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The Enduring Impact of Communism on
Contemporary Freedom of Speech Values**

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ABSTRACT

Echoes of the Past: The Enduring Impact of Communism on Contemporary Freedom of Speech Values*

This paper studies the long-term consequences of communism on present-day freedom of expression values in two settings – East Germany and the states linked to the sphere of influence of the former USSR. Exploiting the natural experiment of German separation and later reunification, we show that living under communism has had lasting effects on free speech opinions. While free speech salience has increased for East and West Germans vis-à-vis other government goals, the convergence process has been slow. East Germans are still less likely to consider freedom of speech a key government priority compared to West Germans. Additionally, our analyses of secret police surveillance data from East Germany point to the fact that geography-based measures of community experiences of past political repression do not explain our findings. The same conclusion holds when we look at the setting of the former Soviet Union and we correlate proximity to Stalin's former labor camps in the Soviet Union with present-day freedom of speech values. At the same time, family experiences with political repression in Eastern Europe/the former Soviet Union exert a discernible influence on current values towards freedom of speech, likely due to a lasting impact stemming from such personal encounters. As such, our paper adds a nuanced contribution to the economics of free speech, suggesting that freedom of speech may be a part of informal institutions and slow-changing cultural values.

JEL Classification: D02, D83, N00, P27, P52

Keywords: political repression, communism, free speech, German Democratic Republic, Eastern Europe, former Soviet Union, economic history

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“Free speech is more than merely parallel to free exchange. The liberal society is one that gets its rhetoric straight.”

Deirdre McCloskey¹

1. Introduction

A growing body of literature in economics shows that past institutions can durably shape the mentalities, preferences, and expectations of people and places. For example, the long-lasting effects of communism on preferences for redistribution, time and risk preferences, trust, and gender norms are well documented (Alesina and Fuchs-Schundeln, 2007; Blanchflower and Freeman, 1997; Fuchs-Schundeln and Schundeln, 2020; Libman and Popova, 2023; Otrachshenko, Nikolova, and Popova, 2023; Schaewitz, Wang, and Rieger, 2022).² Recent research also shows that past government surveillance in East Germany still manifests in lower trust and economic performance today (Lichter, Loffler, and Siegloch 2021), while past political repression in the former Soviet Union created a culture of mistrust that persists to this day (Nikolova, Popova, and Otrachshenko, 2022).

Nevertheless, no studies to date have examined whether communism in general and past political repression under communism, in particular, had long-lasting effects on freedom of expression. Specifically, did living under communism and experiencing political repression crush people’s free speech and freedom of expression ideals? If so, did this sustained effort of suppressing free speech persist inter-generationally over time and up to this day? We currently lack answers to these questions. This lack of knowledge is unfortunate because it severely limits our understanding of the formation and evolution of freedom of speech values.

Understanding freedom of speech values is vital, as such values represent a crucial aspect of civil liberties and serve as a pillar of modern democracy and a fundamental human right. The core principles of freedom of expression encompass advancing knowledge, enabling participation in decision-making, fostering an adaptable community, and ensuring individual self-fulfillment (Emerson, 1970; Redish, 1982). Additionally, freedom of speech acts as a check on excess authority and plays a crucial role in preventing the abuse of power (Jeffery, 1986).

While the literature on the economics of free speech is scarce, it points to the important influences of freedom of speech on economic outcomes. Civil liberties are crucial for economic growth as they improve resource allocation and investment in physical and human capital (Fabro and Aixalá, 2012). Moreover, they promote the diffusion of ideas, innovation, and production techniques, fostering technology-induced growth (Knutsen, 2015). Enhancing citizen voice through civil liberties also improves government efficacy (Isham, Kaufmann, and Pritchett, 1997). Additionally, freedom of expression directly correlates with economic development (Benyishay

¹ McCloskey (2023, p. 121).

² A recent stream of literature also examines the effects of the Communist party (CP) membership on attitudes, preferences, and behavior. See Gerber (2000) on CP membership and personal income, Ivlevs and Hinks (2018) on CP membership and bribery, Ivlevs, Nikolova, and Popova (2021) on CP membership and entrepreneurship, Libman and Popova (2023) on CP membership and redistribution preferences, and Otrachshenko et al. (2023) on CP membership and life satisfaction.

and Betancourt, 2010), and fewer restrictions on freedom of speech and press contribute to technological progress (Knutsen, 2015).³

To our knowledge, this study is the first to explore how communism affected long-term freedom of speech values. Conceptually, communism could have affected present-day freedom of speech values through several mechanisms. In the context of communist regimes, political repressions were pervasive, instilling a climate of fear where expressing dissenting views was strictly punishable, which could have led to long-run declines in appreciation of freedom of speech. Under leaders like Stalin, for example, voicing opposition or criticism often led to severe consequences, creating an atmosphere of silence and self-censorship, which could last until the present day (e.g., Nikolova et al., 2022; Zhukov and Talibova, 2018) (i.e., repression mechanism). Alternatively and paradoxically, the act of political repression may have catalyzed resistance, as individuals recognized the value of freedom of speech in challenging oppressive regimes (e.g., Bautista et al., 2020; Kapelko and Markevich, 2014; Lankina and Libman, 2017). Oppression may paradoxically have nurtured an appreciation of freedom of speech values, which may have been expressed through underground opposition activities (Opp and Gern, 1993) (i.e., resistance mechanism). A third mechanism is also possible: individuals with a strong belief in communist ideals may have willingly traded civil liberties for what they perceived as the greater good of achieving a communist society. In other words, those who believed in communist ideals and ideology may have been accepting of freedom of speech curtailments as a small price to pay for achieving the ideal communist society (i.e., tradeoff mechanism). In all three cases, communist regimes could have affected values in the past and these values could have persisted until the present day. We describe and test, to the extent possible, which set of mechanisms underlies our findings.

To this end, we explore two main settings: (East) Germany and countries that once fell under the influence of the Soviet Union. Following other studies in the literature, our analytical approach uses data for West Germany, which followed a democratic path after World War II, as a control group for East Germany, which adopted a rigid socialist regime that lasted until the fall of the Berlin Wall in 1989. Freedom of speech was severely restricted in East Germany between 1945 and 1989, while it remained a fundamental right in West Germany. Before separation, East and West Germany were arguably quite similar (Alesina and Fuchs-Schündeln, 2007; Fuchs-Schündeln and Hassan, 2016) which, in combination with rich individual-level data and econometric techniques, allows to causally estimate the impact of changing political regimes on free speech. We address recent critiques about the use of the separation of East and West Germany as a natural experiment in empirical research by Becker et al. (2020) in Section 4 below.

In addition, following Lichter et al., (2021) we utilize information on the density of Stasi spies and compare counties within the same district border with different spying densities to

³ Media freedom, or freedom of the press, which is related to freedom of speech is furthermore linked to various positive outcomes, such as lower inequality (Petrova, 2008), reduced corruption (Brunetti and Weder, 2003; Bhattacharyya and Hodler, 2015), respect for human rights (Whitten-Woodring, 2009), and better governance and political accountability (Adsera, Boix, and Payne, 2003; Besley and Prat, 2006; Djankov et al., 2003; Snyder Jr. and Stromberg, 2010). Additionally, media access enhances electoral competitiveness and alters voting patterns and turnout (DellaVigna and Kaplan, 2007; Enikolopov, Petrova, and Zhuravskaya, 2011; Gentzkow, Shapiro, and Sinkinson, 2011; Gerber, Karlan, and Bergan, 2009).

identify the causal effect of political repression in a so-called border discontinuity design, which is combined with an instrumental variables (IV) strategy. This research design allows us to test whether political repression under communism positively or negatively influenced freedom of speech values, and whether the suppression or resistance mechanisms outlined above dominate our findings.

We find that communism has durably shaped the relative importance of freedom of speech values. Specifically, East Germans are less likely to rank freedom of speech as a key government priority compared with West Germans and the gap has been closing only very slowly over time.

We complement the analysis on Germany with explorations of data for the ex-communist countries in Eastern Europe and the former Soviet Union whereby we examine whether family experiences with political repression are associated with values related to freedom of speech and freedom of the press. These analyses reveal that the East German findings are generalizable to the communist regimes in Eastern Europe and the former Soviet Union as well. At the same time, geographic-based measures of political repression, including proxies for the extent of the surveillance state in East Germany and proximity to arrest sites and gulags under Stalin are not associated with freedom of speech values.

Taken together, our research findings suggest that personal rather than community experiences with political repression durably lowered appreciation for freedom of expression values. In addition, we see little evidence for the resistance mechanism which would have implied that greater experiences with repression fostered greater appreciation for freedom of speech values.

Our findings hold significant relevance in the ongoing debates regarding the essence of free speech within democratic societies. In online social media platforms where freedom of speech can thrive, there exists the potential for empowering free expression while also amplifying misinformation, which poses a challenge to the fundamental principles of truth discovery and knowledge advancement through public debate. In addition, recent data suggests the deterioration of democracy and the worsening state of freedom of expression in several countries (Papada et al., 2023), emphasizing the crucial need to comprehend and protect freedom of speech values. This is particularly vital as restrictions on expression often precede democratic decline and institutional erosion.

2. Institutional background

At the end of World War II in 1945, the United States, the United Kingdom, France, and the Soviet Union, partitioned the capitulated Germany (and Berlin) into respective zones of influence. The Soviet-controlled zone established a socialist regime which mirrored the regime in Moscow, while the Western Allies established democratic regimes in the parts they controlled. By 1949, this demarcation along socialist vs. democratic lines was solidified with the establishment of the Federal Republic of Germany (FRG) in the three western zones and the German Democratic Republic (GDR), leading to Germany's division until 1989. Consequently, East and West Germany developed different economic, social, and cultural patterns between 1945 and 1989.

By the end of World War II, the communist regime in the Soviet Union had ample experience with terror and political repression, which culminated under Stalin's rule (1922-1953). The number of victims of Stalin's regime is in the millions, with some estimates suggesting up to 20 million men, women, and children who were imprisoned in the forced labor camps (gulags), often more than once (Khlevniuk and Nordlander, 2004; Markevich, 2016), while many others were executed or forcefully resettled. During the Great Terror (1937-38) alone, about 1.4 million people were sent to gulags, exiled, or executed (Gregory, 2009). Some estimates suggest that the number of repressed individuals in the USSR ranged from 20 million (Courtois, 1999) to 60-100 million for the entire duration of the regime (Leitenberg, 2005).

The end of World War II brought the increased influence of the Soviet Union and state socialism in Soviet satellite nations of Central and Eastern Europe, along with its repressive institutions and command economy. These states became so-called satellites of the USSR. In Eastern Europe, the number of repressions due to communism is estimated at 1 million (Courtois, 1999).

In contrast to the Soviet satellite states, East Germany's path to a communist regime took a gradual course, guided by well-planned long-term strategies (Wagner, 1957). Initially, its social structure resembled the Soviet model, yet with focused endeavors to exhibit a progressive cultural stance and a semblance of democratic governance. As anti-communist sentiments grew in the West and reunification prospects faded, the Soviet authorities openly embraced communist ideologies. This led to East Germany becoming a recognized satellite state by 1949. The pervasive influence of Bolshevik-inspired ideology touched every aspect of life in East Germany (Wagner, 1957). The East German government initially faced internal pressure and dissatisfaction, leading to the exodus of about 20% of the population (Lichter et al., 2021). The East German state responded through the buildup of the Berlin Wall and the creation of the Ministry for State Security (MfS), or the "Stasi," which was a virtually omniscient and omnipotent entity that controlled most aspects of people's lives (Poppewell, 1992). The regime imprisoned about 200,000 people for political reasons until 1989 (Deter and Lange, 2023; Hille, 2017).

The Soviet-style communist regimes in the former German Democratic Republic (GDR), the USSR, and communist Eastern European countries practiced strict censorship and control over media, information, and public discourse. Ironically, during the communist era in Eastern Europe, the countries under Soviet influence presented constitutions and laws that ostensibly guaranteed certain human and civil rights, including freedom of speech. For example, in the former Soviet Union, Article 125 of the 1936 Soviet Constitution included provisions for freedom of speech, freedom of the press, and freedom of assembly (Soviet Union, 1936).⁴ However, these rights were subject to strict limitations. The state had multiple tools to curtail them – through

⁴ Similarly, Article 9 of the 1949 GDR constitution claimed: "All citizens have the right, within the limits of universally applicable laws, to express their opinion freely and publicly and to hold unarmed and peaceful assemblies for that purpose. This freedom shall not be restricted by any service or employment status, and no one may be discriminated against for exercising this right. There is no press censorship" (US Department of State, 2015). Article 83 of the 1952 Polish constitution also purported: "1. The Polish People's Republic shall guarantee its citizens freedom of speech, of the press, of meetings and assemblies, of processions and demonstrations. 2. To put these freedoms into effect, the working people and their organizations shall be given the use of printing shops, stocks of paper, public buildings and halls, means of communication, the radio, and other necessary material means." (Polish Constitution, 1952).

owning and controlling the media, educational curricula, and cultural institutions to shape the narrative and suppress any dissenting views or critiques of communist ideology (Costabile-Heming, 2000; Meyen and Fiedler, 2011). In both the former GDR and the former Eastern Bloc, freedom of speech, the press, and religion were de facto severely suppressed (see, e.g., Popova, 2014). The main goals of the communist regimes were safeguarding the communist vision and protecting the population against the decadent and hostile West (Poplewell, 1992). Any expression or publication deemed to be critical of the government or the communist ideology was subject to censorship, and individuals who spoke out against the regime risked facing severe consequences, including imprisonment or exile. As a result, public discourse was often meticulously orchestrated to align with the party's stances, and opportunities for open debates or critical evaluation of governmental policies were systematically suppressed and opposition and alternative opinions existed only underground.

The growing dissident movements and internal pressures in East Germany led to the events that resulted in the fall of the Berlin Wall on November 9, 1989, and the subsequent collapse of the communist regimes in East Germany, Eastern Europe, and, ultimately, the Soviet Union. Compared to other satellite states, the democratic transition in the GDR followed a unique trajectory. In other countries of the Eastern bloc, the transformation process was autonomous – internal opposition groups negotiated with the communist leaders to drive the transition (Hogwood, 1991; Schaewitz et al., 2022). In the GDR, the transition process was supported by West Germany – following the peaceful revolution in 1989, the transition and accompanying German unification was led by the FRG according to its political strategy. Nearly all East Germans were open to the process of democratization and unification with West Germany in early 1990 (Klingemann and Hofferbert, 1994).

Against this background, we next explore whether and how communism affected the appreciation of freedom of speech of ordinary people. We also explore the possible pathways through which the patterns could have occurred.

3. Theoretical Mechanisms

Conceptually, we distinguish between several mechanisms through which having lived under communism in the past may affect present-day freedom of speech values.

3.1. Repression channel

Communism may have nurtured the long-term degradation of freedom of speech values through political repression. Past political repression makes people less likely to trust others, participate in social life, or vote (e.g., Lichter et al., 2021; Nikolova et al., 2022; Zhukov and Talibova, 2018). Surviving in a system that was not open to change and did everything to suppress dissent through curtailing freedom entailed that individuals had to conform to the values of that system (Deter and Lange, 2023). This may have resulted in the long-term devaluation of freedom of speech values and other civil liberties:

H1: Living under communism is associated with the degradation of freedom of speech values because of the experiences with and the salience of political repressions.

3.2. Resistance channel

Paradoxically, political repression as a feature of communism may have nurtured a greater appreciation for freedom of speech. Specifically, the act of political repression may have served as a catalyst for resistance, as individuals recognized the value of freedom of speech in challenging oppressive regimes (e.g., Bautista et al., 2020; Kapelko and Markevich, 2014; Lankina and Libman, 2017). This may lead to a concurring hypothesis regarding the role of political repressions:

H2: Living under communism is associated with the appreciation of freedom of speech values to resist the (memory of) political repressions.

If this mechanism were at play, political repression may have led to resentment of the regime and nurtured the formation of democratic values. For example, Inglehart and Siemienińska (1988) showed that Polish citizens with post-materialistic values living in communist Poland had high levels of political dissatisfaction. The channels through which this mechanism operates are still subject to debate, though it may be that political repression was stronger in places that were more democratically inclined before the adoption of communism (Lankina and Libman, 2017). Early surveys conducted months after the fall of the Berlin Wall in April 1990 in East Germany (Dalton, 1994), in February/March 1990 in the Moscow region (Gibson et al., 1992), and as early as 1991 in several former Eastern European satellite states (Mishler and Rose, 2002) suggest widespread support for democratic values, including freedom of speech. Having been deprived of these freedoms in combination with relatively high levels of education in these communist countries may have led to a high appreciation of these values (Dalton, 1994; Gibson and Duch, 1994), which may have eventually led to the overthrow of the communist regimes. The representativeness of the surveys is problematic and they are often snapshots in time, and as such, it is difficult to deduce from this evidence whether to what extent the resistance channel is at play. Furthermore, while we cannot test H2 directly with our data, if evidence is found to support H1, then the chance that H2 is entirely underpinning our results is slim.

3.3. Tradeoff channel

The empirical literature also suggests that in times of crisis, such as the global Covid-19 pandemic (Alsan et al., 2022) or after a terror attack (Bozolli and Mueller, 2011; Davis and Silver, 2004; Reman and Vanin, 2018), individuals may be willing to relinquish their freedoms, including the freedom of speech. The willingness to trade off freedoms for security may be even stronger in more authoritarian regimes, meanwhile (Alsan et al., 2022).

Given this logic, individuals indoctrinated with communist propaganda may have believed that relinquishing some freedoms is necessary for the realization of communist ideals. In such a scenario, this inclination to disregard or devalue civil liberties as a price to pay for a functioning communist state may have persisted even to this day. Thus, we hypothesize that:

H3: Living under communism is associated with the willingness to trade off (some) civil liberties, including the freedom of speech, for the realization of communist ideals.

The extent to which this mechanism was at play depends on whether citizens living in the communist regimes believed in the regime's ideals and the extent to which and conditions under which civil liberties are subject to trade-offs. Survey evidence from February-March 1990 indicates that two-thirds of East Germans believed socialism's downfall resulted from inept politicians, while a 1991 survey showed that three-quarters thought socialism was conceptually good but was poorly executed (Klingemann and Hofferbert, 1994). While these results likely reflect communist nostalgia, they also suggest that individuals may have internalized or espoused communist ideology. Evidence from Libman and Popova (2023) suggests that Communist Party members in Eastern Europe were "opportunists" who perceived the party as a career ladder and did not necessarily accept or believe its ideals.

While evidence of this willingness to trade off civil liberties for communist ideals during the years of communist regimes is scarce, based on a 1978 survey of Polish citizens, Inglehart and Sieminska (1988) find that individuals predominantly prioritized avenues for self-expression over concerns of economic and physical security. Similarly, Gibson et al. (1992) reveal that in 1990, inhabitants of the Moscow region within the Soviet Union placed significant value on political freedom and unrestricted speech. A majority of people surveyed said that freedom of speech is paramount, even if it may lead to disorder or extremist views. Aslan et al. (2020) also demonstrate that individuals born in the territory of the former East Germany became less willing to sacrifice their freedom throughout the pandemic compared to their West German counterparts.

4. Empirical Strategy

We conduct two analyses using German data – one comparing respondents in East and West Germany, and one whereby we look at the intensity of repression in East Germany alone. In the first setting, we study the effect of communism – as a political regime that entailed repression – on freedom of speech values. In the second setting, we test to what extent the intensity of past political repression during communism affected present-day freedom of speech opinions in East Germany.

4.1. Studying the Consequences of Communism for Freedom of Speech

First, following the literature, (e.g., Alesina and Fuchs-Schündeln, 2007; Friehe and Pannenberg, 2020; Schaewitz et al., 2022; see Fuchs-Schündeln and Hassan, 2016 for an overview), we use the separation and subsequent reunification of Germany as a natural experiment to study the consequences of communism, as a repressive regime, on freedom of speech opinions.

After World War II, Germany, a nation with a shared history, underwent a division into two separate countries with distinct socio-economic and political trajectories. Fuchs-Schündeln and Hassan (2016) contend that the demarcation between East and West Germany resulted from a random placement of the Allied forces at the end of the war. Alesina and Fuchs-Schündeln (2007) provide evidence indicating that before WWII, East and West Germany showed minimal differences in GDP per capita and economic structure, including the distribution of the population working in manufacturing, agriculture, and commerce. Additionally, the authors present evidence of similarities in voting patterns during the 1898 elections and argue that the reunification of Germany also took place largely unexpectedly. Combining this evidence, the German case serves

as a natural experiment, randomly assigning similar individuals to two distinct socio-political and economic regimes (Fuchs-Schündeln and Hassan, 2016).

The claims and assumptions underpinning the use of East and West Germany's separation and reunification as a natural experiment have not remained uncontested, however. Recent work by Becker et al. (2020) casts doubt on the assertions that there were no disparities between the two regions before the separation and that post-separation selective migration did not significantly influence the outcomes.

First, Becker et al. (2020) document pre-existing differences between East and West Germany before 1945. Individuals in East Germany were more likely to be working class, less likely to be self-employed, more prone to vote for the Communist party, less likely to attend church but more likely to be Protestant, and had higher female labor force participation and higher extramarital fertility. The authors utilized granular data at the county level that allowed them to exclude regions of Poland that did not become a part of East Germany. Secondly, the authors argue that East and West Germany experienced differential impacts in the immediate aftermath of the war. This evidence further challenges the assumption of no differences before the separation. Finally, Becker et al. (2020) argue that the out-migration of roughly one-fifth of the population of East Germany between 1945 and 1961 was likely non-random and based on political and economic factors. This implies that any East-West differences in outcomes are not truly the effect of communism, but partly also a consequence of selective migration. The point about selective migration is also carefully addressed in Alesina and Fuchs-Schündeln (2007), but the latter argue that this factor alone is unlikely to explain away all the effects they document.

We are agnostic about which side of the debate is correct but address criticism related to the pre-existing differences by including historical controls. While we cannot account for selective migration between 1945 and 1961, we create a variable that denotes whether respondents moved after reunification, which mitigates the issue.

Our econometric specification related to the comparisons between East and West Germany is:

$$F_{it} = a + \beta East_i + \delta Year_t + \pi(East_i * \delta Year_t) + X'_{it}\gamma + \eta_i + \varepsilon_{it} \quad (1)$$

where F denotes the rank freedom of speech, $East$ is a dummy variable coded as 1 if the respondent lived in East Germany in 1989, regardless of where they live now; $Year_t$ denotes the year of survey dummies (1996, 2006, or 2016); X is a vector of control variables (age, age squared, and gender, and dummies for the current Federal state of residence; and in separate regressions, the additional controls include: migrant background status, disability status, educational attainment, household size, number of children, marital status, employment status, log household disposable income, and the size of the municipality in which the respondent lives, a control for moving). ε is the stochastic error term.

The coefficient estimate of β captures the difference in the relative importance of freedom of speech (relative to the other three policy goals) between residents of East and West Germany in 1996. The coefficient estimate of δ reflects the differences in rankings across the years (i.e., 2006

and 2016 compared to the reference year of 1996). Importantly, π captures the convergence (or divergence) of freedom of speech preferences between East and West Germans. We estimate Equation (1) using a random effects model with standard errors clustered at the individual level.

4.2. Testing the repression vs. resistance channel

We explore whether past political repression intensified the appreciation of freedom of speech values, or on the contrary, durably suppressed them, as described in Section 3. We rely on three different settings: i) East Germany, where we take the extent of State surveillance as a proxy for political repression; ii) Former Soviet Union, where we use the proximity to arrest sites and labor camps during Stalin as a proxy for repressions, and iii) family experiences with repression in Eastern Europe/FSU. In the first two settings, we have indirect measures of political repression, based on information on the intensity/presence of repressions in the locality where the respondent lives. These are geographic-based measures using proxies for community experiences with repression. In the third case, we have information on direct first-hand family experiences with repression. We explore whether these measures of repression.

First, closely following Lichter et al. (2021), we compare adjacent East German counties that had different and exogenously determined levels of spying densities and study the effect of these densities on freedom of speech opinions. Unlike other aspects of security, decisions regarding the number of Stasi officers in a county were taken locally, which allows for the quasi-experimental RDD design (Lichter et al., 2021). Individuals who did not live in 1989 in East Germany, county-pairs with short borders are excluded and so is the city of Berlin.

Specifically, the freedom of speech F of each individual i is given as

$$F_i = a + \beta Stasi_c + Z'_i \gamma + C'_i \delta + \pi_b + \eta_p + \varepsilon_{it} \quad (2)$$

where $Stasi_c$ is surveillance density in county c , Z is a set of individual controls (age and gender), and C is a large set of county-level controls, including demographic factors and industry structure in the 1980s, and pre-WWII characteristics, as described in Section 5. Furthermore, π_b denotes county-pair dummies and η_p denotes Weimar province dummies. The mean of the outcome variables is used. Furthermore, the errors are clustered at the county-pair and county-in-1990 levels.

The identifying assumption is that the counties in a county-pair are similar along all observable and unobservable characteristics except spying density. Because it is difficult to ascertain this assumption, the approach also includes an instrumental variable (IV) – whereby the instrument is the spying density at the district level in all other counties in that district except the respondent’s (i.e., district-level leave-out-average spying density). This set of results has a causal interpretation.

We next explore whether the results from the East German case also hold for the communist regimes in Eastern Europe and the former Soviet Union. We combine the LiTS survey with data from Nikolova et al. (2022) and Zhukov and Talibova (2018) on the geographic distribution of gulags and arrest sites during Stalin, respectively, and only examine the following

countries with a former gulag on their territory: Azerbaijan, Belarus, Estonia, Georgia, Kazakhstan, Kyrgyzstan, Mongolia, Russia, Tajikistan, Ukraine, and Uzbekistan.

We test whether living near a former gulag (arrest site) has a lasting association with present-day free speech opinions. Our specification closely follows that of Nikolova et al. (2022). We examine the freedom of speech perception F of individual i living in location l in country c as:

$$F_{ilc} = a + \beta G_{ilc} + \mathbf{X}'_{ilc} \gamma + \eta_c + \varepsilon_{ilc} \quad (3)$$

where G is a binary indicator for whether the respondent lives within 10 km of a former gulag (arrest) site or not. In alternative specifications, we measure G as whether the respondent lives within 10 km of a former arrest site (i.e., the locations where individuals were arrested during Stalin's repression). Both measures are proxies for the intensity of past political repression in the respondent's place of residence. The set of control variables X includes age, age squared, gender, Christian religion dummy, migrant background dummy, latitude, longitude, and elevation, as well as country dummies. We estimate equation (3) using OLS and cluster the standard errors at the PSU level.

Finally, we also test the repression channel using individual-level information on direct family experiences with repression in CEE/FSU. In the LiTS dataset, we have information on the respondent's family's experiences with political repression before 1989/1991. We, therefore, analyze whether these personal or family experiences with political repression are associated with valuing freedom of speech or freedom of the press.

Specifically, we model the freedom of speech perception of individual i living in country c as:

$$F_{ic} = a + \beta R_{ic} + \mathbf{X}'_{ic} \gamma + \eta_c + \varepsilon_{ic} \quad (4)$$

where R denotes personal and family experiences with political repression before 1989/1991, X is a vector of control variables (age, age squared, gender, Christian religion dummy, migrant background dummy, latitude, longitude, and elevation, and the additional individual controls include education, work status, urban/rural background, wealth index, marital status, number of children, household size and income tertile), η_c are country of residence dummies, and ε is the stochastic error term. The country dummies adjust for differences in historical factors, geography, institutions, and culture. We estimate Equation (4) using an OLS estimator. The robust standard errors are clustered at the PSU (locality level) to account for the interdependence of characteristics and opinions of respondents living in the same locality.

At the outset, we acknowledge that this set of analyses provides only suggestive insights into whether past political repression is associated with present-day perceptions of freedom of speech and other values, but it cannot help with disentangling the effect of repression from the effect of communism as such. The main value-added of this set of results, beyond the explorations of generalizability, is the fact that we have actual individual-level measures of political repression, and we do not have to rely on proxies, as in the German case.

The parameter β in Equation (3) captures the association between, rather than the causal effect of, experiences with past political repression and freedom of speech/the press. We face several selection issues, for example, families were unlikely to be repressed at random and the household characteristics linked with the probability of political repression likely correlate with the answers given to the freedom of speech values questions. We attempt to mitigate these issues by providing robustness checks related to adding additional controls (e.g., family experiences with World War II, family human capital variables, entropy balancing, and others).

5. Data and variables

5.1. German Socio-Economic Panel

The main individual-level data source utilized for this part of the project is the German Socio-Economic Panel (SOEPv37), which annually collects information on the same individuals and households in Germany since 1984 (Goebel et al, 2019; Wagner et al., 2007). The Federal states that once comprised the Federal Republic of Germany (i.e., East Germany) were added to the SOEP in spring 1990.

SOEP respondents answer questions on many diverse topics, including their socioeconomic background, household income, assets, and finances; political opinions and attitudes on socio-political topics; labor market experiences; and behaviors.

In 1984-1986, 1996, 2006, and 2016, the SOEP included a question asking respondents to rank how important they consider four government goals: maintaining peace; allowing citizens' influence on decision-making; fighting inflation; and protecting free speech. More than 15,000 people answered the questions in each survey wave it was asked, which ensures a sufficient number of observations to conduct statistical analysis. We only use waves 1996, 2006, and 2016 since these waves include information on respondents in both East and West Germany.

The main dependent variable is the importance of freedom of speech, measured as a rank (least important) to 4 (most important) (see Table 1). Following Alesina and Fuchs-Schündeln (2007) and Bondar and Fuchs-Schündeln (2023), our key independent variable *East* is coded as 1 if the respondent lived in East Germany (including East Berlin) in 1989, regardless of where they live now.

To account for the fact that respondents moved from East to West Germany and vice versa after the fall of the Berlin Wall, we include a control variable *Mover* coded as 1 if the respondent moved locations (lived in 1989 in East Germany and moved after 1989 to West Germany or lived in 1989 in West Germany and moved after 1989 to East Germany) and 0=otherwise. We also include additional socio-economic variables related to age, biological sex, disability status, migrant status, educational attainment, work status, marital status, number of children, household size, log disposable household income, and the size of the municipality in which the respondent's household is located.

Therefore, our analysis sample comprises observations from the SOEP v.37 for the years 1996, 2006, and 2016 for individuals born before 1989. We include both all available observations (N=49,679, see Table 2 and Figure 1 for summary statistics) and a fully balanced sample

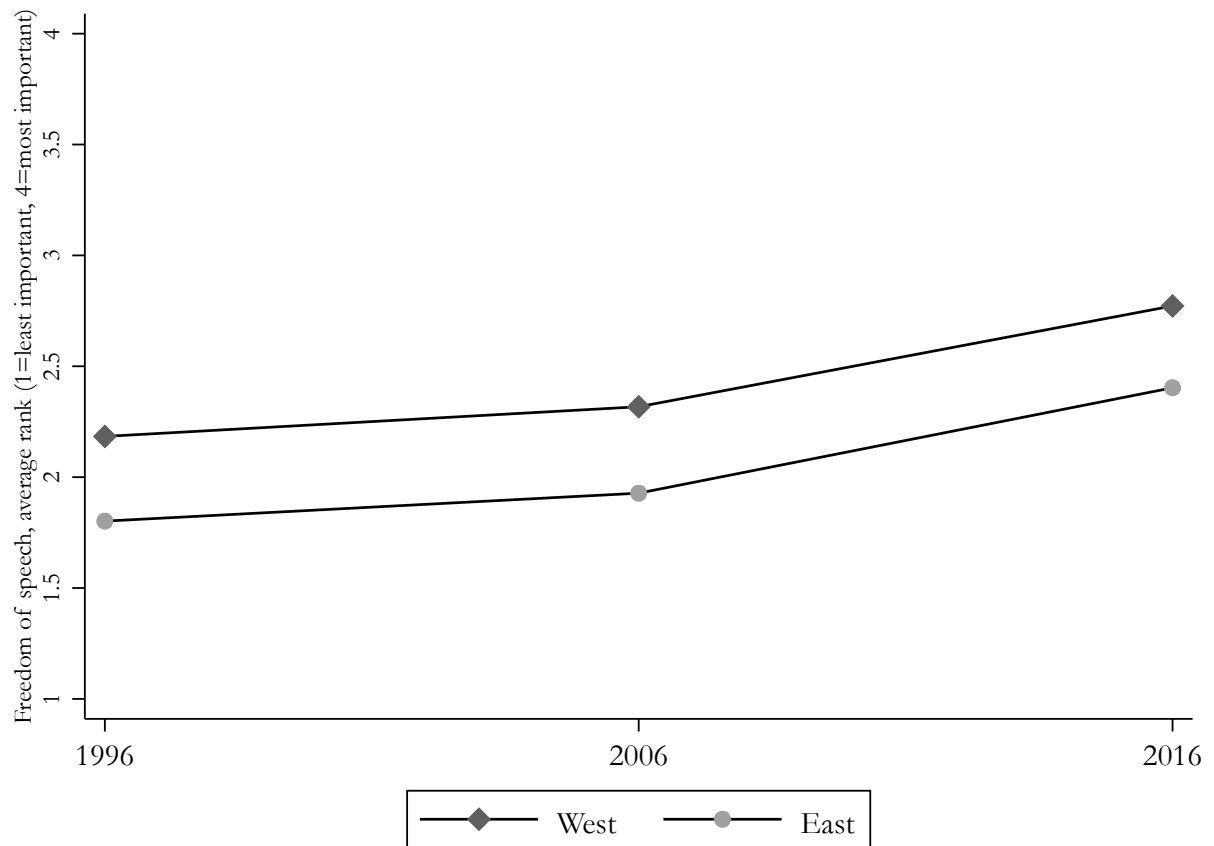
comprising individuals observed in all three years (N=9,612, see appendix Table A1 and Figure A1 for summary statistics).

In robustness checks, we also use historical controls using data from Becker et al. (2020) to account for pre-existing differences between East and West Germany. Specifically, we include information on the share of Jews in 1925, the share of Protestants in 1925, the share of the self-employed in 1925, the share of those employed in agriculture in 1925, the female employment share in 1933, the share of working-class people in 1925, the voting share in the 1924 elections, and the vote share for left parties in the 1924 election. Becker et al. (2020) source all data from Falter and Hänisch (1990).

Table 1: Variable definitions, main analysis sample, SOEP East and West Germany

Variable	Definition
Free speech	A variable based on the responses to the question: "You can't have everything at once - and that applies to politics, too. In the following, we will state four possible goals that politicians might pursue. If you had to choose, which of these goals would be most important? Please rank them in order of importance starting with the first?" The answer that we take to construct the variable is "Protecting the right to free speech" and the original response scale is recoded such that 1 = Least important; 4 = most important. In all three years, in German, the response category read "Schutz des Rechts auf freie Meinungsäußerung."
East	A dummy variable coded as 1 if the respondent lived in 1989 in East Germany (including East Berlin) and 0 if they lived in West Germany (including West Berlin)
Age	Age in years
Biological sex	0=Female and 1 = Male
Disability status	Disability status of the individual; 1=Not disabled; 2=disabled; 3=No information
Migrant background	1=no migration background; 2 = direct migration background; 3 = indirect migration background
Education	1=High school or less; 2 = More than high-school; 3 = missing information
Work status past 12 months	0= Not employed; 1 = employed
Municipality size	0=Less than 100,000 inhabitants; 1=100-000 inhabitants or more
Household size	Number of people living in the household
Marital status	1=Married; 0=Single, Divorced, Separated, Widowed
Number of children	Number of children in the household
Log disposable household income	Log disposable household income (after taxes and government transfers), in real terms, CPI-adjusted, in Euros
Mover	1= the respondent moved locations (lived in 1989 in East Germany and moved after 1989 to West Germany or lived in 1989 in West Germany and moved after 1989 to East Germany); 0=otherwise

Figure 1: Average importance (rank) given to freedom of speech, SOEP full analysis sample



Source: Authors based on SOEP v 37.

Notes: East refers to respondents who lived in East Germany in 1989, regardless of where they live now. The figures are based on the analysis sample (N=49,673)

Table 2: Summary statistics

	Survey Year 1996				Survey Year 2006				Survey Year 2016			
	West		East		West		East		West		East	
	Mean	Std. dev.	Mean	Std. dev.	Mean	Std. dev.	Mean	Std. dev.	Mean	Std. dev.	Mean	Std. dev.
Free speech (ranking 4=most important)	2.184	1.119	1.802	1.001	2.317	1.155	1.928	1.074	2.772	1.021	2.403	1.027
Age	43.833	16.854	43.116	16.331	49.278	17.208	47.514	17.473	54.552	15.012	53.566	15.445
Biological sex												
Female	0.511	0.500	0.526	0.499	0.516	0.500	0.530	0.499	0.537	0.499	0.557	0.497
Male	0.489	0.500	0.474	0.499	0.484	0.500	0.470	0.499	0.463	0.499	0.443	0.497
Disability status												
No	0.887	0.316	0.929	0.256	0.874	0.332	0.900	0.300	0.858	0.349	0.873	0.333
Yes	0.111	0.314	0.064	0.245	0.124	0.330	0.098	0.297	0.140	0.347	0.124	0.329
No information	0.002	0.044	0.006	0.080	0.002	0.043	0.002	0.047	0.002	0.049	0.003	0.055
Education												
Secondary or less	0.811	0.392	0.730	0.444	0.727	0.445	0.709	0.454	0.700	0.458	0.712	0.453
Post-secondary and tertiary	0.139	0.346	0.235	0.424	0.242	0.428	0.262	0.440	0.295	0.456	0.283	0.450
No information	0.051	0.219	0.035	0.184	0.031	0.173	0.029	0.168	0.005	0.070	0.005	0.074
Migrant background												
No	0.712	0.453	0.922	0.269	0.863	0.344	0.950	0.218	0.878	0.327	0.950	0.218
Direct	0.226	0.419	0.073	0.261	0.087	0.281	0.040	0.196	0.059	0.236	0.037	0.189
Indirect	0.061	0.240	0.005	0.070	0.050	0.218	0.010	0.099	0.063	0.243	0.013	0.113
Household size	2.987	1.383	2.948	1.203	2.705	1.290	2.540	1.106	2.760	1.373	2.564	1.289
Number of children	0.663	0.985	0.691	0.917	0.521	0.902	0.369	0.709	0.701	1.078	0.645	1.051
Marital status												
Unmarried	0.374	0.484	0.360	0.480	0.379	0.485	0.451	0.498	0.335	0.472	0.401	0.490
Married	0.626	0.484	0.640	0.480	0.621	0.485	0.549	0.498	0.665	0.472	0.599	0.490

Employment status												
Not working	0.359	0.480	0.330	0.470	0.382	0.486	0.384	0.486	0.337	0.473	0.349	0.477
Working	0.641	0.480	0.670	0.470	0.618	0.486	0.616	0.486	0.663	0.473	0.651	0.477
Log disposable household income	10.465	0.610	10.347	0.480	10.589	0.662	10.324	0.612	10.582	0.662	10.336	0.586
Municipality size												
Less than 100,000 inhabitants	0.676	0.468	0.725	0.447	0.687	0.464	0.747	0.435	0.697	0.460	0.747	0.435
More than 100,000 inhabitants	0.324	0.468	0.275	0.447	0.313	0.464	0.253	0.435	0.303	0.460	0.253	0.435

Notes: N= 49,679, See Table 1 for variable definitions The number of observations is as follows: West in 1996, N=8,271; East in 1996, N=4,028; West in 2006, N=14,454; East in 2006, N=5,782; West in 2016, N=12,215; East in 2016, N=4,923

5.2. Data for East Germany

The analysis related to testing the repression channel for East Germany closely follows the data and methods in Lichter et al., (2021). Specifically, we use the remote version of the German Socio-Economic Panel (SOEP), described in Section 5.1, combined with additional data from Lichter et al. (2021). This version contains the county of residence for each respondent, which allows us to merge information on the intensity of the Stasi network before 1989.

Our outcome variable is the ranking of freedom of speech, as defined above. The control variables are as in Lichter et al (2021) – age, gender, the presence of a Stasi office in the county, country-level controls from the viewpoint of the 1980s, including the area, population, shares of pensioners and children, rural/urban status, shares of employees in agriculture, energy/mining, and textiles; the employment share of cooperative members, and the value of industrial production. Finally, we include historical controls – opposition strength in 1953, electoral turnout and party vote shares in 1933, the share of Jews and Protestants in 1925, the unemployment rate, and the share of white collar and share of the self-employed in 1933.

5.3. Data for Eastern Europe and Former Soviet Union Countries

In complementary analyses, we utilize the 2016 Life in Transition Survey (LITS), conducted jointly by the European Bank for Reconstruction and Development and the World Bank at the end of 2015 and beginning of 2016. The dataset contains nationally representative surveys collected via face-to-face interviews with approximately 1,500 individuals per country in 34 countries, including 29 post-socialist countries in Eastern Europe and the former Soviet Union, except for Turkmenistan.⁵ The polling methodology in all countries involves a two-stage sampling procedure that utilizes strata based on geographical region and urban/rural location. Primary sampling units (PSUs) consist of 75 locations of 20 households each, representing either electoral districts or census enumeration areas.

The LiTS has several advantages in the context of our research. First, it has information on almost all transition economies in Eastern Europe and the former Soviet Union. Furthermore, the LiTS provides extensive information on individual socio-demographic characteristics, values, and past experiences. Furthermore, the 2016 LITS wave is unique in providing information on the repression experiences of individuals and their families before 1989/1991. Although the LITS also has 2006 and 2010 waves, they lack information on personal experiences with political repression and do not feature in our results.⁶

⁵ We include Albania, Armenia, Azerbaijan, Belarus, Bosnia and Herzegovina, Bulgaria, Croatia, Czech Republic, Estonia, North Macedonia, Georgia, Hungary, Kazakhstan, Kosovo, Kyrgyz Rep., Latvia, Lithuania, Moldova, Mongolia, Montenegro, Poland, Romania, Russia, Serbia, Slovak Rep., Slovenia, Tajikistan, Ukraine, and Uzbekistan. We drop from the analysis Cyprus, Germany, Greece, Italy, and Turkey. The analyses using information on gulags and arrests sites under Stalin in Table 5 only include the countries with a gulag/arrest site information on their territory, namely: Azerbaijan, Belarus, Estonia, Georgia, Kazakhstan, Kyrgyzstan, Mongolia, Russia, Tajikistan, Ukraine, and Uzbekistan.

⁶ The 2006 LITS wave included a question on the importance of freedom of speech and freedom of the press values. Appendix Figure A2 demonstrates that opinions about freedom of speech and freedom of the press barely changed between 2006 and 2016. The 2010 questionnaire only included information about the presence of these democratic values, but not their importance and, as such, cannot be used for our purposes.

Table A2 details the variable definitions of key variables in the LITS analysis sample. The dependent variables – *Free speech* and *Free press*– are binary variables denoting whether the respondent agrees that free speech and freedom of the press, respectively, are important for their country. The variables are recoded from the original 1-5 agree/disagree scale, whereby 1 = agree and strongly agree; and 0 = disagree, strongly disagree, and neutral. In robustness checks, we also show results, whereby we code the neutral category, as 1. We resort to this binary coding of the variable because of the small number of observations in the disagree categories.

The fact that the LITS has the geolocation of individuals allows us to merge information on the location of gulags and arrest sites from Nikolova et al. (2022) and Zhukov and Talibova (2018). The gulag-level information is from Smirnov (1998), accessed through Memorial's international NGO websites (Memorial.de and Memo.ru), dedicated to preserving the history of political repression in the FSU. Smirnov/Memorial's data covers 476 camps, with location details missing for two. Derived from State Archive documents organized by Smirnov (1998), this data provides camp-specific information, including location, economic operations, prisoner counts, female inmates, political detainees, and socially deemed dangerous individuals from 1922 to 1960, as per archival records.

We also incorporate arrest location data from Zhukov and Talibova (2018), which includes information on the individual profiles, sentences, and crucially, arrest geolocations of 2.3 million individuals between 1917 and 1959 using Memorial Organization's online archives. We only use information on those sentenced to executions, penal units, prisons, and resettlements between 1919 and 1959 ($N = 947,161$) and exclude records with missing information. However, this dataset only covers a fraction of Stalin's victims. The Memorial organization acknowledges this dataset represents at most a quarter of all victims, thus substantially underestimating the scope of Stalin's repressions.

6. Main Results

Table 3 details the main results using the East-West natural experiment setup described in Section 4.1. Model (1) only includes individual controls and state fixed effects, while Model (2) includes additional individual controls. Model (3) adds a control for moving after 1989, and we further augment Model (4) with historical controls. Finally, the analysis in Model (5) is based on a regression with weights generated after entropy balancing (Hainmuller, 2012). Entropy balancing is a statistical method used to adjust sample weights in observational data to achieve covariate balance between treatment and control groups. It deals with selection bias by reweighting observations based on the entropy criterion, minimizing the difference in covariate distributions between the groups, and reducing potential confounding effects in quasi-experimental designs. In Panel A, we show the results for all available observations in the SOEP analysis sample, while in Panel B, we restrict the sample to individuals who were polled in all three survey years (i.e., 1996, 2006, and 2016).

All specifications in Table 3 indicate that individuals who lived in East Germany before reunification have weaker preferences for free speech compared with their West German counterparts in 1996, as evidenced by the negative coefficient estimate on the *East* dummy. It

appears that having lived under communism vs. democracy for over 45 years has durably shaped the differential understanding of freedom of speech of East and West Germans.

At the same time, we see evidence of convergence of freedom of speech values between East and West Germans, as indicated by the consistently positive coefficient estimates between *East*Year 2016* across all specifications. The gap in free speech values between East and West Germany seems not to have changed much up until the year 2006 but has been closing since then. For example, taking the coefficient estimates from Panel A, Model (5) of Table 3, the difference in the relative ranking of freedom of speech values in 1996 was 0.495, but it declined slightly to 0.446 in 2006, and to 0.371 in 2016. If the current rates of convergence continue, the difference between ranking the importance of freedom of expression will completely disappear around 2075, or about 86 years after the fall of the Berlin Wall.⁷

These results are consistent with the findings of Alesina and Fuch-Schuendeln (2007) and Bondar and Fuch-Schuendeln (2023) who find a small convergence in preferences for redistribution, which are likely to disappear by 2025 (Bondar and Fuch-Schuendeln, 2023), though the authors find that the convergence rate is declining over time. Heineck and Süßmuth (2013) find that risk preferences have converged between East and West Germans as of 2008 and that trust levels converged by 2018. Similarly, Schaewitz et al (2022) find no East-West gap in risk preferences and patience, but a small gap in impulsiveness that seems to be closing over time. Our results show convergence in freedom of expression values, but at much slower rates compared to preferences for redistribution, likely because our measure of free speech is relative – i.e., asked in relation to other political goals, such as inflation, maintaining peace and order, and citizen participation in decision-making. Our results are, therefore, unsurprising given that the salience of different issues changes over time (Wlezien, 2006).

Furthermore, the relative importance of free speech values has increased for West Germans as well, as indicated by the positive coefficient estimates for the year dummies 2006 and 2016. The fact that the importance of freedom of speech has been increasing over time for both East and West Germans (Figure 1 and Table 3) suggests growing recognition of the fundamental role that open expression and the exchange of ideas play in fostering democratic societies. Given the rise of polarization in many Western societies, this is a reassuring finding, especially in light of the growing economic and political divergence of the states that once comprised East and West Germany (Weisskircher, 2020).

⁷ The rate of change between 1996 and 2016 can be calculated as follows: Rate of Change = (Difference in 2016 - Difference in 1996) / (Year 2016 - Year 1996) = (0.371 - 0.495) / (2016 - 1996) = -0.124 / 20 = -0.0062. Assuming that the difference will become zero after 't' years (Difference in t years = 0), we can calculate the difference in 't' years using the rate of change as follows: Difference in t years = Difference in 1996 + (Rate of Change * t) = 0.495 + (-0.0062 * t) = 0. Solving for 't', we get -0.0062 * t = -0.495 t = -0.495 / -0.0062 t ≈ 79.84. So, the difference will become zero after approximately 79.84 years from 1996, which would be around the year 2075.

Table 3: The association between democratic values and having lived under the socialist regime of East Germany, baseline results, German Socio-Economic Panel

Panel A: Baseline					
	(1)	(2)	(3)	(4)	(5)
	Free speech	Free speech	Free speech	Free speech, historical controls	Free speech, entropy
East	-0.360*** (0.027)	-0.367*** (0.027)	-0.474*** (0.032)	-0.486*** (0.027)	-0.495*** (0.022)
Year 2006	0.144*** (0.015)	0.082*** (0.015)	0.079*** (0.015)	0.079*** (0.015)	0.084*** (0.016)
Year 2016	0.626*** (0.015)	0.555*** (0.016)	0.550*** (0.016)	0.550*** (0.016)	0.532*** (0.018)
East*Year 2006	0.004 (0.024)	0.043* (0.025)	0.044* (0.024)	0.044* (0.024)	0.049** (0.022)
East*Year 2016	0.031 (0.025)	0.073*** (0.025)	0.074*** (0.025)	0.075*** (0.025)	0.124*** (0.024)
Individual controls (exogenous)	Y	Y	Y	Y	Y
State FE	Y	Y	Y	N	Y
Additional individual controls	N	Y	Y	Y	Y
Control for moving after 1989	N	N	Y	Y	Y
Historical Controls	N	N	N	Y	N
Entropy balancing weights	N	N	N	N	Y
Observations	49,673	49,673	49,673	49,673	49,673
Number of individuals	34,345	34,345	34,345	34,345	34,345
Within R-squared	0.063	0.060	0.060	0.060	0.066
Between R-squared	0.085	0.116	0.117	0.117	0.120
Panel B: Balanced sample					
	(1)	(2)	(3)	(4)	(5)
	Free speech	Free speech	Free speech	Free speech, historical controls	Free speech, entropy
East	-0.344*** (0.063)	-0.351*** (0.063)	-0.422*** (0.073)	-0.494*** (0.059)	-0.421*** (0.052)
Year 2006	0.070** (0.033)	0.056* (0.033)	0.053 (0.033)	0.052 (0.033)	0.066* (0.034)
Year 2016	0.491*** (0.036)	0.471*** (0.037)	0.465*** (0.037)	0.464*** (0.037)	0.445*** (0.040)
East*Year 2006	0.072 (0.047)	0.071 (0.047)	0.072 (0.047)	0.073 (0.047)	0.071 (0.045)
East*Year 2016	0.164***	0.159***	0.161***	0.163***	0.201***

	(0.048)	(0.048)	(0.048)	(0.048)	(0.046)
Individual controls (exogenous)	Y	Y	Y	Y	Y
State FE	Y	Y	Y	N	Y
Additional individual controls	N	Y	Y	Y	Y
Control for moving after 1989	N	N	Y	Y	Y
Historical Controls	N	N	N	Y	N
Entropy balancing weights	N	N	N	N	Y
Observations	9,585	9,585	9,585	9,585	9,585
Number of individuals	3,195	3,195	3,195	3,195	3,195
Within R-squared	0.076	0.073	0.073	0.073	0.076
Between R-squared	0.080	0.100	0.100	0.100	0.107

Notes: *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$. All regression results are based on using random effects estimators. Robust standard errors clustered at the individual level are in parentheses. The exogenous individual controls include age, age squared, and gender. The additional controls include migrant background status, disability status, educational attainment, household size, number of children, marital status, employment status, log household disposable income, and the size of the municipality in which the respondent lives. The state fixed effects are dummies for the federal states of Germany. The historical controls in Model (4) are at the state level and include the share of Jews in 1925, the share of Protestants in 1925, the share of the self-employed in 1925, the share of those employed in agriculture in 1925, the female employment share in 1933, the share of working-class people in 1925, the voting share in the 1924 elections, and the vote share for left parties in the 1924 election. See Table 1 for variable definitions. Model (5) is based on random effects regressions with entropy balancing weights and does not include clustered standard errors.

Next, we turn to the analyses related to the test of the political repression channel in the context of East Germany and the FSU/Eastern Europe.

7. Testing the Political Repression Channel

Our results thus far suggest that communism has had a lasting impact on freedom of speech valuations. In Section 3 above, we outlined several mechanisms through which communism could have created such lasting effects. The first mechanism we outlined focuses on the impact of *political repression* under communism, potentially leading to a sustained devaluation of freedom of speech values over time through individuals being afraid of being punished by the regime for openly expressing their views. Paradoxically, political repression might have catalyzed a greater appreciation for freedom of speech as a tool for *resistance*, aiding the formation of democratic values (i.e., resistance mechanism). Surveys conducted shortly after the fall of the regimes outlined in Section 3 reveal a strong endorsement of democratic values, suggesting that the deprivation of these freedoms, coupled with higher education levels, may have contributed to a heightened appreciation for these values, potentially facilitating the eventual overthrow of communist regimes. Finally, the *tradeoff mechanism* posits that indoctrination during communism could have fostered an acceptance of limited freedoms for ideological objectives, potentially persisting today. The extent of this influence hinges on citizens' belief in communist ideals and the conditions under which civil liberties are traded off for the successful functioning of the communist regime and the realization of communist goals. Given our data, we are only able to empirically test the first mechanism.

Following Lichter et al. (2021), Table 4 below shows that the Stasi's surveillance intensity – a proxy for the intensity of political repression in East Germany – does *not* have a lasting effect

on present-day valuations of the freedom of speech. The same conclusion holds when we examine the long-term consequences of living in proximity to past gulag sites and former arrest sites under Stalin in the spirit of Nikolova et al. (2022). Both proxies of political repression in the FSU are unassociated with opinions about either freedom of speech or freedom of the press (Table 5).

The results in Tables 4 and 5 are in contrast with the findings of Lichter et al (2021) and Nikolova et al (2022) showing that the respective proxies of political repression matter for present-day trust and voting behavior. This suggests that freedom of speech values are different from outcomes such as trust or voting behavior and are unassociated with place-based (i.e., community-based) measures of political repression.

Table 4: The effect of spying on freedom of speech opinions, border county-pair sample, German Socio-Economic Panel

	(1)	(2)	(3)	(4)
	Free speech	Free speech	Free speech	Free speech
County-level spying density	-0.158 (0.381)	-0.391 (0.273)	-0.554 (0.341)	0.101 (1.120)
No. obs.	4,836	4,836	4,836	4,836
R-squared	0.087	0.134	0.138	0.137
Kleinbergen-Paap F-statistic				4.004
Basic controls	Y	Y	Y	Y
Border county-pair FE	N	Y	Y	Y
County-level controls	N	N	Y	Y

Notes: *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$. The sample is limited to county pairs that straddle a GDR district border. Column (1) presents the simple correlations without border fixed effects. Column (2) adds border county-pair Fixed Effects, Columns (3) and (4) include the full set of county-level controls, and Column (4) presents the leave-one-out IV results. The basic controls include dummies for the historical provinces of the Weimar Republic, an indicator for the presence of a Stasi on-site office, and individual-level controls for age, age squared, and gender. Standard errors are clustered at the county-pair and county level. The additional county-level controls include a large battery of variables, related to the size and demographic composition of the counties in 1980, urban/rural status; industry controls (share of population of employees in different sectors as of 1989), the share of cooperative members, the value of industrial production in 1989; strength of the 1953 opposition; electoral turnout and Nazi and communist vote shares in the elections of 1933, the regional share of Jews and Protestants in 1925, the unemployment rate, share of white collar and self-employed workers in 1933 (see description in Section 4.1. in Lichter et al., 2021 and Appendix Table B2 in their online appendix).

Table 5: Proximity to former gulag camps and arrest sites associated with Stalin’s repressions and present-day freedom of speech and freedom of the press values, Life in Transition Survey

Panel A: Proximity to former gulags				
	(1)	(2)	(3)	(4)
	Free speech	Free press	Free speech	Free press
Lives within 10 km of a former gulag	0.022 (0.018)	0.026 (0.024)	0.008 (0.018)	0.009 (0.024)
Individual controls (exogenous)	Y	Y	Y	Y
Additional individual controls	N	N	Y	Y
Country FE	Y	Y	Y	Y
Observations	15,494	15,494	15,480	15,480
R-squared	0.037	0.034	0.041	0.038
Panel B: Proximity to former arrest sites				
	(2)	(3)	(6)	(7)
	Free speech	Free press	Free speech	Free press
Lives within 10 km of a former arrest site	-0.003 (0.014)	0.004 (0.015)	-0.019 (0.015)	-0.011 (0.016)
Individual controls (exogenous)	Y	Y	Y	Y
Additional individual controls	N	N	Y	Y
Country FE	Y	Y	Y	Y
Observations	15,494	15,494	15,480	15,480
R-squared	0.037	0.034	0.041	0.038

Notes: *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$. Robust standard errors clustered at the PSU level are in parentheses. All regressions include country dummies. The exogenous individual controls include age, age squared, gender, Christian religion dummy, migrant background dummy, latitude, longitude, and elevation. The additional individual controls include education, work status, urban/rural background, marital status, number of children, household size, wealth index, and income tertile. See Table A2 for variable definitions. The data are based on Nikolova, Popova, and Otrachshenko (2022), and include the following countries: Azerbaijan, Belarus, Estonia, Georgia, Kazakhstan, Kyrgyzstan, Mongolia, Russia, Tajikistan, Ukraine, and Uzbekistan. Data on arrest sites are from Zhukov and Talibova (2018). The key independent variable in Panel A is coded as 1 if the respondent lives within 10 km of a former gulag and 0 otherwise. The key independent variable in Panel B is coded as 1 if the respondent lives within 10 km of a former arrest site and 0 otherwise.

Our results in Tables 4 and 5 focus on measures of the intensity of political repression that are *place-based*. We next explore unique self-reported information on *personal* experiences with political repression in Eastern Europe before 1989 and the former Soviet Union before 1991 from the LiTS. Table A2 details the variables used in the analysis and Table A3 presents the summary statistics of the analysis sample.

Table 6: The association between freedom of speech and press and family experiences with political repression, Life in Transition Survey

Panel A: DV= Free Speech						
	(1)	(2)	(3)	(4)	(5) Different coding DV	(6) Entropy balancing
Family experiences with political repression (No= baseline)						
Yes	-0.012*	-0.014**	-0.016**	-0.013**	-0.009***	-0.011
	(0.007)	(0.007)	(0.007)	(0.007)	(0.003)	(0.007)
No information	0.007	0.008	0.015	0.007	0.007	
	(0.017)	(0.018)	(0.018)	(0.018)	(0.012)	
Individual controls (exogenous) + Country FE	Y	Y	Y	Y	Y	Y
Additional individual controls	N	Y	Y	Y	Y	Y
Control for killed/injured WWII	N	N	Y	N	N	N
Parental controls	N	N	N	Y	N	N
Entropy balancing weights	N	N	N	N	N	Y
Observations	41,637	41,637	41,637	41,637	41,637	41,480
R-squared	0.026	0.029	0.031	0.029	0.015	0.030
Panel B: DV= Free Press						
	(1)	(2)	(3)	(4)	(5) Different coding DV	(6) Entropy balancing
Family experiences with political repression (No= baseline)						
Yes	-0.023***	-0.026***	-0.028***	-0.026***	-0.010***	-0.023***
	(0.007)	(0.007)	(0.007)	(0.007)	(0.004)	(0.007)
No information	-0.019	-0.019	-0.014	-0.019	0.031	
	(0.036)	(0.036)	(0.036)	(0.036)	(0.026)	

Individual controls (exogenous) + Country						
FE	Y	Y	Y	Y	Y	Y
Additional individual controls	N	Y	Y	Y	Y	Y
Control for killed/injured WWII	N	N	Y	N	N	N
Parental controls	N	N	N	Y	N	N
Entropy balancing weights	N	N	N	N	N	Y
Observations	41,637	41,637	41,637	41,637	41,637	41,480
R-squared	0.025	0.028	0.029	0.028	0.015	0.031

Notes: *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$. Robust standard errors clustered at the PSU level are in parentheses. All regressions include country dummies and latitude and longitude. In Panel A, the dependent variable is the importance of freedom of speech, and in Panel B - the importance of a free press. The exogenous individual controls include age, age squared, gender, Christian religion dummy, migrant background dummy, latitude, longitude, and elevation. The additional individual controls include education, work status, urban/rural background, wealth index, marital status, number of children, household size, and income tertile. See Table A2 for variable definitions. Model (1) only includes the exogenous variables, while Model (2) includes the additional individual controls. Model (3) adds a variable on whether any of the respondent's family members were killed or injured during WWII, in Model (4) we add a control for parental education (mother and father) and the number of books while growing up. In Model (5), the DVs are coded such that agree, strongly agree, and neutral are coded as 1, and disagree and strongly disagree are coded as 0. In Model (6), we apply entropy balancing weights. The no-information category is excluded from the regression in that model.

Across various model specifications in Panel A of Table 6, our findings indicate a statistically significant negative correlation between familial experiences with political repression during the communist era and contemporary attitudes toward the significance of freedom of speech. The entropy balancing results lose their statistical significance but the coefficient estimate remains negative (Model (6), Panel A, Table 6). The link between family experiences with political repression and present-day freedom of the press also consistently displays a negative trend (Panel B of Table 6).

The coefficient estimates of our preferred specification (Model (2)) in Table 6 reveal that individuals whose families have undergone past political repression are 1.4 percentage points less likely to value free speech and 2.6 percentage points less likely to value freedom of the press, as compared to those without repression experiences. The effect sizes we document are substantive. For example, the magnitude of the coefficient estimate for family experiences with repression (-0.014) is similar to that of having at least a secondary education (0.013) in Model (2) of Panel A. Similarly, the magnitude of family repression experiences in Model (2), Panel B (-0.026) is even slightly bigger than that of education (0.020).

All in all, our results indicate that geographically-based metrics of historical political repression seem to hold limited influence on present-day freedom of speech perspectives. However, personal encounters with political repression before 1989/1991 do influence contemporary values toward freedom of the press, likely due to the more direct and lasting impact of such experiences.

Our results suggest that communism engendered a prolonged erosion of freedom of speech values through sustained political repression and the scaring effect it generated. The suppression of dissent fostered conformity and a devaluation of civil liberties over time. Personal encounters with repression before 1989/1991 do influence contemporary press freedom values, potentially due to the enduring influence of such experiences.

It is unclear to what extent the other two channels – the resistance and tradeoff channel are at work. Paradoxically, the very repression might have inadvertently fostered an appreciation for freedom of speech as a tool of resistance. Acts of political repression could have triggered resentment, fueling democratic sentiments and bolstering the significance of free expression. Yet, our overall results do not provide much evidence for this channel.

Furthermore, it is possible that initially, indoctrination under communism might have shaped acceptance of limited freedoms for the sake of achieving communist ideals, potentially echoing into the present. Yet historical surveys in the former East Germany and the Soviet Union demonstrated broad support for democratic values, including freedom of speech, but do not rule out that citizens genuinely embraced communist ideals.

8. Discussion and conclusion

This study contributes to the scarce literature on the economics of free speech by examining the enduring impact of communism and political repression on freedom of speech values. Our analyses are based on the natural experiment of the German Reunification and analyses of

individual-level data from the German Socio-Economic Panel, as well as examinations using historical information on political repression in the GDR and Stalin's FSU, and cross-sectional regressions of experiences with political repression in CEE and the FSU.

We furnish a political economy perspective to the scarce literature on the economics of freedom of speech (e.g., Posner, 1986; Hemel, 2019; Voerman-Tam et al., 2023). Specifically, it is the first to examine whether freedom of speech values are causally determined by political regimes and whether socialism has long-lasting effects on freedom of speech. While many people in democratic societies take freedom of speech for granted, it is a relatively novel right in countries in the former Eastern bloc. As such, this paper directly advances the discussion of free speech by adding to the body of knowledge on the formation and evolution of freedom of speech values. The findings have important implications for a wide range of politico-economic issues and can inform policies and actions to foster democratic values in nascent democratic states.

We produce nuanced insights into the interplay between the legacy of communism and the present-day appreciation of free speech. Living under communism made individuals less appreciative of freedom of speech values. This could have been because of indoctrination and people's acceptance of the lack of freedoms that the communist regimes entailed. While historical surveys in former East Germany and the Soviet Union demonstrate widespread support for democratic values, the extent to which citizens genuinely embraced communist ideals remains ambiguous. Moreover, the potential trade-off between freedoms and stability, particularly in more authoritarian regimes, could further complicate these dynamics in the face of global crises or security concerns. At the same time, testing the political repression channel yields conflicting results: geographically-based measures of repression appear to be unassociated with present-day perspectives regarding freedom of speech. At the same time, our study underscores that direct personal or family experiences with political repression before 1989/1991 exert a discernible influence on current values towards freedom of speech and the press, likely due to a lasting impact stemming from such personal encounters.

This study holds broader implications in the ongoing discourse on the economics of free speech, offering insights into the complex relationship between communism's legacy and the appreciation of this fundamental right. The fact that as of 2016, or more than a quarter of a century after the fall of the Berlin Wall, East Germans still rank the importance of freedom of speech lower than West Germans may be suggestive of more than a cultural gap or the legacy of communism. It could be indicative of the fact that as a luxury good or a post-materialistic value, i.e., one that is valued more by higher-educated and higher-income individuals (Inglehart, 1990; Voerman-Tam et al., 2023), freedom of speech may be a second-order concern (Gibson and Duch, 1994). The end of communism and the early years of transition were quite turbulent, with large declines in income and life satisfaction, eroding social structures and support systems (e.g., Easterlin, 2009; Gruen and Klasen, 2003; Guriev and Zhuravskaya, 2009; Milanovic, 1998) despite de facto improvements in civil liberties (Gruen and Klasen, 2012). Yet, dealing with the communist past and the increased valuation and appreciation of these freedoms and liberties appears to be a gradual and unfinished process.

The implications of our paper extend to the present-day debates, resonating with ongoing discussions surrounding free speech, particularly in the context of digital platforms and the challenges they pose to truth dissemination and democratic stability. As democratic decline and curbs on expression continue to raise concerns worldwide, our research adds a crucial dimension to the dialogue on safeguarding freedom of speech, emphasizing its role in maintaining democratic integrity and preserving individual liberties in the face of evolving socio-political landscapes.

As of 2022, 35 out of 202 nations significantly curtail freedom of expression, while government-driven media censorship has intensified in 47 countries since 2012, freedom of expression for women is declining in 34 countries, and media bias is propelling autocratization in 33 countries (Papada et al., 2023). This erosion of civil liberties undeniably contributes to the democratic backsliding, as the level of democracy in 2022 was as low as its 1986 level. In addition, the 21st century marks the emergence of so-called “informational autocrats,” a novel breed of dictators, who boost their popularity via public misinformation and maintain an impression of having freedom of speech in autocratic countries (Guriev and Treisman, 2019; 2022).

Our study offers several opportune avenues for future research. For example, future studies should delve deeper into the mechanisms and circumstances that contribute to the formation and evolution of freedom of speech values, extending the analysis beyond the boundaries of historical political regimes to encompass cultural, social, and technological dimensions. In addition, future studies could consider the horizontal (i.e., peer-to-peer) and vertical (parents and grandparents to children) transmission of freedom of speech values.

Exploring the intricate interplay between digital communication platforms, information dissemination, and the dynamics of free speech in the digital age could unveil new insights into the challenges and opportunities that emerging technologies pose to the foundational principles of democratic societies. Moreover, investigating the factors that can effectively counteract the undervaluation of freedom of speech values stemming from historical repression would provide practical guidance for nurturing democratic ideals in transitional and nascent democratic states.

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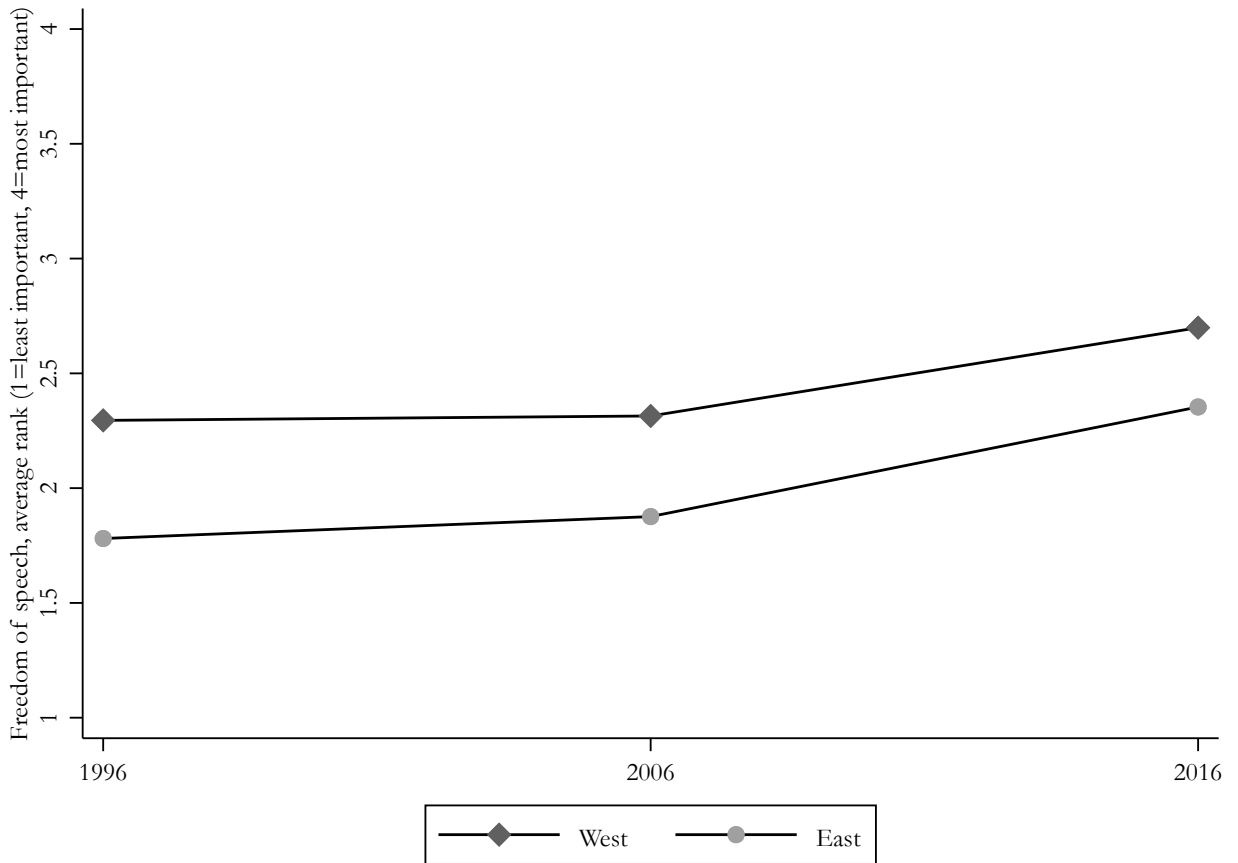
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Appendix

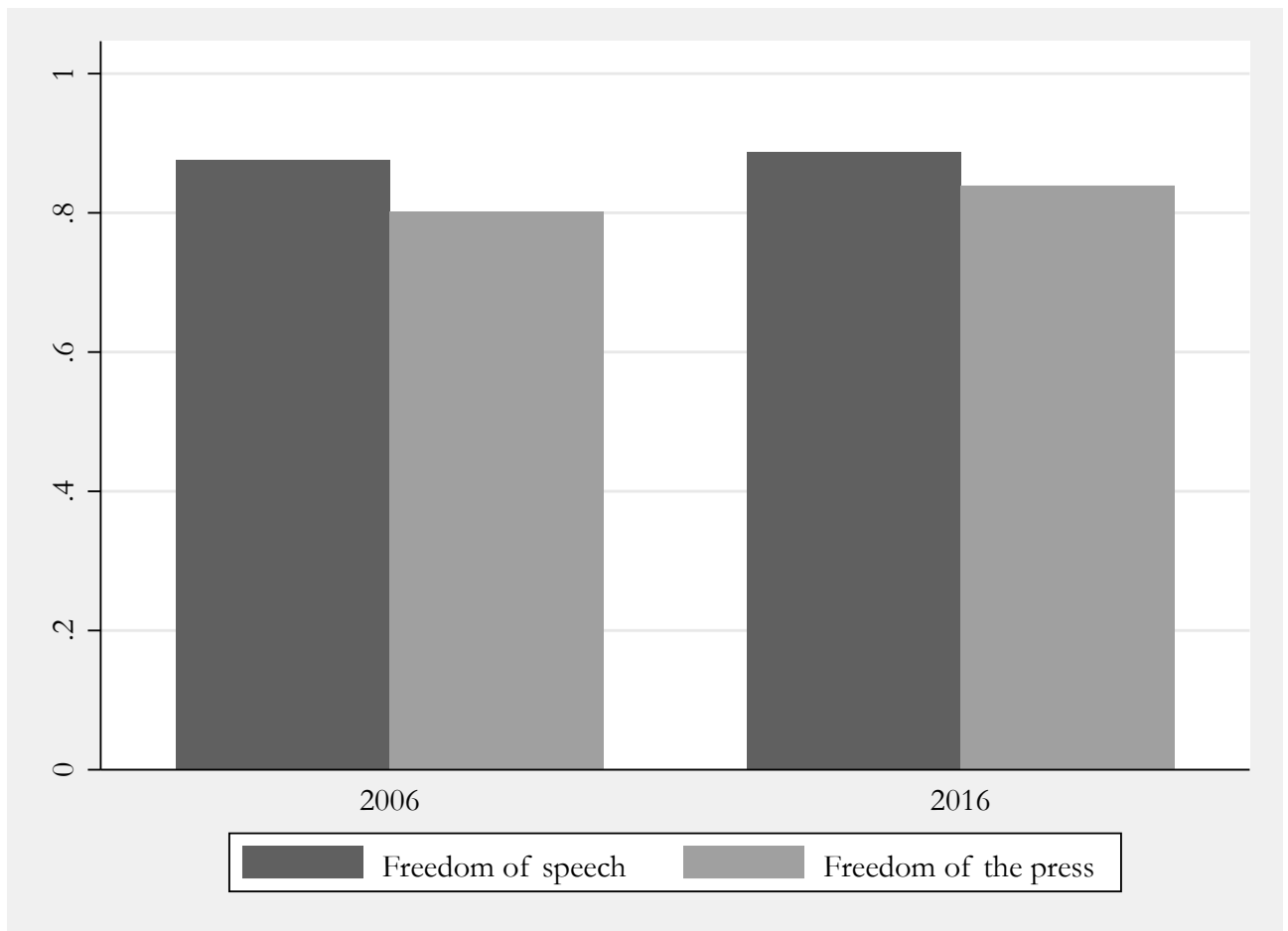
Figure A1: Average importance (rank) given to freedom of speech, SOEP fully balanced sample



Source: Authors based on SOEP v 37.

Notes: East refers to respondents who lived in East Germany in 1989, regardless of where they live now. The figures are based on the fully balanced analysis sample (N=9,585)

Figure A2: Average share of respondents who believe in the importance of freedom of speech and freedom of the press, LITS



Source: Authors based on LITS.

Notes: The bar graph denotes the share of respondents in the 2006 and 2016 LITS who strongly agree or agree that freedom of speech (press) is important for their country.

Table A1: Summary statistics, SOEP fully balanced sample

	Survey Year 1996				Survey Year 2006				Survey Year 2016			
	West in 1989		East in 1989		West in 1989		East in 1989		West in 1989		East in 1989	
	Mean	Std. dev.	Mean	Std. dev.	Mean	Std. dev.	Mean	Std. dev.	Mean	Std. dev.	Mean	Std. dev.
Free speech (ranking, 4=most important)	2.295	1.133	1.781	0.981	2.314	1.147	1.876	1.072	2.699	1.028	2.354	1.059
Age	40.863	12.764	41.489	12.956	50.863	12.764	51.489	12.956	60.863	12.764	61.489	12.956
Biological sex												
Female	0.520	0.500	0.547	0.498	0.520	0.500	0.547	0.498	0.520	0.500	0.547	0.498
Male	0.480	0.500	0.453	0.498	0.480	0.500	0.453	0.498	0.480	0.500	0.453	0.498
Disability status												
No	0.918	0.274	0.940	0.237	0.863	0.344	0.895	0.307	0.795	0.404	0.830	0.376
Yes	0.081	0.273	0.051	0.219	0.135	0.342	0.104	0.305	0.200	0.400	0.167	0.373
No information	0.001	0.022	0.009	0.095	0.002	0.039	0.002	0.041	0.005	0.071	0.003	0.058
Education												
Secondary or less	0.781	0.414	0.664	0.473	0.746	0.435	0.627	0.484	0.740	0.439	0.621	0.485
Post-secondary and tertiary	0.186	0.389	0.316	0.465	0.253	0.435	0.373	0.484	0.260	0.439	0.379	0.485
No information	0.033	0.179	0.021	0.143	0.001	0.022			0.001	0.022		
Migrant background												
No	0.858	0.349	0.962	0.192	0.858	0.349	0.962	0.192	0.858	0.349	0.962	0.192
Direct	0.106	0.309	0.034	0.181	0.106	0.309	0.034	0.181	0.106	0.309	0.034	0.181
Indirect	0.035	0.184	0.004	0.064	0.035	0.184	0.004	0.064	0.035	0.184	0.004	0.064
Household size	3.043	1.284	3.037	1.180	2.682	1.218	2.562	1.080	2.400	1.138	2.136	0.935
Number of children	0.716	0.970	0.733	0.917	0.578	0.947	0.379	0.727	0.282	0.676	0.236	0.628
Marital status												
Unmarried	0.337	0.473	0.316	0.465	0.303	0.460	0.305	0.461	0.309	0.462	0.328	0.470
Married	0.663	0.473	0.684	0.465	0.697	0.460	0.695	0.461	0.691	0.462	0.672	0.470

Employment status												
Not working	0.231	0.421	0.220	0.414	0.334	0.472	0.341	0.474	0.439	0.496	0.462	0.499
Working	0.769	0.421	0.780	0.414	0.666	0.472	0.659	0.474	0.561	0.496	0.538	0.499
Log disposable household income	10.599	0.534	10.423	0.467	10.579	0.614	10.395	0.538	10.523	0.619	10.322	0.551
Municipality size												
Less than 100,000 inhabitants	0.693	0.462	0.709	0.454	0.704	0.457	0.736	0.441	0.711	0.453	0.766	0.424
More than 100,000 inhabitants	0.307	0.462	0.291	0.454	0.296	0.457	0.264	0.441	0.289	0.453	0.234	0.424

Notes: N= 9,585 See Table 1 for variable definitions. The number of observations is as follows: West, N=1,991 for all years; East, N=1,204 for all years.

Table A2: Variable definitions, LITS

Variable	Definition
Free speech	Whether the respondent agrees that free speech is important for their country. The variable is recoded from the original 1-5 agree/disagree scale, whereby 1 = agree and strongly agree; and 0 = disagree, strongly disagree, and neutral.
Free press	Whether the respondent agrees that freedom of the press is important for their country. The variable is recoded from the original 1-5 agree/disagree scale, whereby 1 = agree and strongly agree; and 0 = disagree, strongly disagree, and neutral.
Family repression experience	A variable based on questions 9.25 and 9.26 in the LITS whereby respondents are asked whether the government in their country before 1989/1991 engaged in the persecution, torture, or any acts of violence against the respondent or their family members and whether living in the pre-1989/1991 government in their country, any members of their family (including themselves) experienced any of the following: sent to a labor camp or prison for a political reason; prohibited from practicing own religion; prohibited from moving internally; prohibited from going abroad; prohibited from choosing one's profession; not allowed to study at university; pressured to serve as an informant for the secret police; The variable is coded as 1 if the respondent and their family didn't experience any of these; 2 if they experienced at least one of these; and 3 if they provided no answer/refused to answer.
Age	Age in years
Biological sex	0=Female and 1 = Male
Christian	Whether the respondent identifies themselves with the Christian religion, 1=No, 2=Yes, and 3=Missing information
Migrant background	A variable based on the question: "How long have you lived in this city/town/village?" Respondents who lived their whole life are coded as having no migrant background = 1; those who have moved are coded as having migrant background= Yes. Those who provided no answer are coded as 3.
Number of children	Number of children aged 17 or younger living in the household
Education	1=Post-secondary and tertiary education (including MSc and PhD degrees) and 0 = less than post-secondary education
Work status past 12 months	1= Not working; 2 = Working; 3 = No information
Urban/rural location	1= Rural location; 2 = Urban location
Wealth index	An index based on adding the number of household durables that the respondents have in their household. The goods include a telephone (including a mobile phone), a color TV set; a computer/laptop/tablet; a washing machine; a car (including a company car used for private purposes); a bicycle; and a motorcycle. The index ranges from 0 to 7.
Income tertile	A variable based on the tertile in which the respondent is based on their net household income in PPP. LITS respondents report their income in the local currency. To convert the local units into international dollars, we use the World Bank conversion factors for private consumption. 1=Poorest tertile; 2 = Middle tertile; 3 = Richest tertile; 4 = No information.

Table A3: Summary statistics, LITS sample

Variable	Mean	Std. dev.
Free speech	0.889	0.314
Free press	0.841	0.366
Family repression experience		
No	0.771	0.420
Yes	0.225	0.418
No information	0.004	0.061
Age	48.353	17.357
Biological sex		
Female	0.564	0.496
Male	0.436	0.496
Christian		
No	0.380	0.485
Yes	0.608	0.488
No information	0.012	0.108
Migrant background		
No	0.486	0.500
Yes	0.502	0.500
No information	0.012	0.108
Marital status		
Unmarried	0.417	0.493
Married	0.583	0.493
Number of children in the household	0.638	1.018
Household size	2.875	1.683
Education		
Less than post-secondary	0.594	0.491
Post-secondary and tertiary	0.406	0.491
Work status past 12 months		
Not working	0.295	0.456
Working	0.495	0.500
No information	0.211	0.408
Urban/rural location		
Rural	0.460	0.498
Urban	0.540	0.498
Wealth index	5.124	1.739
Income tertile		
Poorest tertile	0.265	0.441
Middle tertile	0.266	0.442
Richest tertile	0.264	0.441
Income tertile missing	0.206	0.404

Notes: N=41,637 for all variables.