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ABSTRACT

Is There Hope after Despair? An Analysis of Trust among China's Cultural Revolution Survivors*

We study the long-term effects of the Cultural Revolution, characterised by widespread violence, summary executions and chaos, on a set of trust outcomes among people surveyed by the China Survey in 2008. We find that the revolution, identified by cohort-specific exposure to excess deaths at the county level, has a significant long-term impact on trust. However, the effects differ according to the relationship considered. Overall, trust emerges as a binder between an individual and his/her friends and relatives, but as a divisive force between the same person and those with whom one may compete with (e.g., co-workers) and unknown or less known others (e.g., those living in the same town). As the revolution occurred more than four decades prior to the China Survey, the results do not support viewing the sole passing of time as an effective cure to recover from a prolonged traumatic experience.

JEL Classification: D3

Keywords: trust, Cultural Revolution, inside-outside groups

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1. Introduction

China's Cultural Revolution (1966–76) was a socio-political movement launched by Mao Zedong to preserve Chinese communism as a live example of Stalinist ideology, and restore Mao's status as the nation's central point of reference and control by purging political opponents and their supporters. It is one of recent history's most violent periods, estimated to have caused between 1.1 and 1.6 million deaths and subjected 22 to 30 million people to some form of political persecution (Walder 2014). The revolution eventually ended with Mao's death in 1976. Aside from documenting its horrors and the chaos of the time, a growing number of researchers over the past two decades have examined the economic (Oksenberg et al, 2020; Li, 2020), educational (Meng and Gregory, 2002; Zhang et al, 2007), and political consequences of the revolution (Bai and Wu, 2020; Wang, 2021), exploiting its structure of a 'natural experiment' suitable for identifying the causal effects of explanatory variables of interest.

Disasters or adverse events have been a core focus when exploring historical events (e.g., Savage and Torgler, 2013; Savage, 2019; Frey, Torgler, and Savage, 2010; Cheng et al, 2021a, b, 2022a; Hayward et al, 2022). Among these, however, psychological characteristics, societal attitudes and behaviours of the survivors remain under-researched, especially when the effects are measured over a long period. Previous research has focused on the immediate relevance of such factors in times of crisis or extreme situations, generally because of a lack of additional data due to budget or other constraints (Frey, Torgler, and Savage, 2010; Savage and Torgler, 2013; Page, Savage, and Torgler, 2014; Savage and Torgler, 2015; Savage, 2016).

Filling in the gap about the longer-term effects of a prolonged traumatic experience nevertheless remains critical not only to better understand human resilience but also to analyse the responses to such events and their effects on subsequent psychological predispositions (e.g., depression) and individual economic choices. For example: to what extent does experiencing a situation of life or death change one's subsequent perspectives on life and on fellow human beings, when the life or death circumstance results from a sudden accusation of being an 'enemy of the nation' and subjection to summary justice? Does such an experience erase any sense of affiliation and trust towards others - and who are they? Are there differences in how one trusts familiar and less familiar others?

In this paper we address these questions by studying the influence of the Cultural Revolution on survivors' trust towards their close (in-group) or less close (out-group) contacts. We use a bottom-up, empirical approach, whereby relations are not pre-assigned to in- or out-groups but arise from the analysis, which is based on data from the China Survey of 2008. This approach extends the recent literature by analysing the psychological and behavioural effects of the Cultural Revolution (e.g., Bai and Wu, 2020) by exploring the effects on different types of relations experienced in one's life: namely, neighbours, friends, family, former classmates and local authority (cadres). In doing so, we also contribute to the literature on how social capital is connected with coping with stress and strain (Gächter, Savage, and Torgler, 2011).

2. Background

The Cultural Revolution

The origins of the Cultural Revolutions can be traced to the failure of Mao's Great Leap Forward (GLP) policy (the 'second five-year plan', from 1958-1962), which centred on the reorganisation of

farm labour in order to artificially propel the development of industry (MacFarquhar, 1974; Clark, 2008). The GLP assigned millions of farmers to communes charged with the production of steel as the main (at times, sole) output. The new recruits' inexperience with steel manufacturing, the use of inappropriate technology, and the lack of economic incentives resulted in the production of steel that was too low quality for use in other sectors of the economy. Removing labour from agricultural production also reduced agricultural output, contributing to China's Great Famine during 1959-61. Failure to achieve the set production targets in both agriculture and steel diminished Mao's prestige within the party, leading to his resignation as President of China in 1959. Mao, however, maintained control of the party as Chairman and the army as Commander-in-chief. The reversal of GLP policies in the early 1960s, enacted by moderate party members now in charge of the country, and the shift away from Stalin's ideological positions in the Soviet Union (whom Mao had always regarded as a hero), further raised Mao's fear of political vulnerability and survival. He reacted by using targeted media campaigns and the support of faithful allies to undermine the authority of party leaders whose loyalty to him was unproven, leading to their resignation or removal from the Communist party. In 1966, Mao influenced the delegates at the annual policy conference (Politburo) to publicly denounce the existence of counterrevolutionaries in the leadership of the party, and called for their removal. This decision ('May 16 Notification') was the prologue of the Cultural Revolution.

Between May and June 1966, several moderate party leaders were accused of being capitalists in disguise and were purged from the party, while targeted media campaigns were used as a call-to-arms for students to revolt against schools' established organisational structures and their leaders - especially teachers and those in positions of authority. Schools were closed nationwide on June 13th, 1966, and mass demonstrations were organised first in Beijing and then in other cities. In July 1966, Mao encouraged youth, by now organised as Red Guards, to rebel against authorities and become safeguards for the current process of change. The principles of the Cultural Revolution were formalised by a party committee decision in July 1966. The student movement was transformed into a national mass campaign that encouraged farmers, workers, soldiers, and junior party members to challenge authority and reshape society (Lee, 2020). During the remaining months of 1966 violence was widespread, and directly approved by Mao himself (Mao, 1990). Alongside revolution-related incidents between rival factions of the Red Guards, private citizens and other factional groups within the broader society took the opportunity to exploit the ongoing turmoil for their own gain, settling long-held disputes and contrasts through vicious accusations and brutal confrontations. By the end of 1966, China had spiralled into chaos. Violence was rife (Unger, 1998). Fear and mistrust dominated social relations (Bai and Wu, 2020). Family members turned against each other (Kraus, 2012). Public trials were common (Yuan, Kuiper, and Shaogu, 1990), as were torture (Dikötter, 2016), collective murders (Su, 2011), and suicides (Lester, 2005). Hatred reached such an extent that even cannibalism occurred (Yi, Sym, and Terrill, 2018). In 1968 the army was called in to curb violence in order to regain control of the chaotic situation. Red Guards were sent away from urban centres to work in re-education camps in the countryside. From 1969 onwards, there was a slow return to normality. Moderate party leaders such as Zhou Enlai regained a position of influence, as Mao's grip on power started to loosen due to health problems. As social conflicts started to abate in the early 1970s, China began reconnecting with the rest of the world, as signalled by US President Nixon's visit to China in 1972. The Cultural Revolution ended in 1976 with Mao's passing.

Trust in times of conflict

The threat or the actual experience of violence is typically viewed as turning point in a victim's personality, leading those suffering to become more hostile people overall, as well as less agreeable and trusting of others (Berkowitz, 1990; Duntley, 2005). This seems to be especially the case when such an experience happens early in life or is prolonged or even chronic. Indeed, theories of classical conditioning suggest that any shock associated with an aversive state triggers negative responses (Berger, 1962), and that people associated with it are liked less than those associated with neutral circumstances. As a result, violence can only breed violence in a self-reinforcing spiral that can quickly get out of control, with negative consequences for everyone involved and society more generally.

However, other personality and social psychology studies have often shown the opposite: namely, that violence does not necessarily bring the worst out of people affected by it, and, under certain circumstances, the threat or experience of violence can actually lead people to become nicer human beings, as well as more agreeable and trusting. This perspective is based on the idea that humans have come across hostility and violence from other human beings for thousands of years, and hence may have developed precise survival strategies (Van Vugt, De Cremer and Janssen, 2007; Oehman and Mineka, 2001). In addition, it is also plausible that when hints of forthcoming violence emerge, people are functionally triggered by changing attitudes, behaviours and personality that facilitate the implementation of survival strategies (Griskevicius et al., 2006; Mortensen et al., 2010). For example, it has been noted that people sometimes respond to violence with social affiliation: in other words, the threatened individual affiliates with a group to ease his/her defence under attack, and becomes more inclined to conform to others' opinions as a functional strategy that enhances group cohesion (Taylor et al, 2000; Wisman and Koole, 2003).

One manifestation through which surviving a threat of violence leads people towards social affiliation is a functional change in personality and behaviour. Notwithstanding that personality traits are relatively consistent throughout the lifetime (Carey, 2003; Asendorpf and van Aken, 2003), personality can also adapt to suit the environment, and its sudden changes. For instance, an infectious disease fast spreading in a local area could turn residents away from their normal display of extroversion and openness and into functional isolation, with few interpersonal contacts (Schaller and Murray, 2008). The threat of violence can therefore trigger functional shifts in agreeableness, which is one of the 'Big Five' characteristics that represent the basic dimensions of personality (Costa and McCrae, 1992; Goldberg, 1993). People who are low in agreeableness tend to be more aggressive and competitive than those with high levels of agreeableness, who instead prefer cooperating attitudes and behaviours. Agreeableness, in turn, is positively associated with values related to social goals, such as abiding by norms, avoiding disruptions of relationships with others, and holding concerns for the welfare of others (Roccas et al., 2002). Agreeableness also affects how people cope with extreme events. A recent study on COVID-19 indicates that those more agreeable nations are more compliant with government regulations; such an effect is particularly evident in females with higher agreeableness (Chan et al., 2021).

The violence, chaos, and social engineering of the Cultural Revolution with its between-group animosity (e.g., before being put into labour camps, the resented elites were first paraded in dunce caps (see Sapolsky, 2017) may have therefore triggered a stronger 'us-versus-them' mentality and a stronger search and attachment for the familiar and the close. Mao's strong interventions aimed at

shaping human beliefs and actions may encourage individuals at a later stage of their lives to reduce pressure and suffering by going back to their familiar group of trust. It would then be natural to trust your close network, as acting in small groups is a key part of the evolutionary origins of human behaviour and social organisation. Closeness is connected to familiarity, attachment, security or “psychologically primary” (e.g., Allport, 1954; Brewer, 1999; Golec de Zavala, 2017). Similarity has been identified as an important factor for cohesion (Anderson, 1973). A closer group (e.g., family members or relatives) is a more compact unit rather than a “loose mass” (Rabbie and Horwitz 1988) such as hometown people. However, people have multiple reference groups in their lives (Goffman, 1959; Schaffner and Torgler, 2008). Close interactions are particularly important for identification (Schaffner and Torgler, 2008). The literature on in-group/out-group emphasises that the anticipation of future interaction is a core element (Rabbie and Horwitz, 1969). However, it is still unclear from a theoretical perspective whether, for example, neighbours or co-workers and colleagues have a strong in-group or psychologically primary relevance. Past experiences such as identifying “class enemies” from one’s own environment during the Cultural Revolution may have harmed in-group trust or trust in general for a long period of time as found by Bai and Wu (2020). Thus, an empirically oriented approach as done in this study testing various groups can provide valuable insights into the potential heterogeneity of trust. In addition, the empirical results themselves may indicate which group is considered in- and which one is out- using trust as a discriminatory variable under the proviso that, in reality, mutual exclusion of these two categories (in- vs. out-group) is not sharp.

Notwithstanding the above, a trusting behaviour is also likely driven by various contextual factors such as the size of ones’ social network, the level of anonymity (e.g., urban versus rural environment), individual socio-economic or socio-demographic characteristics (e.g., gender or education), or belief system (e.g., level of religiosity). As social capital is an important factor that holds society together, it is crucial to understand how such a strong historical trauma affects social tolerance, trust, and cooperation. Democracies and community spirit, in the end, rely on tolerance to function, while fragmentation can endanger democratic forces and economic development (Etzioni, 1992). Aspects of trust and reciprocity are particularly relevant in environments that are devoid of institutional certainty (Habyarimana et al., 2008). But competing identities can have a long-lasting influence on trust and altruism, as a recent experimental study focusing on young students in Vietnam shows (Vuong, Chan, and Torgler, 2021).

While the literature on group identity or intergroup tension (e.g., in-group versus out-group) dates back to at least the 1940s and 1950s (e.g., Williams, 1947; Allport 1954¹), its relevance after exposure to violence, hostility or collective trauma has not been explored in detail (for exceptions, see Mironova and Whitt, 2014; 2016). As Mironova and Whitt (2014, p. 171) argue, such research also contributes to the ‘ongoing debate in the conflict literature over whether groups can overcome bitter rivalries and legacies of violence to co-exist with one another or whether the partitioning of groups is the only viable solution to resolve problems of protracted violence. A major point of contention is whether separating groups is a more effective approach to building inter-group cooperation than forcing everyone into varying degrees of institutional and social integration’.

¹ See also Dovidio, Glick, and Rudman’s (2005) edited volume entitled *On the Nature of Prejudice: Fifty Years after Allport*.

The literature has, therefore, strongly focused on ethnic conflicts (Horowitz, 1985), self-determination, secession or partition (e.g., Etzioni, 1992; Kumar, 1997; Kaufmann, 1998; Habyarimana et al., 2008). At the core of that discussion is also the ‘security dilemma’: ‘The dilemma in its purest form arises when one community faces a distrustful other and one’s actions to increase one’s own security are perceived as threatening the security of others’ (Sambanis, 2000, p. 438). The security dilemma would also suggest that violence erodes trust, meaning that after victimisation individuals adjust their beliefs that others are less trustworthy in general (Gilligan, Pasquale, and Samii, 2013). From a geopolitical perspective, it is interesting to understand whether norms recalibrate towards stability and peace after a conflict (Mironova and Whitt, 2014). However, such tension and recalibration may also be relevant at a more local level (social interactions within close proximity), as we will explore in this paper.

Trust in experimental settings

In terms of understanding norm adjustments after violence, more recent studies have started to use behavioural science experiments (Whitt, 2014; Mironova and Whitt, 2014; 2018; Voors et al., 2012; Bauer et al., 2016). Case evidence has focused on Sierra Leone civil war, Uganda, Burundi, Georgia, Nepal, or Kosovo (for an overview, see Bauer et al., 2016). Mironova and Whitt (2014), for example, use dictator experiments with ethnic Serbs in post-war Kosovo to explore how different degrees of exposure and proximity to ethnic Albanians affect giving behaviour. They find that Serbs in closer proximity to rival Albanians (classification into primarily Albanian region, border region, and primarily Serb region) show greater altruistic norms in terms of inter-group bridging as well as intra-group bonding than those who are more removed from interactions with Albanians.

Alexander and Christia (2011) relied on Bosnia-Herzegovina’s post-conflict state-building experience by using data from the ethnically divided city of Mostar to understand how the introduction of institutions of integration affects cooperation in the form of contributing to public goods and use of costly sanctions against norm-defiers. They find that among individuals from segregated institutions (segregated schools) group heterogeneity reduces contributions but among institutions of integration (integrated school subsample), group heterogeneity is associated with an insignificant change in contributions. They also find that for institutions to be effective in reducing adverse diversity effects, sanctions are required.

Economists and political scientists have been interested in exploring experimentally how being a victim of conflict affects pro-sociality, public good contributions, investment in trust-based transactions, or willingness to reciprocate trust-based investments, saving and investment behaviour, and risk-taking (Voors et al., 2012; Gilligan, Pasquale, and Samii, 2013). In rural Burundi, which was subject to nearly three decades of civil war, Voors et al. (2012) find that subjects’ exposure to violence leads to more altruistic behaviour towards their neighbours and to more risk-seeking behaviour and higher discount rates (acting less patiently). Thus, they find support for the notion that conflict is strongly correlated with behavioural change: “These consequences may even prove to be permanent if they invite preference shifts” (p. 962). Gilligan et al. (2013) looked at wartime violence in Nepal, finding that community-level exposure to fatal civil-war violence increased community-level social cohesion.

Conflict-affected community members exhibited higher pro-social behaviour than those not affected by conflict. In their *Journal of Economic Perspectives* article, Bauer et al. (2016) stress: ‘In case after case,

people exposed to war violence go on to behave more cooperatively and altruistically’ (p. 250). They also tend to increase their social participation by joining more local social and civic groups and engage more in leadership roles in their community. Based on their meta-analysis they conclude: ‘Most of the papers in this emerging literature agree on one central matter: that the data strongly reject the common view that communities and people exposed to war violence will inevitably be deprived of social capital, collective action, and trust. Across the 16 studies from economics, anthropology, political science, and psychology, the average effect on a summary index of cooperation is positive and statistically significant, if moderate in magnitude’ (p. 271). We test some of these hypotheses with respect to China and the effects of the Cultural Revolutions in the section below.

3. Data and methods

We source data from the China Survey, which was jointly administrated by the Texas A&M University and Peking University in 2008. The survey employed a spatial sampling approach to draw a sample of 3,989 respondents from 73 counties (primary sampling units) across 59 cities in 25 provinces. To mitigate the potential impacts of migration, we also limit our analytical sample to locals who were born and have been living in the same county.

We estimate the effect of the Cultural Revolution using the following difference-in-differences (DiD) model:

$$trust_{ic} = \alpha + \beta deaths_c \times cohort_k + \varphi_1 deaths_c + \varphi_2 cohort_k + \gamma X_i + \theta P_p + \vartheta_j + \varepsilon \quad (1)$$

where $trust_{ic}$ denotes one of the trust measures for respondent i in county c . The 2008 China Survey measures generalised trust and trust towards sub-groups. First, respondents are asked the following question: *Generally speaking, would you say that most people can be trusted, or you can't be too careful in dealing with them?* The answer is coded as a dichotomous variable, which equals one if the answer is ‘most people can be trusted’ or zero if the answer is ‘you can't be too careful’ – in line with existing research (Bai and Wu, 2020). Second, respondents are asked to what extent they trust the following sub-groups of people: (1) family members; (2) relatives; (3) neighbours; (4) co-workers and colleagues; (5) village cadre/work unit direct supervisor; (6) (former) classmates; (7) people from one's hometown; and (8) friends on a four-point scale (1=don't trust them at all; 2=don't trust them very much; 3=somewhat trust them; 4=trust them very much).

The variable $deaths_c$ is the number of so-called ‘unnatural deaths’ per 1,000 residents during 1966-1971 in county c where the respondent resides.² The measure of county-level unnatural deaths is obtained from the 1966-1971 China Political Events Dataset, which records the levels of violence during the Cultural Revolution (Walder, 2014). More specifically, Walder collected information from local annals to record the number of deaths from June 1966 to December 1971 for 2,213 jurisdictions (i.e., prefectures, cities and counties). We match the county-level unnatural death data to the counties covered in the 2008 China Survey.

² The Chinese governance system has three levels, namely province (or municipality or autonomous region), prefecture and county.

The variable $cohort_k$ is defined by drawing from two considerations. First, Piaget’s theory of cognitive development suggests that children move through four different stages of mental development in acquiring knowledge, namely the sensorimotor stage (aged 0-2; or infancy and toddlerhood), preoperational stage (aged 3-6; or early childhood), concrete operational stage (aged 7-11; or middle childhood) and formal operational stage (aged 12 and beyond; or adolescence). In the concrete operational stage, children’s thinking becomes much more logical and better at considering how other people may think and feel in a situation. In the formal operational stage, an adolescent begins to think abstractly and reason about hypothetical problems. For example, they begin to think more about moral, philosophical, ethical, social, and political issues that require theoretical and abstract reasoning. We conjecture that those who were exposed more time at the age of 7-18 (i.e., concrete operational and formal operational stages) to the most intense period of political violence were more impacted by it. Second, the Cultural Revolution lasted for ten years and can be separated into two episodes based on their degrees of violence. The first episode (1966-1971) witnessed the most violent period, while the second episode (1972-1977) was less violent than the first one.³

Thus, we define $cohort_k$ as a dummy variable where those born between 1951 and 1961 are assigned a value of one and those born between 1962 and 1976 are assigned a value of zero. As illustrated in Table A1, those born between 1951-1961 spent four to six years of their middle childhood and adolescence during the first episode of the Cultural Revolution, while those born between 1962-1976 spent zero to three years of their middle childhood and adolescence during the first episode of the Cultural Revolution. This classification is similar to that used in Li (2021), who studies the long-term impacts of the Cultural Revolution on household saving behaviour. Li (2021, p.4) explains the rationale for using three-year of exposure as a cut-off: ‘affected cohorts [are] those who spent more than half their [middle] childhood and adolescence during 1966–71 (when the country witnessed the severest violence). For instance, those born in 1964 spent five years in early childhood and one year in [middle] childhood during the period and thus belong to unaffected cohorts; on the contrary, those born in 1961 spent two years in [middle] childhood and four years in adolescence during the period and thus belong to affected cohorts. Therefore, those born between 1951 and 1961 are classified as affected cohorts, while those born between 1962 and 1979 are unaffected cohorts’.

As robustness checks, we also employ three alternative cohort definitions to address that a dummy variable of exposure may mask the variation in the intensity of exposure; namely, (1) a continuous measure of cohort exposure to Episode I of the Cultural Revolution in the age window of 7-18; (2) the ratio of years of exposure to Episode I to the total years of middle childhood and adolescence spent during the Cultural Revolution; and (3) the same definition as in Bai and Wu (2020), in which cohort exposure is defined as the total number of years between 8-22 for a given cohort that was exposed to the Cultural Revolution from 1966-1976.

The coefficient β for the interaction term of $deaths_c \times cohort_k$ captures the causal effect of the Cultural Revolution (as exemplified by political violence within a county c) on the propensity for trust ($trust_{it}$). The variable $deaths_c$ eliminates the cross-county differences in political violence and the variable $cohort_k$ eliminates the cross-cohort difference. Since the DiD model uses a restricted sample of cohorts born between 1951-1976, it captures an increase in the ‘dosage’ of intensity of political violence as manifested by the number of childhood and adolescent years of exposure to the extremely violent

³ See Song (2011) for the chronology of mass killings during the Cultural Revolution.

period during the Cultural Revolution during childhood and adolescence. Our DiD model is similar to existing studies, which use cohorts exposed to the first and second phases of the Sent-Down Youth Movement to proxy for the different intensities of exposure to the movement across cohorts (Hayward et al., 2022; Ye, Zhu and He, 2021). We also employ a full sample analysis without birth window restrictions as a robustness check.

X_i is a vector of individual characteristics, including gender, age, ethnicity, family class and education. P_p is a vector of (pre-Cultural Revolution) prefectural characteristics, including male-to-female ratio, urban population percentage, frequency of mass rebellions, population density, per capita GDP (in log), natural disasters, excess procurement ratio during the GLP, Communist Party member density, natural resource, colony, suitability for wetland rice, distance to Beijing, length of rivers and account length (in log). ϑ_p is a vector denoting county fixed effects. Controlling for county fixed effects and limiting our analytical sample to local residents means that our model estimates the within-county effect of political violence on trust among within-county residents. Thus, our estimates are not biased by domestic migration or cross-province/prefecture differences, such as that some provinces/prefectures are more developed than others. Table 1 presents the definitions and summary statistics of key dependent and independent variables. Summary statistics for other control variables are presented in Table A1.

[Table 1 here]

4. Results

We first present the baseline DiD results on the effects of the Cultural Revolution on trust outcomes in Table 2.⁴ Having experienced the Cultural Revolution increases generalised trust and trust towards relatives and neighbours. However, the experience of the Cultural Revolution decreases trust towards co-workers/colleagues, cadre/supervisor, classmates and people from one's hometown. Our findings on the positive effect of Cultural Revolution cohort experience on generalised trust are consistent with the hypothesis that, under certain circumstances, the threat or experience of violence can lead people to become nicer human beings, as well as more agreeable and trusting.

In this regard, our finding on the generalised trust is different from those in Bai and Wu (2020), who find that individuals in counties with higher revolutionary intensity and of trust formation cohorts report significantly lower levels of generalised trust. Yet we caution readers about directly comparing our findings to those in Bai and Wu (2020) because of the different dataset and model specifications used, as well as a different approach in defining cohort exposure. Importantly, our findings suggest that the directions of impacts of Cultural Revolution on trust are vastly different when we look at different trust outcomes toward sub-populations and across sub-samples. We hence present in the next few tables the results obtained when various subsamples are used, depending on the level of education, gender, place of residence, and religious beliefs.

[Table 2 here]

⁴ We use the same sample across different models in each table. Specifically, we retain the samples used in model 1 (generalised trust) for models 2-9 in each table. Note that the differences in sample size arise due to different numbers of observations with missing values for different dependent variables.

Table 3 presents the results across the subsamples of those who completed senior high school or above vis-à-vis junior higher school or below. This classification splits the sample into those receiving basic education from those that instead will not only develop additional skills (in today's China, mandatory schooling ends with junior high), but also acquire the education that became a casualty of the Cultural Revolution. Among those with higher educational attainment (Panel A), having experienced the Cultural Revolution increases trust towards co-workers/colleagues and friends but decreases trust toward family members, classmates and people from one's hometown. Among those with lower educational attainment (Panel B), having experienced the Cultural Revolution increases general trust and trust towards family members, relatives and neighbours but decreases trust towards co-workers/colleagues, cadre/supervisor, classmates and friends. Tests of coefficient equality suggest that the coefficients between panels A and B are statistically different, except for model 4 (neighbours).

[Table 3 here]

Table 4 presents the results across males and females, as gender sheltered women to a greater extent than men who were more directly involved in the fights and violence. Panel A shows that, among males, the Cultural Revolution experience increases trust towards relatives, neighbours but decreases trust towards cadre/supervisor. Panel B suggests that females who experienced the Cultural Revolution have higher generalised trust and trust towards relatives; however, they have lower trust towards co-workers/colleagues, cadres/supervisors, classmates and friends. Tests of coefficient equality suggest that the coefficients between panels A and B are statistically different, except for models 2 (family members), 3 (family members) and 8 (people from one's hometown).

[Table 4 here]

In Table 5, we divide the samples by whether the respondents grew up in provincial capitals under the hypothesis that relationships are more distant in large urban centres (where news and information, e.g. about violence, can quickly spread across space) relative to smaller towns (where violence may be easily hidden). Panel A shows that those who experienced the Cultural Revolution in provincial capitals have higher generalised trust and trust towards family members and relatives and lower trust towards cadre/supervisor and classmates. Panel B shows that those who experienced the Cultural Revolution outside of the provincial capitals have higher trust towards relatives but lower trust towards cadres/supervisors and classmates. Tests of coefficient equality suggest that the coefficients between panels A and B are statistically different, except for models 1 (generalised trust), 3 (relatives), 4 (neighbours), 5 (co-workers and colleagues), 8 (people from one's hometown) and 9 (friends).

[Table 5 here]

Table 6 presents the results by the size of social network under the maintained hypothesis that the number of contacts reflect sociability and empathy, as measured by the number of people one has one-on-one contact with in an average day. In Panel A, people who experienced the Cultural Revolution and interacted with 20 or more people a day have higher trust towards family members and neighbours but lower trust towards co-workers/colleagues. In Panel B, people who experienced the Cultural Revolution and interacted with 19 or less people a day have higher generalised trust and trust towards relatives; meanwhile, they have lower trust towards cadres/supervisors, classmates and

people from their hometowns. Tests of coefficient equality suggest that the coefficients between panels A and B are statistically different, except for models 5 (co-workers/colleagues), 6 (cadres/direct supervisor), 8 (people from one's hometown) and 9 (friends).

[Table 6 here]

Table 7 presents the results based on whether one has religious belief, as a fundamental source of trust. Panel A shows that those who experienced the Cultural Revolution and have religious beliefs have higher trust towards relatives but lower trust towards families and cadres/supervisors. Panel B shows that those who experienced the Cultural Revolution and are not religious have higher generalised trust and trust towards families, relatives and neighbours but lower trust towards co-workers/colleagues, cadres/supervisors and classmates. Tests of coefficient equality suggest that the coefficients between panels A and B are statistically different, except for models 1 (generalised trust), 4 (neighbours), 5 (co-workers/colleagues), 7 ((former) classmates) and 9 (friends).

[Table 7 here]

5. Robustness checks

We undertake several robustness checks in order to examine the sensitivity of our baseline results. In our main analysis, we use a restricted sample of respondents who were born between 1951 and 1976, cautioning that a larger sample spanning a wider range of birth years may introduce more unobserved heterogeneity and may include the effects of many other shocks. In the first robustness check, we relax this restriction by employing a full sample across different specifications, which contain approximately 60-70 percent more respondents, depending on the outcome variables used. The results presented in Appendix Table A3 are qualitatively similar to those in Table 2. In other words, while we use a more conservative sample in our main analysis, our findings are robust to a large sample spanning a longer range of birth years.

One may be concerned that using a dummy variable of cohort-specific exposure may mask the variation in the intensity of exposure. To address this, we employ three alternative definitions of cohort-specific exposure in a set of three robustness checks (see Table A2 for their variations across birth years). First, we use a continuous measure of cohort exposure to Episode I of the Cultural Revolution in the age window of 7-18. Second, we use the ratio of exposed years to the total years of middle childhood and adolescence spent during the Cultural Revolution. Third, we employ the same definition as in Bai and Wu (2020), in which cohort exposure is defined as the total number of years between age 8-22 for a given cohort that was exposed to the Cultural Revolution from 1966-1976. Specifically, Bai and Wu (2020, p5.) specify that 'cohorts born either earlier (prior to 1943) or later (post 1969) did not experience the revolution during their trust formation years. In contrast, cohorts born between 1954 and 1958 were most exposed, since the entire revolutionary decade fell within theirs'. Table A4-6 present the results for each of these alternative definitions of cohort exposure, respectively. In general, the results are consistent with, and qualitatively similar to, those in Table 2. The only exception is model 4 (neighbours) in Table A6, which presents the results based on the Bai and Wu (2020) definition, for which the estimated coefficient is positive but not statistically significant.

In our main analysis, we include a vector of pre-revolution prefectural characteristics as control variables. One may be concerned about the correlation between these pre-revolution prefectural characteristics and the unnatural death variable. In the fifth robustness check, we include these controls interacted with cohort exposure. Results presented in Table A7 are consistent with those in Table 2.

As a sixth robustness check and extension, we further explore the explanation to the difference between our findings and those in Bai and Wu (2020). In addition to different datasets and specifications, the difference in findings on generalised trust could also be due to heterogeneity across different social groups within an affected cohort, which Bai and Wu (2020) do not examine. The Chinese socialist regime classified households into different ‘classes’ (i.e., ‘bad’, ‘middle’ and ‘good’ classes) based on household characteristics during the land and property rights reforms in the early 1950s. The good class included hired, poor or lower-middle peasants, workers and the urban poor; the middle class included middle and upper-middle peasants, clerks and little merchants; and the bad class included rich peasants, landlords and capitalists. Those whose families were classified as a good class were largely exempted from the political attack during the Cultural Revolution, while the middle and bad classes were ferociously attacked. In other words, the good class can serve as an additional control group to our based line DiD model. While the good class households and individuals were still subject to the experience of political violence, the effects of such experiences may exert different or opposite effects on trust across different social classes. Thus, to extend the baseline DiD results in Table 2, we interact the good class (relative to the middle and bad classes) with cohort and county-level unnatural death rates in a model analogous to a difference-in-difference-in-differences (DDD) specification. Results in Table A8 show that the triple interaction term is positive, and thus the positive effect of the Cultural Revolution on generalised trust is mainly driven by the relatively less affected good-class individuals.

The fact that counties where the revolutionary intensity was higher display higher levels of generalised trust could either be the result of selection (e.g., those not trusting were eliminated or moved out) or measurement error (e.g., stayers fearing consequences for a different response claim to be trusting others in general). In the seventh robustness check, we employ an approach to quantify the per cent bias necessary to invalidate an inference from a Rubin causal model framework (Cheng and Wang, 2022b; Frank et al., 2013; Xu et al., 2019). The results show that, for example, to invalidate the inference of a positive effect of the Cultural Revolution (i.e., the interaction term between unnatural deaths and cohort) on generalised trust, 54 per cent of the estimates would have to be caused by bias at the 10 per cent significance level. In other words, to invalidate the inference, 53 per cent of the cases (500) would have to be replaced with cases for which there is a zero effect. Thus, it is implausible that omitted variables would be a severe concern.⁵ As the test for omitted variable bias indicates that our results are robust to it, our interpretation is that surviving the worst of the CR made people more aware of others hence, on the one hand, limiting relationships to those inside their group of friends and, on the other, place more trust on such insiders.

⁵ We also conduct the same test for other outcome variables. The findings are similar in that our results are robust to potential omitted variable bias. Full results are available from the authors.

6. Concluding remarks

We find that being exposed to the Cultural Revolution has long-lasting effects on trust, but the effects vary depending on relationship types. The trauma of the revolution has raised trust towards the in-group of mostly friends and relatives, but it has increased distrust towards unknown and generic 'others', such as co-workers and people in living the same town or city. As the revolution occurred more than four decades prior to the China Survey, the results do not support viewing the sole passing of time as an effective cure to recover from a prolonged traumatic experience.

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Table 1. Summary statistics of key variables

	Definition	Mean (std. dev.)/percent
<i>Outcome variables</i>		
Most people can be trusted (i.e., generalised trust)	Generally speaking, would you say that most people can be trusted, or you can't be too careful in dealing with them? (Most people can be trusted=1; you can't be too careful in dealing with them=0)	54.14%
Trust towards the sub-group of	Response on a four-point scale: 1=don't trust them at all; 2=don't trust them very much; 3=somewhat trust them; 4=trust them very much	
Family members		3.88 (0.34)
Relatives		3.53 (0.56)
Neighbours		3.17 (0.63)
Co-workers and colleagues		3.03 (0.58)
Village cadres/unit direct supervisors		2.72 (0.83)
Classmates		3.06 (0.59)
People from one's hometown		3.03 (0.60)
Friends		3.22 (0.58)
<i>Key independent variables</i>		
Unnatural deaths	Unnatural deaths per 1,000 residents during 1966-1971 in county c where the respondent i resides	0.80 (2.98)
Cohort	Born between 1951 and 1961=1; born between 1962 and 1976=0	35.37%

Table 2. The effects of Cultural Revolution on trust

	(1) Generalised trust	(2) Family members	(3) Relatives	(4) Neighbours	(5) Co- workers & colleagues	(6) Cadres/ supervisors	(7) Classmates	(8) People from one's hometown	(9) Friends
Unnatural deaths×cohort	0.0326*** (4.221)	0.00401 (0.490)	0.0367*** (2.717)	0.0197** (2.096)	-0.0222** (-2.479)	-0.0762** (-2.195)	-0.0385*** (-2.856)	-0.0170** (-2.265)	-0.00673 (-0.594)
Unnatural deaths	0.607** (2.655)	0.853*** (5.852)	-3.541*** (-13.41)	-6.522*** (-20.92)	-6.714*** (-23.81)	-8.191*** (-16.18)	-6.401*** (-14.86)	-5.630*** (-16.04)	-4.793*** (-18.33)
Cohort	-0.0151 (-0.218)	0.0671 (1.348)	-0.00852 (-0.115)	-0.0168 (-0.235)	0.0895 (0.707)	0.157 (1.319)	0.135 (1.396)	0.0227 (0.245)	-0.107 (-0.949)
Control variables	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	935	950	947	942	619	875	643	852	892
R-squared	0.121	0.130	0.131	0.150	0.182	0.126	0.167	0.175	0.122

Notes: *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$. Robust t -statistics clustered at counties in parentheses. All specifications include a set of control variables as in Table A1.

Table 3. The effects of Cultural Revolution on trust by education level

	(1) Generalised trust	(2) Family members	(3) Relatives	(4) Neighbours	(5) Co- workers & colleagues	(6) Cadres/ supervisors	(7) Classmates	(8) People from one's hometown	(9) Friends
Panel A: senior high school or above									
Unnatural deaths×cohort	-0.0197 (-0.749)	-0.136*** (-9.302)	-0.0187 (-0.578)	0.00834 (0.238)	0.117*** (6.420)	-0.0109 (-0.318)	-0.111*** (-4.095)	-0.139*** (-4.681)	0.122*** (4.705)
Control variable	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	117	120	120	117	108	103	110	106	117
R-squared	0.421	0.572	0.373	0.384	0.548	0.457	0.433	0.627	0.421
Panel B: junior high school or below									
Unnatural deaths×cohort	0.0346*** (3.836)	0.0160* (1.740)	0.0425*** (2.797)	0.0208* (1.882)	-0.0408*** (-4.376)	-0.0784** (-2.219)	-0.0315* (-1.946)	-0.0116 (-1.138)	-0.0253* (-1.998)
Control variable	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	818	830	827	825	511	772	533	746	775
R-squared	0.128	0.139	0.149	0.167	0.212	0.136	0.184	0.189	0.148
Equality of coefficients									
Chi-squared	5.76	95.46	4.17	0.22	114.74	3.23	8.60	28.28	39.58
Prob > Chi-squared	0.0164	0.0000	0.0411	0.6370	0.0000	0.0724	0.0034	0.0000	0.0000

Notes: *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$. Robust t -statistics clustered at counties in parentheses. All specifications include a set of control variables as in Table A1 as well as unnatural deaths and cohort.

Table 4. The effects of Cultural Revolution on trust by gender

	(1) Generalised trust	(2) Family members	(3) Relatives	(4) Neighbours	(5) Co- workers & colleagues	(6) Cadres/ supervisors	(7) Classmates	(8) People from one's hometown	(9) Friends
Panel A: males									
Unnatural deaths×cohort	0.000351 (0.0444)	0.00249 (0.471)	0.0271** (2.120)	0.0595*** (5.849)	0.00382 (0.321)	-0.0458** (-2.676)	-0.00408 (-0.237)	-0.00760 (-0.814)	0.0228 (1.467)
Observations	519	525	526	522	373	496	384	474	499
R-squared	0.157	0.161	0.163	0.199	0.210	0.195	0.238	0.215	0.176
Panel B: females									
Unnatural deaths×cohort	0.0798*** (3.903)	0.0244 (1.217)	0.0532** (2.123)	-0.0226 (-1.190)	-0.151*** (-4.612)	-0.176** (-2.165)	-0.140*** (-5.657)	-0.00794 (-0.223)	-0.0769*** (-2.743)
Observations	416	425	421	420	246	379	259	378	393
R-squared	0.212	0.186	0.266	0.246	0.342	0.180	0.273	0.275	0.205
Equality of coefficients									
Chi-squared	13.10	1.25	2.35	13.32	25.68	3.62	20.28	0.00	11.87
Prob > Chi-squared	0.0003	0.2626	0.1253	0.0003	0.0000	0.0573	0.0000	0.9924	0.0006

Notes: *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$. Robust t -statistics clustered at counties in parentheses. All specifications include a set of control variables as in Table A1 as well as unnatural deaths and cohort.

Table 5. The effects of Cultural Revolution on trust by provincial capital

	(1) Generalised trust	(2) Family members	(3) Relatives	(4) Neighbours	(5) Co- workers & colleagues	(6) Cadres/ supervisors	(7) Classmates	(8) People from one's hometown	(9) Friends
Panel A: provincial capitals									
Unnatural deaths×cohort	0.0312* (2.118)	0.0285** (2.950)	0.0348*** (3.489)	0.0227 (1.383)	-0.0472** (-3.203)	-0.0376 (-0.974)	-0.0351** (-2.478)	-0.0166 (-0.969)	0.00680 (0.574)
Observations	146	146	146	146	101	136	116	129	138
R-squared	0.140	0.129	0.101	0.135	0.118	0.105	0.192	0.148	0.104
Panel B: non-provincial capitals									
Unnatural deaths×cohort	0.0525 (0.869)	-0.0407 (-1.057)	0.102* (1.844)	-0.0151 (-0.416)	0.0326 (0.481)	-0.312*** (-5.375)	-0.391** (-2.407)	-0.00128 (-0.0253)	0.0219 (0.337)
Observations	789	804	801	796	518	739	527	723	754
R-squared	0.129	0.134	0.139	0.156	0.199	0.138	0.174	0.183	0.131
Equality of coefficients									
Chi-squared	0.13	3.29	1.54	0.99	1.48	17.44	5.29	0.09	0.06
Prob > Chi-squared	0.7220	0.0698	0.2147	0.3194	0.2238	0.0000	0.0214	0.7643	0.8121

Notes: *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$. Robust t -statistics clustered at counties in parentheses. All specifications include a set of control variables as in Table A1 as well as unnatural deaths and cohort. In the sample, provincial capitals include Shanghai municipality.

Table 6. The effects of Cultural Revolution on trust by the size of social network

	(1) Generalised trust	(2) Family members	(3) Relatives	(4) Neighbours	(5) Co- workers & colleagues	(6) Cadres/ supervisors	(7) Classmates	(8) People from one's hometown	(9) Friends
Panel A: larger social network									
Unnatural deaths×cohort	0.00447 (0.431)	0.0206*** (3.933)	0.0198 (0.944)	0.0667*** (4.622)	-0.0410* (-1.925)	-0.0462 (-1.591)	-0.00291 (-0.188)	-0.0115 (-0.650)	-0.00547 (-0.200)
Observations	293	295	292	291	208	266	227	266	280
R-squared	0.292	0.257	0.249	0.212	0.276	0.227	0.241	0.218	0.229
Panel B: smaller social network									
Unnatural deaths×cohort	0.0484*** (4.095)	-0.00645 (-0.593)	0.0509*** (3.520)	-0.00527 (-0.512)	-0.0202 (-1.416)	-0.0920** (-2.332)	-0.0605*** (-2.796)	-0.0235* (-1.825)	-0.00743 (-0.544)
Observations	596	609	609	605	385	566	385	549	569
R-squared	0.168	0.152	0.162	0.206	0.269	0.185	0.239	0.251	0.185
Equality of coefficients									
Chi-squared	9.08	8.16	4.75	18.27	0.63	2.28	7.09	0.32	0.00
Prob > Chi-squared	0.0026	0.0043	0.0293	0.0000	0.4256	0.1306	0.0078	0.5713	0.9481

Notes: *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$. Robust t -statistics clustered at counties in parentheses. All specifications include a set of control variables as in Table A1 as well as unnatural deaths and cohort.

Table 7. The effects of Cultural Revolution on trust by religious belief

	(1) Generalised trust	(2) Family members	(3) Relatives	(4) Neighbours	(5) Co- workers & colleagues	(6) Cadres/ supervisors	(7) Classmates	(8) People from one's hometown	(9) Friends
Panel A: religious									
Unnatural deaths×cohort	-0.170 (-0.668)	-0.205** (-2.449)	0.259*** (3.113)	0.0822 (0.448)	-0.0594 (-0.235)	-0.597*** (-3.830)	0.381 (0.186)	-0.709 (-1.624)	-0.0319 (-0.146)
Observations	118	121	121	120	81	107	66	108	118
R-squared	0.431	0.429	0.476	0.462	0.618	0.584	0.536	0.517	0.405
Panel B: non-religious									
Unnatural deaths×cohort	0.0319*** (3.781)	0.00864** (2.156)	0.0309*** (2.936)	0.0193* (1.947)	-0.0245** (-2.637)	-0.0659** (-2.609)	-0.0355*** (-2.804)	-0.0123 (-1.386)	-0.00506 (-0.380)
Observations	816	829	826	822	538	768	577	744	774
R-squared	0.110	0.143	0.126	0.151	0.157	0.114	0.176	0.160	0.133
Equality of coefficients									
Chi-squared	1.01	10.26	11.57	0.19	0.04	19.81	0.11	4.31	0.03
Prob > Chi-squared	0.3151	0.0014	0.0007	0.6644	0.8430	0.0000	0.7458	0.0380	0.8727

Notes: *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$. Robust t -statistics clustered at counties in parentheses. All specifications include a set of control variables as in Table A1 as well as unnatural deaths and cohort.

Appendix

Table A1. Summary statistics of control variables

	Definition	Mean/percent	Std.Dev.
Age	Age at the time of survey	43.86	7.24
Age squared		1,975.71	646.40
Han ethnic majority	Yes=1; no=0	86.2%	
Good class	Household 'class label' (political identity) defined by the Chinese government in the 1950s. The 'good class' includes hired, poor or lower-middle income/wealth farmers, the urban poor and workers. Yes=1; no=0	82.6%	
Middle class	The 'middle class' includes middle and upper-middle income/wealth farmers, clerks and petty merchants. Yes=1; no=0	14.2%	
Education	Years of education	6.36	4.08
Pre-Cultural Revolution male/female sex ratio	At the prefecture level, 1964	1.06	0.08
Pre-Cultural Revolution urban/total population ratio	At the prefecture level, 1964	9.94	5.35
Number of mass rebellions in Qing dynasty	At the prefecture level	1.10	1.85
Pre-Cultural Revolution population density	Number of people per km ² at the prefecture level, 1964 Census	192.33	148.69
Pre-Cultural Revolution mean GDP per capita	At the prefecture level, 1956-1966	5.64	0.42
Pre-Cultural Revolution mean percent of land covered by natural calamities	At the prefecture level, 1956-1966	13.83%	5.14
Pre-Cultural Revolution average grain excess procurement ratio	At the prefecture level, 1956-1966	162.62%	
Pre-Cultural Revolution share of Party members in total cadres	At the prefecture level, 1956-1966	65.02%	
Has natural resources	Has oil, gas, coal or ore mines. Yes=1; no=0	68.4%	
Colony	Formerly a colony in Qing dynasty. Yes=1; no=0	11.2%	
Rice suitability index	Suitability for wetland rice from the Food	1.69	0.58

	and Agriculture Organization of the United Nations		
Distance to Beijing	km	1,081.25	600.11
Sum of river lengths	km	86.12	57.03
Account length of Cultural Revolution	Number of words each prefecture annual devoted to the Cultural Revolution; in log	8.35	0.46

Table A2. Age of birth cohort during the Cultural Revolution

Birth year	The Cultural Revolution (1966-1976)										Types of cohort exposure measure				
	Episode I					Episode II					(1)	(2)	(3)	(4)	
	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975					1976
	Age														
1976											0	0	0	0	0
1975										0	1	0	0	0	0
1974									0	1	2	0	0	0	0
1973								0	1	2	3	0	0	0	0
1972							0	1	2	3	4	0	0	0	0
1971						0	1	2	3	4	5	0	0	0	0
1970					0	1	2	3	4	5	6	0	0	0	0
1969				0	1	2	3	4	5	6	7	0	0	0/1	0
1968			0	1	2	3	4	5	6	7	8	0	0	0/2	1
1967		0	1	2	3	4	5	6	7	8	9	0	0	0/3	2
1966	0	1	2	3	4	5	6	7	8	9	10	0	0	0/4	3
1965	1	2	3	4	5	6	7	8	9	10	11	0	0	0/5	4
1964	2	3	4	5	6	7	8	9	10	11	12	0	1	1/6	5
1963	3	4	5	6	7	8	9	10	11	12	13	0	2	2/7	6
1962	4	5	6	7	8	9	10	11	12	13	14	0	3	3/8	7
1961	5	6	7	8	9	10	11	12	13	14	15	1	4	4/9	8
1960	6	7	8	9	10	11	12	13	14	15	16	1	5	5/10	9
1959	7	8	9	10	11	12	13	14	15	16	17	1	6	6/11	10
1958	8	9	10	11	12	13	14	15	16	17	18	1	6	6/11	11
1957	9	10	11	12	13	14	15	16	17	18	19	1	6	6/10	11
1956	10	11	12	13	14	15	16	17	18	19	20	1	6	6/9	11
1955	11	12	13	14	15	16	17	18	19	20	21	1	6	6/8	11
1954	12	13	14	15	16	17	18	19	20	21	22	1	6	6/7	11
1953	13	14	15	16	17	18	19	20	21	22	23	1	6	6/6	10
1952	14	15	16	17	18	19	20	21	22	23	24	1	5	5/5	9
1951	15	16	17	18	19	20	21	22	23	24	25	1	4	4/4	8
1950	16	17	18	19	20	21	22	23	24	25	26	0	3	3/3	7
1949	17	18	19	20	21	22	23	24	25	26	27	0	2	2/2	6
1948	18	19	20	21	22	23	24	25	26	27	28	0	1	1/1	5
1947	19	20	21	22	23	24	25	26	27	28	29	0	0	0	4

Notes: The blue and orange areas indicate middle childhood and adolescence exposure to the Episodes I and II of Cultural Revolution, respectively. Column 1 of types of exposure measure is based on a dummy variable which equals to one if a cohort spent more than half (≥ 4 years) of their middle childhood and adolescence in the first episode of the Cultural Revolution, or zero if a cohort spent half or less (≤ 3 years) of their middle childhood and adolescence in the first episode of the Cultural Revolution. Column 2 is based on the total number of years of a cohort's middle childhood and adolescence in the first episode of the Cultural Revolution. Column 3 indicates the proportion

of a cohort's number of middle childhood and adolescence years in the first episode across their total number of middle childhood and adolescence years in both first and second episodes. Column 4 uses the definition in Bai and Wu (2020), which defines cohort-specific measure as the total number of years between the ages of 8 and 22 for a given cohort that was exposed to the revolution (1966–1976) (i.e., both Episodes I and II).

Table A3. The effects of Cultural Revolution on trust – full sample

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	Generalised trust	Family members	Relatives	Neighbours	Co-workers & colleagues	Cadres/ supervisors	Classmates	People from one's hometown	Friends
Unnatural deaths×cohort	0.0154** (2.436)	-0.00346 (-0.868)	0.0252* (1.703)	0.00855* (1.992)	-0.0351*** (-4.840)	-0.0652** (-2.333)	-0.0344** (-2.425)	-0.0245*** (-3.483)	-0.00831 (-0.833)
Unnatural deaths	-0.0612*** (-21.24)	0.0125*** (7.102)	- (-0.0428)	0.00891** (2.637)	0.00610 (1.352)	0.0981*** (12.16)	0.0663*** (8.619)	0.00863 (1.403)	0.0112*** (3.392)
Cohort	-0.0101 (-0.297)	-0.00478 (-0.230)	0.0354 (0.515)	0.00540 (0.125)	0.0179 (0.391)	0.0153 (0.307)	0.00103 (0.0223)	0.0173 (0.534)	-0.0303 (-0.773)
Constant	-1.254*** (-8.802)	2.981*** (35.26)	2.129*** (7.083)	-0.620*** (-3.344)	3.721*** (13.37)	2.100*** (9.329)	1.496*** (4.474)	2.701*** (9.169)	0.970*** (5.164)
Observations	1,605	1,638	1,628	1,622	1,023	1,489	1,065	1,450	1,505
R-squared	0.084	0.098	0.103	0.141	0.155	0.112	0.130	0.151	0.098

Notes: *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$. Robust t -statistics clustered at counties in parentheses. All specifications include a set of control variables as in Table A1.

Table A4. The effects of Cultural Revolution on trust – number of years of exposure to Episode I

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	Generalised trust	Family members	Relatives	Neighbours	Co-workers & colleagues	Cadres/supervisors	Classmates	People from one's hometown	Friends
Unnatural deaths×years of exposure	0.00428*** (2.905)	0.000202 (0.132)	0.00531* (1.991)	0.00298* (1.773)	-0.00571*** (-2.950)	-0.0133** (-2.196)	-0.00878*** (-3.897)	-0.00432*** (-2.718)	-0.000213 (-0.0934)
Observations	935	950	947	942	619	875	643	852	892
R-squared	0.119	0.128	0.130	0.150	0.183	0.125	0.168	0.175	0.123

Notes: *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$. Robust t -statistics clustered at counties in parentheses. All specifications include a set of control variables as in Table A1.

Table A5. The effects of Cultural Revolution on trust – ratio of exposed years

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	Generalised trust	Family members	Relatives	Neighbours	Co-workers & colleagues	Cadres/ supervisors	Classmates	People from one's hometown	Friends
Unnatural deaths×ratio of years of exposure	0.0245** (2.028)	-0.00807 (-1.116)	0.0280** (2.082)	0.0289** (2.478)	-0.0532*** (-4.148)	-0.0986*** (-2.960)	-0.0368** (-2.303)	-0.0211* (-1.957)	0.00416 (0.235)
Observations	755	765	762	759	491	705	496	682	715
R-squared	0.121	0.147	0.160	0.168	0.205	0.144	0.188	0.159	0.134

Notes: *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$. Robust t -statistics clustered at counties in parentheses. All specifications include a set of control variables as in Table A1.

Table A6. The effects of Cultural Revolution on trust – years of exposure during the Cultural Revolution following Bai and Wu (2020)

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	Generalised trust	Family members	Relatives	Neighbours	Co-workers & colleagues	Cadres/ supervisors	Classmates	People from one's hometown	Friends
Unnatural deaths	0.00239**	0.000301	0.00370**	0.00171	-0.00329**	-0.00794**	-0.00605***	-0.00273**	0.000929
×years of exposure	(2.452)	(0.299)	(2.478)	(1.553)	(-2.476)	(-2.122)	(-4.598)	(-2.563)	(0.662)
Observations	935	950	947	942	619	875	643	852	892
R-squared	0.119	0.128	0.131	0.149	0.182	0.125	0.168	0.175	0.122

Notes: *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$. Robust t -statistics clustered at counties in parentheses. All specifications include a set of control variables as in Table A1.

Table A7. The effects of Cultural Revolution on trust – interacting cohort with pre-revolution prefectural characteristics

	(1) Generalised trust	(2) Family members	(3) Relatives	(4) Neighbours	(5) Co-workers & colleagues	(6) Cadres/ supervisors	(7) Classmates	(8) People from one's hometown	(9) Friends
Unnatural deaths×cohort	0.0381** (2.395)	0.0105 (0.714)	0.0466** (2.363)	0.0343* (1.751)	-0.0123*** (-2.749)	-0.0915*** (-2.784)	-0.0226*** (-2.956)	-0.00672** (-2.168)	-0.00428 (-0.210)
Unnatural deaths	1.038*** (3.326)	0.949*** (5.735)	-3.193*** (-10.83)	-5.994*** (-16.36)	-6.265*** (-13.54)	-7.875*** (-11.26)	-5.573*** (-10.87)	-5.390*** (-13.86)	-4.353*** (-10.77)
Cohort	0.890 (1.043)	-0.537 (-0.854)	-1.253 (-1.500)	0.427 (0.503)	-1.723* (-1.975)	2.939** (2.231)	-0.842 (-0.674)	-1.445* (-1.798)	-0.0528 (-0.0464)
Interactions between cohort and the following pre-Cultural Revolution prefectural characteristics									
×male/female sex ratio	-0.248 (-0.360)	0.331 (0.922)	0.788 (1.131)	-0.802 (-1.209)	1.275* (1.934)	-1.961* (-2.000)	0.624 (0.624)	1.082* (1.813)	0.191 (0.254)
×Urban/total population ratio	0.00969 (1.140)	-0.00599 (-1.116)	-0.00536 (-0.629)	-0.00184 (-0.137)	0.0212* (1.792)	-0.0304 (-1.548)	0.0230** (2.515)	-0.00157 (-0.186)	0.00325 (0.289)
×population density	-0.000149 (-0.283)	0.000286 (0.912)	0.000159 (0.319)	-0.000454 (-0.935)	0.000510 (0.822)	-0.000496 (-0.911)	-3.94e-05 (-0.0796)	-0.000208 (-0.408)	-0.000789 (-1.328)
×GDP per capita	-0.0385 (-0.334)	0.0512 (0.671)	0.0722 (0.546)	0.137 (1.084)	0.0574 (0.414)	0.0304 (0.154)	-0.0546 (-0.317)	0.0638 (0.596)	0.0302 (0.225)
×land covered by natural calamities	-0.00440 (-0.406)	0.00365 (0.653)	0.0120 (1.138)	0.00657 (0.608)	0.00171 (0.0900)	0.00823 (0.520)	0.0226* (1.713)	0.00936 (0.947)	0.0128 (1.062)
×grain excess procurement	-0.0147 (-0.744)	-0.00600 (-0.550)	0.00381 (0.181)	0.00870 (0.324)	-0.0535* (-1.693)	-0.00271 (-0.0706)	-0.00499 (-0.182)	0.00789 (0.383)	-0.0344 (-1.363)
×share of Party members	-0.00672** (-2.524)	-0.000969 (-0.630)	-0.00232 (-0.827)	-0.00606* (-1.733)	-0.00242 (-0.651)	-0.00815* (-1.708)	0.000370 (0.124)	-0.00226 (-0.597)	-0.00672** (-2.079)
Constant	-105.1*** (-3.332)	-90.13*** (-5.391)	323.4*** (10.76)	605.4*** (16.33)	631.3*** (13.50)	796.6*** (11.27)	563.2*** (10.79)	543.5*** (13.88)	442.6*** (10.82)
Observations	935	950	947	942	619	875	643	852	892
R-squared	0.129	0.134	0.138	0.158	0.193	0.138	0.178	0.181	0.129

Notes: *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$. Robust t -statistics clustered at counties in parentheses. All specifications include a set of control variables as in Table A1.

Table A8. The effects of Cultural Revolution on trust – triple difference results

	Generalised trust
Unnatural deaths×cohort×good class	0.0802** (2.370)
Unnatural deaths	0.963*** (5.251)
Cohort	0.102 (0.939)
Cohort×unnatural deaths	-0.0357 (-1.272)
Good class	-0.0356 (-0.540)
Good class×unnatural deaths	-0.0318** (-2.213)
Cohort×good class	-0.0981 (-1.160)
Constant	-94.97*** (-4.978)
Observations	946
R-squared	0.113

Notes: *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$. Robust t -statistics clustered at counties in parentheses. All specifications include a set of control variables as in Table A1.