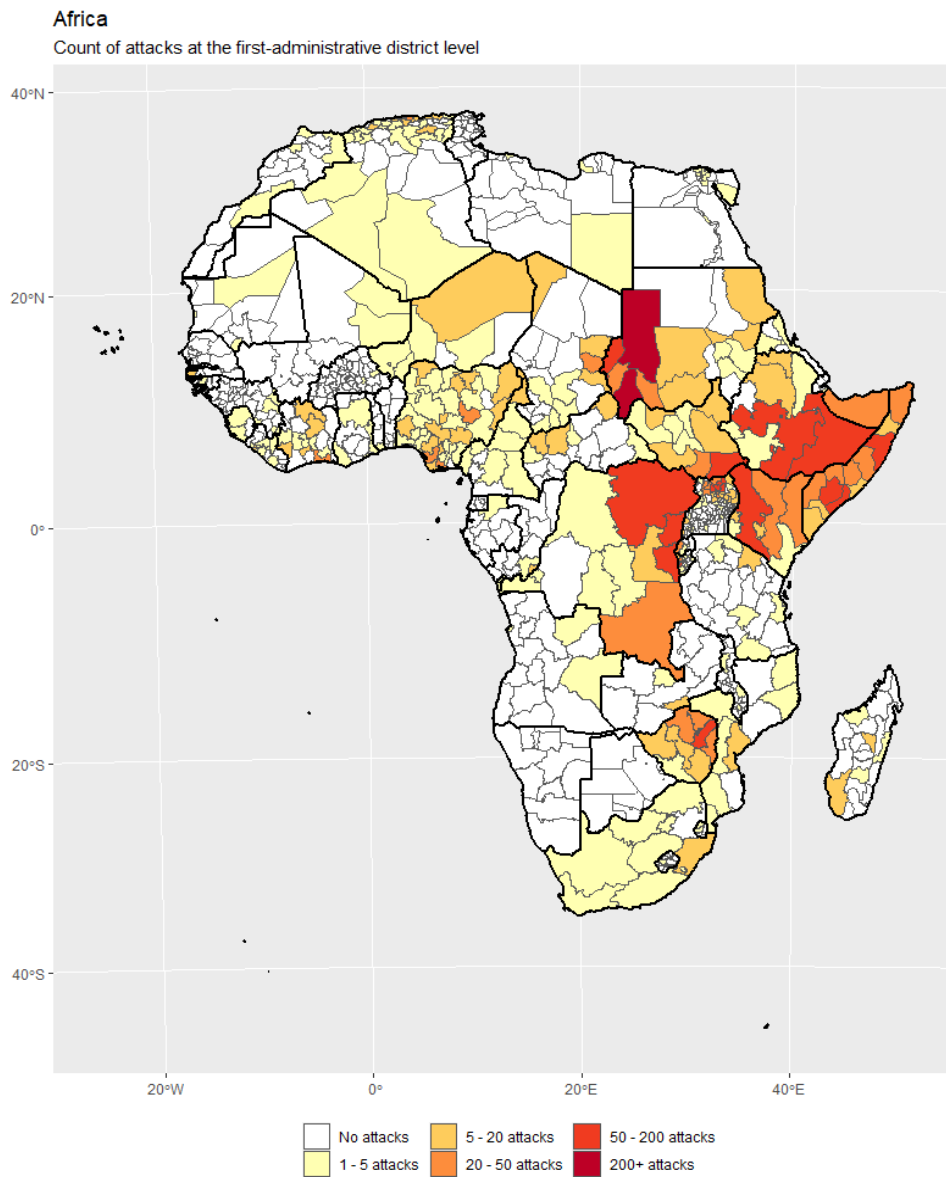


Note: Gray dots represent observed conflict events.

In **Error! Reference source not found.** below, we plot out the number of violent ACLED events during the data-collection period of the third round of the Afrobarometer survey. The map indicates that a majority of violent events occurred in Central and Eastern Africa. This period of time captures much of the fighting that occurred in the Darfur region of Sudan,⁵ as well as the intense clashes between rebel groups in Eastern Congo and the military of the Democratic Republic of Congo. In Ethiopia, multiple rebel groups such as the Ogaden National Liberation Front, the Oromo Liberation Front, and the Ethiopian People's Patriotic Front engaged frequently in attacks on the Ethiopian military. This time period also lines up with a spike in violence by the Lord's Resistance Army, an ethnically Acholi Christian rebel group, in northern Uganda.

⁵ The shapefile used includes both Sudan and South Sudan; however, during this time period, South Sudan had not yet achieved sovereignty from Khartoum.

Figure C: Choropleth of violent ACLED events during Round 3 data collection



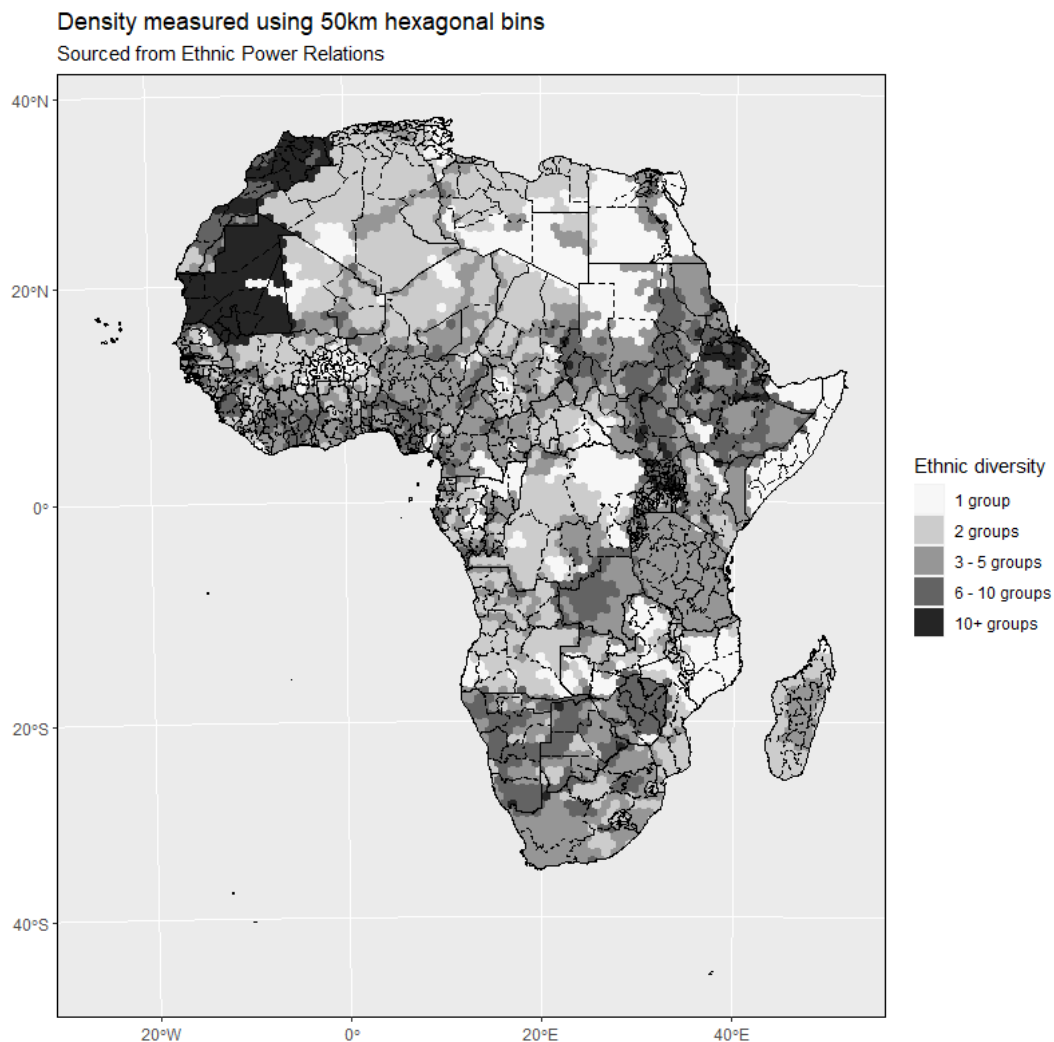
The distribution of these variables resembles a Poisson distribution, with a strong rightward skew and a majority of observations taking the value of 0. Across the board, a majority of respondents experience no proximate exposure to violent events. This is most pronounced when measuring proximate exposure within 50km, and proximate exposure predictably grows as spatial and temporal windows are expanded. Because the rightward skew of the data is extreme and over-dispersed, it is likely to adversely affect the ability of maximum-likelihood models to optimize and arrive at accurate results. To address this, we develop two variables. The first categorizes the number of proximate exposure events into an ordinal variable. This ordinal variable includes categories for (a) no proximate exposure, (b) one to five attacks, (c) six to 10 attacks, (d) 11 to 20 attacks, and (e) more than 20 attacks. The second, which we test as a form of robustness, is a simple dichotomous measurement of whether a respondent was proximately exposed to conflict within a given spatiotemporal window.

Relevant covariates

In addition to questions about social trust, respondents to the Afrobarometer survey answer a series of other questions that are directly relevant to social trust. One of the most consistent findings in recent scholarship on social psychology is that ethnic diversity is inversely correlated with social trust (Dinesen, Schaeffer, & Oslashnderskov, 2020; Dinesen & Sønderskov, 2015). We incorporate ethnic diversity into our analysis via the use of a proxy variable: whether the survey respondent is located in an urban or rural environment. Trends in urbanization across Africa have produced highly diverse cities (Taylor, 2005; van Noorloos & Kloosterboer, 2018), and we use presence in an urban area (as coded by the Afrobarometer enumerator) as a reasonable proxy for exposure to ethnic diversity. Existing scholarship would suggest that those living in urban environments should report lower levels of social trust than those living in rural areas.

Apart from the trends in urbanization to measure ethnic diversity in Africa, we also developed an ethnic diversity index that counts the number of ethnic groups where each respondent lives. To do so, we drew a grid across the continent consisting of hexagons that are 50km across. Using the geolocated Ethnic Power Relations data set (Vogt, Bormann, & Ruegger, 2015), we counted the number of ethnic groups within each hexagon. We visualize these variables in Figure D.

Figure D: Ethnic density across Africa



One important factor related to proximate exposure is whether an individual is exposed to news about conflict in the first place. To measure the likelihood that an individual would learn about conflict events ranging from battles to explosions, we include a self-reported assessment of news consumption through radio. Respondents were asked, “How often do you get news from the following sources: Radio?” and could select from a five-point ordinal scale ranging from “never” to “every day.” We chose radio rather than other forms of media (newspapers or television) because according to the data, radio is the most commonly consumed form of news. We also include a measurement of whether respondents are members of trade unions, business groups, or religious organizations (Putnam, 2001; Sønderskov, 2009, 2011a, 2011b). Trade unions have been critically important in organizing and maintaining associational life in the African context (Marinovich, 2016; Momba & Gadsden, 2013; Sinwell & Mbatha, 2016; von Holdt, 2002). We thus expect that individuals who are members of trade unions, which are often ethnically diverse, should report higher levels of social trust than non-union members.

Because business groups and religious organizations are expected to be less diverse than trade unions, we predict that members of such groups should report lower levels of generalized and out-group social trust but higher levels of in-group social trust than non-members. Finally, we include the popular *polyarchy* variable from the Varieties of Democracy (V-Dem) data set (Coppedge et al., 2021) to ensure that the models incorporate this important country-level factor providing an overview of the extent to which “the ideal of electoral democracy in its fullest sense” is achieved. We expect that higher scores on this index will correlate positively with each form of trust.

We do not include country-level variables in our models because they cannot explain within-country variation in terms of levels of trust. The Afrobarometer interviews are generally conducted over short periods of time in each country, and thus country-level measurements of GDP or inequality behave more like a battery of fixed effects rather than providing meaningful insight into how economic growth over time might shape social trust. Moreover, as we detail below, we utilize multilevel models structured at the country level.

Testing strategy

We employ two distinct models. Because generalized social trust is structured as a dichotomous response variable, we employ a multilevel logistic regression that incorporates random intercepts at the country level. Because the in-group and out-group trust variables are structured ordinally, we employ cumulative linked mixed models (CLMM) structured at the country level. CLMM models are multilevel models designed to test ordinal data. Because ordinal data represent ordered categories rather than numeric outcomes, and because they involve a fixed number of discrete categories, a CLMM approach is more appropriate than an ordinary least squares model, whose statistical assumptions are violated by ordinal response variables. For example, whereas continuous data assume equal “distance” between intervals, no such assumption can be made about ordinal data. Consider the out-group social trust variable, in which respondents can choose from a range of “not at all” to “a lot.” While it is logically clear that “not at all” is lower on the scale than “a lot,” there is no fixed mathematical relationship between them or the categories in between. For some respondents, the difference between interval categories may be conceptually identical, whereas for others, the difference between “just a little” and “somewhat” may be larger than the conceptual distance between “somewhat” and “a lot.” The CLMM approach assumes that we cannot know this conceptual distance and thus calculates the proportional odds of moving from one category to another. In the context of this study, proportional odds are calculated using a logistic link. As mentioned above, the CLMM approach also allows for multilevel structuring of the model, and we include country-level random intercepts.

Results

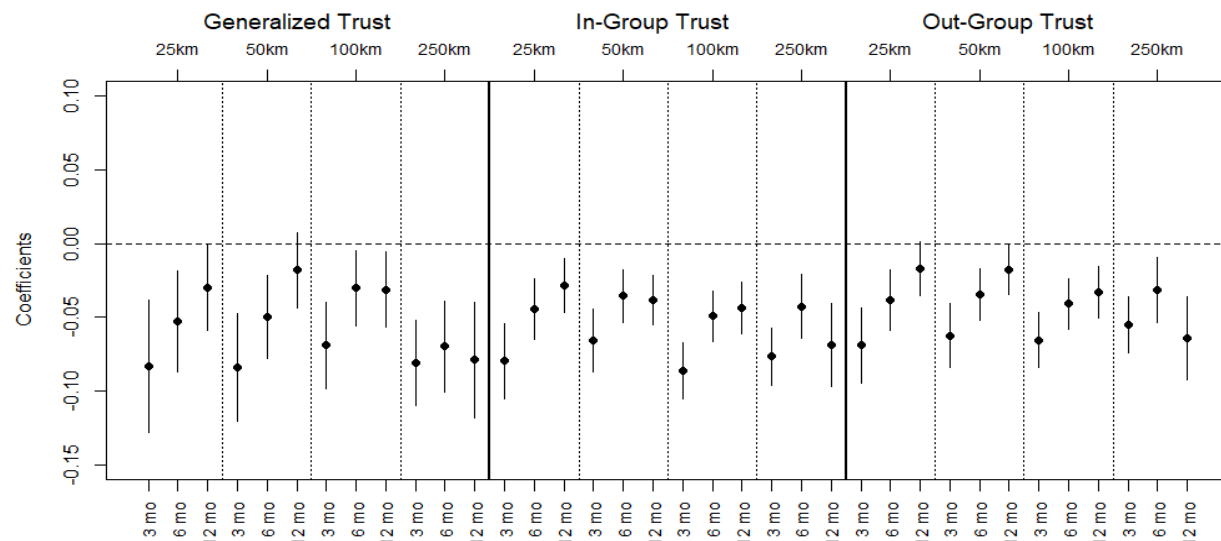
Our results provide strong and consistent support for the hypothesis that proximate exposure to conflict reduces generalized trust (H1). Across all models, proximate exposure is inversely correlated with generalized social trust, and in seven out of 12 models, this correlation is significant at the 99.9% confidence level. One additional correlation is significant at the 99% confidence level, and three other results are significant at the 95% confidence level. Within the 25km and 50km spatial buffers, we find strong evidence supporting our temporal decay hypothesis (H4), though as the spatial buffer expands, the decay effect is neutralized. To us, this suggests that the trust-eroding effects of proximate exposure to conflict events are mediated by distance. At the largest spatial buffer (250km), conflict events are likely occurring regularly enough that the temporal decay effect never sets in.

We also find strong support for the hypothesis that proximate exposure to conflict reduces out-group trust (H3). This is predicted by terror management theory and is generally intuitive. In each model, proximate exposure is inversely correlated with out-group trust, and 11 of 12 models attain statistical significance at the 95% confidence level (most at the 99.9% level). We also find strong evidence for temporal decay in each of the 25km, 50km, and 100km spatial buffers. As with generalized social trust, the spatial decay effect is strongest in the smallest spatial windows.

Counter to our expectations for in-group trust (H2), we find that proximate exposure to conflict *also* reduces trust in one's in-group members. This suggests that the effects of proximate exposure to trust beyond the laboratory setting do not conform to theories that propose that in-group and out-group trust sit on opposite sides of a fulcrum, but rather that different types of trust may move in unison. We address this further in the discussion section of this article.

In total, our empirical strategy involves running 36 models to test each form of trust iterated through 12 spatiotemporal windows. To simplify the results, we have included a combined coefficient plot below in Figure E. The left-most panel includes the multilevel logistic results in which generalized social trust was regressed on the independent variable and covariates mentioned in the preceding section. The central panel includes the cumulative linked multilevel model results in which in-group trust was regressed on those covariates. The right-most panel includes the cumulative linked multilevel model results in which out-group trust was regressed on those covariates. The spatial windows are indicated above the plot, and the temporal windows are indicated below the plot.

Figure E: Coefficient plot



The full regression tables can be found in the Appendix. In addition to proximate exposure, we find that in nearly every model run, our additional covariates present substantively large and statistically significant correlations with each form of trust. However, these covariates do not always behave as expected. For example, whereas existing theories of ethnic diversity suggest an inverse correlation with trust, we find that in each of our three forms – generalized, in-group, and out-group – *inter alia* there is a substantively large and statistically significant positive correlation between our urban measurement and trust outcomes. These findings are not affected by our ethnic diversity index, which shows only a weak negative correlation between social trust and ethnic diversity that is also not statistically significant across all models.

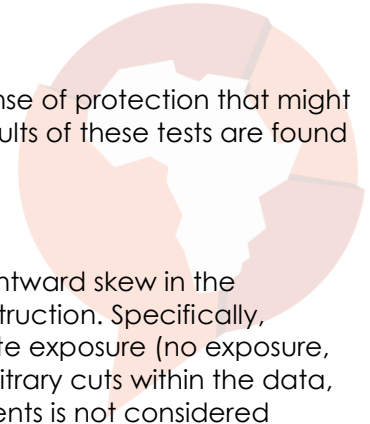
While the focus of our study is rather bleak, such a weak negative correlation between social trust and ethnic diversity is a particularly uplifting finding; however, it requires significantly more attention and replication, given the large body of research suggesting an inverse correlation. We find that higher consumption of news via the radio correlates with lower levels of generalized trust and shows no statistically significant correlation with in-group trust across all models. We also find that higher news consumption via the radio correlates with higher levels of out-group social trust. This is an intuitive result because it suggests that proximate exposure to conflict is transmitted through the news. As predicted, individuals who are members of trade unions report higher levels of social trust across the board than individuals who have no union membership.

Counter to our expectations, membership in religious organizations and business groups has no statistically significant relationship with levels of generalized and in-group social trust. But interestingly, such membership correlates with higher levels of out-group social trust. This might result from common cross-cutting cleavages among religious and ethnic groups in Africa. An ethnic Ibo and an ethnic Yoruba might belong to the same religious group, which can reduce out-group biases related to ethnic differences. Finally, V-Dem polyarchy shows no statistically significant effect on levels of social trust across all models. This is not surprising given that polyarchy is a country-level variable that displays between-country variation rather than within-country variation.

Testing proximate exposure to incidents only within the country

One of the advantages of our spatial design is that it draws the spatial buffer around each respondent, providing a highly individualized, sensitive measurement of proximate exposure to conflict. Of course, respondents are located throughout each country, with some living in central locations and others living near the border. Because our spatial buffers do not respect national boundaries, respondents living in communities on the borders of their countries are likely proximately exposed to conflict events in other countries. Thus, one might ask whether the effects of proximate exposure are mediated by whether a conflict event occurs in one's nation or across the border. It might be the case that individuals are more affected by proximate exposure to conflict events in their own countries than in other countries, even if the general distance from conflict events is similar. For example, because political violence is often motivated by country-level factors, it may be the case that respondents would feel less concerned about violent events in a neighbouring country because those country-level factors do not apply to their situation. Alternatively, because the capacities of African militaries and police forces vary from country to country, violent attacks in a neighbouring country might not warrant the same concern that internal violent attacks might generate.

To address this potential issue, we run a second full set of tests that only include within-country proximate exposure. We find no substantive difference from the models presented here. We expect that this is because of the relatively porous nature of many African borders – particularly in the regions that experience significant amounts of violence. For example, the terrorist organization Boko Haram might have begun by attacking targets in Nigeria, but over the years it has begun to strike out into neighbouring countries such as Chad, Niger, and Cameroon. Thus,



the weakness of many African borders may negate any potential sense of protection that might otherwise be conferred by the presence of a political border. The results of these tests are found in the Appendix.

Testing using a logged count of proximate exposure

Our ordinal independent variable addresses issues of the extreme rightward skew in the distribution of our data, but may invite concerns about variable construction. Specifically, because we include cut-points that delineate categories of proximate exposure (no exposure, one to five events, etc.), we are imparting statistical emphasis on arbitrary cuts within the data, so that the difference between four and five proximate exposure events is not considered important while the difference between five and six proximate exposure events is considered important. One potential concern could be that by imposing arbitrary cut-points in the data, we are producing spurious correlations. To address this, we re-run our models using a natural log of proximate exposure. The natural log addresses the issue of rightward skew. We find that the results remain consistent with the findings presented above, and present the coefficient tables in the appendix.

Testing using a dichotomous measurement of proximate exposure

We also run a series of models in which proximate exposure to conflict is measured using a binary variable. For this, we created a variable in which proximate exposure at each spatiotemporal window either reflects no incidents of conflict (in which case the variable was coded as 0) or one or more incidents of conflict (in which case the variable was coded as 1). The results are consistent with the findings presented in this manuscript; in many cases, the coefficients are substantially larger. This is to be expected, as the creation of a dichotomous measure collapses all variation in proximate exposure into a simplified dichotomous measurement.

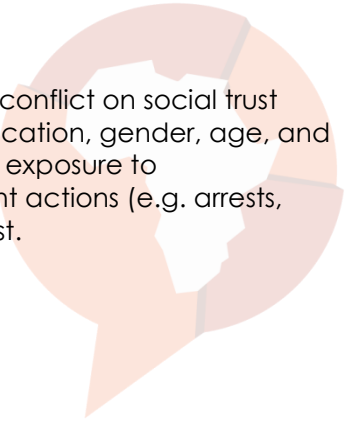
Conclusion

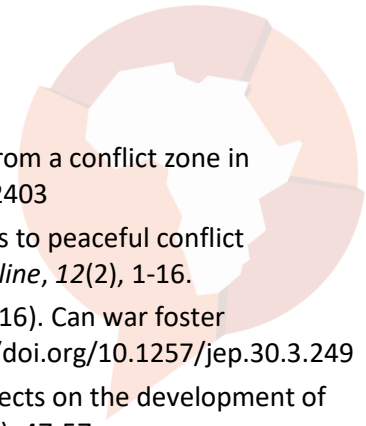
In this study, we have used geospatial methods to test whether proximate exposure to real, observed violent conflict events correlates with lower overall levels of social trust. We used individual-level survey data from Afrobarometer Round 3 as well as observed incidents of violent conflict sourced from the Armed Conflict Location Event Data. Drawing from terror management theory, we hypothesized that higher levels of proximate exposure to conflict would reduce generalized and out-group trust while simultaneously increasing in-group trust. We find that, across the board, proximate exposure to violent conflict reduces trust, including in-group trust. We also find that the correlation between proximate exposure and in-group trust is affected by the salience of each respondent's ethnic identity. We find some evidence that the effect of proximate exposure decays over time. For each form of trust, we find that proximate exposure within three months produces the largest coefficient. This is the case in the 25km, 50km, and 100km buffers, but not the 250km buffers.

The temporal-decay effects suggest that endogeneity is not likely between social trust and exposure to conflict. However, we acknowledge that our analysis cannot completely rule out the possibility of reverse causality, i.e. it is possible that violent conflicts occurred in these areas due to already-low levels of social trust locally. Nor can we rule out the possibility of an unnamed factor (e.g. an economic shock) simultaneously affecting both social trust and violent conflict.

This research opens avenues to further research questions. While we focus on violent conflict events such as battles, explosions, remote violence, and violence against civilians, we do not examine the effects of such violent events on social trust according to the identities of perpetrators and victims, level of violence, or whether the government took part in the conflict.

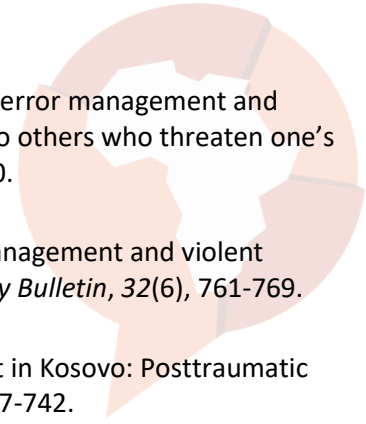
We also do not include analyses of whether the effects of exposure to conflict on social trust vary across other standard individual-level demographics, such as education, gender, age, and lived poverty. Lastly, there is great potential for future research on how exposure to demonstration events (e.g. peaceful protests and riots) or to non-violent actions (e.g. arrests, agreements, establishment of headquarters) affects levels of social trust.



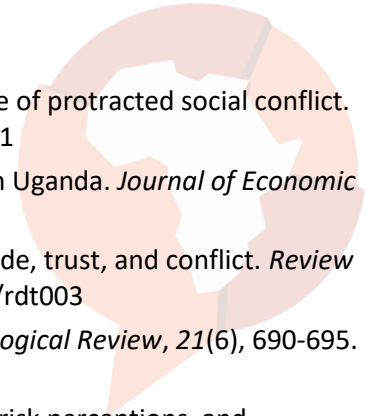


References

- Ali, M., Khan, K., & Meo, M. S. (2020). Trust in post-conflict life: Evidence from a conflict zone in Pakistan. *Journal of Public Affairs*, August. <https://doi.org/10.1002/pa.2403>
- Bar-Tal, D., & Halperin, E. (2013). The nature of socio-psychological barriers to peaceful conflict resolution and ways to overcome theme. *Conflict & Communication Online*, 12(2), 1-16.
- Bauer, M., Blattman, C., Chytilová, J., Henrich, J., Miguel, E., & Mitts, T. (2016). Can war foster cooperation? *Journal of Economic Perspectives*, 30(3), 249-274. <https://doi.org/10.1257/jep.30.3.249>
- Bauer, M., Cassar, A., Chytilová, J., & Henrich, J. (2014). War's enduring effects on the development of egalitarian motivations and in-group biases. *Psychological Science*, 25(1), 47-57. <https://doi.org/10.1177/0956797613493444>
- Beber, B., Roessler, P. G., & Scacco, A. (2014). Intergroup violence and political attitudes: Evidence from a dividing Sudan. *Journal of Politics*, 76(03), 649-665. <https://doi.org/doi:10.1017/S0022381614000103>
- Blattman, C. (2009). From violence to voting: War and political participation in Uganda. *American Political Science Review*, 103(2), 231-247. <https://doi.org/10.1017/S0003055409090212>
- Cassar, A., Grosjean, P., & Whitt, S. (2011). *Social cooperation and the problem of the conflict gap: Survey and experimental evidence from post-war Tajikistan* (2011 ECON 15; Australian School of Business Research Paper).
- Coppedge, M., Gerring, J., Knutsen, C. H., Lindberg, S. I., Teorell, J., Altman, D., Bernhard, M., Cornell, A., Fish, M. S., Gastaldi, L., Gjerløw, H., Glynn, A., Hicken, A., Lührmann, A., Maerz, S. F., Marquardt, K. L., & Ziblatt, D. (2021). *V-Dem codebook v11.1*. Varieties of Democracy (V-Dem) Project. https://www.v-dem.net/media/filer_public/6b/53/6b5335f9-cb2b-4bc8-a05c-3790ce1b7af4/codebook_v111.pdf
- Daphna-Tekoah, S., & Harel-Shalev, A. (2017). The politics of trauma studies: What can we learn from women combatants' experiences of traumatic events in conflict zones? *Political Psychology*, 38(6), 943-957. <https://doi.org/10.1111/pops.12373>
- de Luca, G., & Verpoorten, M. (2015a). Civil war and political participation: Evidence from Uganda. *Economic Development and Cultural Change*, 64(1), 113-141. <https://doi.org/10.1086/682957>
- de Luca, G., & Verpoorten, M. (2015b). Civil war, social capital and resilience in Uganda. *Oxford Economic Papers*, 67(3), 661-686.
- Dinesen, P. T., Schaeffer, M., & Oslashnderskov, K. M. (2020). Ethnic diversity and social trust: A narrative and meta-analytical review. *Annual Review of Political Science*, 23, 441-465. <https://doi.org/10.1146/annurev-polisci-052918-020708>
- Dinesen, P. T., & Sønderskov, K. M. (2015). Ethnic diversity and social trust: Evidence from the micro-context. *American Sociological Review*, 80(3), 550-573. <https://doi.org/10.1177/0003122415577989>
- Gilligan, M. J., Pasquale, B. J., & Samii, C. (2014). Civil war and social cohesion: Lab-in-the-field evidence from Nepal. *American Journal of Political Science*, 58(3), 604-619.
- Goodwin, R., Willson, M., & Gaines Jr., S. (2005). Terror threat perception and its consequences in contemporary Britain. *British Journal of Psychology*, 96(July), 389-406. <https://doi.org/10.1348/000712605X62786>
- Green, J., & Merle, P. (2013). Terror management and civic engagement: An experimental investigation of effects of mortality salience on civic engagement intentions. *Journal of Media Psychology*, 25(3), 142-151. <https://doi.org/10.1027/1864-1105/a000095>

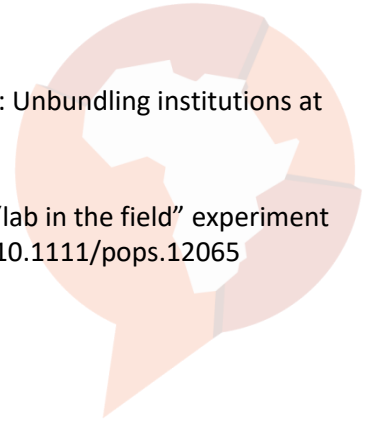


- Greenberg, J., Simon, L., Pyszczynski, T., Solomon, S., & Chatel, D. (1992). Terror management and tolerance: Does mortality salience always intensify negative reactions to others who threaten one's worldview? *Journal of Personality and Social Psychology*, 63(2), 212-220. <https://doi.org/10.1037/0022-3514.63.2.212>
- Hirschberger, G., & Ein-Dor, T. (2006). Defenders of a lost cause: Terror management and violent resistance to the disengagement plan. *Personality and Social Psychology Bulletin*, 32(6), 761-769. <https://doi.org/10.1177/0146167206286628>
- Kijewski, S., & 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. <https://doi.org/10.1177/0022002716666324>
- Landau, M. J., Solomon, S., Greenberg, J., Cohen, F., Pyszczynski, T., Arndt, J., Miller, C. H., Ogilvie, D. M., & Cook, A. (2004). Deliver us from evil: The effects of mortality salience and reminders of 9/11 on support for President George W. Bush. *Personality and Social Psychology Bulletin*, 30(9), 1136-1150. <https://doi.org/10.1177/0146167204267988>
- Maddux, W. W., Galinsky, A. D., Cuddy, A. J. C., & Polifroni, M. (2008). When being a model minority is good... and bad: Realistic threat explains negativity toward Asian Americans. *Personality and Social Psychology Bulletin*, 34(1), 74-89. <https://doi.org/10.1177/0146167207309195>
- Marinovich, G. (2016). *Murder at Small Koppie: The real story of the Marikana massacre*. East Lansing, MI: Michigan State University Press.
- Momba, J. C., & Gadsden, F. (2013). Zambia: Nonviolent strategies against colonialism. In Bartkowski, M. J. (Ed.), *Recovering Nonviolent History: Civil Resistance in Liberation Struggles* (pp. 71-88). Boulder, CO: Lynne Rienner Publishers.
- Montiel, C. J. (2000). Political trauma and recovery in a protracted conflict: Understanding contextual effects. *Peace and Conflict: Journal of Peace Psychology*, 6(2), 93-111. https://doi.org/10.1207/s15327949pac0602_1
- Nets-Zehngut, R., & Bar-Tal, D. (2014). Transformation of the official memory of conflict: A tentative model and the Israeli memory of the 1948 Palestinian exodus. *International Journal of Politics, Culture, and Society*, 27(1), 67-91.
- Peleg, K., Regens, J. L., Gunter, J. T., & Jaffe, D. H. (2011). The normalisation of terror: The response of Israel's stock market to long periods of terrorism. *Disasters*, 35(1), 268-283. <https://doi.org/10.1111/j.1467-7717.2010.01203.x>
- Posner, D. N. (2004). The political salience of cultural difference: Why Chewas and Tumbukas are allies in Zambia and adversaries in Malawi. *American Political Science Review*, 98(4), 529-545. <http://www.jstor.org/stable/4145323>
- Posner, D. N. (2005). *Institutions and ethnic politics in Africa*. Cambridge, UK: Cambridge University Press.
- Putnam, R. (2001). *Bowling alone: The collapse and revival of American community*. New York: Simon & Schuster.
- Raleigh, C., Linke, A., Hegre, H., & Karlsen, J. (2010). Introducing ACLED: An armed conflict location and event dataset: Special data feature. *Journal of Peace Research*, 47(5), 651-660.
- Renkema, L. J., Stapel, D. A., Maringer, M., & van Yperen, N. W. (2008). Terror management and stereotyping: Why do people stereotype when mortality is salient? *Personality and Social Psychology Bulletin*, 34(4), 553-564. <https://doi.org/10.1177/0146167207312465>



- Rinker, J., & Lawler, J. (2018). Trauma as a collective disease and root cause of protracted social conflict. *Peace and Conflict*, 24(2), 150-164. <https://doi.org/10.1037/pac0000311>
- Rohner, D., Thoenig, M., & Zilibotti, F. (2013a). Seeds of distrust: Conflict in Uganda. *Journal of Economic Growth*, 18(3), 217-252. <https://doi.org/10.1007/s10887-013-9093-1>
- Rohner, D., Thoenig, M., & Zilibotti, F. (2013b). War signals: A theory of trade, trust, and conflict. *Review of Economic Studies*, 80(3), 1114-1147. <https://doi.org/10.1093/restud/rdt003>
- Rosenberg, M. (1956). Misanthropy and political ideology. *American Sociological Review*, 21(6), 690-695. <https://www.jstor.org/stable/2088419%0AJSTOR>
- Rosenboim, M., Benzion, U., Shahrabani, S., & Shavit, T. (2012). Emotions, risk perceptions, and precautionary behavior under the threat of terror attacks: A field study among Israeli college students. *Journal of Behavioral Decision Making*, 25(3), 248-256. <https://doi.org/10.1002/bdm.728>
- Rothstein, B., & Uslaner, E. M. (2011). All for all: Equality, corruption, and social trust. *World Politics*, 58(1), 41-72. <https://doi.org/10.1353/wp.2006.0022>
- Sinwell, L., & Mbatha, S. (2016). *The spirit of Marikana: The rise of insurgent trade unionism in South Africa*. London: Pluto Press.
- Sønderskov, K. M. (2009). Different goods, different effects: Exploring the effects of generalized social trust in large-N collective action. *Public Choice*, 140(1-2), 145-160. <https://doi.org/10.1007/s11127-009-9416-0>
- Sønderskov, K. M. (2011a). Does generalized social trust lead to associational membership? Unravelling a bowl of well-tossed spaghetti. *European Sociological Review*, 27(4), 419-434. <https://doi.org/10.1093/esr/jcq017>
- Sønderskov, K. M. (2011b). Explaining large-N cooperation: Generalized social trust and the social exchange heuristic. *Rationality and Society*, 23(1), 51-74. <https://doi.org/10.1177/1043463110396058>
- Taylor, P. (2005). Urbanisation, nativism, and the rule of law in South Africa's "forbidden" cities. *Third World Quarterly*, 26(7), 1115-1134.
- Thomas, F. C., Tol, W. A., Vallipuram, A., Sivayokan, S., Jordans, M. J. D., Reis, R., & de Jong, J. T. V. M. (2016). Emic perspectives on the impact of armed conflict on children's mental health and psychosocial well-being: Applying a social ecological framework of resilience in Northern Sri Lanka. *Peace and Conflict*, 22(3), 246-253. <https://doi.org/10.1037/pac0000172>
- Uslaner, E. M. (1999). Trust but verify: Social capital and moral behavior. *Social Science Information*, 38(1), 29-55.
- Uslaner, E. M. (2013). Trust as an alternative to risk. *Public Choice*, 157(3-4), 629-639. <https://doi.org/10.1007/s11127-013-0082-x>
- van Noorloos, F., & Kloosterboer, M. (2018). Africa's new cities: The contested future of urbanisation. *Urban Studies*, 55(6), 1223-1241. <https://doi.org/10.1177/0042098017700574>
- Voci, A., Hadziosmanovic, E., Cakal, H., Veneziani, C. A., & Hewstone, M. (2017). Impact of pre-war and post-war intergroup contact on intergroup relations and mental health: Evidence from a Bosnian sample. *Peace and Conflict*, 23(3), 250-259. <https://doi.org/10.1037/pac0000222>
- Vogt, M., Bormann, N. C., & Ruegger, S. (2015). Integrating data on ethnicity, geography, and conflict: The ethnic power relations data set family. *Journal of Conflict Resolution*, 59(7), 1327-1342. <https://doi.org/10.1177/0022002715591215>
- von Holdt, K. (2002). Social movement unionism: The case of South Africa. *Work, Employment & Society*, 16(2), 283-304.

- Voors, M. J., & Bulte, E. H. (2014). Conflict and the evolution of institutions: Unbundling institutions at the local level in Burundi. *Journal of Peace Research*, 51(4), 455-469. <https://doi.org/10.1177/0022343314531264>
- Zeitsoff, T. (2014). Anger, exposure to violence, and intragroup conflict: A “lab in the field” experiment in southern Israel. *Political Psychology*, 35(3), 309-335. <https://doi.org/10.1111/pops.12065>





Appendix

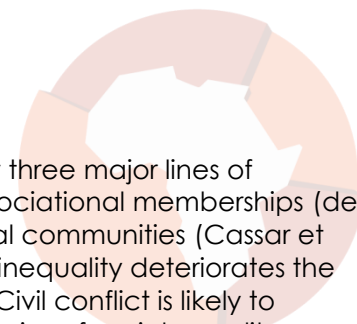
This is the statistical appendix to Afrobarometer Working Paper No. 189, “How does exposure to conflict events shape social trust? A spatiotemporal approach.” In this appendix, we provide in-depth analysis of the variables used throughout the study, descriptive statistics, and additional models that support our research methodology.

Contents

An overview of theories of social trust	2
Variables.....	2
Dependent variables.....	2
Generalized trust	3
In-group trust	3
Out-group trust	3
Bivariate models	4
Full models.....	10

List of Tables

Table 1 – Generalized trust, all incidents.....	4
Table 2 – Generalized trust, only incidents within country.....	5
Table 3 – Out-group trust, all incidents.....	6
Table 4 – Out-group trust, only incidents within country.....	7
Table 5 – In-group trust, all incidents	8
Table 6 – In-group trust, only incidents within country	9
Table 7 – Generalized trust, all incidents.....	10
Table 8 – Generalized trust, only incidents within country.....	11
Table 9 – Out-group trust, all incidents.....	12
Table 10 – Out-group trust, only incidents within country.....	13
Table 11 – In-group trust, all incidents	14
Table 12 – In-group trust, only incidents within country	15



An overview of theories of social trust

How might exposure to conflict events affect social trust? We identify three major lines of research. The first line of research has found that conflict reduces associational memberships (de Luca & Verpoorten, 2015a, 2015b) and generalized social trust in local communities (Cassar et al., 2011). Rothstein and Uslaner (2011) suggest that socio-economic inequality deteriorates the sense of shared destiny and fundamental values among individuals. Civil conflict is likely to erode social cohesion and cooperation due to the weakening dynamics of social equality as an inevitable outcome of war and destruction. The second line predicts that individuals who have war-related experiences tend to act more cooperatively, demonstrate a significant level of cooperation, and contribute to the public good in their community (Bauer et al., 2016; Gilligan et al., 2014). Conflict is assumed to develop empathy and altruistic behaviours among the victims of violence. Finally, the third line of work has shown that conflict promotes in-group trust and solidarity (Bauer et al., 2014) while simultaneously reducing out-group social trust (Ali et al., 2020; Voors & Bulte, 2014). In Uganda, the victims of civil conflict have shown sharpened ethnic identity but low levels of trust toward the members of other ethnic groups (Rohner et al., 2013a, 2013b). In brief, conflict appears to strengthen in-group ties, exacerbate between-group differences, and promote hostility toward outsiders.

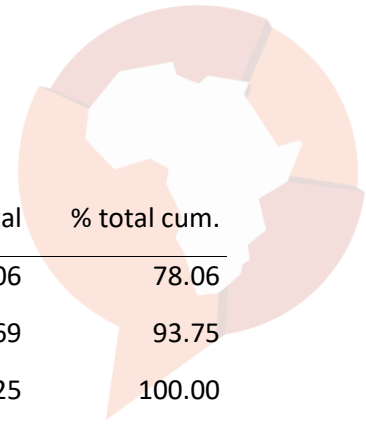
Building upon this third line of research, we argue that proximate exposure to conflict events may attenuate generalized and out-group social trust by stimulating tendencies toward in-group preference and out-group bias. We focus on the third line because a substantial literature shows that the impact of exposure to conflict is likely to vary across the diverse forms of social trust. The third line of research helps investigate the simultaneous effects of conflict on in-group solidarity and generalized and out-group social trust. Multiple theoretical linkages explain the origins of in-group favouritism and out-group discrimination. These linkages can be found in realistic group conflict theory (RGCT), social identity theory (SIT), and terror management theory (TMT). RGCT argues that in-group favouritism and out-group discrimination result from intergroup competition for finite resources, whereas SIT predicts that simple group membership provokes positive in-group and negative out-group bias in the absence of intergroup competition. Thus, neither RGCT nor SIT specifically addresses how proximate exposure to conflict might affect the forms of social trust. Unlike RGCT and SIT, TMT helps analyze the traumatic effects of conflict events on individuals as a result of their reminded mortality.

Variables

Dependent variables

We use the following variables as *dependent variables* in the study. Each is a commonly tested form of social trust. In-group and out-group trust are tested on a four-point scale ranging from 0 (an individual having no trust at all) to 3 (an individual having a lot of trust). Generalized trust is tested using a dichotomous measure, in which an individual responds that either (0) "you must be very careful" or (1) "most people can be trusted." This is a common way to measure this variable.

Variable	Name	Coding
In-group trust	q84c	0 = not at all, 3 = a lot
Out-group trust	q84d	0 = not at all, 3 = a lot
General trust	q83	0 = must be careful, 1 = most people can be trusted



GENERALIZED TRUST

	Freq	% valid	% valid cum.	% total	% total cum.
Must be careful	19824	83.26	83.26	78.06	78.06
Most people trustworthy	3986	16.74	100.00	15.69	93.75
<NA>	1587			6.25	100.00
Total	25397	100.00	100.00	100.00	100.00

IN-GROUP TRUST

	Freq	% valid	% valid cum.	% total	% total cum.
Not at all	3052	13.34	13.34	12.02	12.02
A little	6961	30.44	43.78	27.41	39.43
Somewhat	7018	30.69	74.47	27.63	67.06
A lot	5839	25.53	100.00	22.99	90.05
<NA>	2527			9.95	100.00
Total	25397	100.00	100.00	100.00	100.00

OUT-GROUP TRUST

	Freq	% valid	% valid cum.	% total	% total cum.
Not at all	4883	21.55	21.55	19.23	19.23
A little	8065	35.59	57.14	31.76	50.98
Somewhat	6092	26.88	84.02	23.99	74.97
A lot	3622	15.98	100.00	14.26	89.23
<NA>	2735			10.77	100.00
Total	25397	100.00	100.00	100.00	100.00

Bivariate models

Table 1 - Generalized trust, all incidents

	3 months				6 months				12 months			
	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	Model 8	Model 9	Model 10	Model 11	Model 12
Intercept	-1.710*** (0.167)	-1.699*** (0.167)	-1.689*** (0.169)	-1.629*** (0.172)	-1.698*** (0.169)	-1.690*** (0.168)	-1.695*** (0.169)	-1.601*** (0.175)	-1.685*** (0.169)	-1.681*** (0.170)	-1.675*** (0.170)	-1.492*** (0.182)
Incident within 25km	-0.128*** (0.030)				-0.122*** (0.022)				-0.100*** (0.017)			
Incident within 50km		-0.119*** (0.024)				-0.089*** (0.018)				-0.065*** (0.014)		
Incident within 100km			-0.065*** (0.016)				-0.037** (0.014)				-0.039** (0.012)	
Incident within 250km				-0.060*** (0.015)				-0.055*** (0.014)				-0.079*** (0.014)
AIC	20476.076	20469.397	20480.210	20479.267	20464.179	20471.319	20489.059	20481.171	20458.311	20474.902	20486.068	20464.902
BIC	20500.310	20493.631	20504.444	20503.501	20488.412	20495.553	20513.293	20505.405	20482.544	20499.136	20510.301	20489.136
Log likelihood	-10235.038	-10231.699	-10237.105	-10236.634	-10229.089	-10232.660	-10241.530	-10237.586	-10226.155	-10234.451	-10240.034	-10229.451
Num. obs.	23810	23810	23810	23810	23810	23810	23810	23810	23810	23810	23810	23810
Num. groups: country_name	17	17	17	17	17	17	17	17	17	17	17	17
Var: country_name (Intercept)	0.471	0.469	0.475	0.488	0.474	0.472	0.475	0.493	0.483	0.480	0.483	0.529

***p < 0.001; **p < 0.01; *p < 0.05

Table 2 - Generalized trust, only incidents within country

	3 months				6 months				12 months			
	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	Model 8	Model 9	Model 10	Model 11	Model 12
Intercept	-1.707*** (0.168)	-1.694*** (0.167)	-1.654*** (0.166)	-1.642*** (0.166)	-1.691*** (0.168)	-1.673*** (0.167)	-1.642*** (0.167)	-1.616*** (0.168)	-1.679*** (0.170)	-1.675*** (0.170)	-1.633*** (0.171)	-1.504*** (0.179)
Incident within 25km					-0.196*** (0.030)				-0.162*** (0.024)			
Incident within 50km		-0.187*** (0.032)				-0.186*** (0.026)				-0.112*** (0.021)		
Incident within 100km			-0.224*** (0.027)				-0.181*** (0.024)				-0.121*** (0.021)	
Incident within 250km				-0.116*** (0.024)				-0.126*** (0.024)				-0.170*** (0.025)
AIC	20468.225	20459.115	20425.624	20473.224	20449.733	20442.906	20438.199	20468.966	20448.657	20468.090	20462.774	20449.167
BIC	20492.459	20483.349	20449.858	20497.458	20473.967	20467.139	20462.432	20493.199	20472.890	20492.324	20487.007	20473.400
Log likelihood	-10231.113	-10226.557	-10209.812	-10233.612	-10221.867	-10218.453	-10216.099	-10231.483	-10221.328	-10231.045	-10228.387	-10221.583
Num. obs.	23810	23810	23810	23810	23810	23810	23810	23810	23810	23810	23810	23810
Num. groups: country_name	17	17	17	17	17	17	17	17	17	17	17	17
Var: country_name (Intercept)	0.471	0.467	0.457	0.458	0.475	0.470	0.465	0.466	0.485	0.483	0.492	0.531

***p < 0.001; **p < 0.01; *p < 0.05

Table 3 - Out-group trust, all incidents

	3 months				6 months				12 months			
	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	Model 8	Model 9	Model 10	Model 11	Model 12
Incident within 25km	-0.080*** (0.017)				-0.076*** (0.013)				-0.057*** (0.010)			
Incident within 50km		-0.054*** (0.014)				-0.058*** (0.011)				-0.043*** (0.009)		
Incident within 100km			-0.064*** (0.011)				-0.058*** (0.009)				-0.039*** (0.008)	
Incident within 250km				-0.067*** (0.010)				-0.065*** (0.010)				-0.073*** (0.009)
Not at all A little	-1.458*** (0.140)	-1.459*** (0.144)	-1.488*** (0.142)	-1.566*** (0.144)	-1.467*** (0.144)	-1.472*** (0.141)	-1.502*** (0.142)	-1.607*** (0.144)	-1.473*** (0.143)	-1.479*** (0.142)	-1.502*** (0.140)	-1.682*** (0.146)
A little Somewhat	0.199 (0.140)	0.198 (0.143)	0.171 (0.142)	0.093 (0.144)	0.191 (0.143)	0.185 (0.141)	0.157 (0.142)	0.052 (0.144)	0.185 (0.143)	0.178 (0.142)	0.155 (0.140)	-0.022 (0.146)
Somewhat A lot	1.673*** (0.141)	1.671*** (0.144)	1.644*** (0.142)	1.566*** (0.144)	1.664*** (0.144)	1.658*** (0.141)	1.630*** (0.142)	1.526*** (0.144)	1.658*** (0.143)	1.652*** (0.142)	1.628*** (0.140)	1.453*** (0.146)
Log likelihood	-29551.984	-29555.703	-29545.232	-29539.982	-29546.112	-29549.767	-29544.180	-29540.707	-29547.819	-29552.052	-29552.190	-29533.871
AIC	59113.967	59121.406	59100.463	59089.965	59102.224	59109.535	59098.360	59091.414	59105.637	59114.105	59114.380	59077.742
BIC	59154.109	59161.549	59140.606	59130.107	59142.366	59149.677	59138.503	59131.556	59145.780	59154.247	59154.523	59117.884
Num. obs.	22662	22662	22662	22662	22662	22662	22662	22662	22662	22662	22662	22662
Groups (country_name)	16	16	16	16	16	16	16	16	16	16	16	16
Variance: country_name: (Intercept)	0.319	0.318	0.310	0.328	0.315	0.313	0.306	0.320	0.313	0.311	0.305	0.324

***p < 0.001; **p < 0.01; *p < 0.05

Table 4 - Out-group trust, only incidents within country

	3 months				6 months				12 months			
	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	Model 8	Model 9	Model 10	Model 11	Model 12
Incident within 25km	-0.115*** (0.021)				-0.105*** (0.017)				-0.083*** (0.015)			
Incident within 50km		-0.109*** (0.018)				-0.102*** (0.016)				-0.074*** (0.014)		
Incident within 100km			-0.107*** (0.016)				-0.091*** (0.015)				-0.062*** (0.014)	
Incident within 250km				-0.059*** (0.016)				-0.022 (0.016)				-0.119*** (0.017)
Not at all A little	-1.461*** (0.144)	-1.469*** (0.140)	-1.487*** (0.144)	-1.491*** (0.143)	-1.469*** (0.144)	-1.480*** (0.138)	-1.494*** (0.143)	-1.465*** (0.146)	-1.474*** (0.143)	-1.484*** (0.139)	-1.498*** (0.141)	-1.616*** (0.150)
A little Somewhat	0.197 (0.144)	0.190 (0.140)	0.172 (0.143)	0.166 (0.143)	0.190 (0.144)	0.178 (0.138)	0.164 (0.143)	0.192 (0.146)	0.184 (0.143)	0.174 (0.139)	0.160 (0.141)	0.043 (0.150)
Somewhat A lot	1.670*** (0.145)	1.663*** (0.141)	1.646*** (0.144)	1.639*** (0.143)	1.663*** (0.144)	1.652*** (0.138)	1.638*** (0.143)	1.664*** (0.147)	1.657*** (0.143)	1.647*** (0.140)	1.633*** (0.141)	1.517*** (0.150)
Log likelihood	-29547.826	-29545.222	-29541.264	-29556.428	-29545.102	-29542.302	-29545.160	-29562.369	-29547.548	-29548.895	-29553.581	-29539.842
AIC	59105.653	59100.444	59092.528	59122.856	59100.203	59094.604	59100.321	59134.738	59105.097	59107.791	59117.163	59089.685
BIC	59145.795	59140.586	59132.670	59162.998	59140.345	59134.746	59140.463	59174.880	59145.239	59147.933	59157.305	59129.827
Num. obs.	22662	22662	22662	22662	22662	22662	22662	22662	22662	22662	22662	22662
Groups (country_name)	16	16	16	16	16	16	16	16	16	16	16	16
Variance: country_name: (Intercept)	0.318	0.315	0.312	0.329	0.314	0.309	0.309	0.325	0.312	0.309	0.307	0.341

***p < 0.001; **p < 0.01; *p < 0.05

Table 5 - In-group trust, all incidents

	3 months				6 months				12 months			
	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	Model 8	Model 9	Model 10	Model 11	Model 12
Incident within 25km	-0.136*** (0.017)				-0.115*** (0.013)				-0.102*** (0.010)			
Incident within 50km		-0.088*** (0.014)				-0.072*** (0.011)				-0.072*** (0.009)		
Incident within 100km			-0.108*** (0.011)				-0.082*** (0.009)				-0.062*** (0.008)	
Incident within 250km				-0.108*** (0.010)				-0.086*** (0.010)				-0.095*** (0.010)
Not at all A little	-2.080*** (0.165)	-2.080*** (0.172)	-2.131*** (0.160)	-2.255*** (0.175)	-2.092*** (0.162)	-2.090*** (0.164)	-2.138*** (0.165)	-2.271*** (0.169)	-2.110*** (0.161)	-2.115*** (0.168)	-2.148*** (0.162)	-2.368*** (0.171)
A little Somewhat	-0.369* (0.164)	-0.370* (0.172)	-0.417** (0.160)	-0.540** (0.174)	-0.379* (0.161)	-0.379* (0.164)	-0.425** (0.164)	-0.558*** (0.168)	-0.397* (0.160)	-0.403* (0.167)	-0.436** (0.161)	-0.655*** (0.170)
Somewhat A lot	1.076*** (0.164)	1.074*** (0.172)	1.029*** (0.160)	0.907*** (0.174)	1.066*** (0.162)	1.064*** (0.164)	1.019*** (0.164)	0.887*** (0.168)	1.050*** (0.160)	1.041*** (0.167)	1.008*** (0.161)	0.792*** (0.170)
Log likelihood	-29457.361	-29469.888	-29439.154	-29429.681	-29451.009	-29469.455	-29451.463	-29450.572	-29440.474	-29458.912	-29462.784	-29439.839
AIC	58924.722	58949.777	58888.309	58869.362	58912.018	58948.911	58912.925	58911.145	58890.949	58927.825	58935.568	58889.679
BIC	58964.910	58989.965	58928.497	58909.550	58952.206	58989.099	58953.113	58951.333	58931.137	58968.013	58975.756	58929.866
Num. obs.	22870	22870	22870	22870	22870	22870	22870	22870	22870	22870	22870	22870
Groups (country_name)	16	16	16	16	16	16	16	16	16	16	16	16
Variance: country_name: (Intercept)	0.431	0.430	0.427	0.471	0.426	0.426	0.422	0.447	0.420	0.418	0.413	0.452

***p < 0.001; **p < 0.01; *p < 0.05

Table 6 - In-group trust, only incidents within country

	3 months				6 months				12 months			
	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	Model 8	Model 9	Model 10	Model 11	Model 12
Incident within 25km	-0.195*** (0.021)				-0.168*** (0.017)				-0.153*** (0.015)			
Incident within 50km		-0.181*** (0.018)				-0.147*** (0.016)				-0.134*** (0.014)		
Incident within 100km			-0.189*** (0.016)				-0.148*** (0.015)				-0.107*** (0.014)	
Incident within 250km				-0.104*** (0.016)				-0.052** (0.016)				-0.133*** (0.017)
Not at all A little	-2.086*** (0.166)	-2.098*** (0.160)	-2.135*** (0.171)	-2.139*** (0.173)	-2.096*** (0.167)	-2.109*** (0.165)	-2.139*** (0.165)	-2.103*** (0.168)	-2.113*** (0.161)	-2.130*** (0.159)	-2.148*** (0.161)	-2.248*** (0.175)
A little Somewhat	-0.373* (0.165)	-0.385* (0.159)	-0.418* (0.170)	-0.429* (0.172)	-0.383* (0.167)	-0.396* (0.164)	-0.426** (0.164)	-0.395* (0.168)	-0.400* (0.161)	-0.417** (0.158)	-0.437** (0.161)	-0.537** (0.174)
Somewhat A lot	1.073*** (0.165)	1.062*** (0.159)	1.029*** (0.170)	1.015*** (0.172)	1.063*** (0.167)	1.050*** (0.164)	1.020*** (0.165)	1.048*** (0.168)	1.047*** (0.161)	1.029*** (0.158)	1.007*** (0.161)	0.908*** (0.174)
Log likelihood	-29446.240	-29440.555	-29421.170	-29468.844	-29443.780	-29446.520	-29441.650	-29485.220	-29437.046	-29443.047	-29461.501	-29460.562
AIC	58902.479	58891.110	58852.339	58947.688	58897.561	58903.041	58893.300	58980.441	58884.092	58896.094	58933.002	58931.123
BIC	58942.667	58931.298	58892.527	58987.876	58937.749	58943.229	58933.487	59020.629	58924.280	58936.282	58973.189	58971.311
Num. obs.	22870	22870	22870	22870	22870	22870	22870	22870	22870	22870	22870	22870
Groups (country_name)	16	16	16	16	16	16	16	16	16	16	16	16
Variance: country_name: (Intercept)	0.432	0.429	0.433	0.461	0.425	0.421	0.426	0.446	0.418	0.414	0.414	0.466

***p < 0.001; **p < 0.01; *p < 0.05

Full models

Table 7 - Generalized trust, all incidents

	3 months				6 months				12 months			
	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	Model 8	Model 9	Model 10	Model 11	Model 12
Intercept	-1.991** (0.704)	-1.962** (0.742)	-1.977** (0.752)	-1.811* (0.736)	-1.976** (0.719)	-1.974* (0.768)	-2.020** (0.754)	-1.785* (0.739)	-1.951* (0.772)	-1.986** (0.750)	-1.979* (0.771)	-1.532* (0.754)
Incident within 25km	-0.074* (0.030)				-0.063** (0.023)				-0.048** (0.018)			
Incident within 50km		-0.094*** (0.024)				-0.059** (0.019)				-0.033* (0.015)		
Incident within 100km			-0.057** (0.018)				-0.025 (0.015)				-0.028* (0.013)	
Incident within 250km				-0.062*** (0.016)				-0.058*** (0.016)				-0.077*** (0.015)
Urban	0.350*** (0.041)	0.350*** (0.040)	0.357*** (0.040)	0.365*** (0.040)	0.340*** (0.041)	0.347*** (0.041)	0.361*** (0.040)	0.364*** (0.040)	0.334*** (0.042)	0.350*** (0.041)	0.359*** (0.040)	0.359*** (0.040)
Ethnic diversity	0.019 (0.050)	0.046 (0.050)	0.065 (0.052)	0.066 (0.052)	0.026 (0.050)	0.047 (0.051)	0.043 (0.053)	0.078 (0.053)	0.027 (0.050)	0.036 (0.051)	0.048 (0.053)	0.081 (0.052)
News by radio	-0.028 (0.015)	-0.029 (0.015)	-0.029 (0.015)	-0.027 (0.015)	-0.028 (0.015)	-0.028 (0.015)	-0.028 (0.015)	-0.026 (0.015)	-0.027 (0.015)	-0.027 (0.015)	-0.027 (0.015)	-0.026 (0.015)
Member of religious org.	-0.016 (0.021)	-0.017 (0.021)	-0.016 (0.021)	-0.014 (0.021)	-0.016 (0.021)	-0.017 (0.021)	-0.015 (0.021)	-0.015 (0.021)	-0.017 (0.021)	-0.016 (0.021)	-0.016 (0.021)	-0.016 (0.021)
Member of trade union	0.015 (0.026)	0.015 (0.026)	0.013 (0.026)	0.015 (0.026)	0.014 (0.026)	0.014 (0.026)	0.015 (0.026)	0.014 (0.026)	0.014 (0.026)	0.015 (0.026)	0.015 (0.026)	0.014 (0.026)
Member of business group	-0.036 (0.033)	-0.037 (0.033)	-0.037 (0.033)	-0.038 (0.033)	-0.037 (0.033)	-0.037 (0.033)	-0.037 (0.033)	-0.037 (0.033)	-0.037 (0.033)	-0.037 (0.033)	-0.037 (0.033)	-0.037 (0.033)
V-Dem polyarchy	-0.399 (1.163)	-0.489 (1.229)	-0.515 (1.249)	-0.720 (1.218)	-0.407 (1.187)	-0.463 (1.276)	-0.423 (1.252)	-0.746 (1.222)	-0.427 (1.278)	-0.431 (1.240)	-0.475 (1.279)	-1.003 (1.246)
AIC	19780.200	19770.676	19775.703	19770.472	19778.772	19776.648	19783.726	19773.149	19778.768	19781.711	19782.176	19760.521
BIC	19860.693	19851.169	19856.197	19850.965	19859.265	19857.141	19864.219	19853.642	19859.261	19862.204	19862.669	19841.015
Log likelihood	-9880.100	-9875.338	-9877.852	-9875.236	-9879.386	-9878.324	-9881.863	-9876.574	-9879.384	-9880.856	-9881.088	-9870.261
Num. obs.	23140	23140	23140	23140	23140	23140	23140	23140	23140	23140	23140	23140
Num. groups: country_name	17	17	17	17	17	17	17	17	17	17	17	17
Var: country_name (Intercept)	0.463	0.455	0.457	0.466	0.464	0.457	0.462	0.467	0.467	0.464	0.465	0.490

***p < 0.001; **p < 0.01; *p < 0.05

Table 8 - Generalized trust, only incidents within country

	3 months				6 months				12 months			
	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	Model 8	Model 9	Model 10	Model 11	Model 12
Intercept	-1.959** (0.738)	-1.929** (0.730)	-1.804** (0.673)	-1.817* (0.714)	-1.928** (0.722)	-1.892** (0.708)	-1.814* (0.748)	-1.790* (0.739)	-1.918* (0.794)	-1.962** (0.747)	-1.855** (0.696)	-1.538* (0.757)
Incident within 25km	-0.119** (0.038)				-0.117*** (0.031)				-0.091*** (0.026)			
Incident within 50km		-0.146*** (0.032)				-0.138*** (0.027)				-0.062** (0.023)		
Incident within 100km			-0.208*** (0.028)				-0.157*** (0.026)				-0.098*** (0.022)	
Incident within 250km				-0.108*** (0.025)				-0.108*** (0.025)				-0.149*** (0.026)
Urban	0.344*** (0.041)	0.343*** (0.040)	0.333*** (0.040)	0.356*** (0.040)	0.328*** (0.041)	0.327*** (0.041)	0.329*** (0.041)	0.357*** (0.040)	0.324*** (0.042)	0.344*** (0.041)	0.347*** (0.040)	0.348*** (0.040)
Ethnic diversity	0.017 (0.050)	0.040 (0.050)	0.099 (0.051)	0.037 (0.050)	0.027 (0.050)	0.056 (0.050)	0.089 (0.051)	0.044 (0.050)	0.029 (0.050)	0.036 (0.050)	0.059 (0.051)	0.030 (0.050)
News by radio	-0.028 (0.015)	-0.028 (0.015)	-0.029* (0.015)	-0.028 (0.015)	-0.027 (0.015)	-0.028 (0.015)	-0.027 (0.015)	-0.027 (0.015)	-0.026 (0.015)	-0.027 (0.015)	-0.026 (0.015)	-0.027 (0.015)
Member of religious org.	-0.016 (0.021)	-0.017 (0.021)	-0.015 (0.021)	-0.014 (0.021)	-0.017 (0.021)	-0.017 (0.021)	-0.015 (0.021)	-0.015 (0.021)	-0.017 (0.021)	-0.016 (0.021)	-0.016 (0.021)	-0.015 (0.021)
Member of trade union	0.014 (0.026)	0.014 (0.026)	0.015 (0.026)	0.016 (0.026)	0.013 (0.026)	0.013 (0.026)	0.015 (0.026)	0.016 (0.026)	0.013 (0.026)	0.014 (0.026)	0.014 (0.026)	0.014 (0.026)
Member of business group	-0.036 (0.033)	-0.037 (0.033)	-0.039 (0.033)	-0.040 (0.033)	-0.037 (0.033)	-0.038 (0.033)	-0.038 (0.033)	-0.040 (0.033)	-0.036 (0.033)	-0.037 (0.033)	-0.038 (0.033)	-0.040 (0.033)
V-Dem polyarchy	-0.426 (1.221)	-0.509 (1.210)	-0.770 (1.109)	-0.648 (1.179)	-0.447 (1.192)	-0.543 (1.172)	-0.716 (1.240)	-0.686 (1.222)	-0.453 (1.316)	-0.447 (1.238)	-0.625 (1.149)	-0.888 (1.248)
AIC	19776.105	19765.206	19731.921	19768.294	19771.675	19760.214	19747.951	19767.984	19773.578	19778.921	19766.903	19752.837
BIC	19856.598	19845.699	19812.414	19848.788	19852.168	19840.708	19828.444	19848.477	19854.071	19859.414	19847.397	19833.330
Log likelihood	-9878.052	-9872.603	-9855.960	-9874.147	-9875.838	-9870.107	-9863.976	-9873.992	-9876.789	-9879.461	-9873.452	-9866.418
Num. obs.	23140	23140	23140	23140	23140	23140	23140	23140	23140	23140	23140	23140
Num. groups: country_name	17	17	17	17	17	17	17	17	17	17	17	17
Var: country_name (Intercept)	0.463	0.454	0.428	0.442	0.463	0.452	0.437	0.446	0.468	0.465	0.467	0.497

***p < 0.001; **p < 0.01; *p < 0.05

Table 9 - Out-group trust, all incidents

	3 months				6 months				12 months			
	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	Model 8	Model 9	Model 10	Model 11	Model 12
Incident within 25km	-0.042* (0.017)				-0.042** (0.014)				-0.025* (0.011)			
Incident within 50km		-0.026 (0.014)				-0.031** (0.012)				-0.017 (0.010)		
Incident within 100km			-0.047*** (0.011)				-0.041*** (0.010)				-0.021* (0.009)	
Incident within 250km				-0.064*** (0.010)				-0.062*** (0.010)				-0.066*** (0.010)
Urban	0.220*** (0.027)	0.227*** (0.027)	0.223*** (0.027)	0.232*** (0.026)	0.212*** (0.027)	0.221*** (0.027)	0.221*** (0.027)	0.230*** (0.026)	0.214*** (0.028)	0.223*** (0.027)	0.226*** (0.027)	0.225*** (0.027)
Ethnic diversity	-0.099** (0.034)	-0.093** (0.034)	-0.058 (0.035)	-0.049 (0.035)	-0.094** (0.034)	-0.084* (0.035)	-0.052 (0.036)	-0.036 (0.036)	-0.096** (0.034)	-0.091** (0.035)	-0.077* (0.036)	-0.048 (0.035)
News by radio	0.028** (0.010)	0.028** (0.010)	0.028** (0.010)	0.029** (0.010)	0.029** (0.010)	0.028** (0.010)	0.028** (0.010)	0.030** (0.010)	0.029** (0.010)	0.029** (0.010)	0.029** (0.010)	0.030** (0.010)
Member of religious group	0.029 (0.015)	0.029* (0.015)	0.029* (0.015)	0.030* (0.015)	0.028 (0.015)	0.028 (0.015)	0.029* (0.015)	0.030* (0.015)	0.029 (0.015)	0.029* (0.015)	0.029* (0.015)	0.028 (0.015)
Member of trade union	0.075*** (0.018)	0.075*** (0.018)	0.074*** (0.018)	0.075*** (0.018)	0.074*** (0.018)	0.075*** (0.018)	0.074*** (0.018)	0.075*** (0.018)	0.075*** (0.018)	0.075*** (0.018)	0.075*** (0.018)	0.075*** (0.018)
Member of business group	0.014 (0.021)	0.013 (0.021)	0.014 (0.021)	0.012 (0.021)	0.013 (0.021)	0.013 (0.021)	0.013 (0.021)	0.012 (0.021)	0.013 (0.021)	0.013 (0.021)	0.013 (0.021)	0.012 (0.021)
V-Dem polyarchy	-0.053 (1.037)	-0.046 (1.060)	-0.192 (0.955)	-0.426 (1.109)	-0.068 (1.207)	-0.083 (1.068)	-0.206 (1.042)	-0.459 (1.015)	-0.056 (1.109)	-0.059 (1.064)	-0.127 (0.967)	-0.545 (1.048)
Not at all A little	-1.125 (0.609)	-1.100 (0.625)	-1.163* (0.562)	-1.347* (0.653)	-1.144 (0.711)	-1.125 (0.628)	-1.173 (0.611)	-1.385* (0.599)	-1.134 (0.652)	-1.115 (0.628)	-1.145* (0.569)	-1.521* (0.619)
A little Somewhat	0.549 (0.609)	0.573 (0.625)	0.511 (0.562)	0.329 (0.653)	0.530 (0.711)	0.549 (0.628)	0.502 (0.611)	0.290 (0.599)	0.540 (0.652)	0.559 (0.628)	0.529 (0.569)	0.155 (0.619)
Somewhat A lot	2.028*** (0.609)	2.053** (0.625)	1.991*** (0.562)	1.810** (0.653)	2.010** (0.711)	2.028** (0.628)	1.982** (0.611)	1.771** (0.599)	2.019** (0.652)	2.039** (0.628)	2.008*** (0.570)	1.636** (0.619)
Log likelihood	-28683.324	-28684.669	-28677.775	-28667.523	-28681.465	-28682.803	-28678.350	-28669.004	-28683.738	-28684.734	-28683.600	-28664.863
AIC	57390.648	57393.339	57379.550	57359.047	57386.930	57389.606	57380.700	57362.007	57391.475	57393.468	57391.201	57353.726
BIC	57486.667	57489.358	57475.569	57455.065	57482.949	57485.624	57476.719	57458.026	57487.494	57489.487	57487.219	57449.745
Num. obs.	22061	22061	22061	22061	22061	22061	22061	22061	22061	22061	22061	22061
Groups (country_name)	16	16	16	16	16	16	16	16	16	16	16	16
Variance: country_name: (Intercept)	0.291	0.291	0.288	0.299	0.290	0.290	0.286	0.292	0.290	0.289	0.286	0.293

***p < 0.001; **p < 0.01; *p < 0.05

Table 10 - Out-group trust, only incidents within country

	3 months				6 months				12 months			
	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	Model 8	Model 9	Model 10	Model 11	Model 12
Incident within 25km	-0.072*** (0.021)				-0.060** (0.018)				-0.039* (0.016)			
Incident within 50km		-0.075*** (0.019)				-0.065*** (0.017)				-0.038** (0.015)		
Incident within 100km			-0.079*** (0.017)				-0.059*** (0.016)				-0.036* (0.015)	
Incident within 250km				-0.040* (0.016)				-0.000 (0.017)				-0.100*** (0.018)
Urban	0.214*** (0.027)	0.216*** (0.027)	0.217*** (0.027)	0.229*** (0.027)	0.209*** (0.028)	0.211*** (0.027)	0.217*** (0.027)	0.234*** (0.027)	0.213*** (0.028)	0.218*** (0.027)	0.225*** (0.027)	0.223*** (0.027)
Ethnic diversity	-0.101** (0.034)	-0.088** (0.034)	-0.068 (0.035)	-0.095** (0.034)	-0.097** (0.034)	-0.082* (0.034)	-0.074* (0.035)	-0.104** (0.034)	-0.097** (0.034)	-0.089** (0.034)	-0.088* (0.034)	-0.092** (0.034)
News by radio	0.029** (0.010)	0.029** (0.010)	0.028** (0.010)	0.029** (0.010)	0.029** (0.010)	0.029** (0.010)	0.029** (0.010)	0.029** (0.010)	0.029** (0.010)	0.029** (0.010)	0.030** (0.010)	0.030** (0.010)
Member of religious group	0.029 (0.015)	0.029 (0.015)	0.030* (0.015)	0.030* (0.015)	0.028 (0.015)	0.029 (0.015)	0.029* (0.015)	0.029* (0.015)	0.029 (0.015)	0.029* (0.015)	0.029* (0.015)	0.029 (0.015)
Member of trade union	0.074*** (0.018)	0.074*** (0.018)	0.075*** (0.018)	0.075*** (0.018)	0.074*** (0.018)	0.074*** (0.018)	0.075*** (0.018)	0.076*** (0.018)	0.075*** (0.018)	0.075*** (0.018)	0.075*** (0.018)	0.075*** (0.018)
Member of business group	0.015 (0.021)	0.014 (0.021)	0.013 (0.021)	0.012 (0.021)	0.013 (0.021)	0.013 (0.021)	0.013 (0.021)	0.013 (0.021)	0.013 (0.021)	0.014 (0.021)	0.013 (0.021)	0.011 (0.021)
V-Dem polyarchy	-0.079 (1.095)	-0.118 (0.999)	-0.203 (0.997)	-0.114 (1.000)	-0.072 (1.007)	-0.118 (0.918)	-0.161 (1.053)	0.020 (1.013)	-0.056 (0.982)	-0.082 (0.997)	-0.109 (0.987)	-0.337 (0.995)
Not at all A little	-1.156 (0.643)	-1.160* (0.591)	-1.192* (0.587)	-1.163* (0.589)	-1.155 (0.592)	-1.166* (0.540)	-1.176 (0.622)	-1.058 (0.597)	-1.139* (0.578)	-1.141 (0.587)	-1.151* (0.582)	-1.405* (0.588)
A little Somewhat	0.518 (0.643)	0.514 (0.590)	0.483 (0.587)	0.511 (0.589)	0.519 (0.592)	0.508 (0.540)	0.499 (0.621)	0.615 (0.597)	0.535 (0.578)	0.533 (0.587)	0.522 (0.582)	0.270 (0.588)
Somewhat A lot	1.998** (0.643)	1.994*** (0.591)	1.964*** (0.587)	1.991*** (0.589)	1.999*** (0.592)	1.988*** (0.540)	1.979** (0.622)	2.095*** (0.597)	2.015*** (0.578)	2.013*** (0.587)	2.002*** (0.582)	1.752** (0.588)
Log likelihood	-28680.596	-28678.121	-28675.483	-28683.356	-28680.991	-28678.558	-28679.487	-28686.309	-28683.345	-28682.907	-28683.249	-28670.425
AIC	57385.191	57380.242	57374.966	57390.712	57385.981	57381.117	57382.974	57396.618	57390.689	57389.814	57390.497	57364.849
BIC	57481.210	57476.261	57470.985	57486.731	57482.000	57477.136	57478.993	57492.637	57486.708	57485.833	57486.516	57460.868
Num. obs.	22061	22061	22061	22061	22061	22061	22061	22061	22061	22061	22061	22061
Groups (country_name)	16	16	16	16	16	16	16	16	16	16	16	16
Variance: country_name: (Intercept)	0.290	0.289	0.287	0.296	0.289	0.286	0.286	0.293	0.289	0.287	0.285	0.304

***p < 0.001; **p < 0.01; *p < 0.05

Table 11 - In-group trust, all incidents

	3 months				6 months				12 months			
	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	Model 8	Model 9	Model 10	Model 11	Model 12
Incident within 25km	-0.076*** (0.017)				-0.060*** (0.014)				-0.050*** (0.011)			
Incident within 50km		-0.051*** (0.014)				-0.033** (0.012)				-0.035*** (0.010)		
Incident within 100km			-0.091*** (0.011)				-0.063*** (0.010)				-0.041*** (0.009)	
Incident within 250km				-0.109*** (0.010)				-0.084*** (0.010)				-0.087*** (0.010)
Urban	0.359*** (0.027)	0.372*** (0.027)	0.365*** (0.027)	0.381*** (0.027)	0.354*** (0.027)	0.371*** (0.027)	0.365*** (0.027)	0.380*** (0.027)	0.345*** (0.028)	0.364*** (0.027)	0.369*** (0.027)	0.373*** (0.027)
Ethnic diversity	-0.086* (0.034)	-0.074* (0.034)	-0.006 (0.036)	-0.001 (0.035)	-0.081* (0.034)	-0.074* (0.035)	-0.016 (0.036)	-0.002 (0.036)	-0.079* (0.034)	-0.069* (0.035)	-0.043 (0.036)	-0.022 (0.035)
News by radio	0.000 (0.010)	0.000 (0.010)	-0.001 (0.010)	0.002 (0.010)	0.001 (0.010)	0.000 (0.010)	0.001 (0.010)	0.003 (0.010)	0.002 (0.010)	0.001 (0.010)	0.001 (0.010)	0.003 (0.010)
Member of religious group	-0.002 (0.015)	-0.001 (0.015)	0.000 (0.015)	0.001 (0.015)	-0.001 (0.015)	-0.001 (0.015)	-0.000 (0.015)	-0.000 (0.015)	-0.002 (0.015)	-0.001 (0.015)	-0.001 (0.015)	-0.001 (0.015)
Member of trade union	0.110*** (0.018)	0.111*** (0.018)	0.108*** (0.018)	0.112*** (0.018)	0.110*** (0.018)	0.111*** (0.018)	0.109*** (0.018)	0.111*** (0.018)	0.110*** (0.018)	0.110*** (0.018)	0.110*** (0.018)	0.111*** (0.018)
Member of business group	-0.040 (0.021)	-0.041 (0.021)	-0.041 (0.021)	-0.043* (0.021)	-0.041* (0.021)	-0.042* (0.021)	-0.042* (0.021)	-0.043* (0.021)	-0.041* (0.021)	-0.042* (0.021)	-0.042* (0.021)	-0.043* (0.021)
V-Dem polyarchy	-0.685 (1.050)	-0.683 (1.242)	-0.963 (1.210)	-1.319 (1.315)	-0.678 (1.080)	-0.665 (1.203)	-0.907 (1.124)	-1.209 (1.193)	-0.710 (1.164)	-0.714 (1.141)	-0.841 (1.311)	-1.308 (1.091)
Not at all A little	-1.990** (0.619)	-1.950** (0.731)	-2.073** (0.709)	-2.365** (0.771)	-1.989** (0.633)	-1.941** (0.704)	-2.048** (0.661)	-2.314*** (0.700)	-2.024** (0.685)	-1.983** (0.669)	-2.039** (0.771)	-2.486*** (0.642)
A little Somewhat	-0.261 (0.618)	-0.222 (0.731)	-0.341 (0.709)	-0.631 (0.771)	-0.261 (0.633)	-0.213 (0.704)	-0.318 (0.661)	-0.583 (0.700)	-0.296 (0.684)	-0.255 (0.669)	-0.310 (0.771)	-0.754 (0.642)
Somewhat A lot	1.199 (0.618)	1.237 (0.731)	1.121 (0.709)	0.833 (0.771)	1.199 (0.633)	1.246 (0.704)	1.142 (0.661)	0.879 (0.700)	1.164 (0.684)	1.204 (0.669)	1.149 (0.771)	0.709 (0.642)
Log likelihood	-28550.869	-28554.331	-28528.648	-28505.856	-28550.983	-28556.498	-28541.259	-28528.438	-28549.977	-28554.179	-28550.293	-28522.747
AIC	57125.738	57132.662	57081.297	57035.712	57125.966	57136.995	57106.519	57080.877	57123.954	57132.357	57124.585	57069.493
BIC	57221.868	57228.792	57177.427	57131.842	57222.095	57233.125	57202.649	57177.006	57220.083	57228.487	57220.715	57165.623
Num. obs.	22266	22266	22266	22266	22266	22266	22266	22266	22266	22266	22266	22266
Groups (country_name)	16	16	16	16	16	16	16	16	16	16	16	16
Variance: country_name: (Intercept)	0.382	0.383	0.382	0.412	0.381	0.382	0.378	0.391	0.377	0.377	0.371	0.386

***p < 0.001; **p < 0.01; *p < 0.05

Table 12 - In-group trust, only incidents within country

	3 months				6 months				12 months			
	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	Model 8	Model 9	Model 10	Model 11	Model 12
Incident within 25km	-0.123*** (0.021)				-0.093*** (0.018)				-0.081*** (0.016)			
Incident within 50km		-0.132*** (0.019)				-0.092*** (0.016)				-0.081*** (0.015)		
Incident within 100km			-0.157*** (0.017)				-0.110*** (0.016)				-0.074*** (0.015)	
Incident within 250km				-0.082*** (0.016)				-0.025 (0.017)				-0.108*** (0.018)
Urban	0.351*** (0.027)	0.355*** (0.027)	0.352*** (0.027)	0.373*** (0.027)	0.347*** (0.028)	0.353*** (0.027)	0.354*** (0.027)	0.382*** (0.027)	0.342*** (0.028)	0.351*** (0.027)	0.368*** (0.027)	0.372*** (0.027)
Ethnic diversity	-0.090** (0.034)	-0.067* (0.034)	-0.023 (0.035)	-0.078* (0.034)	-0.084* (0.034)	-0.065 (0.034)	-0.040 (0.035)	-0.089** (0.034)	-0.081* (0.034)	-0.065 (0.034)	-0.064 (0.034)	-0.082* (0.034)
News by radio	0.001 (0.010)	0.001 (0.010)	0.000 (0.010)	0.001 (0.010)	0.001 (0.010)	0.001 (0.010)	0.001 (0.010)	0.001 (0.010)	0.002 (0.010)	0.002 (0.010)	0.003 (0.010)	0.002 (0.010)
Member of religious group	-0.001 (0.015)	-0.001 (0.015)	0.001 (0.015)	0.000 (0.015)	-0.001 (0.015)	-0.001 (0.015)	-0.000 (0.015)	-0.000 (0.015)	-0.001 (0.015)	-0.001 (0.015)	-0.001 (0.015)	-0.001 (0.015)
Member of trade union	0.110*** (0.018)	0.110*** (0.018)	0.110*** (0.018)	0.112*** (0.018)	0.110*** (0.018)	0.110*** (0.018)	0.111*** (0.018)	0.112*** (0.018)	0.110*** (0.018)	0.109*** (0.018)	0.110*** (0.018)	0.111*** (0.018)
Member of business group	-0.039 (0.021)	-0.040 (0.021)	-0.041* (0.021)	-0.044* (0.021)	-0.041* (0.021)	-0.042* (0.021)	-0.042* (0.021)	-0.043* (0.021)	-0.041 (0.021)	-0.041 (0.021)	-0.043* (0.021)	-0.044* (0.021)
V-Dem polyarchy	-0.722 (1.126)	-0.795 (1.166)	-1.000 (1.218)	-0.832 (1.250)	-0.696 (1.225)	-0.749 (1.191)	-0.894 (1.341)	-0.647 (1.074)	-0.712 (1.108)	-0.771 (0.970)	-0.815 (1.263)	-0.944 (1.132)
Not at all A little	-2.034** (0.664)	-2.046** (0.683)	-2.135** (0.714)	-2.086** (0.734)	-2.017** (0.718)	-2.022** (0.697)	-2.089** (0.788)	-1.941** (0.631)	-2.036** (0.651)	-2.045*** (0.572)	-2.058** (0.741)	-2.246*** (0.665)
A little Somewhat	-0.304 (0.664)	-0.316 (0.683)	-0.402 (0.714)	-0.357 (0.734)	-0.288 (0.718)	-0.292 (0.697)	-0.359 (0.787)	-0.214 (0.631)	-0.308 (0.651)	-0.316 (0.571)	-0.330 (0.741)	-0.517 (0.665)
Somewhat A lot	1.156 (0.664)	1.145 (0.683)	1.061 (0.714)	1.103 (0.734)	1.173 (0.718)	1.168 (0.697)	1.102 (0.787)	1.246* (0.631)	1.153 (0.651)	1.145* (0.571)	1.131 (0.741)	0.944 (0.665)
Log likelihood	-28544.103	-28535.462	-28517.470	-28548.262	-28547.845	-28544.909	-28536.722	-28559.471	-28547.824	-28545.282	-28548.120	-28542.130
AIC	57112.205	57094.923	57058.939	57120.525	57119.690	57113.817	57097.445	57142.942	57119.647	57114.564	57120.239	57108.261
BIC	57208.335	57191.053	57155.069	57216.655	57215.820	57209.947	57193.575	57239.072	57215.777	57210.694	57216.369	57204.391
Num. obs.	22266	22266	22266	22266	22266	22266	22266	22266	22266	22266	22266	22266
Groups (country_name)	16	16	16	16	16	16	16	16	16	16	16	16
Variance: country_name: (Intercept)	0.381	0.380	0.383	0.400	0.379	0.377	0.378	0.388	0.375	0.372	0.368	0.398

***p < 0.001; **p < 0.01; *p < 0.05

Recent Afrobarometer working papers

- No. 188 Stoecker, Alexander. Partisanship in a young democracy: Evidence from Ghana. 2021
- No. 187 Marfouk, Loubna, Martin Sarvaš, Jack Wippell, & Jintao Zhu. Does sensitivity bias lead respondents to misreport their level of trust in political parties? An investigation into Afrobarometer's survey results and methodology. 2021
- No. 186 Krönke, Matthias, Sarah J. Lockwood, & Robert Mattes. Party footprints in Africa: Measuring local party presence across the continent. 2020
- No. 185 Erlich, Aron & Andrew McCormack. Age-group differences in social and political interactions in Africa. 2020
- No. 184 Armah-Attoh, Daniel. Curbing intolerance of persons in same-sex relationships in Ghana: The important role of education. 2020
- No. 183 Chlouba, Vladimir. Traditional authority and state legitimacy: Evidence from Namibia. 2019
- No. 182 Brass, Jennifer N., Kirk Harris, & Lauren M. MacLean. Is there an anti-politics of electricity? Access to the grid and reduced political participation in Africa? 2019
- No. 181 Lockwood, Sarah J. & Matthias Krönke. Do electoral systems affect how citizens hold their government accountable? Evidence from Africa. 2018
- No. 180 O'Regan, Davin. Police-citizen interaction in Africa: An exploration of factors that influence victims' reporting of crimes. 2018
- No. 179 Blimpo, M., Justice Tei Mensah, K. Ochieng' Opalo, & Ruifan Shi. Electricity provision and tax mobilization in Africa. 2018
- No. 178 Irvine, John M., Richard J. Wood, & Payden McBee. Viewing society from space: Image-based sociocultural prediction models. 2017
- No. 177 Depetris-Chauvin, Emilio & Ruben Durante. One team, one nation: Football, ethnic identity, and conflict in Africa. 2017.
- No. 176 Tannenbergs, Marcus. The autocratic trust bias: Politically sensitive survey items and self-censorship. 2017.
- No. 175 Liu, Shelley. Wartime educational loss and attitudes toward democratic institutions. 2017.
- No. 174 Crisman, Benjamin. Disease, disaster, and disengagement: Ebola and political participation in Sierra Leone. 2017.
- No. 173 Claassen, Christopher. Explaining South African xenophobia. 2017.
- No. 172 Logan, Carolyn. 800 languages and counting: Lessons from survey research across a linguistically diverse continent. 2017.
- No. 171 Guardado, Jenny & Leonard Wantchekon. Do electoral handouts affect voting behavior? 2017.
- No. 170 Kerr, Nicholas & Anna Lührmann. Public trust in elections: The role of media freedom and election management autonomy. 2017.
- No. 169 McNamee, Lachlan. Indirect colonial rule and the political salience of ethnicity. 2016.
- No. 168 Coulibaly, Massa. Measuring democracy in Africa: Applying anchors. (French). 2016.
- No. 167 Monyake, Moletsane. Does personal experience of bribery explain protest participation in Africa? 2016.

Afrobarometer Working Papers Series

Editor: Jeffrey Conroy-Krutz, jconroy@afrobarometer.org

Editorial Board: E. Gyimah-Boadi, Michael Bratton, Carolyn Logan, Robert Mattes

Afrobarometer publications report results of national sample surveys on African experiences and evaluations of democracy, governance, markets, civil society, and other aspects of development. Afrobarometer publications are simultaneously co-published by the five Afrobarometer core partner and support unit institutions. All Afrobarometer publications can be searched and downloaded from www.afrobarometer.org.

Financial support for Afrobarometer Round 8 has been provided by Sweden via the Swedish International Development Cooperation Agency, the Mo Ibrahim Foundation, the Open Society Foundations, the William and Flora Hewlett Foundation, the U.S. Agency for International Development (USAID) via the U.S. Institute of Peace, the European Union, the National Endowment for Democracy, Freedom House, the Embassy of the Kingdom of the Netherlands in Uganda, GIZ, and Humanity United.



#95 Nortei Ababio Loop,
North Airport Residential Area
Legon-Accra, Ghana
+233 (0) 302 776142/784293
www.afrobarometer.org

Core partners:



**Center for Democratic
Development
(CDD-Ghana)**
Accra, Ghana
www.cddghana.org



**Institute for Development Studies (IDS),
University of Nairobi**
Nairobi, Kenya
www.ids.uonbi.ac.ke



Institute for Justice and Reconciliation (IJR)
Cape Town, South Africa
www.ijr.org.za

Support units:

**MICHIGAN STATE
UNIVERSITY**

**Michigan State University (MSU)
Department of Political Science**
East Lansing, Michigan, U.S.A.
www.polisci.msu.edu



University of Cape Town (UCT)
Institute for Democracy, Citizenship
and Public Policy in Africa
Cape Town, South Africa
www.idcpa.uct.ac.za/