

# Ink and Ire: The Revolutionary Impact of Russian Literature

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## Abstract

Can the pen become the sword? This paper examines how Russian literature, disseminated through *Sovremennik*, a literary journal founded by Alexander Pushkin, a foundational figure in Russian literature, catalyzed violent dissent against the Tsarist regime. Functioning as a platform for political discourse in its later years, *Sovremennik* cultivated a market for revolutionary ideas and served as a gateway to even more radical underground publications. Using a difference-in-differences framework, we estimate the effects of the journal's 1847 editorial transition and shift to politically charged content. Regions exposed to *Sovremennik* after this shift saw a sharp spike in the number of individuals who later engaged in revolutionary activity. Leveraging variation in *Sovremennik* exposure, instrumented by the geography of Pushkin's personal encounters, we show that literary diffusion shaped the subsequent geographic spread and intensity of political violence. Our findings underscore the enduring power of the written word in fueling revolutionary uprising.

“I read everything printed in Sovremennik  
to the last line, more than once...”

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Vladimir Lenin

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## 1. INTRODUCTION

Throughout history, the written word has been believed to be a catalyst for revolutionary change. Marx and Engels' *Communist Manifesto* called for violent uprising; Paine's *Common Sense* is viewed as having galvanized resistance against British colonial rule during the American Revolution (Bailyn, 1967); and Stowe's *Uncle Tom's Cabin* is widely credited with intensifying antislavery sentiment that ultimately culminated in the American Civil War (Parfait, 2016). Even today, the written word is wielded to stir resistance, awaken revolutionary ideals, and inspire political movements worldwide. Yet scholars have long offered a contrasting view, suggesting its influence is limited relative to deeper structural forces – historical, economic, and cultural (Anderson, 1983; Bourdieu, 1979; Williams, 1977). According to this view, written expression serves primarily as a reflection of prevailing cultural and institutional transformations rather than a driving force behind them. This debate can be traced back to at least the contrasting perspectives of Weber (1922) and Marx (1859). For example, Weber (1922) emphasizes the agency of ideas, asserting that "ideas have, like switchmen, determined the tracks along which action has been pushed" (Weber (1922), p. 280).<sup>1</sup> In contrast, Marx's structuralist perspective posits that "the mode of production of material life conditions the social, political, and intellectual life" (Marx (1859), p. 21). While our findings do not dismiss the importance of structural forces, they underscore the complementary power of ideas – transmitted through the written word – not only to catalyze dissent, but to seed the emergence of revolutionary actors themselves. This raises a fundamental question: Can ideas transmitted through the written word help spark the emergence of revolutionaries, eventually setting the stage for violent dissent against the state?

In this paper, we provide systematic empirical evidence that the written word can play a formative role in shaping political violence – not only by fueling violent dissent, but by first fostering the emergence of those who carry it out. Drawing on newly assembled data, we show that the dissemination of Russian literature, widely regarded as one of history's most influential literary traditions, helped catalyze the rise of revolutionary actors and, over time, a wave of left-wing political violence. This literary dissemination likely played a role in the conditions that culminated in the Tsar's assassination and helped sustain revolutionary activity in subsequent decades. These findings echo a broader pattern in which cultural media function as active agents of polit-

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<sup>1</sup>In Weber's metaphor, societal evolution is like trains on predetermined tracks, with "switchmen" redirecting train tracks at critical junctions. Ideas serve as these "switchmen," shaping the specific paths societal actions take.

ical change. Recent research by [Ang \(2023\)](#) provides evidence that a motion picture in the 20th-century United States acted as a catalyst for racial violence. At the same time, [Esposito, Rotesi, Saia, and Thoenig \(2023\)](#) shows that cinema, despite its divisive content, can also contribute to national cohesion. Similarly, [Giorcelli and Moser \(2020\)](#) use opera, a leading cultural medium in 19th-century Italy, to examine the causal relationship between copyright protections and patterns of creative production. Building on this recent scholarship, we extend the analysis to 19th-century Russia, where literature – then the primary cultural medium – served not only as a mirror reflecting societal tensions but also as an active driver of political action and even violence. A remark often attributed to Abraham Lincoln, upon meeting Harriet Beecher Stowe – “So you’re the little woman who wrote the book that made this great war!” – encapsulates the enduring belief that the written word can ignite profound political upheaval ([Newman, 2015](#)). Our findings deepen this insight by suggesting that literature may not only incite violence but also play a formative role in fostering the emergence of revolutionaries. In this respect, cultural media can function both as vehicles for radical ideas and as incubators of political actors.

To trace the impact of Russian literature, we focus on *Sovremennik*, a watershed publication established and championed by Alexander Pushkin, widely considered the Russian Empire’s literary titan ([Debreczeny, 1997](#)). Over three decades, *Sovremennik* transformed substantially, becoming a “thick” literary journal that not only published but also introduced literary icons like Leo Tolstoy, firmly positioning itself at the center of Russian literary and intellectual life. Celebrated for publishing the literary works of luminaries such as Dostoevsky and Gogol, the magazine initially was rooted in a tradition of literature as a purely artistic endeavor. However, following the sudden death of its founder, Pushkin, in a duel – a charismatic figure who had strongly pushed for its early spread – the magazine passed briefly into the hands of Pyotr Pletnyov, a close friend of Pushkin and a relatively apolitical figure who maintained its literary focus. The magazine underwent a major transformation in 1847 under the editorship of Nekrasov and later Chernyshevsky. During this period, *Sovremennik* published works such as Turgenev’s acclaimed short story *Mumu*, widely interpreted as a critique of the cruelty of serfdom, and Chernyshevsky’s *What Is to Be Done?*, a utopian novel that imagined a socialist future and would later influence several generations of political radicals, including Vladimir Lenin. Their tenure marked a decisive turn toward socially and politically radical discourse, exploring topics like the abolition of serfdom and political reforms. The magazine’s radical reputation attracted imperial scrutiny when Dmitry Karakozov, a

26-year-old revolutionary who attempted to assassinate Tsar Alexander II, was reportedly found in possession of a copy of *Sovremennik*. In response, the Tsar issued a decree banning the journal, thus bringing to a close its 30-year run as one of the most influential literary platforms of its time.

This moment in history underscores why *Sovremennik* magazine is uniquely suited to examine how literature may serve as both a precursor to political violence and a crucible for the emergence of revolutionaries. Several other factors also make the context valuable. First is the significance of the magazine as a conduit for disseminating Russian literature across the empire. As [Reitblat \(2009\)](#) notes, “a work that did not first appear in a journal – or at least was not reviewed in one – did not become a literary fact in the second half of the 19th century”. In contrast to Western Europe, where books and newspapers played a central role in shaping public discourse, thick journals in Russia occupied a distinctive position – serving as encyclopedic platforms for literature and social thought. The writings in *Sovremennik* largely escaped outright bans and complete censorship due to their often subtle and carefully crafted critiques, effectively circumventing the censor boards. The magazine rapidly disseminated across the vast expanse of the Russian Empire, from the western reaches of modern-day Poland to the eastern shores of the Sea of Japan, serving as a nationwide platform for the diffusion of Russian revolutionary thought. Gogol, a pioneering literary figure of the era, encapsulated the significance of the medium as follows: “Magazine literature, this lively, fresh, talkative, sensitive literature, is as necessary for the sciences and the arts as communication routes are for the state, as fairs and exchanges are for merchants and trade” ([Gogol, 1952](#)). Finally, the detailed subscription data at the *uezd* (county) level, covering the period when the magazine adopted its most revolutionary stance, offers a unique opportunity to examine whether exposure to Russian literature – via *Sovremennik* – was associated with increased revolutionary participation and political violence across the Russian Empire. The widespread reach of *Sovremennik* magazine, which extended to more than 800 counties across the Russian Empire, offers both breadth and a level of granularity seldom available in other research contexts.

This granular evaluation is made possible by anchoring our study in a large-scale data collection and digitization endeavor. We harness a constellation of historical datasets that depict the intellectual and political landscape of the Russian Empire, the majority of which are being utilized for the first time in economic and quantitative studies. First, we consolidate a trove of literary texts published over the entire course of the magazine’s existence, from its inception in 1836 by Alexander Pushkin to its final issue, which was banned by a decree of the Russian Tsar in 1866.

Using this corpus, we perform a sentiment analysis akin to a historical ‘Google Trends,’ mapping the intellectual currents of the 19th-century Russian intelligentsia during the Golden Age of Russian literature. Second, we map the spatial diffusion of the magazine by detailing subscriber data across the Russian Empire during a politically volatile time from 1859 to 1861 – the zenith of the great reform era – when the magazine adopted its most audacious political posture. To the best of our knowledge, we are the first to chart the geographical dissemination of 19th-century Russian literary culture through the prism of the written word in a systematic empirical analysis. Last, we derive our political violence measure from *The Books of Russian Sorrow*, employing the 14 volumes series to track incidents of left-wing revolutionary violence against the Tsarist regime, thus allowing for examining how exposure to this literature influenced political violence.<sup>2</sup>

A central challenge in isolating the causal effect of literature on political violence is that its dissemination often mirrors pre-existing audience preferences and socio-political conditions. This pattern, where cultural media reflects underlying audience characteristics, has been noted in various domains, including entertainment platforms ([DellaVigna & La Ferrara, 2015](#)), educational programming ([La Ferrara, 2016](#)), cinema ([Ang, 2023](#)), and painting ([Gorin, Heblich, & Zylberberg, 2025](#)). Similarly, in our context, the diffusion of Russian literature through the *Sovremennik* magazine is likely endogenous. First, penetration of the magazine is not likely to be randomly assigned across space: it likely disproportionately reached counties with higher literacy rates, active intellectual circles, or latent revolutionary leanings. This selection implies that observed differences in revolutionary outcomes may reflect pre-existing ideological tendencies rather than the causal effect of exposure, potentially biasing OLS estimates upward. Second, our subscription-based measure likely understates true exposure, omitting informal circulation through shared copies, reading circles, and libraries. This misclassification—treating partially exposed areas as unexposed—would bias estimates toward zero. The net bias in OLS estimates thus likely depends on the relative strength of these forces: upward bias from selection and downward bias from measurement error.

To speak to these concerns, we implement a difference-in-differences design comparing revolutionary births before and after a discrete editorial shift at *Sovremennik*. We exploit variation

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<sup>2</sup>We also draw on complementary sources of political violence, including existing datasets on peasant unrest, which we do not find to be systematically correlated with exposure to the magazine ([Dower, Finkel, Gehlbach, & Nafziger, 2018](#); [Finkel, Gehlbach, & Olsen, 2015](#); [Hartwell, 2023](#); [Kofanov, 2020](#)). In contrast, we focus on ideologically motivated forms of dissent, such as the emergence of revolutionaries and targeted political violence, by figures like Yegor Sazonov, Dmitrii Bogrov, and Stepan Balmashov, who came from educated backgrounds and were more likely to have been influenced by the literary currents of the time.

in county-level exposure around the transition from Pyotr Pletnyov, a politically neutral editor and associate of Pushkin, to a more radical team led by Nekrasov and Panaev. By controlling for county and year fixed effects, our difference-in-differences design isolates the effect of *Sovremennik* exposure by removing time-invariant county-level characteristics and national shocks. The timing of this editorial shift, from a primarily literary orientation to a more politically engaged agenda, coincides with a notable rise in the number of revolutionary births. Specifically, we observe an increase of approximately 0.3 additional revolutionary births per million population per year in counties exposed to *Sovremennik*.

Under the parallel trends assumption, this design yields internally valid estimates of the causal impact of politically charged literary content on subsequent patterns of revolutionary activity. Several pieces of evidence support the credibility of this identification strategy. First, we find no evidence of differential pre-trends between counties with varying levels of *Sovremennik* exposure. Second, we implement the Synthetic Difference-in-Differences estimator proposed by [Arkhangelsky, Athey, Hirshberg, Imbens, and Wager \(2021\)](#), which offers a principled way to address potential trend violations by constructing a weighted synthetic control group that closely tracks the treated group's pre-treatment path. In doing so, it improves the comparability of treatment and counterfactual outcomes, and increases robustness to latent violations of the parallel trends assumption. Third, to assess the robustness of our event study estimates to potential violations of parallel trends, we follow the procedure recently outlined by [Rambachan and Roth \(2023\)](#). By estimating and removing a linear pre-trend, we allow for some deviations from the identifying assumption, under the premise that such trends would have continued in the absence of treatment. This provides a more conservative lens through which to interpret the dynamic treatment effects. Last, we conduct a randomization inference test by repeatedly scrambling country assignments and re-estimating our treatment effect on placebo samples. The distribution of estimated effects under this placebo exercise lies tightly around zero, with the true estimate lying well in the upper tail. Collectively, these exercises strengthen confidence in the internal validity of our identification strategy.

To estimate the subsequent effect of the magazine on political violence, we digitize and compile detailed records of Alexander Pushkin's interactions with the public, drawing on the comprehensive archival work presented in *Pushkin and His Entourage* by [Chereiskii \(1988\)](#). Covering around 2,500 verified interactions with individuals across the empire, this dataset captures

Pushkin's cultural footprint before *Sovremennik*'s shift toward political themes.<sup>3</sup> When details on Pushkin encounters are unavailable in this source, we use open-access biographical data linked to Wikipedia entries, which has recently become a widely used source in economic history and cultural economics (Becker & Voth, 2023; Borowiecki, Kristensen, & Law, 2025; Cinnirella, Hornung, & Koschnick, 2024).<sup>4</sup> Despite Alexander Pushkin's untimely death in a duel just 13 months after founding the magazine, his extensive social network across the Russian Empire offers a valuable lens through which to trace the early diffusion of *Sovremennik*. Pushkin's letters reveal deliberate attempts to promote his magazine, showcasing how he actively engaged with the public to extend its reach, establishing an early cultural presence that potentially facilitated long-term patterns of literary diffusion.

However, his prominence may have drawn individuals with pre-existing loyalties or opposition to the Tsarist state, raising concerns of endogeneity. To address this, we employ an instrumental variable strategy that uses the locations of individuals with one-off encounters with Pushkin—coded via a GPT-based text annotation protocol (Ash & Hansen, 2023)—as an instrument for the magazine's dissemination. These encounters took place prior to the magazine's political shift and are not systematically associated with observable pre-treatment county traits, including economic conditions, cultural infrastructure, or past unrest. Nor are they correlated with other historical networks (e.g., Catherine the Great's network) or transport connectivity based on digitized mid-19th century road maps (Becker, Pfaff, Hsiao, & Rubin, 2023). The IV estimates suggest that a 10% increase in *Sovremennik* subscriptions is associated with a 7% increase in the probability of anti-Tsarist violence. Results are robust to alternative specifications, economic and cultural controls, spatial adjustments, placebo exercises and randomization inference.

While data limitations prevent a comprehensive exploration of mechanisms, the evidence points to at least one prominent channel. Specifically, *Sovremennik* seems to have cultivated a market for revolutionary ideas by simultaneously increasing the supply of such ideas and cultivating a readership inclined toward increasingly subversive literature. This is supported by the emergence

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<sup>3</sup>Given Pushkin's profound influence on Russian cultural life and literature, both as a writer and a public figure, the collection *Pushkin and His Entourage* by Chereiskii (1988) represents a meticulous scholarly endeavor to document interactions involving Pushkin with the public, ranging from his formal meetings to casual exchanges, with individuals spanning the social spectrum – from prominent intellectual to ordinary citizens. By cross-referencing archival materials such as original letters, diaries, interviews with descendants, and government records, Chereiskii (1988) documents and authenticates about 2,500 encounters of the public with Pushkin. The collection, comprising textual accounts of Pushkin's meetings, plays a role in preserving and providing context for the wide-ranging societal interactions that characterized his life and influence.

<sup>4</sup>As a baseline, we include all individuals for whom either place of residence or place of birth information is available. Our results remain robust when we restrict the sample to individuals with a known place of birth.

of banned radical publications in counties with higher *Sovremennik* subscriptions, suggesting the magazine acted as a gateway for even more radical thought. This environment also fostered the readership of other literature, such as Dostoevsky's magazine *A Writer's Diary*. Alongside influencing demand, *Sovremennik* may have expanded literary supply. Geocoding the birthplaces of Russian writers over time and linking them to the magazine shows that its spread coincided with the rise of a new wave of writers, including those advocating violent political change. This dual effect of *Sovremennik* in boosting both demand (readers) and supply (writers) for the written word likely intensified the influence of politically charged texts. Other potential mechanisms, such as improvements in literacy, heightened political participation, or political violence by less-educated rural populations, do not appear to account for the observed results.<sup>5</sup>

### 1.1. Related Literature

This paper contributes to ongoing debates on the drivers and consequences of cultural change ([Acemoglu & Robinson, 2012](#); [Alesina & Giuliano, 2010](#); [Bazzi, Fiszbein, & Gebresilasse, 2020](#); [Blanc, 2023](#); [Blanc & Kubo, 2024](#); [Giuliano & Nunn, 2021](#); [Maloney & Valencia Caicedo, 2022](#); [Michalopoulos & Xue, 2021](#)).<sup>6</sup> [Bisin and Verdier \(2024\)](#) model cultural change as a gradual process shaped by the accumulation of “civic capital,” which in turn enables institutional adaptation. In contrast, [Acemoglu and Robinson \(2024\)](#) emphasizes “cultural configurations” that can shift more abruptly and lead to rapid transformation. Our study speaks to both perspectives by showing how literary circulation can shape patterns of political mobilization. By offering empirical evidence from a formative period in global literary history, we contribute to recent efforts to integrate the written word into economic analysis ([Bourguignon, Dixit, Leruth, & Platteau, 2024](#)), examining how Russian literature may have influenced state-society relations.

Second, our paper relates to the literature on mass media and conflict. We contribute to the existing body of literature by systematically exploring the impact of literature, an art form long thought to shape politics, on the origins and manifestation of political violence. While previous research has primarily focused on the impact of mass media, such as radio and television, on

<sup>5</sup>Violent attacks against the state in this era was largely driven by members of the educated non-noble class, such as Dmitrii Bogrov and Stepan Balmashov. This pattern is supported by our data on the birthplaces of revolutionaries, which show that such individuals disproportionately engage in political violence. Consistent with this, the diffusion of the magazine is not correlated with peasant political violence, aligning with a broader literature suggesting that revolutions are often spearheaded and even carried out by individuals with high levels of human capital ([Jha & Wilkinson, 2023](#); [Squicciarini & Voigtlander, 2015](#)).

<sup>6</sup>For a recent review of this burgeoning literature, please refer to [Fernández \(2025\)](#).

conflict (Adena, Enikolopov, Petrova, Santarosa, & Zhuravskaya, 2015; DellaVigna, Enikolopov, Mironova, Petrova, & Zhuravskaya, 2014; Enikolopov, Makarin, & Petrova, 2020; Voigtländer & Voth, 2024; Yanagizawa-Drott, 2014), as well as on the role of social networks (Bursztyn, Egorov, Enikolopov, & Petrova, 2019; Satyanath, Voigtländer, & Voth, 2017), schooling (Cantoni, Chen, Yang, Yuchtman, & Zhang, 2017; Voigtländer & Voth, 2015), or film (Ang, 2023; Esposito et al., 2023), our research redirects attention to the role of the printed word, an often-neglected pre-mass media source of ideological dissemination, showing how literature can lead to violent political repercussions. Our study contributes to this perspective by showing that Russian literary media helped mobilize dissent and shape revolutionary dynamics, underscoring the written word's role in political transformations.

Third, our study contributes to the foundational dialogue on the forces that shape pivotal moments in world history: structure or agency. This debate often pits proponents of deep structural forces – economic, political, and the like (Anderson, 1983; Bourdieu, 1979; Moore, 1993; Skocpol, 1979) – against those who emphasize the agency of individual actors or ideas (Mahoney & Snyder, 1999). While we acknowledge the power of structure, our research complements with a burgeoning body of empirical work that supports the notion that ideas have played a pivotal role in shaping the trajectories of nations. Prior work suggests a link between Enlightenment thought and industrialization (Mokyr, 2005, 2011), with empirical evidence showing that exposure to Diderot's encyclopedia predicts later development (Squicciarini & Voigtländer, 2015).<sup>7</sup> We contribute to this literature by documenting how the diffusion of a literary platform may have facilitated some of history's most significant political transformations, notably the collapse of the Tsarist regime and the subsequent Communist Revolution.

Last, we complement recent work on the institutional legacies of Russia's Imperial past (Bugle & Nafziger, 2021; Markevich & Zhuravskaya, 2018; Zhuravskaya, Guriev, & Markevich, 2021) by highlighting the role of cultural transmission through politicized print media. In this light, the *Sovremennik* corpus functions as a historical "Google Trends," reflecting the intellectual climate preceding revolutionary change. Our analysis adds a cultural perspective to the broader literature on political unrest in the Empire, which has examined the roots of anti-Jewish pogroms (Grosfeld, Sakalli, & Zhuravskaya, 2020), peasant revolts (Dower et al., 2018; Finkel, Gehlbach, &

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<sup>7</sup>More recent empirical work has also emphasized the important role of ideas and educated elites driving political and economic change (Acemoglu & Robinson, 2024; Bai & Jia, 2016; Bai, Jia, & Wang, 2024; Jha & Wilkinson, 2023; Maloney & Valencia Caicedo, 2022).

Kofanov, 2017; Kofanov, 2020, 2024), and violence by left-wing groups (Hartwell, 2022; Zimmerman & Grigoriadis, 2024). Much of this important work has focused on institutional and economic determinants of unrest. We contribute to this literature by showing that exposure to print culture can be linked to political violence.

The remainder of the paper is structured as follows. Section 2 provides historical context. Section 3 describes the data. Section 4 presents the event study. Section 5 outlines the IV strategy and results. Section 6 explores mechanisms. Section 7 concludes. Appendix A (at the end of the paper) contains additional figures and robustness checks. Data sources and construction details appear in [Online Appendix B](#).

## 2. HISTORICAL BACKGROUND

**The Golden Age of Russian Literature.** The Golden Age of Russian Literature, though brief, is distinguished by an extraordinary surge in literary output, with many of its most significant works produced during the lifetime of one of its most celebrated figures, Leo Tolstoy (1828-1910). As an integral part of the European Enlightenment tradition, Russian literature of this time was characterized not only by its formal and poetic inventiveness but also by its moral concerns and preoccupation with social injustice. Oftentimes, it served as an arena for public debates in a region plagued by stringent censorship, a legacy predating the establishment of a well-defined literary tradition and even the Russian Empire itself.

Alexander Pushkin (1799–1837), often hailed as the father of the Golden Age, established a literary tradition that was subtle in its critique yet deeply reflective. Pushkin’s writing evolved from an early phase marked by bold rhetoric to later works characterized by refined allegory and stylistic sophistication, underscoring his enduring commitment to literary artistry. This complexity helped define a mode of literary engagement that would shape Russian literature for decades to come (Binyon, 2007). Importantly, Pushkin was not only a pioneer in this literary mode but also a key promoter. Less than a year before his abrupt death, he founded one of Russia’s most important magazines, *Sovremennik*. As one observer puts it, “Probably no other magazine in Russia influenced the country’s literary and social life as much as Sovremennik (‘Contemporary’). Established by one of the most influential Russian poets, Alexander Pushkin, in 1836, it published the first works of Ivan Turgenev and Fyodor Dostoevsky. Sovremennik discovered Leo Tolstoy” (Timofeychev, 2018). By the 1840s and 1850s, following some relaxation of censorship constraints,

Russian literature increasingly addressed moral and political themes. Writers began to navigate remaining restrictions through allegory and irony. This period coincided with the institutional rise of the “thick journal” as a key vehicle for both literary expression and ideological engagement. The momentum culminated in the 1860s with the emergence of a more overtly political activism of socialist ideals, as reflected in the early writings of Dobrolyubov and Chernyshevsky. By the 1860s, literature had become a primary arena for public discourse in the Russian Empire – a role institutionalized and amplified by journals such as *Sovremennik*. This shift coincided with the emergence of a new generation of writers who began experimenting with socialist themes in print, amid a more permissive media environment following the death of Tsar Nicholas I.

**“Sovremennik” and Magazine Literature.** The *Sovremennik* magazine, conceived by Alexander Pushkin as his grand project to disseminate Russian literature throughout the empire, was founded just 13 months prior to his death ([Izmailov, 1969](#)). As a result, only four issues were published during Pushkin’s lifetime, with the fifth dedicated to his demise. Pushkin’s letters indicate that he actively promoted the magazine among his acquaintances (see Panel B of [Table A3](#)), though its initial reception was modest compared to its later prominence. Over time, however, *Sovremennik* would grow in stature. Published out of Saint Petersburg and distributed across the empire by subscription, it became a central channel for reaching the educated elite, including members of the gentry and progressive intelligentsia. In the decades following Pushkin’s death, the magazine became emblematic of Russia’s thick journal tradition – a uniquely Russian literary form that blended serialized fiction, criticism, and commentary, and gradually emerged as a key forum for public discourse. As Viktor Shklovsky noted, literary journals served as a “link between the center and the provinces,” connecting the imperial capital to their distant peripheries ([Shklovsky, 1928](#)). Following Pushkin’s death in 1837, the editorship passed to Pyotr Pletnev, a trusted confidant and literary peer to whom Pushkin had dedicated a poem. Pletnev managed the journal until 1846, maintaining its literary tone while navigating an environment of constrained press freedoms. In 1847, the magazine was sold to Nikolay Nekrasov and Ivan Panaev, ushering in a distinct and crucial shift from discussions on fashion and art to vocal and even vigorous critiques of social injustices across the Empire. Nekrasov’s poetry had a distinct social orientation, and under his editorship, the magazine drifted towards more radical positions.<sup>8</sup> This trend intensi-

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<sup>8</sup>At this time, a second faction of liberal writers, including Turgenev and the early Leo Tolstoy, contributed to *Sovremennik*, coexisting with radical socialists. They addressed themes like injustice, often in a more literary style. However,

fied when Nekrasov brought Nikolay Chernyshevsky, a member of the revolutionary-democratic movement, into the magazine's management. While primarily a literary figure, Chernyshevsky's influence, along with that of Sovremennik, is thought to have reached beyond the realm of letters.<sup>9</sup> In 1866, Dmitry Karakozov, a young radical, attempted to assassinate Tsar Alexander II. Shortly thereafter, Sovremennik was shuttered by imperial decree – a move widely interpreted as a reaction to its increasingly politicized content ([Kucherov, 1953](#)). This event did not mark the end of *Sovremennik*, and its printed copies continued to be percolate years later. Vladimir Lenin, born four years after the magazine's closure, considered Chernyshevsky and his works published in *Sovremennik* as his key influences: "My favorite author was Chernyshevsky. I read everything printed in Sovremennik to the last line, more than once... He plowed me up more profoundly than anyone else" ([Valentinov, 1968](#)).

More broadly, magazines played a central role in the cultural infrastructure of the Russian Empire, shaping not only literary production but also patterns of readership and political engagement. In Imperial Russia, unlike in Western Europe, serialized periodicals, particularly "thick journals", served as the primary medium for literary and intellectual engagement, often eclipsing books and newspapers in cultural influence. During the mid-to-late 19th century, most literary works were first published in magazines and only later released as standalone books, if at all ([Reitblat, 2009](#)). As a result, for many readers, especially the educated elite, periodicals were the main gateway to literature. Journals like *Sovremennik* functioned not merely as literary platforms but as powerful institutions that conferred cultural legitimacy. A work that had not appeared in or been reviewed by one of these journals was unlikely to be recognized as a "literary fact" in the cultural landscape of 19th-century Russia. Importantly, journals helped compensate for the underdevelopment of political life by providing forums for public discussion and collective identification. As one contemporary observer noted, these journals cultivated a new type of audience: "in the 1860s, as if by some miracle, there suddenly emerged an entirely new, unprecedented reader — with social feelings, social thoughts and interests, who wanted to reflect on public affairs and to learn what he wanted to know" ([Shelgunov, Shelgunova, & Mikhailov, 1967](#)).

By the 1860s, journals had become deeply embedded in everyday cultural practices. In 1860, for instance, one of Moscow's largest libraries reported that literary journals accounted for 43.2%

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by the 1860s, these liberal voices were increasingly overshadowed by more radical writers within the magazine, reflecting the growing influence of socialist and revolutionary ideas.

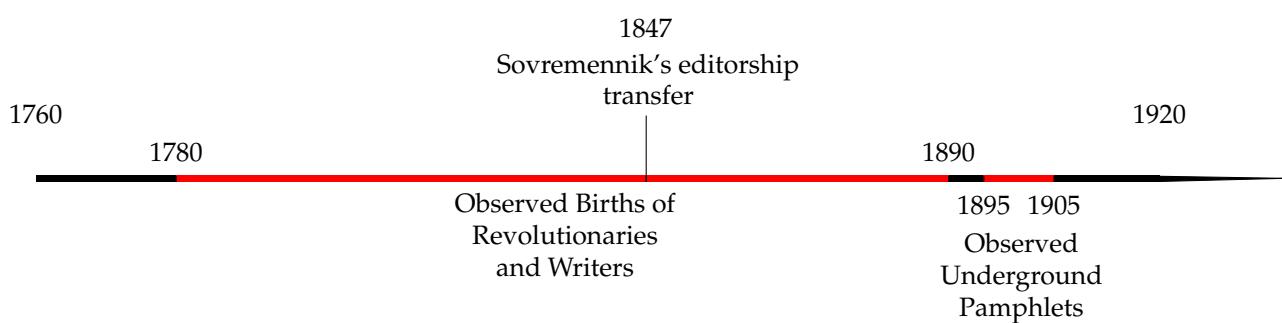
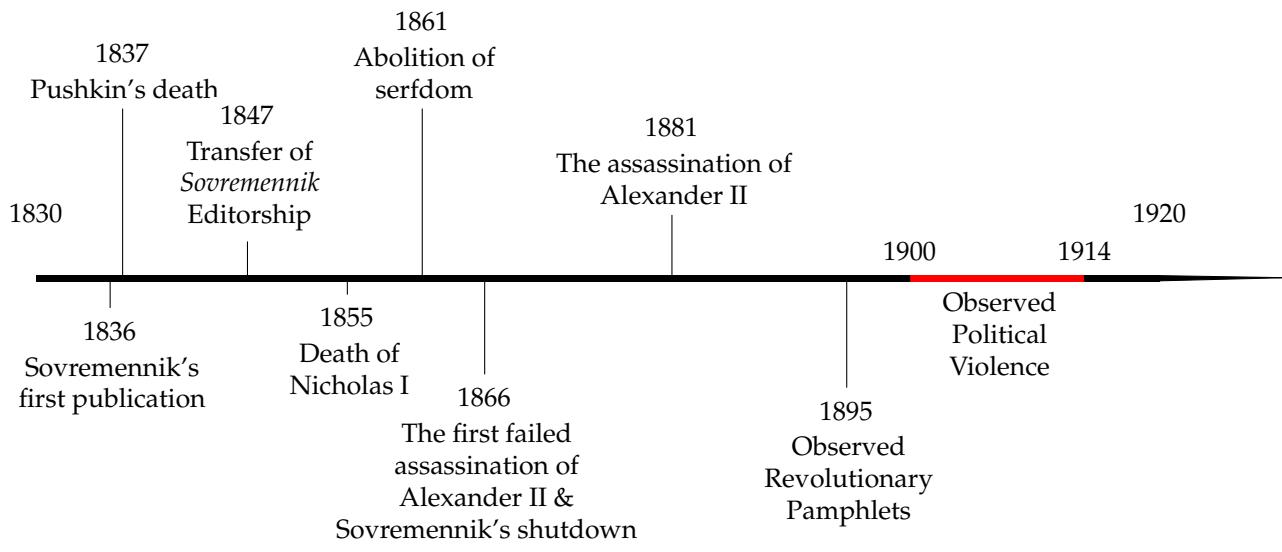
<sup>9</sup>Vladimir Lenin also called Chernyshevsky "the greatest and most talented representative of socialism second only to Marx." ([Lenin, 1970](#)).

of all lending ([Vestnik, 1860](#)). The cumulative print of literary journals was roughly 30,000 copies ([Reitblat, 2009](#)). In the this period, *Sovremennik* maintained a dominant position in the market, both in readership and in cultural influence, making it a valuable lens through which to trace the contours of elite discourse in late Imperial Russia.

**Political violence in Russian Empire.** Political violence became a recurrent factor in the Russian Empire following the unsuccessful assassination attempt by Karakozov, which triggered a wave of conservative reaction. As noted earlier, this reaction included the closure of several prominent journals and the imposition of tighter press controls. In response, the crackdown appears to have intensified political mobilization among radical-left revolutionaries, who increasingly relied on underground literature and banned publications. *Sovremennik*, despite its formal suppression, remained accessible in private collections and intellectual networks, and continued to circulate as part of this subterranean intellectual world ([Offord, 1979](#)). Chernyshevsky's writings, which had appeared in *Sovremennik*, played a lasting role in shaping the worldview of the emerging radical left. Over time, activists associated with the populist *Narodnik* movement grew disillusioned with peaceful strategies for reform ([Pipes, 1974](#)). This disillusionment culminated in the formation of a new group, *Narodnaya Volya* (People's Will), in 1879, which adopted political violence as a core tactic. Just fifteen years after Karakozov's failed attempt, members of this group succeeded in assassinating Emperor Alexander II in 1881—a moment widely viewed as a turning point in the protracted confrontation between revolutionaries and the Tsarist regime ([Ascher, 1988](#)).

FIGURE I: Sovremennik: Inception, Ban, and Key Events

Panel A: Timeline of Key Events



**Note:** The figure outlines the key historical events and context of our study, including the period from the first publication of *Sovremennik* to Dmitry Karakozov's failed assassination attempt on the Tsar, which ultimately led to magazine's ban. The figure also highlights the coverage window of our data in Panel B and shift of editorship to the relatively apolitical Pyotr Plekhanov to Nikolay Nekrasov and Ivan Panaev.

The political violence reached its zenith in the early 20<sup>th</sup> century, marked by the emergence of the combat organization of the Socialist-Revolutionary Party and the intensifying struggle between the secret police (*Okhrana*) and clandestine revolutionary organizations. High-profile victims of bombings and shootings included Grand Duke Sergei Alexandrovich Romanov, several Ministers of Foreign Affairs and Interior Ministers, and thousands of lower-ranking government

officials (Radkey, 1958). It is in this context that one of the main sources used in this study, the *Book of Russian Sorrow*, becomes relevant. Published by political opponents of the left revolutionaries and led by Vladimir Purishkevich, these fourteen volumes—released serially from 1908 to 1914—catalog and describe the deaths of Tsarist officials, detailing the place, date, and circumstances of their killings, along with their professional positions, based largely on newspaper reports. The volumes sought to portray these officials as martyrs who “died for the Tsar and for their faith” and as defenders against “the internal enemy.” This source provides an extensive geolocated catalog of political violence, enabling a detailed analysis of the spatial distribution of revolutionary attacks across the Russian Empire. To contextualize this period of political unrest, [Figure I](#) presents a timeline of the key historical events relevant to the period under investigation and observational period of our key outcome variables, while [Figure A1](#) offers examples of a *Sovremennik* magazine issue and an excerpt from the *Book of Russian Sorrow*.

### 3. DATA AND DESCRIPTIVE STATISTICS

**Sovremennik Corpus.** To trace the trajectory of discourse over the 30-year period of *Sovremennik*'s publication, we compiled and processed the majority of the texts from the magazine, constructing a comprehensive corpus for descriptive analysis.<sup>10</sup> Our primary data grouping is by year of publication, resulting in a time series that captures the evolution of themes within the magazine. To categorize the content based on its proximity to various topics, we employ multiple text analysis methods. Our baseline approach combines dictionary-based techniques with word embedding methods, a methodology that has recently gained considerable traction in economic literature ([Ash & Hansen, 2023](#)). To summarize, our methodology relies on a set of concise, thematically organized dictionaries that capture references to democratic institutions, economic structure, and the contemporary debate around serfdom and the peasantry. To ensure the robustness of our corpus, we validated it by examining the frequency of the most common functional words in Russian following recommended practices in [Gentzkow, Kelly, and Taddy \(2019\)](#). As a subsequent step, we trained a *word2vec* model on the *Sovremennik* text corpus ([Mikolov, Chen, Corrado, & Dean, 2013](#)). Utilizing this model, we expanded our initial dictionaries by incorporating additional terms with the highest cosine similarity to our original dictionaries. This process re-

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<sup>10</sup>In parallel, [Vozhik \(2023\)](#) digitized issues of *Sovremennik* from the post-1847 period. Their findings are consistent with the patterns we document and are available upon request. For a more detailed discussion of the magazine's content and structure, we refer readers to their study.

fined our thematic categorization, ensuring a more robust analysis of the socio-political discourse within the magazine. [Table A1](#) in Appendix A illustrates two representative excerpts from *Sovremennik*: one from its early apolitical phase under Pushkin's editorship and another from its later period of political activism. These excerpts highlight the significant shift in tone and content as the magazine evolved from Pushkin's time to its most radical stance in later years. The first excerpt is from Gogol's *The Nose*, showcasing absurdist satire through the surreal story of a nose escaping its owner. The second passage comes from Chernyshevsky's *What Is to Be Done?*, widely regarded as influential in radical political discourse. The novel centers on Vera and sparked debate on revolution and reform; Lenin described it as significantly impacting his political thinking ([Valentinov, 1968](#)).

**Data on Sovremennik Subscriptions.** Our explanatory variable details subscriber numbers at the county level, covering more than 800 counties throughout the Russian Empire. This crucial dataset originates from the *Sovremennik* authors, with Nikolay Chernyshevsky publishing these figures in several issues from 1860 to 1862. For the years 1859, 1860, and 1861, the aggregated annual subscriber counts were 5,500, 6,598, and 6,658, respectively. Chernyshevsky compiled this data from the Saint Petersburg post office's newspaper dispatch list. His objective, akin to our analysis but constrained by the statistical tools available at the time, was to evaluate regional 'reading enthusiasm' and the journalistic impact of the magazine. We geocoded the counties integrating it with the map provided in [Kessler and Markevich \(2017\)](#).

**Wikidata.** We draw on the [Wikidata](#) project to construct a geocoded dataset of individuals labeled as revolutionaries who were born in the Russian Empire from 1700 onward. These individuals constitute one of our key outcome variables. Wikidata, maintained by Wikimedia, offers structured, open-access biographical data linked to Wikipedia entries and has recently become a widely used source in economic history and cultural economics ([Becker & Voth, 2023; Borowiecki et al., 2025; Cinnirella et al., 2024](#)). Using SPARQL, its native query language, we extract each revolutionary's name, birthplace, birth and death years, and geographic coordinates where available. While not exhaustive, Wikidata serves as a useful proxy for historical prominence: inclusion typically reflects sustained public or scholarly recognition, such as coverage in encyclopedias, biographical dictionaries, or academic references. In this context, individuals labeled as revolutionaries in Wikidata are likely to represent those whose actions were salient enough to leave a historical

trace. Building on this, we expand the dataset to include over 20,000 individuals across more than 1,000 professions. Writers are the most frequent category, followed by politicians, painters, poets, university teachers, actors, translators, journalists, military officers, historians, scientists, and composers. We group occupations into broader categories as controls to robustly analyze a dataset of publicly recognized individuals from Wikidata, serving as a proxy for elite activity and cultural production over time and space.

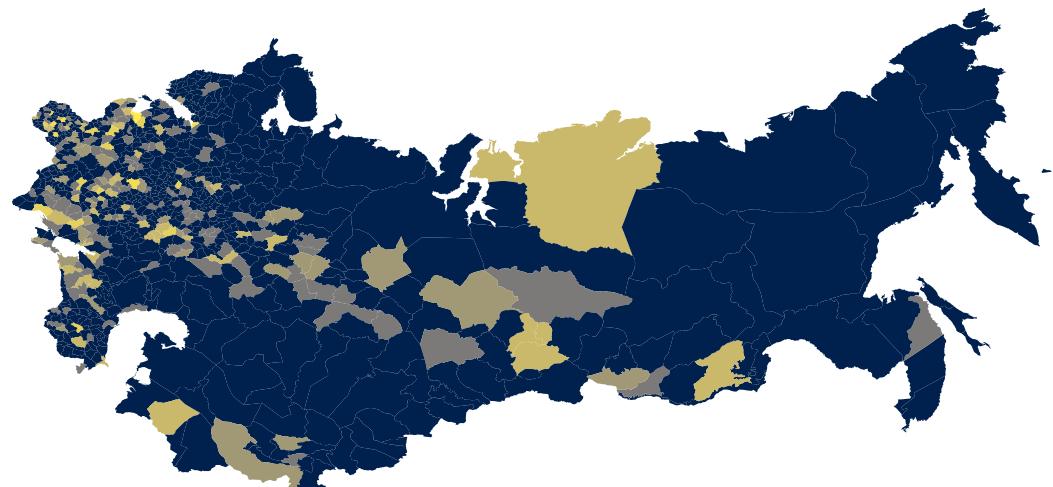
**Data on Political Violence.** We digitize and consolidate data on political violence from the *Book of Russian Sorrow*, a compilation of biographical articles about victims of radical left attacks. The victims listed include state officials of varying ranks, from the emperor to the lowest police ranks. An illustration of one such attack can be viewed in [Figure A2](#) in Appendix A. To extract and geolocate data on these attacks, we processed the texts from the collection, isolating paragraphs that describe acts of political violence. We then used the OpenAI API to extract detailed information on attacks, manually validating each attack and geocoding the locations. This novel dataset comprises over 600 attacks geographically distributed across the Russian Empire, providing a detailed view of political violence. Panel A of [Figure II](#) presents a detailed mapping of the early 20th-century attacks. The spatial distribution in Panel B shows that these incidents cluster in areas with higher magazine circulation, suggesting a potential link between the spread of *Sovremennik* and the geographic diffusion of violent dissent. The corresponding temporal trends on attacks against the Tsar are displayed in [Figure A3](#) (Appendix A).<sup>11</sup>

**Revolutionary Pamphlets.** We argue that *Sovremennik* served as a gateway to more revolutionary banned underground literature. This literature frequently called for direct action and defiance against Tsarist authorities. To provide an illustration, [Table A2](#) in Appendix A presents a representative excerpt from banned underground pamphlets, showcasing how these texts encouraged rebellion against the Tsar and shaped the political discourse of the era. The analyzed pamphlets include materials actively used during the early mass strike movements and labor conflicts in Russian industry. These agitation materials, including leaflets and proclamations, were central to revolutionary efforts in late Imperial Russia. By directly targeting workers, they helped chan-

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<sup>11</sup>While our main results pertain to revolutionary violence, we also examine a distinct form of political violence, peasant unrest. For this, we draw directly on archival datasets on peasant uprisings that have been used in prior studies ([Finkel et al., 2015](#); [Hartwell, 2023](#); [Kofanov, 2020](#)). We find no systematic relationship between exposure to the magazine and this category of unrest.

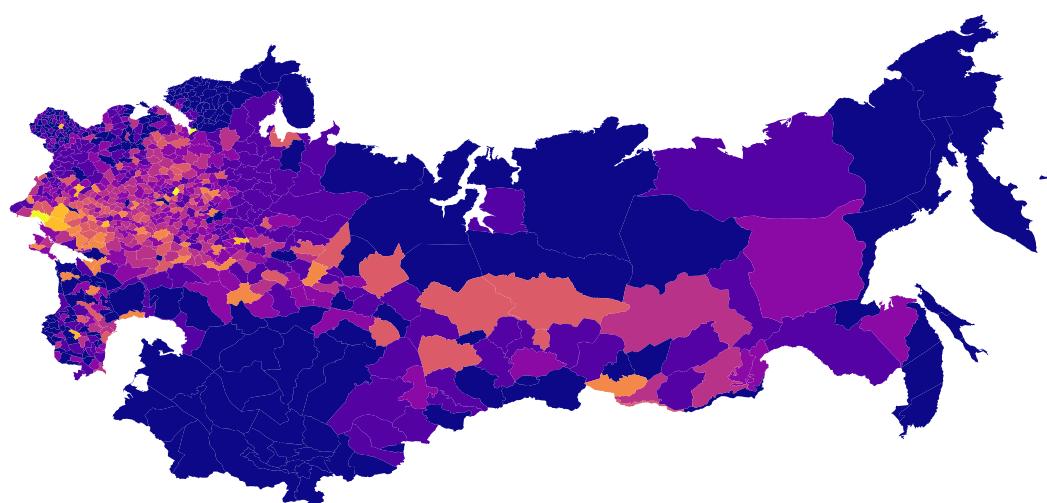
FIGURE II: Geographic Distribution of Violent Attacks and Magazine Subscriptions



Political Violence against the State

0	(1 – 2]	(5 – 10]	(15 – 32]
(0 – 1]	(2 – 5]	(10 – 15]	

(A) The Number of Violent Attacks against the State



Avg. Subscribers, 1859–1861

0	(2 – 5]	(10 – 20]	(50 – 100]
(0 – 2]	(5 – 10]	(20 – 50]	(100 – 1528]

(B) The Average Number of Subscriptions of the "Sovremennik" Magazine

**Note:** Panel A illustrates the geographic distribution of the number of violent attacks against the state, based on data extracted from *The Book of Russian Sorrow*. Panel B illustrates the geographic distribution of the number of subscribers to *Sovremennik*, averaged between 1859, 1860, and 1861. The variation is shown at the county (uezd) level.

nel discontent into organized labor protests, fostering a more cohesive and enduring resistance against the Tsarist regime.

**Data on Pushkin Encounters.** To construct our instrumental variable, we draw upon a unique academic monograph that meticulously documents approximately 2,500 of Pushkin’s encounters. These interactions, derived from historical written records, encompass a wide range of connections, from prominent and well-documented relationships to brief and incidental meetings. The following examples illustrate some of these ‘incidental meetings’, which we call ‘one-off’ as recorded in the monograph:

- LARIN Ilya (Illarion) Ivanovich - a retired low-rank artillery officer in Kishinev. Played the role of a buffoon in the society of officers, among whom Pushkin was also present.
- PETERSON - St. Petersburg piano tuner. Feb. 12. 1837 The guardianship paid him the poet’s debt of 85 rubles.<sup>12</sup>

We illustrate how these one-off encounters were identified by employing the GPT large language model, with results validated against alternative models (e.g., [Lewis et al. \(2019\)](#)) and corroborated through manual checks. The baseline classification scheme of these one-off encounters is presented in Panel A of [Table A3](#). The nature of such one-off encounters is well approximated by the length of the article, which we use in our robustness checks. To extract geographical variation from this database and construct our instrumental variable, we adopted an approach inspired by the literature on early adopters instruments, such as in [Enikolopov et al. \(2020\)](#). Because the primary source document mainly listed places of residence and meetings, we took an additional step to geocode Pushkin’s encounters. For each of the 2,500 individuals, we recorded the place of birth when available and used it as the location. When the birthplace could not be determined, we used the place of residence usually reported in the monograph. As shown in [Table A12](#), restricting the sample to individuals whom Pushkin met with observed birthplaces yields results similar to our baseline estimates. Panel C of [Table A3](#) summarizes the composition of location with sources for Pushkin’s encounters. We manually assigned a county to nearly all of the approximately 2,500 Pushkin encounters observed in the monograph ([Chereiskii, 1988](#)).<sup>13</sup> We refine this

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<sup>12</sup>Even brief encounters with Pushkin—such as those involving Ilya Larin in Kishinev—may have incrementally shaped local awareness of literary culture. Drawing on insights from cultural diffusion theory ([Becker, Hsiao, Pfaff, & Rubin, 2020](#); [Spolaore & Wacziarg, 2013](#)), proximity to prominent figures can raise the perceived value of associated cultural goods. Informal retellings of such meetings might have contributed to interest in *Sovremennik*, particularly in regions with limited access to formal literary channels. Over time, these interactions could have reinforced Pushkin’s symbolic presence and, following arguments from the cultural consumption literature ([Bourdieu, 1984](#)), lent additional legitimacy to *Sovremennik*, facilitating its reach beyond core intellectual hubs.

<sup>13</sup>The geography of Pushkin’s personal encounters was widespread and largely shaped by his diverse social groups and the extensive people he met across the Russian Empire, often moving from place to place forced by exile, during his relatively short and eventful life. As [Lotman \(1995\)](#) notes, “Pushkin’s ability to adapt, moving from one circle to

one-off instrument by applying stricter criteria that exclude potentially endogenous encounters. A stylized depiction of the construction process of this of Pushkin encounters instrument is shown in [Figure A4](#). More details on GPT Classification process can be found in [Online Appendix B](#).

**Data on the Road Network and Correspondence Network of Catherine II.** To assess whether Pushkin’s one-off encounters proxy for underlying cultural or transport networks, we compile two new datasets. The first digitizes the Russian Empire’s road network using Captain Tyutikov’s 1852 postal atlas, a nine-sheet map engraved by the Military-Topographic Depot. We manually create a shapefile capturing all major and minor roads, including uezd-level routes ([Figure A5](#)). The second, from [Kahn and Rubin-Detlev \(2021\)](#), records Catherine II’s correspondence with Enlightenment figures such as Voltaire and Diderot. These data provide spatial variation in elite cultural ties well before the emergence of *Sovremennik*, enabling placebo tests using the epistolary network of an earlier prominent historical figure.

**Descriptive Statistics.** [Table A4](#) in Appendix A presents descriptive statistics for our outcome variables and the main variables of interest. The first two rows display the attacks at the extensive margin (baseline) and intensive margin, which we use in our robustness checks. On average, about 30% of Russian Empire counties experienced at least one attack, with an average of about one attack per county and a standard deviation of approximately 2 attacks. [Table A4](#) reports the one-off encounter instrumental variable, which identifies the birth counties of individuals who had one-off encounters with Pushkin. On average, there is approximately one one-off encounter with an individual per county, with significant variability across counties. The summary statistics for the additional variables, encompassing control variables and those pertinent to the analysis of mechanisms, are detailed in the other panels of [Table A4](#). Beyond the broad geographic distribution of Pushkin’s encounters, Panel A of [Table A3](#) reveals the substantial diversity among the people he interacted with. To effectively capture this diversity, we employ a novel GPT-based text annotation approach, overcoming the traditional challenges of text analysis as outlined in [Ash and Hansen \(2023\)](#), and apply it to all encounters recorded in [Chereiskii \(1988\)](#).<sup>14</sup> We uncover

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another, and seeking communication with completely different people” was a defining trait of his persona.”

<sup>14</sup>Specifically, we employed GPT-4o-mini for text annotation (similar to [Djourelova, Durante, Motte, and Patacchini \(2024\)](#); [Alabrese, Capozza, and Garg \(2024\)](#)), but we also validated the classification with alternative methods such as the BART classifier ([Lewis et al. \(2019\)](#)) and further checked the robustness with a CBOW model pre-trained on Russian Wikipedia. Manual validation further confirmed the reliability of our GPT classification. For more details on the GPT classification, see Appendix B.

significant variation in Pushkin's interactions, ranging from encounters with peasants to nobles and spanning a broad spectrum of social and political figures, including loyalists, revolutionaries, liberals, and conservatives. Not only did Pushkin engage with a diverse range of individuals, but there is also qualitative evidence indicating that he actively promoted the magazine during these interactions. Panel B of [Table A3](#) details instances where he directly advocated for the *Sovremennik* magazine in the course of these encounters. Building on this foundation, we next introduce our empirical methodology.

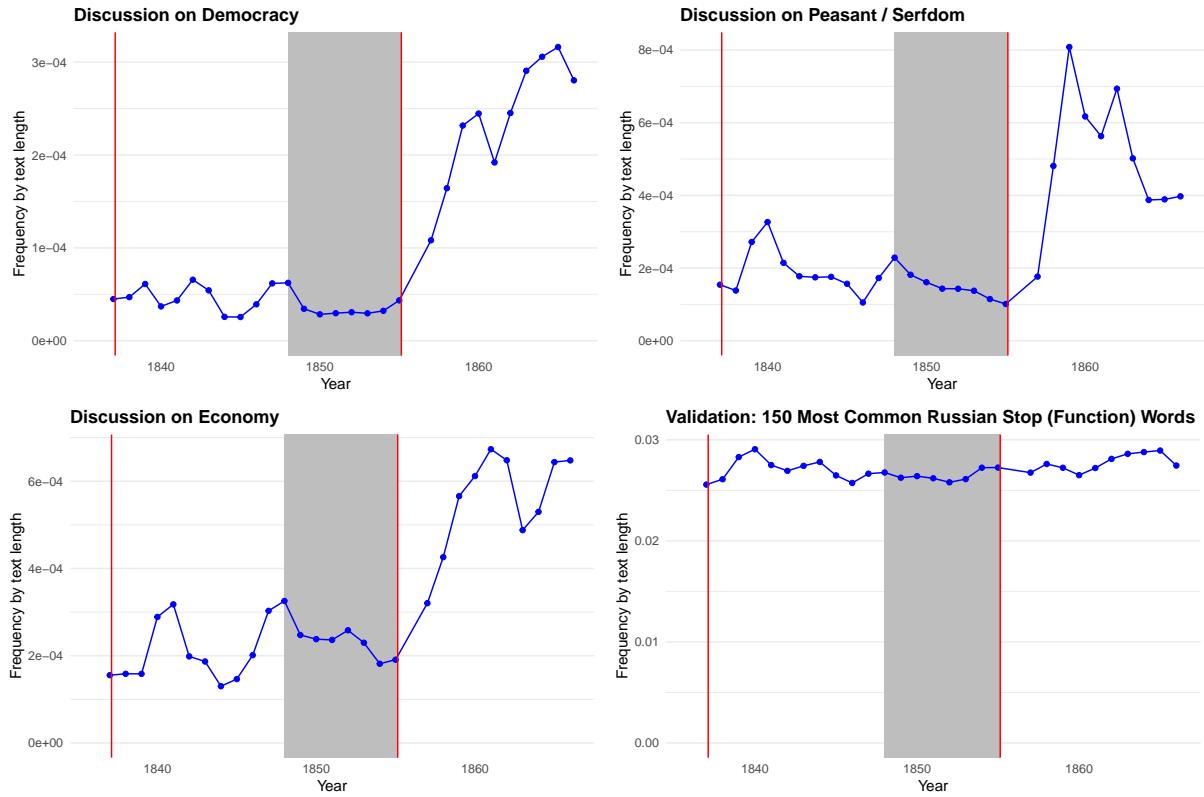
**Text Analysis of *Sovremennik*.** These quantitative findings on the shift in revolutionary discourse are mirrored in our descriptive analysis of the *Sovremennik* magazine corpus, which covers the entirety of the magazine's lifespan. As depicted in [Figure III](#) (Panels A and B), we trace the evolution of its content over several decades, revealing trends that align with our empirical results. We make several key observations regarding these trends. First, Pushkin's direct influence on the magazine was likely small, as his death in 1837, shortly after its founding, prevented him from shaping its content. Our instrument-based on Pushkin's brief interactions—cannot directly account for the link between magazine content and political violence.<sup>15</sup> Second, as shown in [Figure III](#), the magazine's content in the years following Pushkin's death in the 1840s was notably less political, suggesting that early subscribers that may be linked to Pushkin circle were unlikely to be predominantly from counties with heightened anti-government sentiment.

Third, as we approach the pivotal period surrounding the abolition of serfdom in 1861 – when our key explanatory variable, *Sovremennik* subscriptions, is observed – there is a marked shift in the magazine's political and social discourse. Topics such as democracy, workers' rights, and economic inequality increasingly come to the fore, reflecting the journal's evolving focus on systemic reform [Figure III](#). This transformation coincides with broader institutional changes, including heightened censorship pressures, the death of Tsar Nicholas I. Together, these developments shaped *Sovremennik*'s identity as a more politically engaged publication. The period from which our subscription data is drawn thus reflects a moment when the magazine not only expanded its readership but also likely served as a bridge to more radical underground texts advocating revolutionary change.

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<sup>15</sup>Even limited encounters with Pushkin may have shaped local awareness of his work and Russian literature more broadly. Proximity to cultural figures can influence early diffusion of culture ([Becker et al., 2020; Spolaore & Wacziarg, 2013](#)), and symbolic associations may contribute to the retrospective value and help *Sovremennik* gain an early literary foothold ([Bourdieu, 1984](#)).

FIGURE III: Results of text analysis of the *Sovremennik* corpus



**Note:** This figure illustrates our text analysis of the *Sovremennik* corpus. Each panel shows the evolution of the frequency of terms corresponding to the following topics: Democracy, Peasants/Serfdom, and Economy. Each dictionary consists of a combination of selected terms, which were later enriched with the closest terms from a word embedding trained on the magazine corpus. We refer readers to Vozhik (2023) for a study dedicated to text analysis of *Sovremennik*, based on digitized issues from the post-1847 period—complementary to our focus on the full publication history. The unit of observation is the year. We also present a validation exercise by plotting the distribution of the most common stop words (for example, *and*, *but*, *or*, *in*, *on*, *at*, *with*) in the Russian language over the observation period. We also present two vertical lines corresponding to two significant events. The first indicates the death of Alexander Pushkin, the founder of *Sovremennik*. The second marks the death of the Emperor Nikolay I. The grey area represents the period known in Russian historiography as the “Gloomy Seven Years”, spanning from 1848 to 1855, characterized by stringent government control over the media and education. This era was a regime’s reaction to a wave of revolutions sweeping across Europe.

#### 4. EFFECTS ON REVOLUTIONARY EMERGENCE

##### 4.1. Empirical Strategy

We estimate the contemporaneous impact of exposure to *Sovremennik* on the emergence of revolutionary figures using an event-study design centered around the journal’s editorial shift. Our primary specification is:

$$\text{Revolutionary Births}_{i,t} = \gamma_i + \lambda_t + \sum_{k \neq 1820-1840} \delta_k (\text{Sovremennik Exposure}_i \times \mathbf{1}\{t = k\}) + \epsilon_{it} \quad (1)$$

where  $\text{Revolutionary Births}_{i,t}$  denotes the number of revolutionary figures born per capita in

county  $i$  and decade  $t$ , and  $\text{Sovremennik Exposure}_i$  is an indicator for counties with at least one subscription during 1859–61 (when our subscription data is available). County fixed effects  $\gamma_i$  account for time-invariant differences across counties, including historical differences in political engagement, literacy, or urbanization. Time fixed effects  $\lambda_t$  capture common shocks and national trends, including the death of Tsar Nicholas I in 1855 and the censorship liberalization initiated in the early 1860s. Identification thus comes from relative changes across counties over time. We use 1820–1840 as the omitted category to assess both pre-trends and dynamics of treatment effects. Standard Errors are clustered at region level.

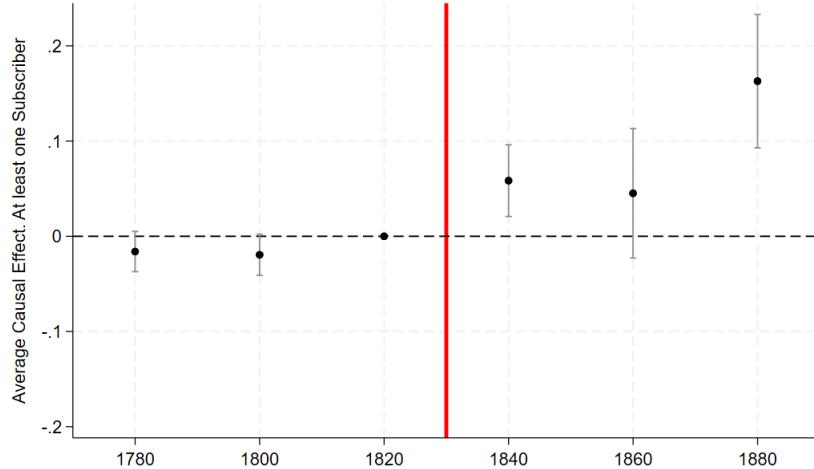
Our identification strategy assumes that, absent the editorial shift, trends in revolutionary births would have evolved similarly across exposed and unexposed counties. We evaluate this assumption using three complementary approaches. First, we examine pre-treatment trends in [Equation 1](#) to visually assess differential pre-trends. Second, we implement the Synthetic Difference-in-Differences estimator developed by [Arkhangelsky et al. \(2021\)](#), which improves on conventional DiD by constructing a weighted combination of control counties that closely replicates the pre-treatment trajectory of the exposed counties. Third, we apply the sensitivity analysis framework of [Rambachan and Roth \(2023\)](#), which rotates the estimated effects to net out potential violations of the parallel trends assumption. In all three cases, the evidence supports the credibility of our identification strategy.

#### 4.2. Emergence of Revolutionaries

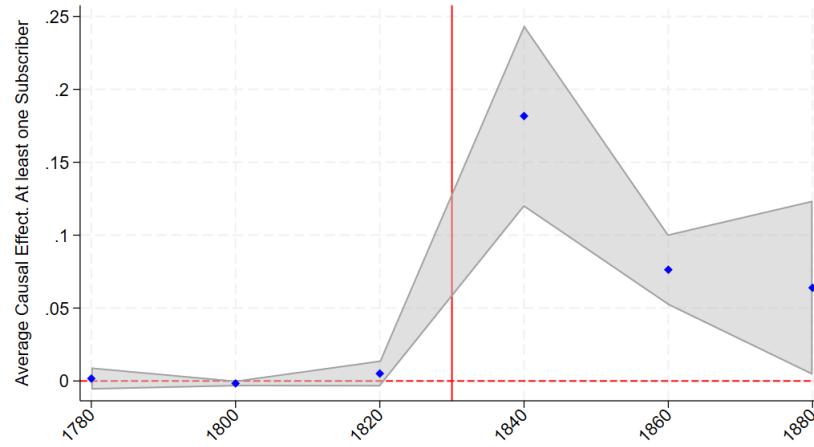
We begin by estimating [Equation 1](#), which reveals a marked increase in revolutionary births following the politicization of *Sovremennik*. As shown in Panel A of [Figure IV](#), counties exposed to the magazine experienced a sustained increase of approximately 0.3 additional revolutionary births per million population per year, nearly twice the pre-exposure mean. This magnitude is comparable to half the estimated impact of *The Birth of a Nation* on racial violence in [Ang \(2023\)](#), suggesting a sizable though not unprecedented effect. This divergence in birth of revolutionaries post journal’s editorial shift remains higher thereafter, suggesting a persistent effect.

FIGURE IV: Effect of *Sovremennik* on the Birth of Future Revolutionaries

(A) Difference-in-Differences



(B) Synthetic Difference-in-Differences



**Note:** The figure illustrates an event study analysis of journal diffusion on birth of revolutionaries. The unit of analysis is 20-years-county (uezd). The year indicates the first year of 20-year period. The outcome is the number of revolutionaries born in the county in the period. Pretreatment outcome include notable Russian revolutionaries and opposition politics of 19th century, such as Alexander Herzen and Mikhail Bakunin. Period dummies are interacted with indicator of an uezd having at least one Sovremennik subscriber. Panel A illustrates the event study using standard difference-in-differences design. Standard errors are clustered at the region level. Panel B introduces synthetic difference in differences estimator by [Arkhangelsky et al. \(2021\)](#) used in event study set up as suggested in [Ciccia et al. \(2024\)](#). This figure presents estimates of the effect of Magazine subscriber on the birth of revolutionaries in Russian Empire. Standard errors are reported using the cluster bootstrap method as outlined in Algorithm 2 of [Arkhangelsky et al. \(2021\)](#).

To account for any residual imbalance in pre-treatment dynamics, we replicate this analysis using the Synthetic Difference-in-Differences approach. Panel B of [Figure IV](#) shows that the synthetic control is similar in pre-treatment dynamics of revolutionary births. [Figure A7](#) in Appendix A presents the corresponding effects in levels, documenting the divergence in revolutionary activity between treated and control counties following the editorial shift. Treated counties experience a sustained upward shift that remains stable over time. To speak to potential concerns about post-

treatment violations of the parallel trends assumption, we re-estimate our event study following the approach of [Rambachan and Roth \(2023\)](#). This method removes a trend estimated from pre-treatment data, effectively rotating the event study to account for possible deviations from the identifying assumption post-treatment. The resulting estimates, shown in [Figure A15](#), remain consistent with the baseline, providing support for our identification strategy.

#### 4.3. Robustness

To further mitigate concerns about non-random selection into treatment, we replicate our analysis using a matched sample of counties that are comparable on key baseline characteristics. These include economic infrastructure (factories, military facilities, post offices), educational capacity (schools, universities), cultural institutions (taverns, monasteries), and demographic composition (Jewish and Christian population shares). Following recent applications of matched Difference-in-Differences designs (e.g., [Fenizia & Saggio, 2024](#); [Jäger & Heining, 2022](#)), we construct a matched sample. We then re-estimate [Equation 1](#) using this matched sample. The matched difference-in-differences estimates, reported in [Table A6](#) (Column 3), remain consistent with our main findings and lend additional support to the robustness of our estimates.<sup>16</sup> For reference, Column 1 reports the baseline Difference-in-Differences specification estimated on the full sample without additional controls (beyond county and time fixed effects), while Column 2 adds controls for baseline economic and cultural characteristics interacted with time dummies, that allow for differential trends correlated with initial county characteristics, helping to mitigate bias from time-varying confounders. As an additional robustness check, Columns 4 and 5 estimate alternative specifications, adding province-by-year fixed effects and province-specific linear trends, respectively, to tighten the comparison between treated and control units. Across all specifications, the estimated effects remain stable and consistent with our baseline results. Finally, we conduct a randomization inference exercise by reassessing treatment 10,000 times across counties. The distribution of placebo estimates, shown in [Figure A9](#), indicates that none exceed the magnitude of our actual estimate, lending support to the internal validity of the findings.

<sup>16</sup>While balance on observables improves comparability, our identification ultimately relies on the parallel trends assumption. Initial differences in levels do not, by themselves, threaten causal interpretation. Improving covariate balance, however, through matching can help mitigate concerns about differential trends driven by observables.

## 5. HISTORICAL EFFECTS ON POLITICAL VIOLENCE

### 5.1. Instrumental Variable Strategy

We next trace the effect of *Sovremennik* on political violence. While the event study framework provides internally valid estimates of short-run effects, the parallel trends assumption becomes less plausible over longer horizons. More practically, the absence of reliable pre-period data limits the use of a standard difference-in-differences design. Systematic data on revolutionary political violence are unavailable for the pre-treatment period, in large part because such incidents were virtually nonexistent prior to the magazine's emergence.<sup>17</sup> Notably, the widely cited assassination attempt by Dmitry Karakozov in 1866 is often regarded as one of the earliest acts of revolutionary violence against the Tsarist regime (Verhoeven, 2004). To assess how literary exposure relates to subsequent political violence, we implement an instrumental variables strategy based on differential county-level exposure to the magazine. We estimate the following specification:

$$\begin{aligned} \text{Political Violence}_{1900-1914,i} = & \gamma_s + \beta_1 \text{Sovremennik Exposure}_{1859-1861,i} \\ & + \beta_2 \mathbf{X}_i + \epsilon_i \end{aligned} \tag{2}$$

where  $\text{Political Violence}_{1900-1914,i}$  is a binary variable equal to 1 if there is an attack against the Tsarist regime in the county and 0 otherwise in the baseline specification. Alternate definitions of the dependent variable, such as the number of attacks at the intensive margin, are performed as part of robustness checks.  $i$  indexes counties and  $s$  represents states or provinces.

$\text{Sovremennik}_{1859-1861,i}$  in baseline regressions is the logarithm of the number of *Sovremennik* subscribers plus 0.1. While this functional form is presented to illustrate the results, our conclusions remain robust across a range of alternative specifications. This includes transformations of the dependent and independent variables such as logarithmic transformations with a plus 1 adjustment and inverse hyperbolic sine (IHS) transformations. We also apply Poisson regressions, following (Chen & Roth, 2024), to derive percentage interpretations and estimate separate effects for intensive and extensive margins as suggested in recent work.

The vector  $\mathbf{X}_i$  includes a broad set of baseline characteristics. These cover economic conditions, such as population density in 1858, the number of factories, military installations, and post offices,

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<sup>17</sup>We also examine alternative forms of political violence, such as peasant unrest, drawing on sources used in prior work (e.g., Finkel et al., 2015). We find little evidence of a relationship with *Sovremennik* exposure, either in pre-treatment peasant political violence (Table A7) or over time (Figure A12), pointing to mechanisms more closely tied to literate revolutionary actors.

as well as the share of serfs prior to emancipation, which serves as a proxy for variation in pre-reform agrarian structure. We also include geographic characteristics such as distances to Moscow and Saint Petersburg, along with latitude and longitude. To capture variation in cultural and ideological exposure, we control for the number of universities, the number of Decembrists born in the county, and the logarithm of the number of writers born before the magazine's founding. Finally, we include religious composition, measured as the share of Jews and Orthodox Christians in the local population. Standard errors are clustered at the province (*Gubernia*) level. Results remain similar or more precise when clustered at the county (*uezd*) level or using Conley standard errors to allow for spatial dependence.  $\gamma_s$  are state or province fixed effects.

An OLS estimation of  $\beta_1$  is likely to yield biased estimates due to the endogeneity of *Sovremennik* exposure. The direction of this bias is ex ante ambiguous. On one hand, unobserved features such as a county's political culture of dissent may lead both to higher rates of subscription and greater revolutionary activity, biasing estimates upward. On the other hand, counties with more established ties to the Tsarist state—such as a larger share of the population receiving official patronage—may be both less inclined to engage with oppositional literature and less likely to participate in political violence, potentially biasing estimates downward. The latter is specially possible if the magazine's subscription base is likely skewed toward more urbanized and institutionally embedded counties, many of which maintained closer ties to the Tsarist state.

To speak to these endogeneity concerns, we draw upon the detailed record of Alexander Pushkin's interactions with the public, comprising about 2,500 encounters documented in [Chereiskii \(1988\)](#), and utilize these to construct an instrument for the spread of *Sovremennik*. This measure exploits Pushkin's encountering people of varying political and economic importance, and his early death, well before the magazine's politicization, helps mitigate some endogeneity concerns ([Evdokimova, 1999](#)). Still, we rely on the locations of **one-off meetings** that are most plausibly interpreted as chance encounters with Pushkin. These interactions offer a measure of early, localized contact with literary culture.<sup>18</sup>

Using the locations of individuals who had one-off meetings with Pushkin as an instrument

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<sup>18</sup>Even limited exposure may have contributed to early awareness of Pushkin's work and, more generally, to local familiarity with Russian literary culture over time given Pushkin's stature in Russian cultural life. Prior research suggests that proximity to cultural figures can shape the diffusion of cultural goods ([Becker et al., 2020](#)).

for the diffusion of *Sovremennik* exposure later yields the following first-stage equation:

$$\text{Sovremennik Exposure}_{1859-1861,i} = \alpha + \gamma_1 \text{One-Off Pushkin Encounters}_{1799-1837,i} + \gamma_2 \mathbf{X}_i + \delta_s + \varepsilon_i \quad (3)$$

where One-Off Pushkin Encounters refer to the birthplace or place of living of individuals whom Pushkin met only once, excluding potentially endogenous meetings. [Figure A4](#) in Appendix A, illustrates how the One-Off location instrument was constructed.

**Relevance.** For our instrument to be valid, it must satisfy both relevance and exogeneity. Relevance implies Pushkin's encounters must be correlated with exposure to *Sovremennik*. As the founder of the magazine, Pushkin is reported to have promoted *Sovremennik* in some of his public interactions. A few illustrative examples of him promoting his magazine are detailed in Panel B of [Table A3](#). Even in instances where Pushkin did not explicitly promote the magazine, these one-off encounters may still serve as a helpful proxy for space based exposure to Russian literary culture through his personage. Such interactions may have incrementally shaped local familiarity with Pushkin's writings and the broader literary canon. Existing work emphasizes the role of proximity to cultural figures in shaping long-run patterns of cultural diffusion. For instance, [Becker et al. \(2020\)](#) show that personal ties to Martin Luther played a central role in the spread of Protestantism across early modern Europe. Consistent with this, the first-stage results suggest reasonably strong instrument relevance, with F-statistics generally exceeding conventional thresholds.<sup>19</sup> The strength of first-stage relationship is most clearly seen in [Figure A10](#) of Appendix A, where the scatter plot highlights the strong positive association between Pushkin's one-off encounters and magazine subscribers.

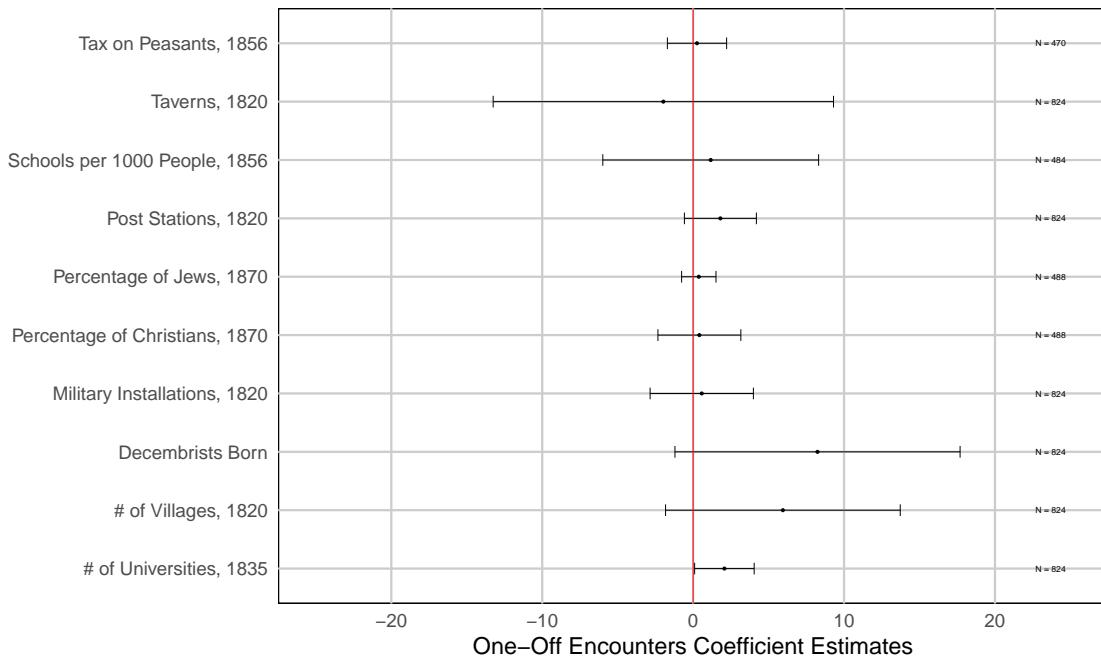
**Exogeneity.** For the IV strategy to provide a valid causal estimate of the impact of *Sovremennik* magazine on political violence, Pushkin's one-off meetings must also satisfy the exogeneity assumption. The key concern is whether the one-off meetings instrument is uncorrelated with omitted factors linked to local support for political violence. While direct testing of the exogeneity assumption is not possible, several pieces of evidence support the validity of the instrument. First, we assess the plausibility of instrument exogeneity by testing its correlation with a wide range of baseline county characteristics. Drawing on newly digitized administrative records and

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<sup>19</sup>In instances where the statistic falls below the threshold of 10, we report Anderson–Rubin confidence intervals, which continue to show significance of the effect of interest under conservative inference procedures designed for settings with potentially weak instruments ([Andrews, Stock, & Sun, 2019](#)).

existing historical sources, we find no statistically significant association with variables capturing economic structure (e.g., peasant taxes, number of villages, post offices, and military sites), social composition (e.g., serf share, religious makeup), or cultural and educational infrastructure (e.g., schools, universities, monasteries, and taverns). These patterns, reported in [Figure V](#), suggest that the instrument is unlikely to be systematically related to observable factors influencing political violence. Second, the instrument does not predict historical patterns of political violence, as reported in [Table A7](#) of Appendix A. This indicates that the counties of individuals involved in Pushkin's one-off meetings were not predisposed to violence before the founding of the magazine.

**FIGURE V: Balance Test**



**Note:** The figures report the balance test over county characteristics for our main instrument of one-off Pushkin encounters. Some variables are rescaled by factors of 10 and 100 for the visibility of estimations. Outcomes include pre-treatment establishments from 1820 Piadyshev atlas, number of universities, number of Decembrists born in the county, percentage of orthodox Christians and Jews among *uezd* population, as well as number of schools and tax on peasants (Obrok) rate.

Although the balance tests suggest no systematic correlation with observed characteristics, the possibility of unobserved confounding cannot be ruled out. In particular, one-off Pushkin encounters may reflect underlying historical or cultural networks that are difficult to observe directly. To assess this risk, we implement two placebo tests.

1. Cultural Networks: The instrument shows no significant correlation with alternative historical cultural networks, such as those associated with Empress Catherine the Great, who is widely recognized for her cultural patronage. As shown in Column (1), Panel A of [Table A8](#), the variation

captured by Pushkin’s one-off encounters does not overlap with regions historically linked to s cultural influence of Empress Catherine the Great. Panel B further shows that the instrument is uncorrelated with other historical cultural hubs, measured by the density of taverns and monasteries, common sites of cultural and religious gathering (Columns 1 and 2). Taken together, these results suggest that the instrument is unlikely to proxy for pre-existing cultural infrastructure.

2. Geographic Infrastructure: The one-off encounters instrument is also not correlated with transport networks or measures of county connectivity that could plausibly affect the magazine’s spread. Using a novel dataset on roads in the Russian Empire and a network centrality measure from [Becker et al. \(2023\)](#), we find not much significant association with the instrument (Column 2, Panel A of [Table A8](#)). Similarly, pre-treatment economic indicators such as the presence of factories also show no correlation (Panel B, Columns 3 and 4). These findings suggest that the instrument is not capturing differences in counties’ economic centrality that could influence both exposure to printed media and political violence.

## 5.2. OLS and IV Estimates

We begin with OLS estimates of [Equation 2](#), which show a positive association between *Sovremennik* exposure and political violence ([Table I](#), Panel A). To strengthen causal interpretation, we next apply 2SLS with Pushkin’s one-off encounters as an instrument. These IV estimates, reported in Panel B of [Table I](#), are consistently larger than their OLS counterparts. A 10% increase in subscribers is associated with a 0.019 percentage point increase in the likelihood of an attack against the Tsarist regime—about 7% of the sample mean—and 0.15 additional attacks per county.

The OLS estimates may have understated the true effect due to selection or measurement error. The latter is specifically possible as our subscription data cover a limited period (1859–1861) and do not capture informal access routes such as shared copies or library holdings. As emphasized by [Pischke \(2007\)](#), such misclassifications, especially when false negatives (counties that were exposed but appear untreated) are more likely than false positives (counties incorrectly recorded as exposed), tends to attenuate estimated effects toward zero. Nonetheless, as noted by [Black, Berger, and Scott \(2000\)](#), OLS and IV estimates may bound the true effect. In our case, both remain positive and significant, suggesting the underlying relationship is unlikely to be spurious.

TABLE I  
“SOVREMENNICK” SUBSCRIPTIONS AND VIOLENCE AGAINST THE STATE

	(1)	(2)	(3)	(4)
<b>Panel A. OLS results</b>				
<i>Dep. Var.:</i>				
Political Violence				
		<i>N</i> of Attacks > 0		<i>N</i> of Attacks
Number of subscribers, average 1859-61, log	0.0988*** (0.0104)	0.0755*** (0.0123)	0.5036*** (0.1071)	0.3372*** (0.0836)
<b>Panel B. Second-stage results</b>				
Number of subscribers, average 1859-61, log	0.1907*** (0.0471)	0.2292** (0.1046)	1.428*** (0.3653)	1.579** (0.7752)
Geographic controls	✓	✓	✓	✓
Main controls		✓		✓
Province FEs	✓	✓	✓	✓
Observations	824	824	824	824
Mean of dependent variable	0.28	0.28	0.70	0.70
F statistics (Kleibergen-Paap)	40.621	8.5545	40.621	8.5545
Anderson-Rubin CI	[0.097, 0.284]	[0.022, 0.437]	[0.704, 2.153]	[0.041, 3.118]
<b>Panel C. First-stage results</b>				
<i>Dep. Var.:</i>				
Number of subscribers, log				
Number of Pushkin one-off encounters, log		0.3388*** (0.0532)	0.1608*** (0.0550)	
Geographic controls		✓	✓	
Main controls			✓	
Province FEs		✓	✓	

**Note:** The 2SLS estimation assesses the effect of the logarithm of magazine subscriptions (plus 0.1), averaged between 1859 and 1861, instrumented by the logarithm of the count of One-off Pushkin encounters (plus 0.1), on a dummy variable for at least one act of political violence against imperial officials. Panel A shows OLS estimates (columns 1 and 2) and 2SLS second-stage estimates (columns 3 and 4). Panel B presents the first stage. Each specification includes province-level fixed effects. We introduce two sets of controls, which are used in odd and even columns, respectively. In the first group, we control for geographic variables, such as distances to Moscow and Saint Petersburg, and linear controls for latitude and longitude. In the second set of controls, we incorporate a broader set of economic characteristics and historical covariates. These include population density in 1858, the number of factories, villages, and post stations, as well as the share of serfs, which captures variation in pre-reform agrarian structure. We also control for the logarithm of the number of writers born before the launch of *Sovremennik*, the number of universities, the number of Decembrists born in the county, and the religious composition of the population, measured as the share of Jews and Orthodox Christians. We report the Kleibergen-Paap rk Wald F statistic and Anderson-Rubin confidence intervals. Standard errors (in parentheses) are clustered at the province level. \*\*\*: 0.01, \*\*: 0.05, \*: 0.1

Building on the panel evidence linking *Sovremennik* exposure to revolutionary births, the IV estimates further suggest that the magazine also shaped later patterns of political violence. This shift from ideology to action highlights the broader role of politically engaged print media in mobilizing dissent. The IV specifications include province fixed effects and controls for geography (distance to Moscow and Saint Petersburg, latitude, longitude), baseline economic conditions (population density in 1858, factories, post offices, villages, serf share, religious composition), and pre-treatment cultural legacies (writer births, universities, Decembrist origin). Together, these results suggest that cultural diffusion through literary media helped sow the seeds of revolutionary mobilization in Imperial Russia.

### 5.3. Robustness

Appendix A reports numerous robustness tests supporting the IV results. We discuss them below in turn.

**Elite-Driven Violence vs. Broader Unrest.** To assess whether the observed association reflects elite driven violence rather than broader unrest, we examine an alternative form of violence (see [Figure A12](#) in Appendix A). In contrast to revolutionary activity, we find no relationship between *Sovremennik* exposure and peasant unrest, using data from prior studies ([Finkel et al., 2015](#); [Hartwell, 2023](#); [Kofanov, 2020](#)). This distinction aligns with historical narratives: peasant uprisings were typically spontaneous and locally motivated, while revolutionary violence was orchestrated by educated elites. Consistent with this, we observe that both the birthplaces of revolutionaries and elite-led attacks concentrate in counties with higher exposure to the magazine. These patterns match existing evidence that individuals with higher human capital have disproportionately led revolutionary movements ([Jha & Wilkinson, 2023](#); [Squicciarini & Voigtländer, 2015](#)). This findings support the interpretation that *Sovremennik* facilitated the diffusion of dissenting ideas that contributed to elite-led revolutionary violence.

**Birthplaces Only.** Our instrument uses one-time meetings with Pushkin to infer quasi-random encounters with Pushkin. We assign each person to a district by birthplace when available and to residence at the time of the meeting otherwise. We, note, that selective migration could bias estimates, and the sign is a priori ambiguous: moves toward higher exposure districts would push effects up, whereas displacement, career sorting, or measurement error would attenuate them. To assess this, we use data only on place of birth and recompute exposure. [Table A12](#) reports the

results. The first-stage relationship is stable relative to the baseline. In the second stage, effects on attacks, revolutionary publications, and subscriptions to *A Writer's Diary* are positive, of similar order of magnitude to the baseline, and reach conventional significance levels. The similarity of these estimates indicates that any migration or sorting-related bias is likely small.

**Functional Form.** Following [Chen and Roth \(2024\)](#), we verify that our results are not sensitive to the choice of functional form. Estimates remain stable across both extensive and intensive margins of political violence and are robust when using Poisson regressions to accommodate the count nature of our outcome ([Table A9](#)). These findings reduce concerns that outliers or skewed attack distributions are driving results. Moreover, in line with [Chen and Roth \(2024\)](#), we find that the results are not an artifact of log transformation or nonlinear specification, further reinforcing that the underlying relationship is not sensitive to functional form assumptions.

**Alternative Instrument.** To evaluate the validity of our identification strategy, we construct an alternative instrument based on the presence of libraries in the pre-treatment period, drawing inspiration from [Ang \(2023\)](#), who use historical theaters to instrument for film diffusion. The 2SLS estimates using library presence are reported in [Table A10](#). These results are qualitatively similar to those using Pushkin encounters and remain larger than the corresponding OLS coefficients, offering complementary evidence in support of our interpretation.

**Randomization Inference.** To ensure our findings are not driven by random patterns in the data, we perform a permutation test in which we randomly reassign subscriber counts across counties 10,000 times. The resulting distribution of placebo estimates is tightly centered around zero, as shown in [Figure A11](#), while the actual coefficient (marked in red) lies well outside this distribution. No placebo estimate exceeds the observed value, indicating a p-value of less than 0.0001 under the sharp null.

**Elite Composition Controls.** One concern is that pre-existing elite composition—such as the presence of politicians, scientists, or artists—could confound the relationship between literary exposure and political violence. We address this by controlling for the density of such occupations using archival sources. Results are reported in [Online Appendix B](#) Table B2 and remain virtually unchanged, suggesting that the observed effects are not merely reflecting elite clustering.

**Time-Varying Persistence.** To further speak to the concern that our results may be driven by time-invariant unobservables or temporal persistence ([Fouka, 2020](#)), we repeat the analysis using annual subscriber data for 1859, 1860, and 1861 separately. As shown in [Online Appendix B](#) Table

B3, the effects remain consistent across these different definitions of exposure, underscoring the temporal stability of our findings. To test the sensitivity of our results to influential observations, we conduct two further checks. First, we restrict the analysis to specific subsets of political attacks, such as those occurring before or after 1905. Second, we exclude individual provinces that contribute disproportionately to variation. Results are reported in [Online Appendix B](#) Table B4 and visualized in [Figure A13](#), and show that neither temporal nor geographic exclusions materially alter the estimates.

**Spatial Correlation.** Finally, we assess robustness to spatial dependence. We estimate specifications using standard errors clustered at the province level, apply Conley spatial corrections, and vary the geographic granularity of fixed effects. As a more advanced check, we implement the recent method proposed by [Müller and Watson \(2022\)](#), which constructs confidence intervals under worst-case spatial correlation using principal components. Across all approaches, the estimates remain statistically similar ([Online Appendix B](#) Table B5 and Table B6), indicating that spatial misspecification is unlikely to drive our results. Thus, across a range of alternative specifications, robustness checks, and placebo exercises, the estimated effects of *Sovremennik* exposure on political violence remain robust.

## 6. MECHANISMS

**Market for Revolutionary Ideas.** Although data limitations preclude an exhaustive analysis of potential mechanisms, the evidence suggests at least one prominent pathway underlying the results. *Sovremennik* seems to have created a market for revolutionary ideas by simultaneously expanding their availability (supply) and cultivating an audience predisposed to engage with progressively radical literature (demand). Specifically, we find that *Sovremennik* subscriptions are associated with cultivating a readership increasingly receptive to revolutionary literature. Counties with higher *Sovremennik* subscriptions exhibit a greater presence of left-wing underground revolutionary publications. Unlike *Sovremennik*, which advocated for change through subtler rhetoric, these banned underground publications openly called for a violent rebellion. As reported in [Table II](#), the 2SLS estimates imply that a 10% increase in *Sovremennik* subscriptions is associated with a 3.34 percentage points increase in the probability of a county hosting a revolutionary publication. This effect represents a 25% increase relative to the mean probability (13%) of having such a revolutionary publication in the county. These findings suggest that *Sovremennik* might have

played a role in increasing political violence by promoting revolutionary underground publications that advocated for violent political change. *Sovremennik* may have also facilitated the broader literary environment beyond driving supply of banned radical literature. Evidence in Panel A of [Table A11](#) indicates that counties with higher *Sovremennik* subscriptions saw a subsequent rise in readership of literary magazines like Dostoevsky's *A Writer's Diary* two decades later. This pattern is consistent with the idea that *Sovremennik* contributed to a growing demand for literature. Using hand-recorded subscriber lists for the Dostoevsky magazine, we consolidated and digitized these records to construct this outcome variable for subscribers of *A Writer's Diary* across the Russian Empire. [Figure A6](#) in Appendix A, displays the raw subscriber data.

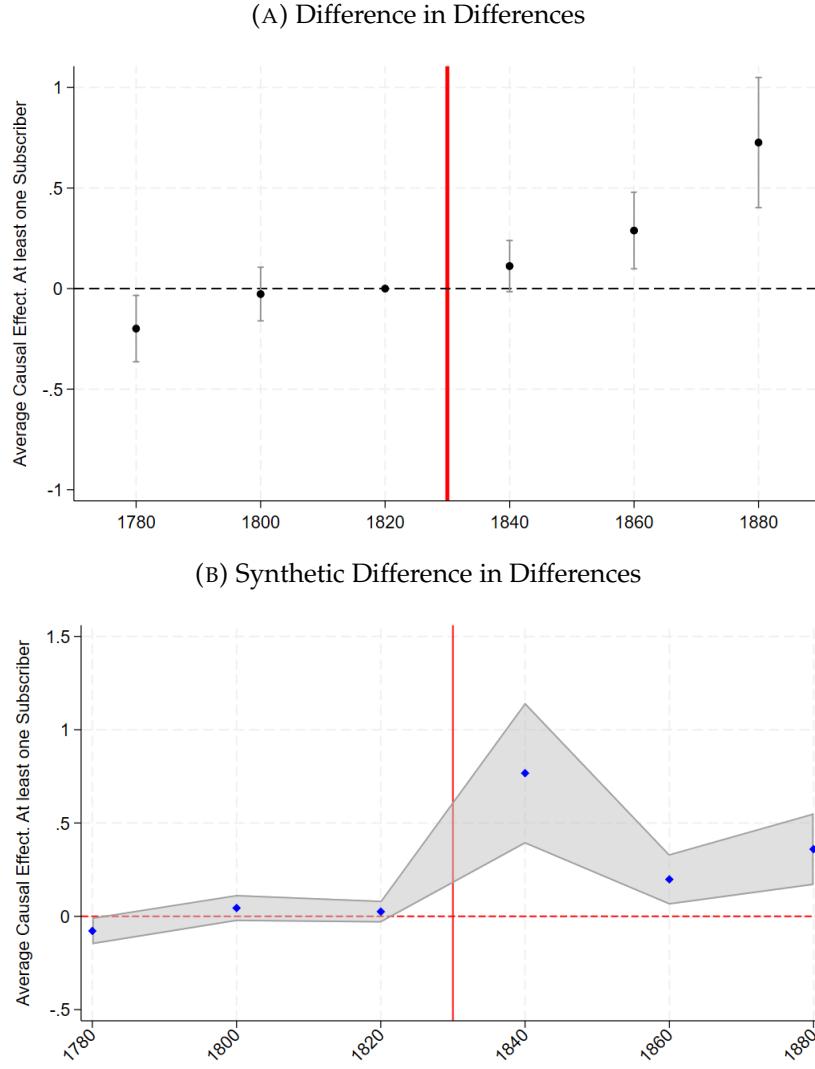
TABLE II  
“SOVREMENNICK” SUBSCRIPTIONS AND UNDERGROUND REVOLUTIONARY PAMPHLETS

	OLS	2SLS, second stage		
	(1)	(2)	(3)	(4)
<i>Dep. Var.: Revolutionary Publications</i>				
Number of subscribers, average 1859-61, log	0.0726*** (0.0114)	0.0427*** (0.0094)	0.2825*** (0.0568)	0.3939*** (0.1407)
Geographic controls	✓	✓	✓	✓
Main controls		✓		✓
Province FEs	✓	✓	✓	✓
F statistics (Kleibergen-Paap)			40.621	8.5545
Anderson-Rubin CI			[0.170, 0.395]	[0.115, 0.673]
Observations	824	824	824	824
Mean of dependent variable	0.131	0.131	0.131	0.131

**Note:** The 2SLS estimation assesses the effect of the logarithm of magazine subscriptions (plus 0.1), averaged between 1859 and 1861, instrumented by the logarithm of the count of One-off Pushkin encounters (plus 0.1), on a dummy variable for at least one agitation leaflet distributed by socialist and other leftist political organizations in 1895-1904. We present OLS estimates (columns 1 and 2) and 2SLS second-stage estimates (columns 3 and 4). Each specification includes province-level fixed effects. We introduce two sets of controls, which are used in odd and even columns, respectively. In the first group, we control for geographic variables, such as distances to Moscow and Saint Petersburg, and linear controls for latitude and longitude. In the second set of controls, we incorporate a broader set of economic characteristics and historical covariates. These include population density in 1858, the number of villages, and post stations, as well as the share of serfs, which captures variation in pre-reform agrarian structure. We also control for the logarithm of the number of writers born before the launch of *Sovremennik*, the number of universities, the number of Decembrists born in the county, and the religious composition of the population, measured as the share of Jews and Orthodox Christians. We report the Kleibergen-Paap rk Wald F statistic and Anderson-Rubin CI. Standard errors (in parentheses) are clustered at the province level.  
\*\*\*: 0.01, \*\*: 0.05, \*: 0.1

Not only is *Sovremennik* associated with a rise in demand for the printed word, but it also appears to have driven an increase in the supply of literary works. The observed increase in revolutionary underground literature and readership of Dostoevsky’s magazine, in regions exposed to *Sovremennik* may be tied to a broader expansion in literary supply of writers. Evidence in Panel B of Table A11 supports this interpretation, showing a significant increase in the number of writers born in regions with greater exposure to *Sovremennik*.

FIGURE VI: Effect of *Sovremennik* on the Birth of Future Writers



**Note:** The figure illustrates an event study analysis of journal diffusion on birth of writers. The unit of analysis is 20-years-county(uezd). The year indicates the first year of 20-year period. The outcome is the number of writers born in the county in the period. Period dummies are interacted with indicator of an uezd having at least one *Sovremennik* subscriber. Panel A illustrates the event study analysis using difference in differences. Standard errors are clustered on county level. Panel B introduces synthetic difference in differences estimator by [Arkhangelsky et al. \(2021\)](#) used in event study set up as suggested in [Ciccia et al. \(2024\)](#). This figure presents estimates of the effect of Magazine subscriber on the birth of writers in Russian Empire. Standard errors are reported using the cluster bootstrap method as outlined in Algorithm 2 of [Arkhangelsky et al. \(2021\)](#).

This pattern is corroborated by panel evidence: counties exposed to *Sovremennik* show a rise in writer births after its politicization, relative to their own pre-exposure trends and to unexposed areas. Specifically, we implement both a standard and a synthetic difference-in-differences design, the latter providing additional robustness to potential violations of parallel trends ([Arkhangelsky et al., 2021](#)). The event study results are presented in [Figure VI](#), with Panel A showing standard difference-in-differences estimates and Panel B reporting synthetic difference-in-differences. Cor-

responding level estimates appear in [Figure A14](#) in Appendix A. Across both methods, we observe a marked divergence post-treatment effect, coinciding with the magazine's political turn, and no evidence of differential pre-trends. These results suggest that the politicization of *Sovremennik* contributed to a localized rise in literary production, consistent with its role in cultivating a politically engaged intelligentsia.

**Alternative Mechanisms.** While data constraints limit our ability to exhaustively explore alternative mechanisms, we offer evidence that two potential channels are unlikely. First, the spread of *Sovremennik* did not significantly increase future literacy among the peasant class or expand school enrollment. As shown in Panel A of [Table A5](#), neither future literacy levels nor the number of schools per 1,000 people appears to explain the observed results. This observation aligns with a broader idea suggesting that political and economic change is often spearheaded and even carried out by individuals with high levels of human capital. Violence against the Tsarist regime was driven by members of the Russian intelligentsia, educated individuals from non-noble backgrounds, rather than by "the masses". Thus, it is unsurprising that we observe no significant effect on literacy. This aligns with [Nabokov \(1981\)](#), who described the majority of Russians as being "left out in the cold, in a veil of slow snow beyond the amber-bright windows." While *Sovremennik*'s reach was limited, economic research underscores the pivotal role played by such elites, consistent with evidence from the French Revolution, see for example, [Jha and Wilkinson \(2023\)](#). Second, the magazine does not seem to increase demand for peaceful political change through the ballot box. Using voting data from the Russian Empire's first democratic franchise extension just before the Bolshevik revolution in 1917, we find no significant effect of *Sovremennik* subscriptions on support for the Bolsheviks or the liberal reform party. These results, shown in Panel B of Appendix A's [Table A5](#), suggest that the magazine's influence was specific to violent political change rather than a peaceful political backlash. These patterns suggest that *Sovremennik* likely contributed to the emergence of a literary culture more conducive to radical expression and violent dissent, rather than broader political engagement through formal institutions.

## 7. CONCLUSION

Our findings indicate that literature can shape political violence not only by spreading dissenting ideas but by helping to cultivate those who act on them. By assembling new data and employing both a difference-in-differences design and an instrumental variables strategy, we document

a robust relationship between literary exposure and political mobilization. Counties with greater exposure to the magazine were more likely to produce writers and revolutionaries, generate censored underground publications, and experience an uptick in violent resistance against the Tsarist regime. These patterns are consistent with the view that *Sovremennik*'s politicization expanded the ideological infrastructure through which revolutionary ideas circulated, shaping both the content of dissent and the agents who carried it forward.

The implications of our study are manifold. First, the findings suggest that print media may operate not only as a form of artistic expression but also as a vehicle through which political ideas gain traction and circulate. Second, it contributes to the broader discourse on the role of media in shaping political outcomes, suggesting that literary print media, much like modern mass media, could impact public sentiment and catalyze collective action. Third, and more broadly, the results offer additional empirical support for an agency-centered interpretation of historical change, suggesting that the diffusion of ideas may have played a role in shaping revolutionary mobilization in the period preceding the Bolshevik Revolution.

We conclude that the pen, indeed, can be not just mightier than the sword but can actually be an instrument – a call for swords in itself. The written word, as evidenced by the Russian literature during its Golden Age, had the power to spark the flames of violent political resistance. As we continue to witness the impact of media on political landscapes around the world, the lessons drawn from Russian literature remain relevant, reminding us of the enduring influence of the written word. Future studies could explore the influence of contemporary literature and other artistic media, such as music, on political dissent and the mobilization of social movements. This line of inquiry may shed light on how modern cultural institutions continue to shape politics and inspire collective action today.

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# Online Appendix A: Additional Figures & Tables

FIGURE A1: *Sovremennik Magazine and Political Violence*

## ПОСЛЕДНИЯ МИНУТЫ ПУШКИНА.

Россия потеряла Пушкина въ ту минуту когда гений его, созревший въ опытахъ жизни, размышеніемъ и наукою, готовылся действовать полной силой — потеря неизвратная и ничѣмъ не вознаградима. Что бы онъ написалъ, еслибы судьба такъ незаптно не сорвала его со славной, едва начатой имъ дороги? Въ бумагахъ, послѣ него оставшихся, найдено многое начатаго, весьма мало конченаго; съ благоговѣйною любовию къ его памяти мы сохранимъ все, что можно будетъ сохранить изъ сихъ драгоцѣнныхъ остатковъ; и они въ свое время будутъ изданы въ свѣтъ (\*). Здѣсь сообща-

(\*) Всюжъ за помылки изданий сочиненій, уже издаваемыхъ публикѣ и теперь издаваемыхъ въ шести частяхъ по подпискѣ. Если падечатать все найденное въ рукописяхъ Пушкина, то конечно составится два хорошихъ тома, или иль даже если присоединить къ литературнымъ отрывкамъ все матеріи, приготовленныя для Истории Петра Беляниго. *Журналъ Современникъ*. 1857, № 4.

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## КНИГА I 1908 г.

Императоръ Александръ II

Убитъ въ С.-Петербургѣ 1 марта 1881 г.

18 апреля 1818 г. Первопрестольная Москва пущенными выстрелами была оповещена о рождении у Великого князя Николая Павловича сына-принца.

Поэтъ А. Жуковский приветствовалъ рождение Августейшего Младенца, нареченного при крещении в Чудомъ монастыре Александромъ, стихами, заключавшими пророчество его будущего величия и славы:

С душой, на все прекрасное готовой,  
Насставленный достойнымъ счастья быть,  
Великимъ счастьемъ и славой.  
Не пренесть, встретивъ рокъ суровый,  
И быть въ здѣсь временъ своихъ красой,  
Лета пройдутъ, подважникъ молодой,  
Отъмнитъ младенецъ забавы,  
Онъ пронесетъ въ пути честь и славу:  
Да встретятъ обильный чайско вѣк!  
Да славного участника славный будест!  
Да на чредѣ высокой не забудетъ  
Святѣшаго и знаній: человѣкъ!



Какъ бы предугадывая великие дела будущаго Государя и его самоотвержение, поэтъ жалъ ему:

Жить для всѣхъ величию народомъ,  
Для блага всѣхъ свое позабывать.

25 ноября 1825 г. съ кониной Императора Александра I на Престол вступилъ Великий князь Николай Павловичъ, въ званіи которого былъ провозглашенъ Императоромъ.

Вспомнивъ об обращеніи Наслѣдника было поручено капитану Меркурю, Сыну Его Величества генерал-майору Кавалерию и поэту В. А. Жуковскому. Подъ этимъ императорскимъ, строгимъ и неуклоннымъ наблюдениемъ верныхъ своему долгу людей проклята жизнь бруталнаго Императора до 20-летнаго возраста. Основаниемъ къ воспитанию и образованію легло твердое желаніе Августейшаго Отеца «воспитать въ своемъ сыне человека, прежде чмъ сдѣлать изъ него Государа», а «членъ учения», утвержденный Императоромъ въ 1826 г. Помимо этого, имѣлось еще и желаніе, чтобы будущий Государь былъ не только и не ученикъ, а проповѣдникъ. И действительно, къ концу назначенного для учения срока семена добра и правды, твердости характера и рыцарского взгляда, любви къ ближнему, къ «малымъ симъ» и глубокому сознанію долга и ответственности передъ Богомъ за будущее царствование надъ могущимъ русскимъ народомъ, — эти семена упали на добрую почву ясного и здорового ума Наслѣдника.

Справождіемъ отца въ пустыннѣи по государству, а также проехавъ по всей Россїи въ 1837 г. со специальной целью пополнить свое книжное образованіе и воспитание наилѣпшимъ изученнымъ раз-

- (A) A page from *Sovremennik*, published shortly after Pushkin's death, recounting his final moments.

- (B) A page from the *Book of Russian Sorrow*, depicting the assassination of Alexander II.

FIGURE A2: Sample Incident of Tsarist-Era Violence



Note: Scene following the 'failed' assassination attempt on Stolypin in 1906, an attack that resulted in 27 fatalities. The attack was claimed by a socialist revolutionary group called Union of Socialists-Revolutionaries-Maximalists.

**FIGURE A3: Distribution of Attacks over Time**

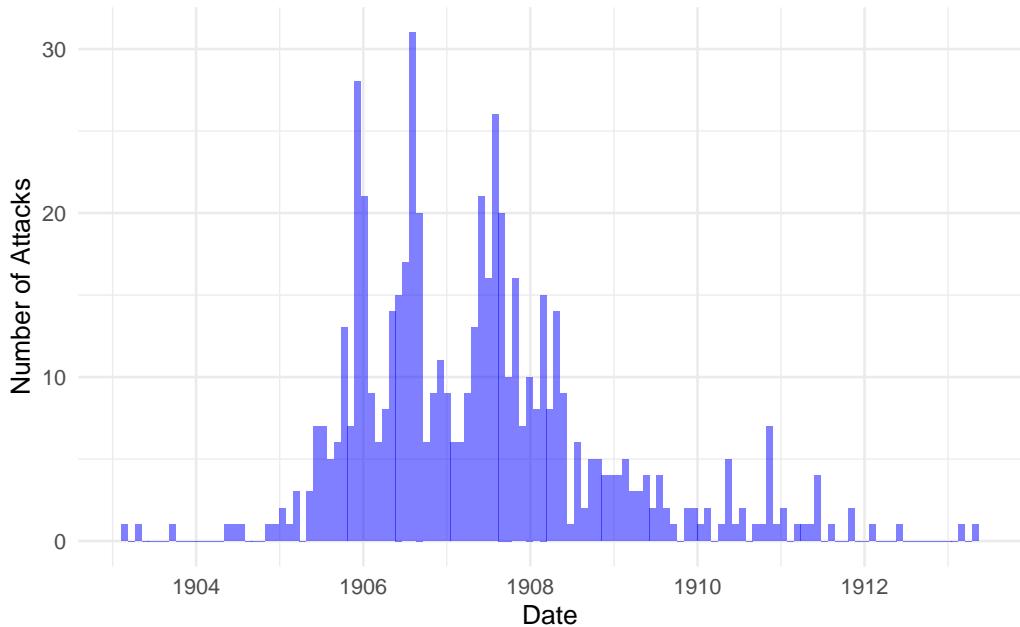
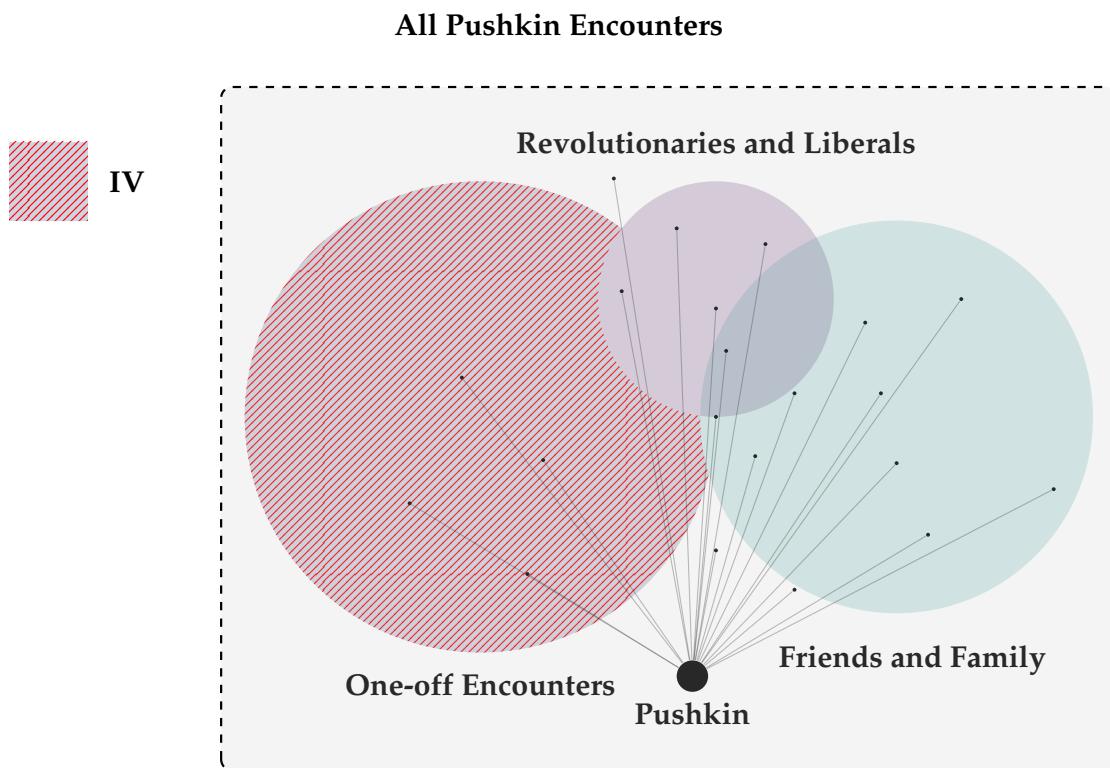


FIGURE A4: Alexander Pushkin's One-Off Encounters as an Instrument

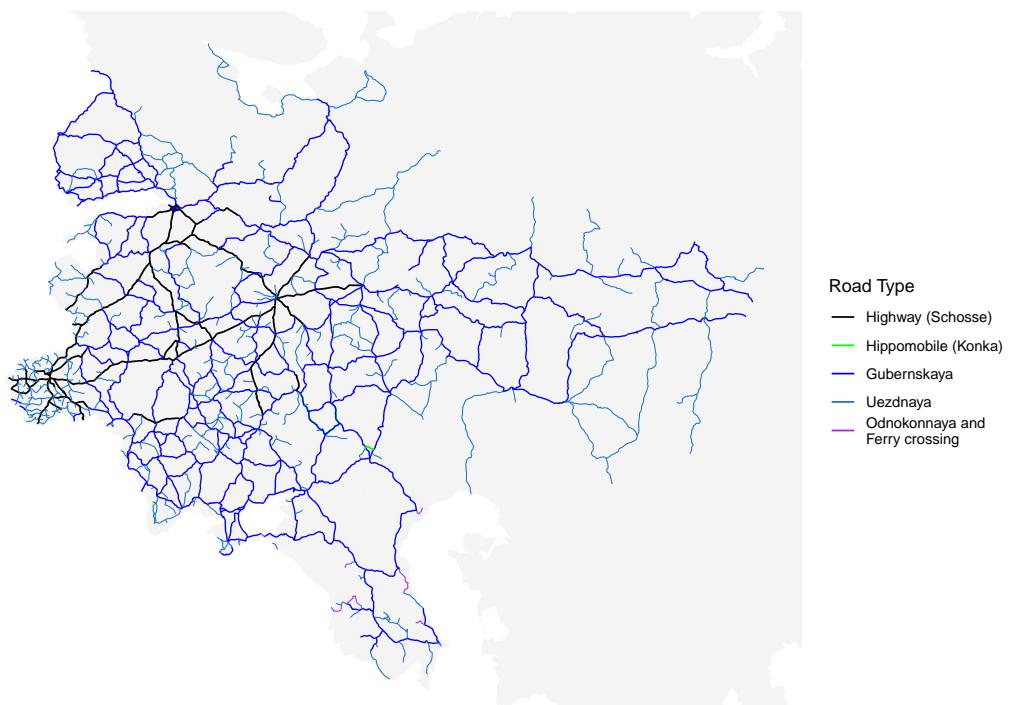


**Note:** This figure illustrates Alexander Pushkin’s network, its composition, and the sample selection underlying our one-off encounters instrumental variable. Our analysis relies on a list of approximately 2,500 individuals Pushkin encountered during his lifetime, with information compiled by [Chereiskii \(1988\)](#). The composition of Pushkin’s circle is derived from a text analysis of articles in [Chereiskii \(1988\)](#). Using a GPT-based classification, we categorize articles into specified categories. Our preferred instrument is constructed as a county-level count of the locations (birthplaces or places of living) of individuals Pushkin met only once—those with no documented affiliation to revolutionary or liberal circles.

**FIGURE A5: Digitizing Road Network**



(A) The Fragment of Original Roads Map



(B) Extracted Network

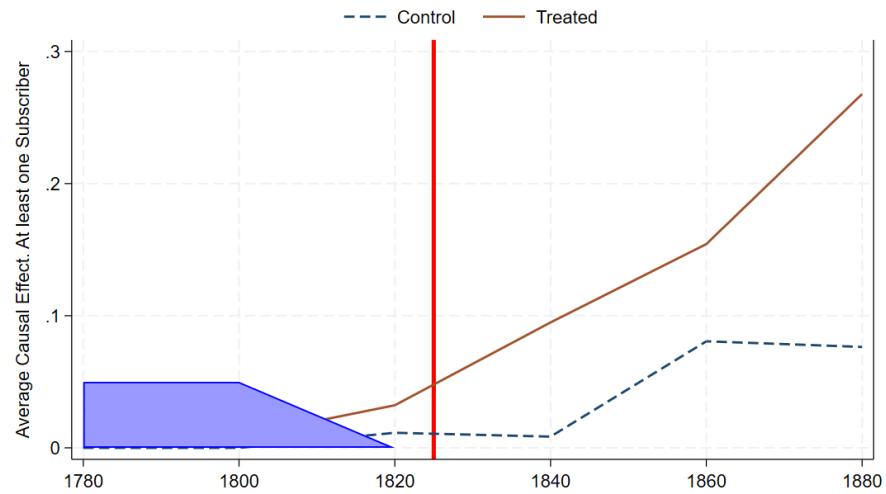
**Note:** This figure shows the digitized road network of the Russian Empire, based on the Postal Map of the European Part of the Russian Empire and the Caucasus Region (Saint Petersburg, 1852). The shapefile was constructed by manually digitizing the atlas, capturing the entire network down to the granularity of uezd roads. Panel A depicts the original road network from the atlas, while Panel B presents the corresponding digitized version, illustrating the Empire's mid-19th-century connectivity during the time of *Sovremennik*.

FIGURE A6: Subscription Book of Dostoevsky's Magazine "A Writer's Diary" (1881)

		20	на	59 руб 33
Номер	29	21) Чуриновъ, Лебедевъ		3 р.
x	29	22) Молочновъ, Сычевъ		3 р.
x	29	23) Кудесниковъ, Новосиль		3 р.
29	24) Кудесниковъ, Масанровъ			3 р.
x	30	25) Можайковъ, Суслъ		3 р.
30	26) Докучаевъ, Раневъ			3 р.
x	30	27) Орловцовъ, Ефимъ		3 р.
30	28) Шадровскій, Неструевъ			3 р.
x	30	29) Зеферь, Кистровъ		3 р.
x	1	30) Оболенскій, Михаилъ Ник. Г.		3 р.
1	31) Юматовъ, Петровъ			3.
1	32) Ковалевъ, Балкъ			3 р.
2	33) Чуральевъ Мих. В. Илья. Воронцовъ			3 р.
2	34) Коваленко, Миргородъ			3 р.
2	35) Лаппа Гардерекий Конордъ			3 р.
2	36) Островскій, Казанъ			3 р.
3	37) Торчакова, Москва			3 р.
3	38) Корниловъ, Никоновъ			3 р.
x	3	39) Кудашевъ, Харюковъ		3 р.
3	40) Всеволожевъ, Алоо			3 р.
Всего				119 руб 33

Note: The picture of the Subscription Book for Fyodor Dostoevsky's magazine *A Writer's Diary* (1881), managed by writer's wife, Anna Dostoevskaya, with the names of subscribers and their cities.

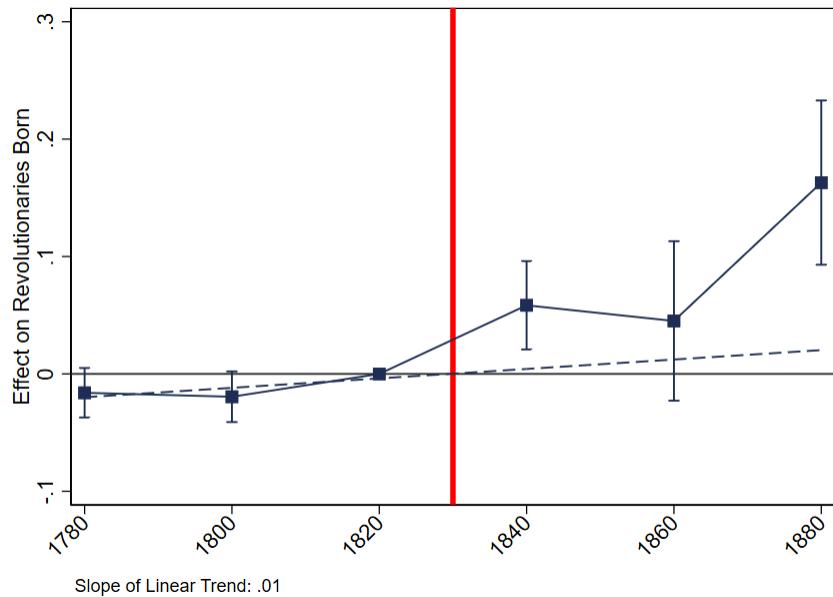
**FIGURE A7: Sovremennik and the Birth of Future Revolutionaries in Levels. Synthetic Difference in Differences**



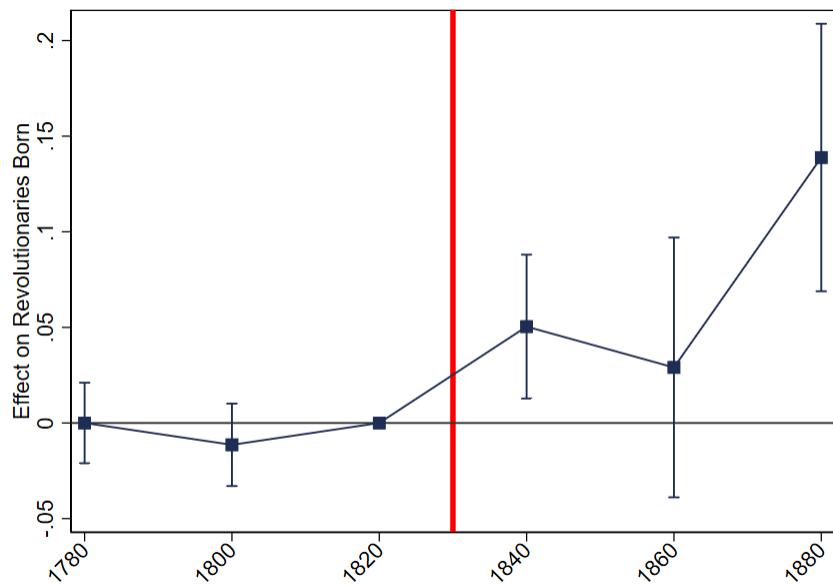
**Note:** The figure illustrates the levels estimate of the effect of Sovremennik subscription on the birth of future revolutionaries. The unit of analysis is 20-years-counties (uezd). The year indicates the first year of 20-year period. The outcome is the number of revolutionaries born in the county in the period. Treatment is defined as a dummy of a county having at least one sovremennik subscriber interacted with post editorship transfer dummy. Standard errors are reported using the cluster bootstrap method as outlined in Algorithm 2 of Arkhangelsky et al. (2021).

FIGURE A8: Robustness to Linear Violations of Parallel Trends for Revolutionaries - [Rambachan and Roth \(2023\)](#)

Panel A: Estimated Linear Trend

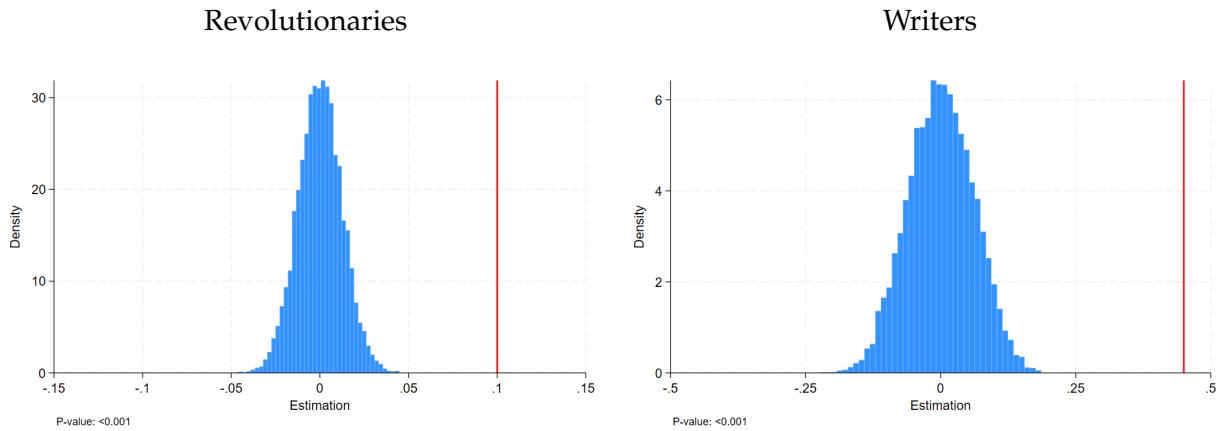


Panel B: Rotated Event Study



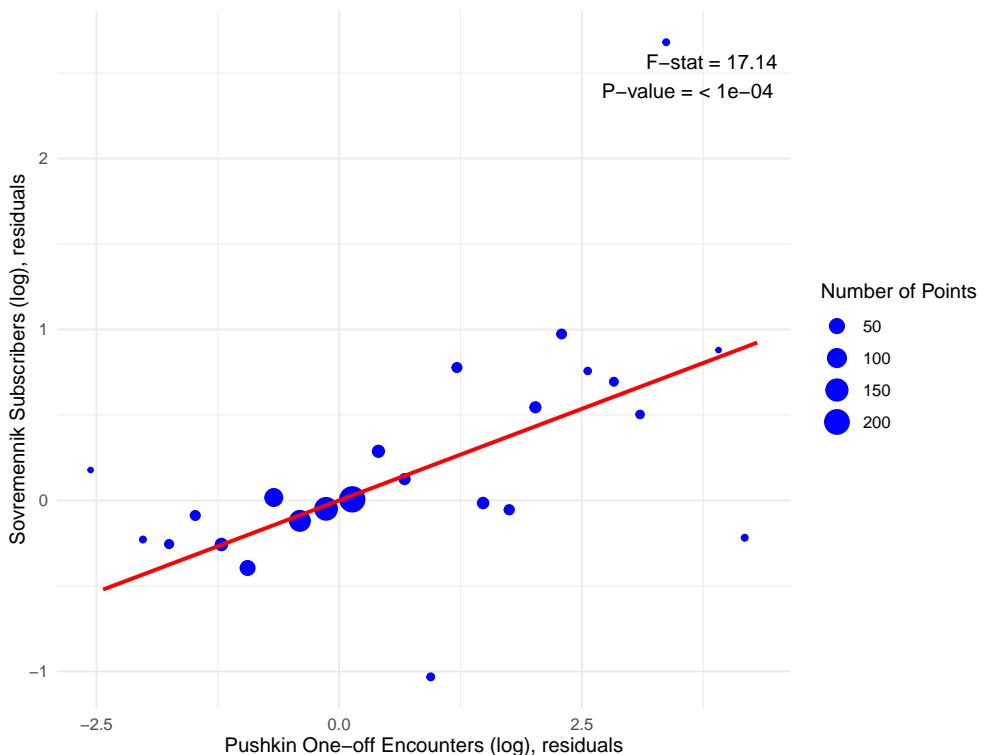
**Note:** The figure examines potential deviations from the parallel trends assumption following the approach of ?. The unit of analysis is 20-years-county (uezd). The year indicates the first year of 20-year period. The outcome is the number of revolutionaries born in the county in the period. In Panel A, we superimpose a linear trend—estimated from pre-treatment data—onto the event-study coefficients and extrapolate it into the post-treatment period. Panel B then presents the event-study estimates adjusted for this extrapolated trend.

**FIGURE A9: Permutation Inference Test for Difference-in-Differences Estimates**



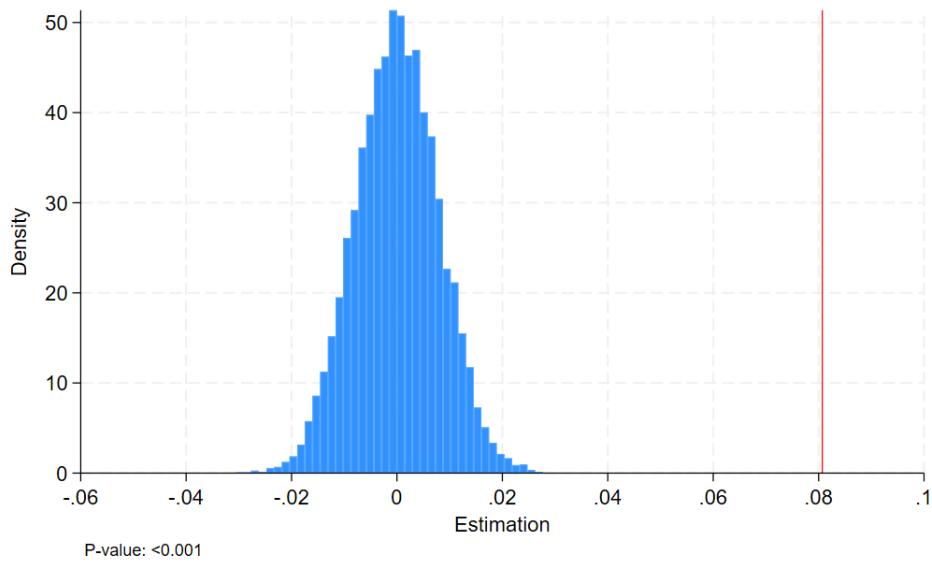
**Note:** This figure presents the distribution of estimated coefficients from a permutation inference test based on 10,000 random assignments of treatment. Where we permute treatment status by uezds. Treatment is an indicator of the uezd having at least 1 subscriber interacted with post 1860 dummy. The vertical red line marks the actual estimated coefficient. The observed p-values for each test are reported and are all  $< 0.01$ , indicating that the estimated effect is highly unlikely to be driven by random chance.

**FIGURE A10: First-stage Binned Scatter Plot, Pushkin "One-off" Encounters**



**Note:** These figures present a binned scatter plot and linear fit illustrating the relationship used in our first-stage analysis: between the logarithm of the average number of subscribers between 1859 and 1861 (plus 0.1) and our instrumental variables based on birth counties of Pushkin one-off encounters.

**FIGURE A11: Permutation Inference Test for One-Off Instrument**



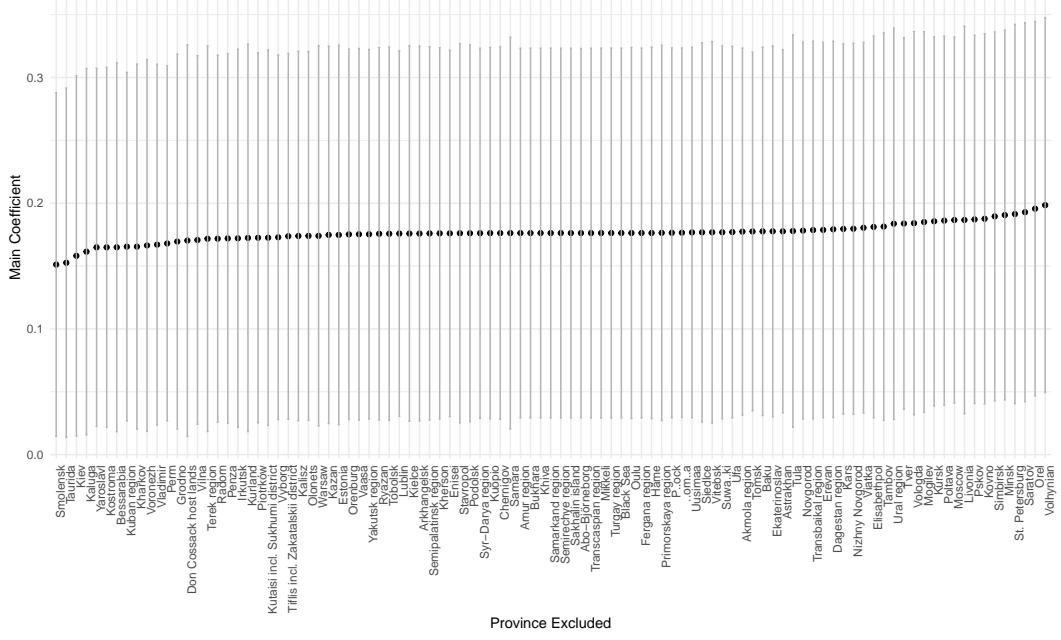
**Note:** The figure reports the results of permutation inference test of 10000 permutations. The histogram estimates the probability density function of the estimated coefficient under the null hypothesis that magazine distribution has no effect on the political violence. The line indicates the actual estimation of the coefficient.

**FIGURE A12: Event Study on Peasant Unrest**



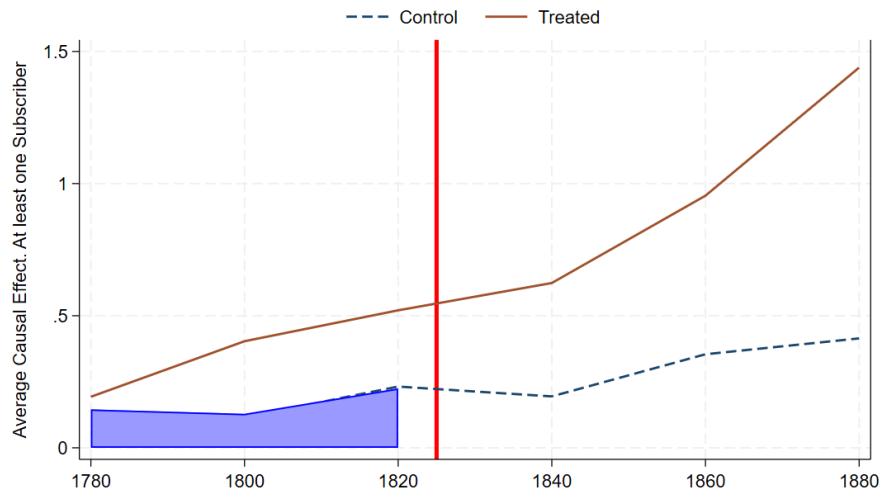
**Note:** The figures report the Event-study analysis of effect of Sovremennik on peasant unrest. Outcome variable is a number of events of peasant unrest as used in (Dower et al., 2018). The time unit is an year, indicator of presence of at least one subscriber in the county interacted with time dummies. The reference period is one period before the liberalization of censorship. Standard errors are clustered on the county level.

FIGURE A13: Robustness Check: Baseline Specification, Main Coefficients Excluding One Province at a Time



**Note:** The figure presents the regression coefficients from our main specification, analyzing the effect of *Sovremennik* on political violence. Each time, we exclude one province at a time, demonstrating that the results are not driven by any single province.

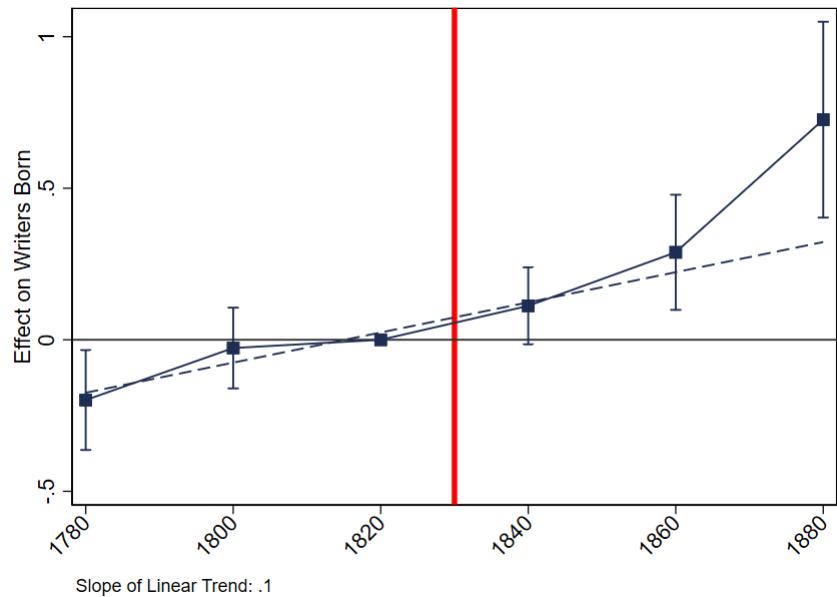
FIGURE A14: Effect of *Sovremennik* on the Birth of Future Writers. Synthetic Difference in Differences



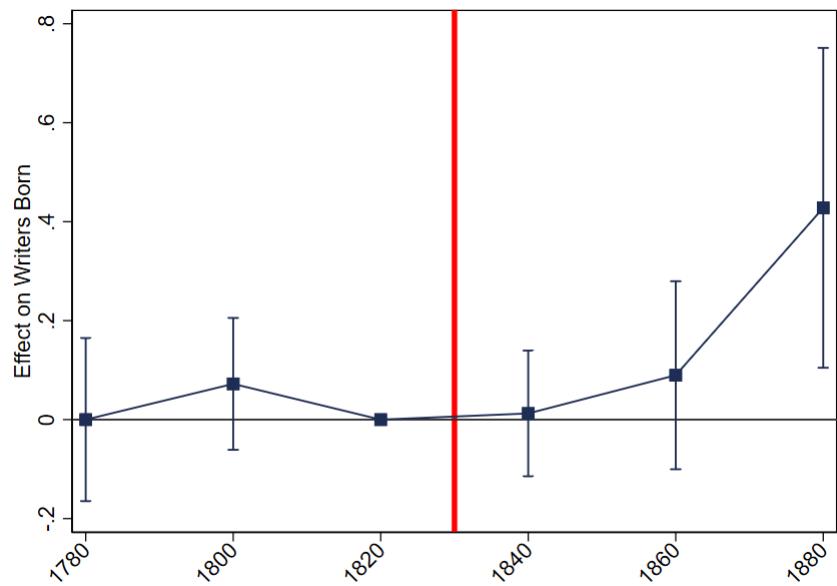
**Note:** The figure illustrates the levels estimate of the effect of *Sovremennik* subscription on the birth of future writers. The unit of analysis is 20-years-counties (uezd). The year indicates the first year of 20-year period. The outcome is the number of writers born in the county in the period. Treatment is defined as a dummy of a county having at least one *Sovremennik* subscriber interacted with post editorship transfer dummy. Standard errors are reported using the cluster bootstrap method as outlined in Algorithm 2 of [Arkhangelsky et al. \(2021\)](#).

FIGURE A15: Robustness to Linear Violations of Parallel Trends for Writers - [Rambachan and Roth \(2023\)](#)

Panel A: Estimated Linear Trend



Panel B: Rotated Event Study



**Note:** The figure examines potential deviations from the parallel trends assumption following the approach of [Rambachan and Roth \(2023\)](#). The unit of analysis is 20-years-county(uezd). The year indicates the first year of 20-year period. The outcome is the number of writers born in the county in the period. In Panel A, we superimpose a linear trend—estimated from pre-treatment data—onto the event-study coefficients and extrapolate it into the post-treatment period. Panel B then presents the event-study estimates adjusted for this extrapolated trend.

TABLE A1  
TWO EXCERPTS OF *Sovremennik* TEXTS

---

**Panel A: Art for Art Sake**

---

N.V.Gogol  
"Nose", 1836      Then a rumor went round that Major Kovalyov's nose was out for a stroll, not on Nevsky Avenue but in Taurida Gardens, that it had been there for ages; that when Khosrev-Mirza lived there he marveled greatly at this strange freak of nature. Some students from the Surgical Academy went there. One aristocratic, respectable lady, in a special letter to the Superintendent of the Gardens, asked him to show her children this rare phenomenon, accompanied, if possible, with an explanation edifying and instructive for the young. All the men about town, the habitués of society parties, who liked to amuse ladies and whose resources had by that time been exhausted, were extremely glad of all these goings-on.

---

**Panel B: Art for Political Change**

---

N.G. Chernyshevsky, "What Is to Be Done?", 1862      The Golden Age will dawn, Dmitry, we know that, but it still lies ahead. The Iron Age is passing, it has almost passed; but the Golden Age has not yet arrived. If, according to my abstract hypothesis, some strong need of this person (let's assume, only for the sake of an example, the need for love) were completely unsatisfied, or were ill satisfied, then I would say nothing against such a person's incurring a risk herself, but only that particular kind of risk, and certainly not any other risk, inflicted on that person by someone else. But if that person does find a sufficient satisfaction of that need, then she shouldn't subject herself to any risk. Let's suppose, in the abstract, that she doesn't wish to incur any risk. I say that she's right and sensible in not wishing to incur any; further, I say that anyone who subjects such a person to risk is acting in a stupid and senseless way. What can you possibly say to refute this hypothetical conclusion? Nothing! Understand, then, that you have no right.

---

**Note:** This table presents two excerpts from books published in *Sovremennik* magazine. The first is from N. V. Gogol's absurdist comedy *The Nose*, where the plot revolves around a nose that escapes its owner and the reaction to this event in St. Petersburg. The second excerpt is from N. G. Chernyshevsky's novel *What Is to Be Done?*, renowned for its influence on left-wing philosophy and its impact on Lenin's ideas. Between the lines, it debates the possibility of revolution versus maintaining the status quo, with a focus on the role of the main character, Vera, in the society of that time.

TABLE A2  
A SAMPLE OF REVOLUTIONARY PAMPHLET

---

Union of Struggle for the Liberation of the Working Class, 1895

TO THE WEAVERS OF THE LEBEDEVA FACTORY. Comrades! On December 20th you proved that the merciless pressure of the master has not yet completely crushed you, that Lebedev has not yet succeeded in making you his serfs. You proved that every patience has an end: you responded to his inhuman act with a strike. All year round you have been exhausted, trying to increase his wealth, and as a reward for your zeal, he presented you with a gift for the holiday: your earnings have been reduced by almost two and a half times. The grateful master did not even consider it necessary to keep his word and add a nickel to each ruble earned - why? After all, the weavers would meekly, at his first word, agree to endure need and hunger. When he clearly saw that the weavers, refusing to work until midnight, began to demand an increase in rates, the master found a good means against the recalcitrant ones - he set police dogs on them. On the night of December 22nd, the police illegally and without any reason detained many weavers - as a warning to others. Comrades, on the side of your robber - the owner was the strength of his capital, at his service was the Factory Inspector, the police, the gendarmes, on his side are also our Russian laws, which forbid workers to agree on their affairs and to jointly abandon work when it is no longer possible to work. On your side there was no friendly help from workers in other departments, to whom no one explained that they should support their comrades; not foreseeing such a case, you did not organize among yourselves a comradely workers' union in order to hold out during the strike with the money collected during the calm time. You had none of this; it is no wonder that, forced by hunger and cold, you temporarily submitted to the master's tyranny and work as much as he orders and for what price he wants. But do not forget that by friendly action at the first convenient opportunity you can easily achieve success. Prepare for the struggle and when it becomes possible, you must all, as one man, quit your work and calmly but firmly declare your wishes. Stand together, comrades, and courageously defend your interests. For the New Year, the Union of Struggle for the Liberation of the Working Class sends you its greetings and wishes for success and promises constant assistance.

---

**Note:** This table presents the translation of one of the pamphlet distributed among workers of the factory. In this pamphlet the left-wing political organization calls worker to fight for their rights.

TABLE A3  
PUSHKIN CIRCLE: COMPOSITION AND CORRESPONDENCE

Panel A: Composition of Pushkin Circle					
Variables:	Hard to tell	No	Unlikely	Likely	Yes
One-off Encounters	34 (1.55%)	356 (16.2%)	586 (26.67%)	545 (24.81%)	676 (30.77%)
Relatives	546 (24.85%)	1397 (63.59%)	72 (3.28%)	42 (1.91%)	140 (6.37%)
Friends & Acquaintance	135 (6.14%)	244 (11.11%)	608 (27.67%)	959 (43.65%)	251 (11.42%)
Noble	931 (42.38%)	204 (9.29%)	214 (9.74%)	136 (6.19%)	712 (32.41%)
Peasant	601 (27.36%)	1529 (69.59%)	5 (0.23%)	5 (0.23%)	57 (2.59%)
Liberal	1889 (85.98%)	37 (1.68%)	127 (5.78%)	121 (5.51%)	23 (1.05%)
Conservative	1930 (87.85%)	88 (4.01%)	115 (5.23%)	45 (2.05%)	19 (0.86%)
Radical	1907 (86.8%)	158 (7.19%)	43 (1.96%)	65 (2.96%)	24 (1.09%)
Loyalist	2010 (91.49%)	92 (4.19%)	35 (1.59%)	43 (1.96%)	17 (0.77%)
Military	154 (7.01%)	1366 (62.18%)	18 (0.82%)	25 (1.14%)	634 (28.86%)
Creatives	189 (8.6%)	1236 (56.26%)	55 (2.5%)	141 (6.42%)	576 (26.22%)

Panel B: Excerpts from Pushkin's Correspondence			
Letter/Person receiving	Date	Person's Place	Letter Excerpt
146. A. A. Fuks	20/02/1836	Kazan	"Allow me to present to you, gracious lady, a subscription ticket for The Contemporary, which I am publishing."
151. V. D. Sukhorukov	14/03/1836	Novocherkask	"You know that I have become a journalist (which reminds me, I haven't sent you The Contemporary; please excuse me—I shall try to make up for my negligence)".
156. S. N. Glinka	26/03/1836	Smolensk oblast	"My edition of The Contemporary has not yet been published — but it will come out in due time. You will be the first to receive it immediately."
163. M. P. Pogodin	14/04/1836	Moscow oblast	"If you see Nadezhdin, thank him from me for The Telescope. I will send him The Contemporary."
164. N. M. Yazykov	14/04/1836	Ulyanovsk	"You will receive my edition of The Contemporary; I hope it will earn your approval."

	Full Sample	One-Off Sample	Share in Full Sample	Share in One-Off Sample
Place of Birth Available	914	386	0.378	0.291
Place of Birth or Place of Living/Meeting Available	2278	1253	0.941	0.945
Peasants with Place of Birth (Stated or Inferred)	20	17	0.008	0.013
Born Abroad	83	42	0.034	0.032
Total Number of People	2421	1326	1.000	1.000

**Note:** The table's Panel A presents the composition of Pushkin's circle based on text analysis of articles from Chereiskii (1988). We use a GPT-based classification to determine whether a given article belongs to the specified categories. Panel B presents excerpts from Pushkin's correspondence promoting his magazine, The Contemporary (*Sovremennik*). Panel C presents the composition of locations used for geolocation for the instrument.

**TABLE A4**  
**DESCRIPTIVE STATISTICS, COUNTY-LEVEL**

Variables:	N	Mean	St. Dev.	Min	Median	Max
<b>Panel A: Outcome variables:</b>						
Political violence (extensive margin)	824	0.28	0.45	0	0	1
Political violence (intensive margin)	824	0.70	1.99	0	0	32
<b>Panel B: Explanatory and instrumental variables:</b>						
Num. <i>Sovremennik</i> subscribers	824	7.52	56.86	0.00	2.00	1,528
Num. Pushkin contacts	824	2.44	25.79	0	0	611
Num. Pushkin contacts ("One-off")	824	1.22	12.70	0	0	297
Num. Pushkin contacts (no friends)	824	1.22	12.42	0	0	298
Num. Pushkin contacts (no relatives)	824	1.22	12.12	0	0	281
Catherine connections	824	0.10	0.30	0	0	1
Catherine correspondents	824	0.05	0.22	0	0	1
<b>Panel C: Mechanisms and Placebo:</b>						
Revolutionary publications (extensive margin)	824	0.13	0.34	0	0	1
Revolutionary publications (intensive margin)	824	4.09	27.01	0	0	492
Literacy (1897)	488	32.77	18.31	9.26	26.54	98.81
Num. schools (1894)	488	0.46	0.25	0.10	0.39	2.52
Num. schools (1911)	484	1.49	0.63	0.39	1.32	5.72
Num. factories (1820)	824	0.18	0.87	0	0	12
Num. military establishments (1820)	824	0.09	0.28	0	0	1
Num. tavernas (1820)	824	0.04	0.24	0	0	4
Num. monasteries (1820)	824	0.09	0.34	0	0	3
Num. writers born after <i>Sovremennik</i>	824	2.11	8.22	0	1	150
<i>A writer's diary</i> subscribers (extensive margin)	824	0.38	0.49	0	0	1
<i>A writer's diary</i> subscribers (intensive margin)	824	1.21	6.25	0	0	152
Revolutionaries	824	0.44	1.37	0	0	26
<b>Panel D: Main Controls:</b>						
Num. writers (pre-treatment)	824	0.69	3.66	0	0	71
Share of serfs	488	38.57	24.88	0.00	42.98	85.21
Pop. density 1858 (log)	476	3.93	0.90	-1.42	4.13	6.64
Num. post stations in county	824	4.23	4.43	0	3	52
Latitude (county centroid)	824	52.82	5.87	37.49	53.06	70.61
Longitude (county centroid)	824	42.17	22.79	17.96	37.28	175.82
Distance to Moscow	824	1,153.88	1,063.04	13.83	901.22	6,871.84
Distance St.-Petersburg	824	1,384.66	1,106.81	22.55	1,080.25	6,671.81
Num. all elites	824	4.02	23.93	0	1	517
Num. military elites	824	0.62	4.53	0	0	104
Num. scientists	824	1.00	4.81	0	0	97
Num. artists, musicians, theater	824	0.57	4.57	0	0	106

**Note:** This table presents descriptive statistics of variables used in the main analysis. More detailed data descriptions are presented in Section 3 and data sources are listed in Appendix [Table A13](#).

TABLE A5  
ALTERNATIVE MECHANISMS: “SOVREMENNİK” SUBSCRIPTIONS AND FUTURE HUMAN CAPITAL AND 1917 ELECTION

	OLS (1)	2SLS (2)	OLS (3)	2SLS (4)
<b>Panel A: Effect on Human Capital</b>				
<i>Dep. Var.:</i>	Literacy, 1897		Total county number of schools per 1000, 1911	
Number of subscribers, average 1859-61, log	0.0103 (0.1989)	1.270 (1.618)	-0.0026 (0.0109)	0.0683 (0.1107)
F statistics (Kleibergen-Paap)		8.0238		8.1429
Anderson-Rubin CI		[-1.941, 4.481]		[-0.151, 0.289]
Observations	824	824	824	824
Mean of dependent variable	19.410	19.410	0.03	0.03
<b>Panel B: Effect on Elections</b>				
<i>Dep. Var.:</i>	Democrats Votes Share		Bolsheviks Votes Share	
Number of subscribers, average 1859-61, log	0.0006 (0.0009)	0.0216* (0.0123)	0.0067** (0.0028)	0.0067 (0.0334)
Geographic controls	✓	✓	✓	✓
Main controls	✓	✓	✓	✓
Province FEes	✓	✓	✓	✓
F statistics (Kleibergen-Paap)		8.4113		8.4299
Anderson-Rubin CI		[-0.003, 0.046]		[-0.056, 0.073]
Observations	824	824	824	824
Mean of dependent variable	0.024	0.024	0.135	0.135

**Note:** The 2SLS estimation assesses the effect of the logarithm of magazine subscriptions (plus 0.1), averaged between 1859 and 1861, instrumented by the logarithm of the count of One-off Pushkin encounters (plus 0.1), on various human capital outcomes. Odd and even columns present OLS and 2SLS estimates, respectively. For panel A, in columns 1 and 2, the outcome variable is the literacy level in 1897. In columns 3 and 4, the outcome variable is the number of schools in counties in 1894, and in columns 5 and 6, it is the number of schools in 1911. For panel B dependent variables are share of votes for democrats (kadets) and socialists (RSDRP(b)). For some uezd data on dependent variable is missing, in that case we replace it with 0 and control for indicator that data is missing. We introduce the set of controls, we incorporate a broader set of economic characteristics and historical covariates. These include population density in 1858, the number of factories, villages, and post stations, as well as the share of serfs, which captures variation in pre-reform agrarian structure. We also control for the logarithm of the number of writers born before the launch of *Sovremennik*, the number of universities, the number of Decembrists born in the county, and the religious composition of the population, measured as the share of Jews and Orthodox Christians. We report the Kleibergen-Paap rk Wald F statistic and Anderson-Rubin CI. Standard errors (in parentheses) are clustered at the province level. \*\*\*: 0.01, \*\*: 0.05, \*: 0.1

TABLE A6  
MATCHED DYNAMIC DIFFERENCE-IN-DIFFERENCES ESTIMATES AND ALTERNATIVE FIXED  
EFFECTS

	Number of Revolutionaries Born				
	(1)	(2)	(3)	(4)	(5)
At Least One Sovremennik Subscriber X Post-1840	0.101*** (0.022)	0.091*** (0.023)	0.079*** (0.029)	0.085** (0.036)	0.082*** (0.029)
Time Fixed Effects	✓	✓	✓		✓
District Fixed Effects	✓	✓	✓	✓	✓
Baseline Characteristics X Time FE			✓		
Matched Sample				✓	
Province by Time Fixed Effects					✓
Province Specific Linear Trends					✓
Mean Dep. Var.	.076	.076	.085	.076	.076
Observations	4944	4944	4302	4926	4944

**Note:** This table presents robustness checks for alternative specifications. Column 1 reports the baseline static Difference-in-Differences specification. Column 2 includes time-varying controls: pre-treatment characteristics such as the number of factories, taverns, monasteries, villages, and post stations, each interacted with time fixed effects. Column 3 reports results from a matched Difference-in-Differences design. Matching was based on geographic covariates (distance to Moscow and St. Petersburg, latitude, and longitude) and baseline characteristics, including population density (1858), number of factories, villages, post stations, share of serfs, number of writers born prior to Sovremennik's launch, universities, Decembrist births, and religious composition (share of Jews and Orthodox Christians). Column 4 includes province-by-time fixed effects, and Column 5 adds province-specific linear trends. The unit of observation is the country  $\times$  20-year period. Eighteen singleton observations are dropped in Column 4 following Correia (2015). Standard errors are clustered at the region level. \*  $p < 0.10$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$

TABLE A7  
PLACEBO TEST: PRETREATMENT VIOLENCE

	Dep. Var.: Pretreatment political violence			
	IV: One-off Encounters		IV: Libraries pre-treatment	
	2SLS	RF	2SLS	RF
	(1)	(2)	(3)	(4)
Number of subscribers, average 1859-61, log	0.1522 (0.2796)		1.071 (1.143)	
Number of Pushkin one-off encounters, log		0.0486 (0.0891)		
Number of libraries			0.2627 (0.1788)	
Geographic controls	✓	✓	✓	✓
Main controls	✓	✓	✓	✓
Observations	99	99	99	99
Mean of dependent variable	0.667	0.667	0.667	0.667

**Note:** The 2SLS and reduced form estimations assess the effect of the logarithm of magazine subscriptions (plus 0.1), averaged between 1859 and 1861, instrumented by the logarithm of the count of Pushkin one-off encounters (plus 0.1) and number of libraries in the gubernia, on pre-magazine political violence (mostly peasant unrest) in Russian Empire. For each instrument we present 2SLS, columns (1), (3) and RF estimates, columns (2), (4). Observed data is on province level. Standard errors (in parentheses) are heteroskedasticity-robust. Controls include population density in 1858, the number of factories, villages, and post stations, as well as the share of serfs, which captures variation in pre-reform agrarian structure. We also control for the logarithm of the number of writers born before the launch of *Sovremennik*, the number of universities, the number of Decembrists born in the county, and the religious composition of the population, measured as the share of Jews and Orthodox Christians. \*\*\*: 0.01, \*\*: 0.05, \*: 0.1

TABLE A8

PLACEBO: (A) EPISTOLARY NETWORK OF CATHERINE THE GREAT (1762 - 1796), ROADS NETWORK CENTRALITY, AND (B) PRE-TREATMENT ESTABLISHMENTS (1820)

	(1)	(2)	(3)	(4)
<b>Panel A: Epistolary Network of Catherine II &amp; Roads Network Centrality</b>				
Dep. Var.:	Catherine correspondents	Centrality score	Political Violence, 2SLS	
Number of Pushkin one-off encounters, log	0.0065 (0.0138)	0.4162* (0.2296)		
Number of subscribers, average 1859-61, log		0.2292** (0.1058)	0.2348** (0.1141)	
Has Catherine correspondents		0.0020 (0.0641)		
Centrality score, log			-0.0021 (0.0050)	
Geographic controls	✓	✓	✓	✓
Main controls	✓	✓	✓	✓
Province FEs	✓	✓	✓	✓
F statistics (Kleibergen-Paap)			8.6111	7.2297
Anderson-Rubin CI			[0.0192, 0.439]	[0.008, 0.461]
Observations	824	824	824	824
Mean of dependent variable	0.09	3.93	0.28	0.28
<b>Panel B: Pre-treatment Establishments (1820); 2SLS, Second Stage (One-off Encounters IV)</b>				
Dep. Var.:	# of tavernas	# of monasteries	# of Factories	Has military installations
Number of Pushkin one-off encounters, log	-0.0254 (0.0268)	0.1173 (0.0993)	-0.2741* (0.1496)	0.0683 (0.0459)
Geographic controls	✓	✓	✓	✓
Main controls	✓	✓	✓	✓
Province FEs	✓	✓	✓	✓
F statistics (Kleibergen-Paap)	8.3253	8.3253	8.3253	8.3253
Anderson-Rubin CI	[-0.079, 0.0279]	[-0.080, 0.314]	[-0.571, 0.0229]	[-0.029, 0.159]
Observations	824	824	824	824
Mean of dependent variable	0.03	0.09	0.18	0.08

**Note:** This table presents results from two placebo exercises. Panel A examines Catherine II's epistolary network and measure of network centrality of the road network. Column 1 shows OLS estimates of the effect of the logarithm of One-Off Pushkin encounters (plus 0.1), with a dependent variable of a dummy indicating whether a county contains locations of Catherine's letter recipients or the locations from where the letters were sent (Catherine Correspondents). Column 2 uses a similar approach but on the betweenness centrality ofuezd in the road network score as a dependent variable. Columns 3 and 4 use the baseline instrument based on Pushkin encounters, with Catherine's network and centrality score added as controls. Panel B examines the presence and numbers of various establishments from the Pladyshev atlas of the Russian Empire as outcome variables, using the baseline IV strategy based on One-off Pushkin encounters. The list of military installation includes fortresses, military cordons, foreposts, guardhouses (karauls), and redoubts. We introduce two sets of controls, which are used in odd and even columns, respectively. In the first group, we control for geographic variables, such as distances to Moscow and Saint Petersburg, and linear controls for latitude and longitude. In the second set of controls, we incorporate a broader set of economic characteristics and historical covariates. These include population density in 1858, the number of factories, villages, and post stations, as well as the share of serfs, which captures variation in pre-reform agrarian structure. We also control for the logarithm of the number of writers born before the launch of *Sovremennik*, the number of universities, the number of Decembrists born in the county, and the religious composition of the population, measured as the share of Jews and Orthodox Christians. We report the Kleibergen-Paap rk Wald F statistic and Anderson-Rubin Confidence intervals. Standard errors (in parentheses) are clustered at the province level. \*\*\*: 0.01, \*\*: 0.05, \*: 0.1

TABLE A9  
ROBUSTNESS ACCORDING TO CHEN AND ROTH (2024) AND ALTERNATIVE DEFINITIONS OF DEPENDENT AND INDEPENDENT VARIABLE

	(1)	(2)	(3)	(4)
<b>Panel A: Robustness According to Chen and Roth (2024)</b>				
Dep. Var.: Value of X if # of Attacks = 0	X = 0	X = -0.1	X = -1	X = -5
Number of subscribers, average 1859-61, log	0.2292** (0.1046)	0.2522** (0.1150)	0.4585** (0.2091)	1.375** (0.6274)
<b>Panel B: Alternative Definitions of Dependent Variable</b>				
Dep. Var.:	# of attacks	log(attacks + 1)	IHS(attacks)	Poisson
Number of subscribers, average 1859-61, log	1.579** (0.7752)	0.3690** (0.1436)	0.4632** (0.1803)	1.118*** (0.3782)
<b>Panel C: Alternative Definitions of Independent Variable</b>				
Dep. Var.:	N of Attacks > 0			
log(subscribers + 0.01)	0.2123** (0.1051)			
log(subscribers + 1)		0.2749** (0.1200)		
IHS(subscribers)			0.2417** (0.1062)	
Subscribers above/below median (dummy)				1.152* (0.6856)
Geographic controls	✓	✓	✓	✓
Main controls	✓	✓	✓	✓
Province FEes	✓	✓	✓	✓
Observations	824	824	824	824

**Note:** The 2SLS estimation assesses the effect of the logarithm of magazine subscriptions (plus 0.1), averaged between 1859 and 1861, instrumented by the logarithm of the count of Pushkin one-off encounters (plus 0.1), on different definitions of the dependent variable related to acts of political violence against imperial officials. Panel A presents 2SLS second-stage results with different values of X for the outcome variable (assuming no attacks). Panel B reports the 2SLS second-stage results with varying transformations of the outcome variable, including the raw attack count, log-transformed, inverse hyperbolic sine (ihs), and a Poisson model. Panel C reports the 2SLS second-stage results with varying transformations of the independent variable. The results are robust, and alternative transformations of dependent, independent and instrumental variables are available on request. Controls include population density in 1858, the number of factories, villages, and post stations, as well as the share of serfs, which captures variation in pre-reform agrarian structure. We also control for the logarithm of the number of writers born before the launch of *Sovremennik*, the number of universities, the number of Decembrists born in the county, and the religious composition of the population, measured as the share of Jews and Orthodox Christians. Standard errors (in parentheses) are clustered at the province level. \*\*\*: 0.01, \*\*: 0.05, \*: 0.1.

TABLE A10  
ALTERNATIVE INSTRUMENT: LIBRARIES

	OLS		2SLS, second stage	
	(1)	(2)	(3)	(4)
<b>Panel A. OLS and second-stage results</b>				
<i>Dep. Var.: Political Violence</i>				
Number of subscribers, average 1859-61, log	0.0988*** (0.0104)	0.0755*** (0.0123)	0.1924*** (0.0488)	0.2119** (0.0913)
Geographic controls	✓	✓	✓	✓
Main controls		✓		✓
Province FEs	✓	✓	✓	✓
Observations	824	824	824	824
Mean of dependent variable	0.28	0.28	0.28	0.28
<b>Panel B. First-stage results</b>				
<i>Dep. Var.: Number of subscribers, log</i>				
Library before 1846			1.413*** (0.2445)	0.7696*** (0.2082)
Geographic controls			✓	✓
Main controls				✓
Province FEs			✓	✓
F statistics (Kleibergen-Paap)			33.421	13.668
Anderson-Rubin CI			[0.010, 0.290]	[0.031, 0.393]
Observations			824	824

**Note:** The 2SLS estimation assesses the effect of the logarithm of magazine subscriptions (plus 0.1), averaged between 1859 and 1861, instrumented by the indicator of a library in the district before year 1846, when the ownership of the journal was handled to Nekrasov, on a dummy variable for at least one act of political violence against imperial officials. Panel A shows OLS estimates (columns 1 and 2) and 2SLS second-stage estimates (columns 3 and 4). Panel B presents the first stage. Each specification includes province-level fixed effects. We introduce two sets of controls, which are used in odd and even columns, respectively. In the first group, we control for geographic variables, such as distances to Moscow and Saint Petersburg, and linear controls for latitude and longitude. In the second set of controls, we incorporate a broader set of economic characteristics and historical covariates. These include population density in 1858, the number of factories, villages, and post stations, as well as the share of serfs, which captures variation in pre-reform agrarian structure. We also control for the logarithm of the number of writers born before the launch of *Sovremennik*, the number of universities, the number of Decembrists born in the county, and the religious composition of the population, measured as the share of Jews and Orthodox Christians. We report the Kleibergen-Paap rk Wald F statistic and Anderson-Rubin confidence intervals. Standard errors (in parentheses) are clustered at the province level. \*\*\*: 0.01, \*\*: 0.05, \*: 0.1

TABLE A11  
MECHANISMS: FUTURE LITERATURE DEMAND AND SUPPLY

	OLS		2SLS, second stage	
	(1)	(2)	(3)	(4)
<b>Panel A: Literature Demand</b>				
<i>Dep. Var.: "A writer's diary" subscribers, 1881</i>				
Number of <i>Sovremennik</i> subscribers, average 1859-61, log	0.0848*** (0.0128)	0.0681*** (0.0137)	0.1931*** (0.0355)	0.2230** (0.0858)
Anderson-Rubin CI			[0.123, 0.263]	[0.0528, 0.393]
Mean of dependent variable	0.38	0.38	0.38	0.38
<b>Panel B: Literature Supply</b>				
<i>Dep. Var.: Number of writers born after 1866, log</i>				
Number of <i>Sovremennik</i> subscribers, average 1859-61, log	0.3823*** (0.0483)	0.2584*** (0.0508)	0.9737*** (0.1702)	0.8303*** (0.2748)
Mean of dependent variable	-0.60	-0.60	-0.60	-0.60
Geographic controls	✓	✓	✓	✓
Main controls		✓		✓
Province FE	✓	✓	✓	✓
F statistics (Kleibergen-Paap)			40.621	8.5545
Anderson-Rubin CI			[0.636, 1.311]	[0.100, 1.444]
Observations	824	824	824	824

**Note:** The 2SLS estimation assesses the effect of the logarithm of magazine subscriptions (plus 0.1), averaged between 1859 and 1861, instrumented by the logarithm of the count of One-off Pushkin encounters (plus 0.1), on (Panel A) the logarithm of the number of writers born in each county after 1866, and on (Panel B) a dummy variable for at least one subscriber to *A writer's diary* (1881). We present OLS estimates (columns 1 and 2) and 2SLS second-stage estimates (columns 3 and 4). Each specification includes province-level fixed effects. We introduce two sets of controls, which are used in odd and even columns, respectively. In the first group, we control for geographic variables, such as distances to Moscow and Saint Petersburg, and linear controls for latitude and longitude. In the second set of controls, we incorporate a broader set of economic characteristics and historical covariates. These include population density in 1858, the number of factories, villages, and post stations, as well as the share of serfs, which captures variation in pre-reform agrarian structure. We also control for the logarithm of the number of writers born before the launch of *Sovremennik*, the number of universities, the number of Decembrists born in the county, and the religious composition of the population, measured as the share of Jews and Orthodox Christians. We report the Kleibergen-Paap rk Wald F statistic and Anderson-Rubin CI. Standard errors (in parentheses) are clustered at the province level. \*\*\*: 0.01, \*\*: 0.05, \*: 0.1

TABLE A12  
ROBUSTNESS TO USING ONLY BIRTHPLACES

	FS		2SLS	
	(1)	(2)	(3)	(4)
	Number of subscribers, log	N of Attacks > 0	Revolutionary Publications	"A writer's diary" subscribers, 1881
Number of Pushkin One-Off Encounters, log	0.266*** (0.088)			
Number of subscribers, log		0.344*** (0.108)	0.355*** (0.108)	0.156** (0.065)
Gubernia Fixed Effects	Yes	Yes	Yes	Yes
Geographic Controls	Yes	Yes	Yes	Yes
Kleibergen-Paap F-statistic		9.06	9.06	9.06
Mean Dep. Var.	.304	.282	.131	.38
Observations	824	824	824	824

Note: Robust standard errors clustered at the gubernia level are reported in parentheses. The dependent variables are the indicator of an attack in the uezd, a dummy variable for at least one agitation leaflet distributed by socialist and other leftist political organizations in 1895-1904, a dummy variable for at least one subscriber to A writer's diary (1881). *Number of subscribers, log* is a logarithm of average number of Sovremennik subscribers in the uezd in 1859-61. In Columns (2)–(4), this variable is instrumented with the number of one-off Pushkin contacts born in the district. In the geographic controls, we control for geographic variables, such as distance to Moscow and Saint Petersburg, and linear controls for latitude and longitude. The Kleibergen–Paap F-statistics are reported for the 2SLS estimates. Column (1) report the first stage results. \*  $p < 0.10$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$

TABLE A13  
DESCRIPTION OF DATA SOURCES

Variable	Description	Source
Sovremennik corpus	Contents of the <i>Sovremennik</i>	"Sovremennik" [The Contemporary]" (1836–1866)
Sovremennik subscribers	Number of subscribers in the county to Sovremennik per year for 1859, 1860, and 1861	"Sovremennik" [The Contemporary]" (1862)
Political Violence	A list of violent attacks, extracted from the biographies of individuals who died during revolutionary unrest	<i>Kniga russkoi skorbi</i> [The Book of Russian Sorrow] (1908–1914)
Revolutionary Publications	Propaganda materials of social movements, organizations and political parties at the initial stage of mass workers' protest in Russia (1895–1904)	"Agitacionnye materialy" (1895–1904)
<i>A writer's diary</i> subscribers	Subscribers to Feyodor Dostoevsky's magazine <i>A writer's diary</i> (1881)	Dostoyevskaya (1881)
Literacy	Literacy rate from 1897 Census	Bugle and Nafziger (2021)
Schools, 1894	Total county number of schools per 1000, 1894	Bugle and Nafziger (2021)

TABLE A13  
(CONTINUED)

Variable	Description	Source
Schools, 1911	Total number of schools per 1000, 1911	<a href="#">Buggle and Nafziger (2021)</a>
Schools, 1911	Total number of schools per 1000, 1911	<a href="#">Buggle and Nafziger (2021)</a>
Catherine's contacts	Locations of receivers of Catherine the Great letters and locations from where she sent her letters	<a href="#">Kahn and Rubin-Detlev (2021)</a>
Catherine's correspondence	Locations of receivers of Catherine the Great letters	<a href="#">Kahn and Rubin-Detlev (2021)</a>
Writers	Number of writers by year and location of birth	<a href="#">Wikidata</a>
Prominent individuals	Number of prominent individuals by year and location of birth	<a href="#">Wikidata</a>
Politicians	Number of politicians by year and location of birth	<a href="#">Wikidata</a>
Military	Number of military individuals by year and location of birth	<a href="#">Wikidata</a>
Scientists	Number of scientists by year and location of birth	<a href="#">Wikidata</a>
University teachers	Number of university teachers by year and location of birth	<a href="#">Wikidata</a>

TABLE A13  
(CONTINUED)

Variable	Description	Source
Decembrists	Number of Decembrists born in the district	<a href="#">Nechkina (1988)</a>
Post stations	Post stations on Piadyshev atlas (1820)	<a href="#">The Imperiia Project (2024)</a>
Factories	Factories on Piadyshev atlas (1820)	<a href="#">The Imperiia Project (2024)</a>
Military objects	Military objects on Piadyshev atlas (1820)	<a href="#">The Imperiia Project (2024)</a>
Tavernas	Tavernas on Piadyshev atlas (1820)	<a href="#">The Imperiia Project (2024)</a>
Monasteries	Monasteries on Piadyshev atlas (1820)	<a href="#">The Imperiia Project (2024)</a>
Libraries	An indicator of a library in uezd as for moment of editorship change	Own calculation based on open source data
Province (Gubernia)	Province shapefiles (1897)	<a href="#">Kessler and Markovich (2017)</a>
County (Uezd)	county shapefiles (1897)	<a href="#">Kessler and Markovich (2017)</a>
Lat and lon (centroid)	Latitude and longitude of county centroid	Own calculation

TABLE A13  
(CONTINUED)

Variable	Description	Source
Distances to Moscow and Saint Petersburg		Own calculation
Distances to Moscow and Saint Petersburg		Own calculation
Shares of serfs	Share of serfs before Abolition of serfdom (1861)	<a href="#">Buggle and Nafziger (2021)</a>
Logarithm of population density in 1858		<a href="#">Buggle and Nafziger (2021)</a>
Other controls	Factories in 1868, Gulag camps, Schools before 1856, Forest cover, Wheat index, Percent of Jewish people 1870	<a href="#">Buggle and Nafziger (2021)</a>

## ONLINE APPENDIX B

TABLE B1  
IMPACT ON EMERGENCE OF FUTURE REVOLUTIONARIES

	OLS		2SLS, second stage	
	(1)	(2)	(3)	(4)
<i>Dep. Var.: Revolutionary born after 1836</i>				
Number of subscribers, average 1859-61, log	0.0780*** (0.0116)	0.0539*** (0.0140)	0.2200*** (0.0456)	0.3157*** (0.1095)
Geographic controls	✓	✓	✓	✓
Main controls		✓		✓
Province FE	✓	✓	✓	✓
F statistics (Kleibergen-Paap)			40.621	8.5545
Anderson-Rubin CI			[0.123, 0.311]	[0.098, 0.533]
Observations	824	824	824	824
Mean of dependent variable	0.234	0.234	0.234	0.234

**Note:** The 2SLS estimation assesses the effect of the logarithm of magazine subscriptions (plus 0.1), averaged between 1859 and 1861, instrumented by the logarithm of the count of One-off Pushkin encounters (plus 0.1), on a dummy variable for at least one future revolutionary born in the given county after 1836. We present OLS estimates (columns 1 and 2) and 2SLS second-stage estimates (columns 3 and 4). Each specification includes province-level fixed effects. We introduce two sets of controls, which are used in odd and even columns, respectively. In the first group, we control for geographic variables, such as distances to Moscow and Saint Petersburg, and linear controls for latitude and longitude. In the second set of controls, we incorporate a broader set of economic characteristics and historical covariates. These include population density in 1858, the number of factories, villages, and post stations, as well as the share of serfs, which captures variation in pre-reform agrarian structure. We also control for the logarithm of the number of writers born before the launch of *Sovremennik*, the number of universities, the number of Decembrists born in the county, and the religious composition of the population, measured as the share of Jews and Orthodox Christians. We report the Kleibergen-Paap rk Wald F statistic. Standard errors (in parentheses) are clustered at the province level. \*\*\*: 0.01, \*\*: 0.05, \*: 0.1

TABLE B2  
CONTROLLING FOR ELITES OF VARIOUS OCCUPATIONS BORN IN THE COUNTY BEFORE THE  
ADVENT OF SOVREMENNICK MAGAZINE

<i>2SLS, second stage</i>	(1)	(2)	(3)	(4)	(5)
<i>Dep.Var.: Political Violence</i>					
Number of subscribers, average 1859-61, log	0.2215*	0.2278*	0.2341*	0.2323*	0.2299*
	(0.1231)	(0.1168)	(0.1332)	(0.1355)	(0.1369)
All prominent individuals, log	✓				
Politicians, log		✓	✓	✓	✓
Military, log			✓	✓	✓
Scientists, log				✓	✓
University teachers, log					✓
Geographic controls	✓	✓	✓	✓	✓
✓					
Main controls	✓	✓	✓	✓	✓
✓					
Province FEs	✓	✓	✓	✓	✓
✓					
F statistics (Kleibergen-Paap)	7.5005	7.2282	6.5779	6.3485	6.1527
Anderson-Rubin CI	[−0.023, 0.466]	[−0.004, 0.460]	[−0.030, 0.498]	[−0.037, 0.501]	[−0.042, 0.502]
Observations	824	824	824	824	824

**Note:** The 2SLS estimation assesses the effect of the logarithm of magazine subscriptions (plus 0.1), averaged between 1859 and 1861, instrumented by the logarithm of the count of Pushkin one-off encounters (plus 0.1), on a dummy variable for at least one act of political violence against imperial officials. We employ the full set of controls as in Table I, with one difference: from columns 1 to 5, we replace the number of writers born before 1836 (log, plus 0.1) with the number (log, plus 0.1) of other prominent individuals by occupation born in these counties. Controls include population density in 1858, the number of factories, villages, and post stations, as well as the share of serfs, which captures variation in pre-reform agrarian structure. We also control for the logarithm of the number of writers born before the launch of *Sovremennik*, the number of universities, the number of Decembrists born in the county, and the religious composition of the population, measured as the share of Jews and Orthodox Christians. We report the Kleibergen-Paap rk Wald F statistic. Standard errors (in parentheses) are clustered at the province level. \*\*\*: 0.01, \*\*: 0.05, \*: 0.1

TABLE B3  
ROBUSTNESS TO ALTERNATE DEFINITIONS OF EXPOSURE TO MAGAZINE: SUBSCRIBERS BY  
1859, 1860, 1861

	OLS (1)	2SLS (2)	OLS (3)	2SLS (4)	OLS (5)	2SLS (6)
<i>Dep.Var.: Political Violence</i>						
Number of subscribers, 1859, log	0.0494*** (0.0126)	0.2127** (0.0969)				
Number of subscribers, 1860, log			0.0603*** (0.0113)	0.2154** (0.0992)		
Number of subscribers, 1861, log					0.0714*** (0.0105)	0.2135** (0.1012)
Geographic controls	✓	✓	✓	✓	✓	✓
Main controls	✓	✓	✓	✓	✓	✓
Province FEs	✓	✓	✓	✓	✓	✓
<i>Fit statistics</i>						
F statistics (Kleibergen-Paap)		9.5770		9.1029		7.9868
Anderson-Rubin CI		[0.020, 0.405]		[0.019, 0.412]		[0.013, 0.414]
Observations	824	824	824	824	824	824

**Note:** The 2SLS estimation assesses the effect of the logarithm of magazine subscriptions (plus 0.1), averaged between 1859 and 1861, instrumented by the logarithm of the count of Pushkin one-off encounters (plus 0.1), on a dummy variable for at least one act of political violence against imperial officials. We employ the full set of controls as shown in column 4 Table I. We present OLS estimates (columns 1, 3, 5) and 2SLS second-stage estimates (columns 2, 4, and 6). Controls include population density in 1858, the number of factories, villages, and post stations, as well as the share of serfs, which captures variation in pre-reform agrarian structure. We also control for the logarithm of the number of writers born before the launch of *Sovremennik*, the number of universities, the number of Decembrists born in the county, and the religious composition of the population, measured as the share of Jews and Orthodox Christians. We vary the definition of exposure to the magazine by using the number of subscriptions in 1859, 1860, and 1861 in columns 1-2, 3-4, and 5-6, respectively. We report the Kleibergen-Paap rk Wald F statistic and Anderson-Rubin CI. Standard errors (in parentheses) are clustered at the province level. \*\*\*: 0.01, \*\*: 0.05, \*: 0.1

TABLE B4  
ROBUSTNESS BY DIFFERENT SAMPLES: ATTACKS BY TIME PERIODS

	OLS (1)	2SLS (2)	OLS (3)	2SLS (4)	OLS (5)	2SLS (6)
<i>Sample:</i>	First half of period		Second half of period		Excluding peak days	
	<i>Dep. Var.: Political Violence</i>					
Number of subscribers, average 1859-61, log	0.0581*** (0.0095)	0.1886* (0.0963)	0.0560*** (0.0118)	0.2254** (0.0979)	0.0768*** (0.0110)	0.2299** (0.0995)
Geographic controls	✓	✓	✓	✓	✓	✓
Main controls	✓	✓	✓	✓	✓	✓
Province FEs	✓	✓	✓	✓	✓	✓
F statistics (Kleibergen-Paap)	8.5545		8.5545		8.5545	
Anderson-Rubin CI	[-0.003 0.380]		[0.031, 0.420]		[0.033, 0.427]	
Observations	824	824	824	824	824	824

**Note:** The 2SLS estimation assesses the effect of the logarithm of magazine subscriptions (plus 0.1), averaged between 1859 and 1861, instrumented by the logarithm of the count of Pushkin one-off encounters (plus 0.1), on a dummy variable for at least one act of political violence against imperial officials. We employ the full set of controls as shown in column 4 Table I. We vary the definitions of the outcome variable by focusing on the first half of the period when attacks occurred, the second half, and only the days when no more than one attack happened, in columns 1-2, 3-4, and 5-6, respectively. Controls include population density in 1858, the number of factories, villages, and post stations, as well as the share of serfs, which captures variation in pre-reform agrarian structure. We also control for the logarithm of the number of writers born before the launch of *Sovremennik*, the number of universities, the number of Decembrists born in the county, and the religious composition of the population, measured as the share of Jews and Orthodox Christians. We report the Kleibergen-Paap rk Wald F statistic and Anderson-Rubin CI. Standard errors (in parentheses) are clustered at the province level. \*\*\*: 0.01, \*\*: 0.05, \*: 0.1

TABLE B5  
ROBUSTNESS TO SPATIAL CORRELATION

Approach and Cutoff	Dep. Var.: Political Violence			
	OLS	OLS	2SLS	2SLS
Baseline p-val.	< 0.01	< 0.01	< 0.01	0.031
Conley, 50 km, p-val.	< 0.01	< 0.01	< 0.01	0.020
Conley, 100 km, p-val.	< 0.01	< 0.01	< 0.01	0.024
Conley, 300 km, p-val.	< 0.01	< 0.01	< 0.01	0.011
Conley, 500 km, p-val.	< 0.01	< 0.01	0.001	0.043
Muller-Watson, $\rho = 0.01$	< 0.01	< 0.01	0.011	0.096
Muller-Watson, $\rho = 0.02$	< 0.01	< 0.01	0.056	0.153
Muller-Watson, $\rho = 0.03$	< 0.01	< 0.01	0.010	0.227
Moran's I, 1000 km, p-val.	0.145	0.168	0.195	0.156
Moran's I, 1500 km, p-val.	0.207	0.258	0.170	0.157
Province Fixed Effects	✓	✓	✓	✓
Geographic Controls	✓	✓	✓	✓
Main Controls	✓	✓	✓	✓
Mean. Dep. Var.	.282	.282	.282	.282
Observations	824	824	824	824

**Note:** The table presents robustness checks for introducing Conley standard errors (rows 2-5), method of Muller and Watson, 2021 (rows 6-8), allowing for conservative estimates given the level of spatial correlation and approach of Kelly, 2017 (rows 9-10), who showed that Moran's I statistics should be insignificant under significant results in presence of spatial correlation. 4 distance cutoffs of 50, 100, 300, 500 km are used for Conley Spatial correlation p-values for each are displayed. Baseline p-values are added for comparison. Column 1 and 2 report OLS estimations while the columns 3-4 provide 2sls using one-off Pushkin encounters as an instrument. We introduce two sets of controls, which are used in odd and even columns, respectively. In the first group, we control for geographic variables, such as distances to Moscow and Saint Petersburg, and linear controls for latitude and longitude. In the second set of controls, we incorporate a broader set of economic characteristics and historical covariates. These include population density in 1858, the number of factories, villages, and post stations, as well as the share of serfs, which captures variation in pre-reform agrarian structure. We also control for the logarithm of the number of writers born before the launch of *Sovremennik*, the number of universities, the number of Decembrists born in the county, and the religious composition of the population, measured as the share of Jews and Orthodox Christians. \*  $p < 0.10$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$

TABLE B6  
ROBUSTNESS TO ALTERNATIVE FIXED EFFECTS

<b>Panel A. Cell 333x333km fixed effects</b>			
	(1)	(2)	(3)
<i>Dep. Var.: Political Violence</i>			
Log(Number of Subscribers + 0.1)	0.1038*** (0.0110)	0.1024*** (0.0112)	0.0790*** (0.0133)
Cell 333x333km Fixed Effects	✓	✓	✓
Geographic Controls		✓	✓
Controls			✓
Mean Dep. Var.	0.282	0.282	0.282
Observations	824	824	824

<b>Panel B. Cell 444x444km fixed effects</b>			
	(1)	(2)	(3)
<i>Dep. Var.: Political Violence</i>			
Log(Number of Subscribers + 0.1)	0.0921*** (0.0086)	0.0917*** (0.0085)	0.0640*** (0.0102)
Cell 444x444km Fixed Effects	✓	✓	✓
Geographic Controls		✓	✓
Controls			✓
Mean Dep. Var.	0.282	0.282	0.282
Observations	824	824	824

**Note:** Standard errors clustered by cell in parentheses. The dependent variable is an indicator variable on political attack in the county. Log Subscribers is logarithm of number of subscribers to Sovremennik journal in the county. We introduce two sets of controls, which are used in odd and even columns, respectively. In the first group, we control for geographic variables, such as distances to Moscow and Saint Petersburg, and linear controls for latitude and longitude. In the second set of controls, we incorporate a broader set of economic characteristics and historical covariates. These include population density in 1858, the number of factories, villages, and post stations, as well as the share of serfs, which captures variation in pre-reform agrarian structure. We also control for the logarithm of the number of writers born before the launch of *Sovremennik*, the number of universities, the number of Decembrists born in the county, and the religious composition of the population, measured as the share of Jews and Orthodox Christians. Fixed effects listed in the panel are sell 3x3 degree (333x333km) sell fixed effects, sell 4x4 degree (444x444km) sell fixed effects. \*  $p < 0.10$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$

# Online Appendix C: Text Analysis and GPT Prompt

**Text analysis of the *Sovremennik* corpus.** In this paper, we digitize almost the entire corpus of *Sovremennik* to describe its intellectual evolution during the period of its existence between 1836 and 1866. We briefly discuss the main stages related to this text analysis. In the baseline approach, we combine a dictionary-based method with *word2vec* to construct vectors of term frequencies related to the following subjects of our interest—democracy, serfdom, and economy—the epitome of intellectual life at the time and in the region.

As a first step, we train a *word2vec* embedding on the magazine’s corpus. Then, we take the words associated with these subjects and extend our dictionaries by identifying the closest terms in terms of cosine distances in the embedding. To produce time series that show the evolution of subject frequencies, we focus on the annual level. We also present the frequencies of the most common functional stop words in the Russian language as a validation.

To confirm our findings, we apply an alternative approach commonly used in the literature by employing the topic-modeling Latent Dirichlet Allocation (LDA) algorithm to our corpus. [Almehem, Iyigun, Kennedy, and Rubin \(2023\)](#) used a similar approach to demonstrate the evolution of topics in English Enlightenment texts. In our case, LDA consistently identifies a socio-economic topic among others, and its dynamics are very similar to our previous findings.

**Classification of Pushkin Circle.** In order to classify the individuals mentioned in the book *Pushkin and his Entourage* ([Chereiskii, 1988](#)), we developed and applied a GPT-based classifier. This approach helps to overcome common issues found in traditional text analysis methods discussed in ([Ash & Hansen, 2023](#)). The classifier analyzes textual descriptions of meetings and extracts key information about each individual. The classifier identifies whether the person is related to Pushkin, a friend, a noble or peasant, and whether they hold liberal, conservative, loyalist, or radical views. It also detects whether the person has military or civilian connections, or if they were involved in creative professions.

To perform this analysis, we used GPT model 4o-mini designed to extract specific information and return the results as a dictionary object. After running the classification, we validated the results using alternative methods, e.g., the BART classifier ([Lewis et al. \(2019\)](#)). As an additional

check, we applied a CBOW model pre-trained on Russian Wikipedia to calculate text centroids and their distances to key words such as “relatives” and “friends.” We also used the BART model to validate our GPT classifier and ran further robustness checks based on text length, and finally, a manual validation of the GPT-based results. All these tests suggest the GPT classifier is extremely robust.<sup>20</sup> The exact GPT prompt utilized in this analysis is provided on the following page.

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<sup>20</sup>All these checks and validation exercises are available on request.

## *GPT Classification Prompt*

You will receive an article or biographical entry about a person.

Based on the provided text, extract specific information according to the following questions.

Answer each question concisely and explain the reasoning in 1-2 sentences.

If the information is not explicitly stated or implied in the text, respond with 'Impossible to tell.'

Return the answers strictly as a valid JSON object.

Do not include any text or explanation outside the JSON.

Use the following structure and scale: No, Unlikely, Likely, Yes, Impossible to tell.

```
{  
    "relative_bin": "No/Unlikely/Likely/Yes/Impossible to tell",  
    # Is the person related to Pushkin?  
    "relative_txt": "Explanation for whether the person is related to Pushkin",  
    "friend_bin": "No/Unlikely/Likely/Yes/Impossible to tell",  
    # Is the person a friend of Pushkin?  
    "friend_txt": "Explanation for whether the person is a friend of Pushkin",  
    "freq_bin": "No/Unlikely/Likely/Yes/Impossible to tell",  
    # Does this text contain a long history of interaction between the person and Pushkin?  
    "freq_txt": "Explain why",  
    "noble_bin": "No/Unlikely/Likely/Yes/Impossible to tell",  
    # Are there indications that the person is a (noble) or (landowner)?  
    "noble_txt": "Explanation for whether the person is noble",  
    "peasant_bin": "No/Unlikely/Likely/Yes/Impossible to tell",  
    # Are there indications that the person is a peasant?  
    "peasant_txt": "Explanation for whether the person is a peasant",  
    "liberal_bin": "No/Unlikely/Likely/Yes/Impossible to tell",  
    # Does this text show signs that the person is liberal, progressive or reformist  
    # (e.g., supporting political or social change)?  
    "liberal_txt": "Explanation for whether the person is progressive or reformist",  
    "conservative_bin": "No/Unlikely/Likely/Yes/Impossible to tell",  
    # Does this text show signs that the person is conservative or monarchist  
    # (e.g., opposing reforms or supporting the status quo)?  
    "conservative_txt": "Explanation for whether the person is conservative or monarchist",  
    "loyalist_bin": "No/Unlikely/Likely/Yes/Impossible to tell",  
    # Is there any indication in the text that the person is a loyalist,  
    showing unwavering support for the ruling government or monarchy and  
    opposing radical change or revolution?  
    "loyalist_txt": "Explanation for whether the person is a loyalist,  
    showing unwavering support for the ruling government or monarchy  
    and opposing radical change or revolution",  
    "radical_bin": "No/Unlikely/Likely/Yes/Impossible to tell",  
    # Is there any indication in the text that the person has at least some connections  
    to radical movements, activities and/or secret political organizations,
```

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and/or was a political radical or revolutionary?  
"radical_txt": "Explanation for whether the person has at least some connections  
to radical movements, activities and/or secret political organizations,  
and/or was a political radical or revolutionary",  
"military_bin": "No/Unlikely/Likely/Yes/Impossible to tell",  
# Is the person in the military?  
"military_txt": "Explanation for whether the person is in the military",  
"civilian_bin": "No/Unlikely/Likely/Yes/Impossible to tell",  
# Is the person a civilian?  
"civilian_txt": "Explanation for whether the person is a civilian",  
"creative_bin": "No/Unlikely/Likely/Yes/Impossible to tell",  
# Are there indications that the person is in a creative profession (e.g., writer, artist)?  
"creative_txt": "Explanation for whether the person is in a creative profession"  
}
```