Ink and Ire: The Revolutionary Impact of Russian Literature

Vladimir Avetian* Sultan Mehmood†

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Abstract

Can the written word spark resistance against an autocratic state? To explore this question, we look into Russian literature from its Golden Age, assessing how it may have fueled violent dissent against the State. We provide evidence that penetration of the magazine, notably carrying works of literary giants that called for democratic change, intensified violent attacks against the Czar's regime. By leveraging the "circle of Alexander Pushkin," including his "one-off" or chance encounters, as an instrument for the magazine's early spread, and controlling for the pre-treatment density of writers in each county, we provide evidence that the relationship is likely causal. An exploration of the mechanisms suggests that the magazine inspired revolutionary underground publications and cultivated a new generation of writers and readers. Pushkin's circle does not predict the location of pre-treatment cultural establishments, nor does it align with the spatial distribution of other prominent cultural networks, such as those associated with Empress Catherine the Great's circle. Overall, our findings underscore that Russian literature, one of the most impactful literary movements in world history, served as a catalyst for political dissent and fueled the flames of resistance against the repressive Russian state.

> "I read everything printed in Sovremennik to the last line, more than once..."
>
> *Vladimir Lenin*

*University Paris-Dauphine - PSL, *Chair of Governance and Regulation*: vladimir.avetian@dauphine.psl.eu

†New Economic School: smehmood@nes.ru We would like to thank Ekaterina Zhuravskaya, Hans-Joachim Voth, Saumitra Jha and Jared Rubin for their helpful comments and feedback. We also thank Alena Gorbuntsova for sharing the underground pamphlets data. Georgiy Marinichev provided excellent research assistance.

1. INTRODUCTION

Throughout history, the written word is believed to be a potent force for sparking political action and even violence, with iconic texts like Plato's "Republic" and "Apology" calling for critical examination of the structures of power that govern society. Even today, a diverse array of written materials, including novels, essays, manifestos, and journalistic reports, continues to be crafted with the intent to inspire and mobilize political movements worldwide. While literature's impact is often considered self-evident, scholars have long offered a contrasting view, suggesting its influence is limited when compared to overarching historical, economic, and cultural forces (Anderson, 1983; Bourdieu, 1979; Williams, 1977). These scholars contend that literature is more often a reflection of prevailing cultural and institutional transformations rather than a driving force behind them. Despite the longstanding belief in literature's transformative power, a significant gap persists in systematic empirical research, leaving questions about the extent and nature of literature's impact on political behavior largely unanswered. To what extent does literature catalyze political violence? What underlying mechanisms link the written word to political violence?

In this paper, we show how literature plays a pivotal role in fueling political violence against the State. We offer empirical evidence from a celebrated chapter in literary history: the Golden Age of Russian literature, an era distinguished by the publication of seminal works by literary giants such as Alexander Pushkin, Leo Tolstoy, and Fyodor Dostoevsky. We show that the dissemination of Russian literature throughout the Russian Empire unleashed a wave of left-wing political violence, ultimately contributing to the conditions that led to the Czar's assassination and setting off revolutionary actions against subsequent regimes for decades to come.

This revolutionary fervor did not emerge in a vacuum; it was deeply rooted in the traditions of an elite literary culture that, during the era of Pushkin and Tolstoy, was the exclusive domain of a privileged few. As Nabokov poignantly described, the majority "was left out in the cold, in a veil of slow snow beyond the amber-bright windows." Although this circle was limited, recent economic scholarship underscores the crucial role such enlightened elites have played in shaping the economic, institutional, and political

trajectories of nations. Joel Mokyr, for instance, contends that the Enlightenment within these elite circles was a prerequisite for the Industrial Revolution (Mokyr, 2005, 2011). In a similar vein, subscribers to Diderot's encyclopedia in France has been observed to be a crucial predictor of future growth and the accumulation of "high-end human capital," which significantly influenced France's future institutional trajectory (Squicciarini & Voigtländer, 2015). More recent research has further augmented the important role of educated elites in driving political movements and revolutions (Bai & Jia, 2016; Bai, Jia, & Wang, 2024; Jha & Wilkinson, 2023). The impact of prominent individuals and their networks on culture and institutions has also been documented (Assouad, 2024; Bai, Jia, & Yang, 2023; Becker, Hsiao, Pfaff, & Rubin, 2020). This paper contributes to this literature by examining how pre-mass media outlets, such as literature, mobilized the Russian intellectual elite, laying the groundwork for subsequent political radicalization and violence. In contrast to studies that emphasize mass media's impact on the broader population (Adena, Enikolopov, Petrova, Santarosa, & Zhuravskaya, 2015), our analysis examines how literary networks among elites played a crucial role in triggering some of history's most significant political transformations, notably the collapse of the Czarist regime and the subsequent Bolshevik Revolution in Russia. In mapping the influence of Russian literature, we harness the reach of *Sovremennik*, a watershed publication founded and championed by Alexander Pushkin, the Russian Empire's literary titan (Debreczeny (1997)). We find that counties with greater magazine penetration experienced a sharp escalation in political violence against the State. A 10% increase in *Sovremennik* subscribers is associated with a 7% rise in the probability of an attack against the Czarist state.

The *Sovremennik* appears to have played a dual role by disseminating revolutionary ideas and fostering a readership more inclined toward extremist literature, as evidenced by the increased probability of revolutionary publications in counties with higher *Sovremennik* subscriptions. This dual role underscores the enduring impact of literature, which is also likely to have influenced subsequent generations of Russian writers. An analysis of the magazine's corpus indicates a transition in content, moving from "art for art's sake" to "art for political revolution." Geocoding the birthplaces of subsequent Russian writers and linking them to the magazine reveals that its spread coincided with the emergence of a new wave of writers, some of whom advocated for violent political change. The in-

creased supply of the *Sovremennik* magazine corresponded with a heightened demand for politically charged literature, as regions more exposed to the magazine witnessed a rise in underground publications promoting the socialist revolution.

The *Sovremennik* magazine, which we focus on, provides an ideal context for studying the effect of literature on political violence. First is the significance of the magazine as a conduit for disseminating Russian literature across the Russian Empire, particularly works advocating political change under the editorship of the left-leaning poet Nikolay Nekrasov. These writings largely escaped outright bans and complete censorship due to their often subtle and carefully crafted critiques, effectively circumventing the censor boards. Founded and first popularized by Alexander Pushkin, widely celebrated as the "Father of Russian Literature," the magazine created a crucible for literary talent, showcasing the works of seminal writers such as Nikolai Gogol, whose early stories it published, and fostering the careers of future literary giants like Ivan Turgenev, Fyodor Dostoevsky, and Leo Tolstoy. 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 literature. Second, the 19th-century magazine literature we focus on became a pivotal medium through which Russian writers could experiment with and develop 'new' literary forms in both prose and poetry. Gogol, a pioneering literary figure of the era, encapsulated the significance of this 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." Finally, the detailed subscription data at the *uzed* (county) level across the Russian Empire enables a granular evaluation of the influence of Russian literature. The widespread reach of *Sovremennik* magazine, which extended to nearly 800 counties across the Russian Empire, offers both breadth and a level of granularity seldom available in other research contexts.

Anchoring this study is a large-scale data collection and digitization endeavor. It harnesses 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. First, we curate and 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 Czar 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 from over 800 counties 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 at the level of the county. Third, we derive our political violence outcome measure from "The Books of Russian Sorrow," employing all 14 volumes to track incidents of left-wing revolutionary violence against the Czarist regimes, thus, allowing for examining how exposure to literature influences political violence.

A key challenge in estimating the causal effect of literature on political violence is that counties with differing levels of access to Russian literature also vary along numerous other dimensions, making it difficult to isolate the causal impact of literary exposure alone. Consequently, the diffusion of Russian literature via the *Sovremennik* magazine is likely endogenous: counties with higher levels of education and cultural awareness may be not only more likely to subscribe to the magazine but also more prone to engage in political violence potentially introducing a positive bias in the OLS estimates. In contrast, counties with more conservative pro-Czar values or a greater stake in Czarist regime rents may be less likely to subscribe and less inclined to engage in political violence, potentially introducing downward bias in the OLS estimates. As a result, OLS estimates of the link between magazine subscriptions and political violence may be biased, as the county characteristics could either exaggerate or dampen the observed relationship between literature exposure and political violence.

To mitigate these identification challenges, we digitize and compile the records of Alexander Pushkin's 'encounters' with various individuals, drawing from the literary monograph "Pushkin and his Entourage" (Chereiskii, 1988) that chronicles and even authenticates over 2,500 interactions between the public and the poet Alexander Pushkin, the magazine's founder. Despite Alexander Pushkin's untimely death from a duel just 13 months after founding the magazine, his extensive travels and prolific correspondence across the

Russian Empire provide a valuable opportunity to trace the early diffusion of *Sovremennik*. His letters from travels across the Russian Empire reveal efforts to broaden his magazine's reach, interacting with various groups such as peasants, nobles, revolutionaries, loyalists, conservatives, liberals, military, and civilians. Machine learning analysis of these encounters indicates that Pushkin engaged with a diverse range of social strata across the empire, offering initial evidence that these interactions were quasi-random (Lewis et al., 2019). This early diffusion of the magazine through Pushkin's circle, taking place before his death in 1837, predates the magazine's shift to a more revolutionary stance under Nikolay Nekrasov's editorship a decade later.

Using these same interactions of Pushkin as an instrument, our IV approach reveals that the magazine had a significant and robust impact on political violence in the years leading up to the Bolshevik Revolution. A 10% increase in the number of subscribers results in a 2 percentage point increase in the probability of political violence. These IV estimates are nearly twice the size of the corresponding OLS estimates. To put this magnitude into perspective, a 10% increase in magazine penetration corresponds to a 7% rise in violent attacks relative to the mean level of violence.

While the instrumental variable approach helps mitigate several sources of endogeneity, a critical threat to identification remains: it is possible that Pushkin was more likely to encounter individuals from counties that served as cultural capitals or hubs of intellectual activity, where there was a strong appetite for critical literature and perhaps a higher proclivity for political violence. In response to this identification challenge, we offer six pieces of evidence that help mitigate this concern. First, we attempt to eliminate potentially endogenous interactions of Pushkin by relying solely on one-off or chance encounters of Pushkin to instrument the magazine's spread rather than using all of Pushkin's interactions. The results remain remarkably similar to the baseline findings, suggesting that our original instrument is likely valid. Second, we explicitly exclude potentially endogenous interactions, such as meetings with friends, family, relatives, liberals or revolutionaries, and the results continue to remain similar.

Third, we show that the penetration of the *Sovremennik* magazine and the influence of Pushkin's circle are not merely reflections of the educated population; literacy rates and school density in a county are uncorrelated with the number of subscribers. This

is consistent with prior scholarship showing that revolutionary movements are typically driven by an intellectual elite rather than by the general literate public.

Fourth, we perform a placebo test by substituting Pushkin's encounters with the cultural network associated with Empress Catherine the Great, who was renowned for her patronage of the arts and literature. We find that instrumenting with this pre-treatment cultural and political network neither strongly predicts *Sovremennik* subscribers nor alters our results when we directly control for her network.

Fifth, we show that the Pushkin network does not predict pre-existing economic, military, and cultural structures, including the number of major commercial centers, military establishments, and cultural or religious institutions such as taverns and monasteries. Finally, to the extent that the Pushkin circle may capture some unobserved appetite for literature generated by the literary culture in a county, we digitize additional data to expand our baseline controls. We explicitly control for the pre-treatment density of writers, scientists, university professors, artists, politicians, musicians, and even 'prominent personalities' before the magazine's advent, sequentially adding these variables to our baseline regressions, and find that our results remain essentially unchanged. Overall, these identification checks points to a causal relationship, suggesting that *Sovremennik* magazine was more than just a product of its time—it may have actively contributed to the escalation of political violence across the Russian Empire.

Having documented the significant influence of *Sovremennik* magazine on political violence in the Russian Empire, we move forward by geolocating and profiling Russian writers from 1700 onwards, while also digitizing and mapping the spread of a later literary magazine, Fyodor Dostoevsky's *A Writer's Diary*, to explore the underlying mechanisms at play. This analysis of mechanisms suggests that in counties with greater *Sovremennik* subscriptions, a new breed of literary talent appears to have been nurtured: the proliferation of the magazine correlates positively with the emergence of future Russian writers. This expansion in the potential supply of literature is accompanied by a growing demand, as evidenced by Dostoevsky's magazine having higher subscribers in counties where *Sovremennik* had a more substantial subscriber base two decades earlier. Beyond influencing the literary landscape, there is correlation between magazine subscriptions and the greater prevalence of revolutionary publications, particularly those censored and circulated un-

derground. This dynamic suggests that the *Sovremennik* magazine not only fueled the ideological shift but also actively contributed to a broader market for revolutionary ideas.

This paper relates to several strands of literature. First, it relates to the literature on mass media and conflict. Our paper makes a novel contribution to the existing body of literature by systematically exploring the impact of literature —an art form long thought to shape politics— on political violence. While previous research has primarily focused on the impact of mass media, such as radio and television, on conflict dynamics (Adena et al., 2015; DellaVigna, Enikolopov, Mironova, Petrova, & Zhuravskaya, 2014; Durante & Zhuravskaya, 2018; Enikolopov, Makarin, & Petrova, 2020; Voigtländer & Voth, 2024; Yanagizawa-Drott, 2014), as well as on the roles of social networks (Satyanath, Voigtländer, & Voth, 2017) and schooling (Cantoni, Chen, Yang, Yuchtman, & Zhang, 2017; Voigtländer & Voth, 2015), our research redirects attention to the role of literature, an often-neglected pre-mass media source of ideological dissemination, showing how literary writings can lead to violent political repercussions. Our research extends this perspective by providing empirical evidence that Russian literature, particularly during its golden age, played a significant role in mobilizing dissent and political action. This underscores the power of literary works as a form of media capable of swaying public sentiment and inciting action against autocratic regimes.

Second, our study contributes to the ongoing debate 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 (Mahoney & Snyder, 1999). Our research aligns with a burgeoning body of empirical work that supports the notion that individual leaders or central figures in hierarchical networks can significantly influence economic development (Jones and Olken (2005); Besley, Montalvo, and Reynal-Querol (2011)), organizational performance (Bandiera, Prat, Hansen, & Sadun, 2020; Bertrand & Schoar, 2003; Jackson & Yariv, 2011) or politics (Ottinger and Voigtländer (2024)). We show that Russian literature and its literary stars, during the golden age of Russian literature, acted as central agents in shaping the narrative against the autocratic state, thereby unleashing a wave of political violence leading up to the Bolshevik revolution.

Last, our study contributes to the rich body of literature that examines the interplay between culture and institutions (Guiso, Sapienza, and Zingales (2006), Alesina and Giuliano (2010), Acemoglu and Robinson (2012)). By integrating these perspectives with a novel dataset on the diffusion of early Russian literature and its relationship with political violence, we advance the debate on literature as an active influencer rather than merely a consequence of political institutions. Our analysis thus complements theoretical models of cultural transmission and its enduring effects on socio-economic structures, as proposed by Tabellini (2010) and Bisin and Verdier (2024). More specifically, we contribute to the literature on culture and institutions within the context of Russian economic history (Zhuravskaya, Guriev, & Markevich, 2021). While the majority of this research concentrates on the Soviet era, notable exceptions do examine the economic consequences of events such as the abolition of serfdom (Buggle & Nafziger, 2021; Markevich & Zhuravskaya, 2018). Our findings underscore the broader implications of cultural forces in shaping long-term institutional and political outcomes, particularly in the understudied period of Russian history, focusing not on the much-studied Stalinist Russia (e.g., Rozenas and Zhukov (2019); Toews and Vézina (2020)) but on the precursors to the Bolshevik Revolution during the time of the Russian Empire.

The rest of the paper is organized as follows: Section 2 sets the stage by providing the historical context, focusing on the golden age of Russian literature, the central role of Alexander Pushkin, and the evolution of the magazine he founded. Section 3 introduces the data and presents descriptive statistics. Section 4 details our empirical methodology, followed by Section 5, which discusses the main findings and main identification checks. Section 6 provides evidence on the underlying mechanisms. Finally, Section 7 concludes by summarizing our results and their broader implications.

2. Historical Background

Golden Age of Russian Literature. The Golden Age of Russian Literature, brief as it was, stands out for its extraordinary literary output, with its major works were created within the lifetime of one of its most illustrious writers, 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 Russian Empire itself. A critical spirit was ignited with the publication of Russian literature's seminal work, Radishchev's "Journey from Saint Petersburg to Moscow." in 1790. This book, a scathing critique of the Russian Empire, which was described in its epigraph as "an enormous, disgusting, hundred-mawed and barking monster". The repercussions were as severe as the critique itself, leading to the author's exile to Siberia and the book's suppression for more than a hundred years.

Alexander Pushkin (1799-1837), widely acknowledged as the father of the Golden Age, established a subtle yet equally reflective literary tradition. This era gave birth to a plethora of world-renowned works, ranging from Pushkin's "Eugene Onegin" to Tolstoy's "War and Peace". The political undertones of these works evolved from being parabolic in the first half of the century to reaching the polemical heights of Radishchev's style in the latter half, particularly evident in the socially critical literature of the 1860s. 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. This publication, in the decades that followed, opened its pages to writers who are now hailed as literary giants

"Sovremennik" and Magazine Literature. Pushkin harbored plans for creating his own magazine for many years, but only succeeded in doing so on the eve of his death. As a result, only four issues were published during Pushkin's lifetime, with the fifth dedicated to his demise. Pushkin's letters attest that he actively promoted his magazine among his acquaintances (Izmailov, 1969). These factors – the creation of Pushkin's magazine, his early death, and the fact that our treatment period relates to the late period of the magazine, decades later – are key premises for our identification strategy.

The magazine existed for 30 years, being published in Saint Petersburg and distributed across the empire's regions by post on a subscription basis. From 1836 to 1843, the magazine was issued quarterly, then monthly. After Pushkin's death in 1837, Petr Pletnev managed the publication until 1846. In 1846, the magazine was sold to Nikolay Nekrasov and Petr Panaev, marking its second life. Nekrasov's poetry had a distinct social orienta-

tion, and under his leadership, the magazine gradually drifted towards more radical positions. This trend intensified when Nekrasov brought Nikolay Chernyshevsky, a key social utopian of the era, and a member of the revolutionary-democratic movement, into the magazine's management. Lenin, born four years after the magazine's closure, considered Chernyshevsky and his works published in Sovremennik as his key influences (Valentinov, 1968): "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." However, not only socially oriented literature was published in Sovremennik; for a long time, a second faction coexisted with the more radical one – liberal gentry, represented by Leo Tolstoy and Ivan Turgenev. Over time, the more radical direction gained dominance, which ultimately indirectly led to the magazine's closure.

In 1866, a 25-year-old young man, Dmitry Karakozov, committed the first revolutionary-terrorist act in the history of the Russian Empire and modern Europe (Verhoeven, 2004) – an unsuccessful assassination attempt on Csar Alexander II. Karakozov, an avid reader of Sovremennik, was found to have copies of the magazine during a search. As a result of this, the magazine was closed by the personal order of the Csar.

Political violence in Russia Empire. Political violence became a constant factor starting with the unsuccessful assassination attempt by Karakozov, which sparked a wave of conservative reaction. This included, as previously mentioned, the closure of the liberal press. The reaction, in turn, fueled even more political violence from the radical-left revolutionaries. The Narodnik movement, inspired by Chernyshevsky, gradually became disillusioned with peaceful methods of fighting for political change. In 1879, the illegal populist party 'Narodnaya Volya' (People's Will) was formed, choosing individual terror as one of its methods. Fifteen years after Karakozov's failed attempt on the Csar, in 1881, members of Narodnaya Volya, hoping to provoke a revolution, completed Karakozov's mission by assassinating Emperor Alexander II.

Political violence reached its peak in the early 20th century, with the emergence of the combat organization of the Socialist-Revolutionary Party, as well as the escalating struggle between the secret police (Okhrana) and secret revolutionary political organizations. Victims of bombs and shootings included Grand Duke Sergei Alexandrovich Romanov, sev-

eral Ministers of Foreign Affairs and Interior Ministers, and thousands of lower-ranking government officials. It is in this context that one of the main sources used in this study, the "Book of Russian Sorrow", becomes relevant. Published by the political antagonists of the left revolutionaries – ultra-nationalists and monarchists led by Vladimir Purishkevich – these 14 volumes, released serially from 1908 to 1914, aimed to present the officials killed in attacks as martyrs who died "for the Csar and for their faith", as well as "fighting an internal enemy". In this sense, the compilation of such a martyrology mirrored the ideological discourse of the revolutionaries, which glorified radical activists as martyrs of the liberation movement.

3. Data and Descriptive Statistics

Sovremennik Corpus. To trace the evolution of discourse over the 30 years of Sovremennik's existence, we extracted texts published in the magazine and constructed a corpus of the magazine. The magazine issues were scanned thanks to the Google Books project. While the digitization of texts is not flawless, particularly in extracting more complex layouts of magazines, their internal structure, and division into articles, its quality still allows for a descriptive analysis of the text corpus. The primary data grouping we perform is by year of publication, so as a result, we obtain time series that demonstrate the evolution of themes in the magazine.

To categorize the content of the magazines in terms of proximity to various topics, we apply several text analysis methods. As a result, our baseline approach combines a dictionary-based and word embedding methods, an approach that has recently found many applications in economic literature (Ash & Hansen, 2023). Briefly, it can be described as follows. We formed several short, hand-selected dictionaries that characterize three socio-political topics of interest: terms associated with democratic institutions, terms related to the economic structure, and terms related to the key factor of the political life of the era – serfdom and peasantry. We also validated our corpus by checking the frequency of use of the most common functional words in the Russian language. As a next step, we trained a word2vec model (Mikolov, Chen, Corrado, & Dean, 2013) on the Sovremennik text corpus, and then, using the model, enriched our initial dictionaries by including additional terms with the greatest cosine distance to our original dictionaries, while excluding

ambiguous terms.

Data on Sovremennik Subscriptions. Our primary dataset highlights the geographical distribution of subscriber numbers, detailed at the county level, encompassing over 800 counties during our observation period. This unique dataset, essential to our research, derives from the Sovremennik authors themselves. Nikolai Chernyshevsky published these data in several issues from 1860 to 1862. Aggregated annually for 1859, 1860, and 1861, the total subscriber counts were 5500, 6598, and 6658, respectively. Chernyshevsky compiled this information from the St. Petersburg post office's newspaper dispatch list. His original goal, similar to our present analysis but limited by the lack of advanced statistical tools of his time, was to assess regional 'reading enthusiasm' in Russia and to evaluate journalistic impact. Additionally, we geocoded the county towns and, where necessary, aggregated the data, integrating it with the map provided in Essler and Markevich (2020).

Data on Political Violence. As mentioned earlier, our data on political violence were gathered from the "Book of Russian Sorrow," a compilation of biographical articles about victims of radical left attacks. The victims listed are state officials, with a wide variance in rank, extending from the emperor to the lowest police ranks. An illustration of one such attack can be viewed in Figure A.1 in Appendix A.

To extract and geolocate data on these attacks, we processed the collection's texts, extracting paragraphs describing the acts of political violence. We then extracted locations in the nominative case and dates using the OpenAI API, which we manually validate each attack, and geocoded these locations. The novel dataset presents over 600 attacks, geographically scattered across the Russian Empire, offering a comprehensive picture of acts of political violence. This detailed mapping of political violence during the early 20th century can be seen in Figure A.2 in Appendix A.

Data on Pushkin Encounters. To construct our instrumental variable, we rely on a unique academic monograph documenting approximately 2,500 of Pushkin's encounters. These contacts, sourced from written records, range from well-known significant connections to brief, incidental meetings. Here are examples of such 'incidental meetings' from the book:

- LARIN Ilya (Illarion) Ivanovich - a retired feuerwerker 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.

The nature of such 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). We endeavored to determine and geocode the birthplace of each individual Pushkin met. When this was impossible, we sought their place of residence. If neither was ascertainable, we used the meeting location, typically specified in the book's article. Thus, we were able to manually assign a county to the majority of the 2,500 observations.

The geography of Pushkin's personal encounters was largely shaped by the extensive travels he undertook during his short life. His journeys took place exclusively within the Russian Empire, with the formal exception of a brief, unauthorized crossing of the Turkish border during the Russo-Turkish War (1828–29). According to some estimates, his travels accumulated to a voluminous 35,000 kilometers, a distance that likely made him an outlier among his contemporaries. A significant portion of these travels occurred not by his own choice, during what later came to be known as the Southern Exile. His exile was softened by the mercy of the Emperor, and during this period, his path led him through the Caucasus, Crimea, Kishinev, and Odessa—places that were notably atypical for political exile at the time, as Siberia was the more common destination.

The composition of Alexander Pushkin's set of contacts was remarkably diverse. He was known for his curiosity about all aspects of life in the Russian Empire and sought to meet people from different walks of life, which influenced his work. As Lotman (1995) notes, "Pushkin's ability to adapt, moving from one circle to another, and seeking communication with completely different people" was a defining trait. Specifically Lotman highlights that, during his exile in Odessa, Pushkin was surrounded by "people from all social strata and nationalities."

Wikimedia Data. We utilized the Wikidata project to extract information on all known writers born in the Russian Empire starting from 1700. Data retrieval was conducted using a special query language developed by Wikimedia. We extracted details such as the author's name, birthplace, birth and death years, and the coordinates of the birthplace, if available. Given that Wikidata largely overlaps with Wikipedia data, our primary assumption is that this method allows us to map the geographical distribution of writers who have left a lasting cultural impact, significant enough to warrant inclusion in the encyclopedia.

Descriptive Statistics. Table A1 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 0.7 attacks per county and a standard deviation of approximately 2 attacks. The spatial distribution of these attacks is illustrated in Figure 3, Panel A, which shows that they are dispersed across the Russian Empire. Notably, the geographic pattern of these incidents closely aligns with the distribution of *Sovremennik* subscribers, as depicted in Panel B of Figure 3. This suggests a strong correlation between the locations of magazine subscribers and the occurrence of attacks.

Table A1 further shows that Pushkin encounters are both extensive, averaging about 2.5 encounters per county, and highly variable. The summary statistics of other variables used in this study including control variables, are reported in Table A1 in the remaining panels of Table A1. Beyond the broad geographic spread of Pushkin's encounters, Panel A of Table A2 in Appendix B highlights considerable diversity among who Pushkin met. By applying BART classifier by Meta (Lewis et al., 2019), the analysis of textual descriptions of the meetings in Chereiskii (1988) reveals substantial variation in interactions, with Pushkin meeting peasants and nobles, loyalists and revolutionaries, liberals and conservatives, as well as military personnel and civilians, creating a potential measure of early exposure to the *Sovremennik* subscribers. 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 A2 details instances where he directly advocated for the *Sovremennik* magazine in the course of these encounters. We will now

proceed to introduce our empirical specification.

4. Empirical Methodology

To trace the impact of *Sovremennik* on political violence, we estimate the equation of the following form:

$$\begin{aligned}\text{Political Violence}_{1900-1914,i} = \beta_0 + \beta_1 \text{Sovremennik Exposure}_{1859-1861,i} \\ + \beta_2 \mathbf{X}_i + \gamma_i + \epsilon_i\end{aligned} \tag{1}$$

where Political Violence$_{1900-1914,i}$ is a dummy variable that switches to 1 if there is an attack against the Czarist regime in the county and 0 otherwise. Sovremennik$_{1859-1861,i}$ is the logarithm of the number of *Sovremennik* plus 0.1. $\mathbf{X}_i$ is a vector of control variables that include distance to Moscow, distance from Saint Petersburg, linear controls for latitude and longitude, the share of serfs prior to the abolition, the logarithm of the population density, the logarithm of the number of writers born before *Sovremennik* was founded. Standard errors are clustered at the more conservative province (Gubernia) level, although the results remain robust in clustering at the level of identifying variation at the county (*uezd*) level or when we employ Conley spatially correlated standard errors to account for across-county dependence. Our results also remain essentially identical across various specifications, including transformations of the dependent and independent variables such as to log + 1 and inverse hyperbolic sine (IHS) or applying the Chen and Roth (2024) suggestions to applying Poisson regressions to directly get a percentage interpretation or to estimate separate effects for the intensive and extensive margins (Table A3 in Appendix A).

An OLS estimation of β_1 is likely to give biased estimates. This is because unobserved characteristics of the counties, such as societal inclinations, drive individuals to both subscribe to the *Sovremennik* magazine and participate in acts of political violence. For example, counties with a higher proportion of the population receiving patronage from the Czarist regime may be both less inclined to subscribe to the magazine and less likely to rebel against the Czar.

To address this issue, we draw upon the detailed record of Alexander Pushkin's interactions with the public, comprising 2,500 verified encounters documented in (Chereiskii, 1988), and utilize these as instruments for the spread of *Sovremennik* in two distinct ways.

First, we use the diverse "Pushkin circle," a network that spanned the political and social spectrum—from intimate lunches with the Czar to close ties with revolutionaries and from peasants to the elite—which we formally analyze using textual data from encounters (Binyon (2007); Evdokimova (1999)). It is important to note that Pushkin died abruptly in a duel about 2 decades before the magazine adopted a revolutionary stance under Nekrasov's editorship. Thus, as a first step, we utilize the diversity of all Pushkin's encounters as an instrument for the early diffusion of the magazine. Second, we validate this instrumental strategy by examining Pushkin's quasi-random encounters with the public across the Russian Empire. We focus initially on one-off or chance interactions between the public and Pushkin, and then exclude any encounters that may be deemed endogenous, such as those with relatives, family, or political individuals like revolutionaries (e.g., the Decembrists) to address potential endogeneity. Both the point estimates and statistical significance of our results remain similar, whether considering the full sample, focusing solely on these incidental meetings, or excluding potentially endogenous interactions.

A balance test comparing pre-treatment outcomes and area characteristics between counties that experienced a Pushkin encounter and those that did not, as shown in Table A4 of Appendix A, provides further evidence of the instrument's validity. A more exhaustive set of identification and robustness checks will be detailed in the next section.

5. Main Results

Impact on Political Violence. We commence presenting our main results by reporting the Ordinary Least Squares (OLS) estimates of Equation (1). The initial findings, as reported in Table 1, Panel A, Columns (1) and (2), suggest a significant effect of *Sovremennik* subscriptions on political violence. Specifically, a 10-percentage-point increase in subscriptions is associated with an approximate 2.9% rise in the likelihood of violent attacks relative to the sample mean. However, these OLS estimates are likely susceptible to potential endogeneity: the propensity for *Sovremennik* magazine subscriptions could be influenced by factors intrinsic to the counties. For instance, counties with stronger pre-existing governmental control may be less inclined to subscribe to *Sovremennik* and also less likely to experience political violence, which could introduce a negative bias in these OLS estimates.

Although the incorporation of an extensive array of controls—including the pre-treatment

density of writers, geographical proximities to Moscow and St. Petersburg, as well as province-fixed effects mitigates these concerns, the potential for unobserved bias persists. This may be due to the potentially non-random distribution of *Sovremennik* magazine across the counties of the Russian Empire, where, counties with lower subscription rates may have also been less likely to experience political violence.

To mitigate endogeneity concerns, we implement an IV strategy, instrumenting magazine subscriptions with the "Pushkin's circle," the social network of the magazine's founder. Pushkin's numerous visits throughout the Russian Empire (Figure A1), that at times promoted *Sovremennik*, before his untimely death 13 months after the magazine's launch, provide a strong basis for identifying *Sovremennik*'s early spread—well before its later turn to more politically charged content two decades later. The diversity of these visits is particularly striking—Pushkin engaged with the intellectual elites of St. Petersburg, the rural nobility in distant provinces, the burgeoning middle classes in rapidly industrializing cities, and even the merchant communities in coastal trade hubs ("Travels of Alexandar Pushkin" documented in Binyon (2007)). His travels took him from the cosmopolitan centers of Moscow and Kyiv to the remote, agrarian peripheries of Siberia and the Caucasus. This extensive outreach, spanning vastly different social strata and geographical areas—from the densely populated urban cores to the isolated, underdeveloped regions—offers a rich source of variation in the early spread of the magazine before the magazine's revolutionary tern, where some counties were exposed to *Sovremennik* purely due to Pushkin's presence.[1] The first-stage relationship between magazine subscriptions and Pushkin's contacts is depicted in Table 1, Panel B, Columns (3) and (4). The robust first-stage results are substantiated by F-statistics significantly surpassing the conventional benchmark of 10, suggesting the instrument's relevance (Stock and Yogo (2002)). The strength of this first-stage relationship is most cleanly seen in Figure A4 of Appendix A, where the scatter plot highlights the strong positive correlation between magazine subscribers and Pushkin encounters. We next present our two-stage least squares (2SLS) estimates: the estimated impact of magazine subscriptions on political violence becomes more pronounced relative to OLS. The 2SLS point estimates are more than twice the magnitude of the OLS estimates.[2] Specifi-

[1] See also the text analysis of Pushkin's encounters presented in Table A2 of Appendix B, which suggests a diversity of interactions across various social groups.

[2] The potential for negative bias arises from the fact that counties characterized by stronger governmental control or pro-Czar values may be systematically less likely to subscribe to *Sovremennik* and also less prone

cally, a 10% increase in the number of *Sovremennik* subscribers is associated with a 0.018 percentage point rise in the probability of an attack against the Czarist regime. Relative to the mean probability of an attack, this this corresponds to a 7% increase in the likelihood of violence against the state.

Identification Checks. A primary concern in identifying the influence of Pushkin's circle is the potential bias arising from his tendency to interact with individuals in regions known for a strong interest in revolutionary literature and a higher propensity for political violence. Notwithstanding the results reported in Table 1, one might still argue that "Pushkin's circle" could be endogenous, particularly if his network was more present in counties with a higher predisposition for anti-state violence. There are several reasons to consider this unlikely. First, it is well-documented that Pushkin was particularly renowned for his ability to forge connections across diverse economic and political strata. His interactions spanned from the highest echelons of the imperial court to the intellectual circles of major urban centers, as well as with local officials and rural nobility across the provinces of the Russian Empire ("Travels of Alexander Pushkin" in Binyon (2007)), introducing variation that is less likely to be confounded by local economic or political conditions decades later when we observe high degree of political violence. Second, textual analysis of the *Sovremennik* magazine corpus during its initial period under Pushkin reveals a predominantly apolitical orientation (Figure 4), with barely any mention of social or political subjects. That is, the early spread of the magazine under Pushkin's editorship was notably not aimed at fostering political uprising, but rather focused on literary and cultural dissemination.

Nevertheless, the potential for "Pushkin's circle" to inherently attract those more inclined to dissent and engage in political violence cannot be entirely ruled out. This raises concerns regarding the validity of the instrument exclusion restriction—if Pushkin was more likely to meet individuals in politically volatile counties, even during the magazine's apolitical phase, then our IV estimates may still be susceptible to bias.

To address these concerns, we conduct five main identification checks. Firstly, we hone into the granularity of the 2,500 encounters documented by Chereiskii (1988) involving Pushkin to analyze the people Pushkin was meeting. Specifically, we construct an instru-

to engage in political violence. This correlation could lead to an underestimation of the true effect of literary exposure on political violence.

ment that leverages not the entirety of Pushkin's encounters, but rather those incidental, one-time meetings with individuals whom he met only once. These encounters are more likely to be random. The results from this approach are presented in Column 1 of Table 2, confirming the robustness of both the first-stage and second-stage estimates derived from our baseline instrument, which includes all encounters. The similarly of the results bolsters our confidence in employing "Pushkin's circle" as the baseline instrument (likely because Pushkin broad engagement with the social and political strata without particular attention to the counties predisposition to violence against the state). Secondly, we exclude Pushkin's network of friends and relatives from the sample of encounters. The results, presented in Table 2, Columns 2 and 3, remain essentially unchanged relative to the baseline estimates in Table 1.

Thirdly, we exclude individuals known to be liberals or revolutionaries, such as the Decembrists, from Pushkin's circle, again finding that both the point estimates and statistical significance of our results remain essentially unchanged (Table 2, Columns 4 and 5). All these exercises of altering the instrument yield results that are consistent with those obtained using the baseline instrument.

Fourthly, there is a concern that the magazine's influence was not limited to inciting revolutionary actions among intellectual elites such as Vladimir Lenin, but rather that its penetration may simply reflect higher unrest by the more literate public. Although we always control for the pre-treatment density of writers in Tables 1 and 2, we directly address this concern by testing whether *Sovremennik* subscribers were more likely to be present in higher literacy areas or in regions with more schools. This analysis is reported in Table 3, which shows that *Sovremennik* subscribers are uncorrelated with both the number of schools and political violence. This suggests that our results are not simply reflecting the inherent tendencies of the more educated population.

Lastly, we conduct two placebo tests. In the first, we use the network of Empress Catherine the Great, known for her cultural patronage, as a placebo network. This test is designed to address concerns that the observed effects of the Pushkin circle on political violence may simply reflect the pre-existing tendencies of intellectual elites toward violence, independent of the influence of *Sovremennik*. This placebo test reveals no statistically significant effect of Empress Catherine the Great's circle on political violence (Columns 1

and 2 of Table 4, Panel A). Importantly, our baseline results continue to hold even when Empress Catherine's network is included as a control (Columns 3 and 4, Panel A of Table 4). In the second test, we examine whether the instrumented magazine subscriptions using Pushkin's circle correlate significantly with pre-existing economic, military, or cultural structures, such as the number of major commercial centers, military establishments, and cultural or religious institutions like taverns and monasteries. As shown in Panel B of Table 4, these placebo tests reveal no significant relationships between *Sovremennik* magazine exposure and the presence of these structures, suggesting that the magazine's penetration is not merely a proxy for historical economic or cultural factors.

Further Robustness Checks. In the Appendix, we report a large number of robustness checks, which we briefly summarize here. First, as alluded to earlier we assess whether our results are sensitive to the definition of the dependent variable, which in our primary specification is whether there was at least one politically violent attack in the county. Consistent with recent literature advocating for robustness checks that differentiate between extensive and intensive margin effects, and to verify the stability of results using Poisson regressions, we demonstrate in Table A3 of Appendix A that our results remain robust when applying these approaches suggested in Chen and Roth (2024).

Second, beyond the balance test reported in Table A4 of Appendix A, we leverage a dataset of elite occupations to demonstrate robustness by including the pre-treatment density of elites born before the magazine's advent. These elites could account for some factors that jointly determine cultural capital and political violence. Specifically, we sequentially control for the *pre-treatment* number of politicians, soldiers, scientists, university professors, artisans, and musicians in each county. The results, reported in Table A5 of Appendix B, indicate that our main findings remain essentially similar.

Third, we demonstrate that our findings are not sensitive to the specific year of *Sovremennik* subscriptions for which we have data. We have subscriber data for the years 1859, 1860, and 1861, during which the magazine reached its most radical stance under the editorship of Nekrasov. In our baseline regressions, we average these years; however, as shown in Table A6 of Appendix A, our results continue to hold across different specifications, regardless of the specific year of *Sovremennik* subscriptions chosen.

Fourth, we assess the robustness of our results by adjusting the available time frame of

the dependent variable. We limit the analysis to the first or second half of violent attacks recorded in the *Book of Sorrow* or exclude peak attack days. This exercise, reported in Table A7 of Appendix A, does not have any noticeable impact on our main results.

Lastly, we also address geographic correlations among counties by by using Conley standard errors (Appendix Table A8) and vary our selection of vary fixed effects by comparing different geographic sizes, showing that our conclusions hold whether we use smaller or larger regions (Appendix Table A9). Our results remain similar.

6. MECHANISMS

Impact on Revolutionary Discourse. A plausible mechanism contributing to the observed rise in political violence may be the influence of *Sovremennik*, which not only disseminated revolutionary ideas but also fostered a readership more engaged with extremist literature. This potential escalation in revolutionary discourse, facilitated by the magazine, offers an explanation for the heightened political violence. The magazine is linked not only to increased political violence but also to a higher likelihood of revolutionary publications emerging within these exposed counties. As shown in Table 5, a 10% increase in *Sovremennik* subscriptions is associated with a 2.68 percentage point increase in the probability of a county hosting a revolutionary publication. This effect represents a substantial 20.62% increase relative to the mean probability (13%) of having such a publication. These results suggest that *Sovremennik* not only incited political violence but also amplified the spread of revolutionary ideologies, giving rise to spread of radical underground publications.

Text Analysis of *Sovremennik*. These quantitative findings on the shift in revolutionary discourse also show up in the descriptive analysis of the *Sovremennik* magazine corpus, tracing the evolution of its content over several decades, as illustrated in Figure 4 (Panels A and B). We make several key observations regarding these trends. First, there is a notable and abrupt end to Pushkin's direct influence on the magazine following his untimely death in a duel, which occurred just nine months after the magazine's founding. Importantly, our instrument—based on Pushkin's circle and one-off meetings—cannot directly account for the observed rise in political violence. Second, in the years immediately after Pushkin's death, the magazine's content was notably less political, suggesting that the

early subscribers are not likely to be predominantly from regions 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. During this time, topics such as democracy, workers' rights, and economic issues increasingly take center stage, reflecting the magazine's growing focus on social and political matters (Figure 4). This period coincides with the era from which our subscriber data originates, suggesting that the magazine's potential role in influencing political violence could be attributed to its increasingly political content, particularly its shift towards advocating for political change.

Future Writers and Readers. The increase in political violence and the surge revolutionary underground (and banned literature) in regions more exposed to *Sovremennik* is also linked to a rise in the supply for literature. This pattern is substantiated by additional quantitative evidence. By profiling Russian writers born since 1700, we find that regions with greater distribution of the *Sovremennik* magazine also saw a significant increase in the number of writers. The findings presented in Panel A of Table 6 indicate that post-magazine ban, there was a statistically and qualitatively significant increase in the birth of writers in areas where the magazine had a higher exposure, suggesting a correlation between the magazine's circulation and increase in potential supply of revolutionary ideas. This trend implies that the *Sovremennik* magazine may have played a catalytic role, not only fueling the ideological shift but also actively contributing to a broader market for revolutionary ideas.

The impact of *Sovremennik* subscriptions was not limited to influencing the supply of literature; it also played a role in driving the demand for literature in the following decades. As shown in Table 6, Panel B, counties with higher *Sovremennik* subscriptions saw a substantial rise in subscriptions to later prominent literary magazines, such as Dostoevsky's *A Writer's Diary*, two decades later. This suggests that *Sovremennik* cultivated an enduring demand for literary content while simultaneously fostering the emergence of future writers, indicating that both the supply of and demand for literature were potential mechanisms linking the penetration of *Sovremennik* with political violence.

Impact on the Revolution. Building on the paper's epigraph, which posits that *Sovremennik* may have been instrumental in the eventual Bolshevik Revolution, it is plausible that the magazine influenced the broader emergence of revolutionaries. To maximize statistical power, our analysis encompasses all revolutionaries, though a focus on the Bolshevik subsample could yield similar insights. The data reveal a robust correlation between *Sovremennik* subscriptions and the rise of revolutionaries in high-subscription areas. As depicted in Table 7, counties with higher *Sovremennik* subscriptions exhibit a significantly greater number of revolutionaries born, particularly those who would have been around 20 years old during the magazine's 'radical' stance period in the late 1850s. This suggests that *Sovremennik*'s influence may have played a critical role in shaping the revolutionary fervor of the generation that came of age during its peak.

Alternative Mechanism. These results are not driven by peasant unrest (Table A10), indicating that it was not merely generalized social upheaval, but rather the intellectual class that was pivotal in the rise of revolutionary sentiment. *Sovremennik*'s subscriptions are uncorrelated with peasant unrest. This finding aligns with previous work on revolutions in other contexts, where it was often the highly educated elite—high-end human capital—(Squicciarini & Voigtländer, 2015)—rather than the "huddled masses," who spearheaded revolutionary movements. *Sovremennik* played a crucial role in mobilizing this intellectual class, further reinforcing the magazine's influence in shaping the revolutionary landscape—a fact also corroborated by the lack of impact of the magazine on number of schools or general literacy shown earlier.

7. Conclusion

Our findings suggest that Russian literature, notably during its Golden Age, played an important role in fueling political violence against the autocratic regime. By exploring the reach and impact of *Sovremennik* magazine, we reveal how literary dissemination may contribute to violent resistance. Our results suggest that *Sovremennik* not only escalated political violence but also facilitated the emergence of underground revolutionary literature, boosted the future supply of Russian writers and led to a higher incidence of revolutionaries born in areas with greater magazine subscriptions.

Our findings are robust, surviving various tests against potential threats to identifica-

tion, including placebo tests and balance checks, and are supported by an instrumental variable strategy that leverages the historical figure of Alexander Pushkin and his one-off encounters with the public. The analysis of underlying mechanisms indicates that the diffusion of *Sovremennik* magazine played an important role in cultivating a new generation of Russian writers dedicated to political reform, as well as fostering a readership increasingly inclined toward revolutionary publications and actions. This dynamic likely contributed to the escalation of political violence and dissent in regions with higher magazine subscription rates.

The implications of our study are manifold. First, it underscores the transformative power of literature as a medium that can transcend mere artistic expression to become a force for political change. Second, it contributes to the broader discourse on the role of media in shaping political outcomes, suggesting that literature, much like modern mass media, could impact public sentiment and catalyze collective action. Third, and more broadly, it provides empirical support for the agency-centric view of history, highlighting the role of individual actors and networks in shaping historical events.

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 literary movement, had the power to spark the flames of political violence. As we continue to witness the impact of media on political landscapes around the world, the lessons drawn from the Golden Age of 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 mediums, such as cinema, on political dissent and the mobilization of social movements. This line of inquiry may shed light on how modern cultural outputs continue to shape political dynamics and inspire collective action in today's sociopolitical landscape.

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

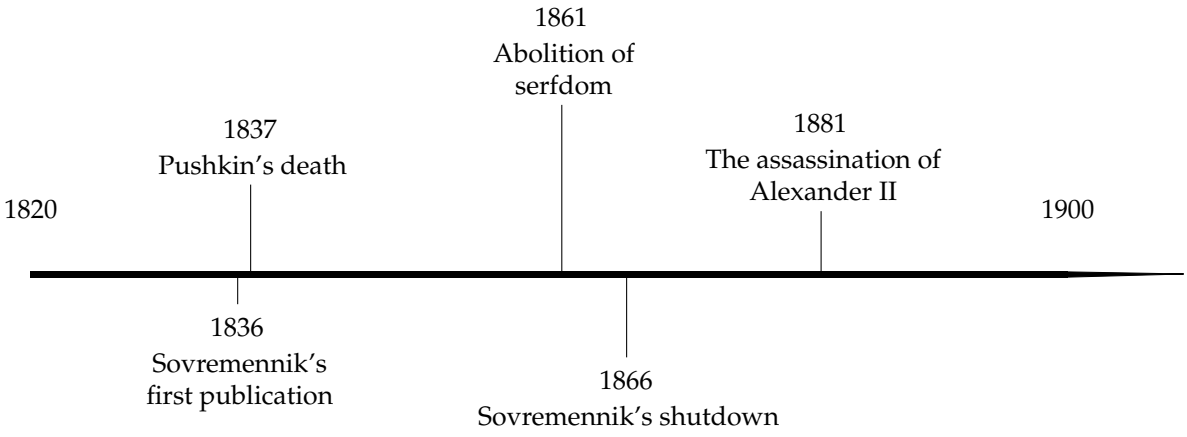
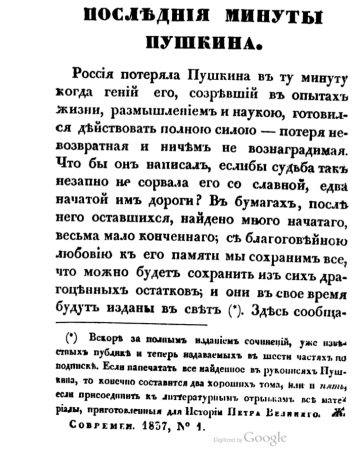


FIGURE II: Measuring Penetration of Russian Literature and Political Violence

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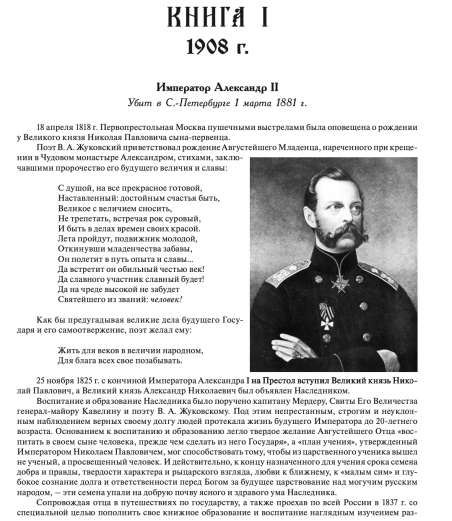
ПОСЛѢДНІЯ МИНУТЫ ПУШКИНА.

Россія потеряла Пушкина въ ту минуту когда геній его, созрѣвшій въ опытахъ жизни, размышленіемъ и наукою, готовился дѣйствовать полною силою — потеря невозвратная и ничѣмъ не вознаградимая. Что бы онъ написалъ, еслибы судьба такъ незапно не сорвала его со славной, едва начатой имъ дороги? Въ бумагахъ, послѣ него оставшихся, найдено много начатаго, весьма мало конченнаго; съ благоговѣйною любовію 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-

(*) Вскорѣ за полнымъ изданіемъ сочиненій, уже извѣстныхъ публикѣ и теперь издаваемыхъ въ шести частяхъ по подпискѣ. Если напечатать все найденное въ рукописяхъ Пушкина, то конечно составится два хорошихъ тома, или и пять, если присоединить къ литературнымъ отрывкамъ всѣ матеріалы, приготовленныя для Исторіи Петра Великаго. Ж. Современ. 1857, № 1.

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(A) One of the "Sovremennik" pages



КНИГА I
1908 г.

Император Александр II
Убит в С.-Петербурге 1 марта 1881 г.

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

Поэт В. А. Жуковский приветствовал рождение Августейшего Младенца, нареченного при крещении в Чудовом монастыре Александром, стихами, заключавшими пророчество его будущего величия и славы:

С душой, на все прекрасное готовой,
Наставленный: достойным счастья быть,
Великое с величием сносить,
Не трепетать, встречая рок суровый,
И быть в делах времен своих красой.
Лета пройдут, подвижник молодой,
Откинувши младенчества забавы,
Он полетит в путь опыта и славы...
Да встретит он обильный честью век!
Да славного участник славный будет!
Да на чреде высокой не забудет
Святейшего из званий: человек!

Как бы предугадывая великие дела будущего Государя и его самоотвержение, поэт желал ему:

Жить для веков в величии народном,
Для блага всех свое позабывать.

25 ноября 1825 г. с кончиной Императора Александра I **на Престол вступил Великий князь Николай Павлович**, а Великий князь Александр Николаевич был объявлен Наследником.

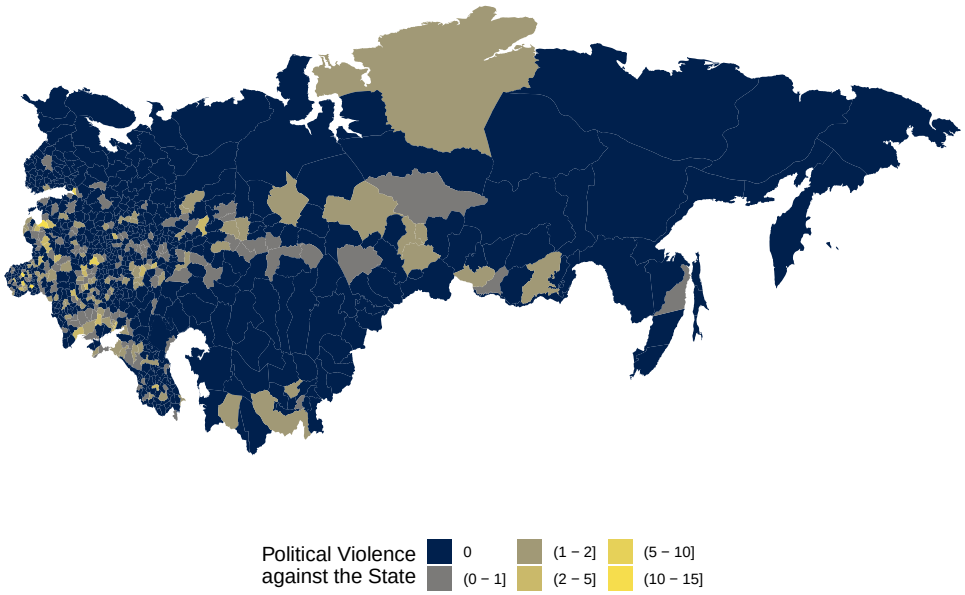
Воспитание и образование Наследника было поручено капитану Мердеру, Свиты Его Величества генерал-майору Кавелину и поэту В. А. Жуковскому. Под этим непрестанным, строгим и неуклонным наблюдением верных своему долгу людей протекала жизнь будущего Императора до 20-летнего возраста. Основанием к воспитанию и образованию легло твердое желание Августейшего Отца «воспитать в своем сыне человека, прежде чем сделать из него Государя», а «план учения», утвержденный Императором Николаем Павловичем, мог способствовать тому, чтобы из царственного ученика вышел не ученый, а просвещенный человек. И действительно, к концу назначенного для учения срока семена добра и правды, твердости характера и рыцарского взгляда, любви к ближнему, к «малым сим» и глубокое сознание долга и ответственности перед Богом за будущее царствование над могучим русским народом, – эти семена упали на добрую почву ясного и здравого ума Наследника.

Сопровождая отца в путешествиях по государству, а также проехав по всей России в 1837 г. со специальной целью пополнить свое книжное образование и воспитание наглядным изучением раз-

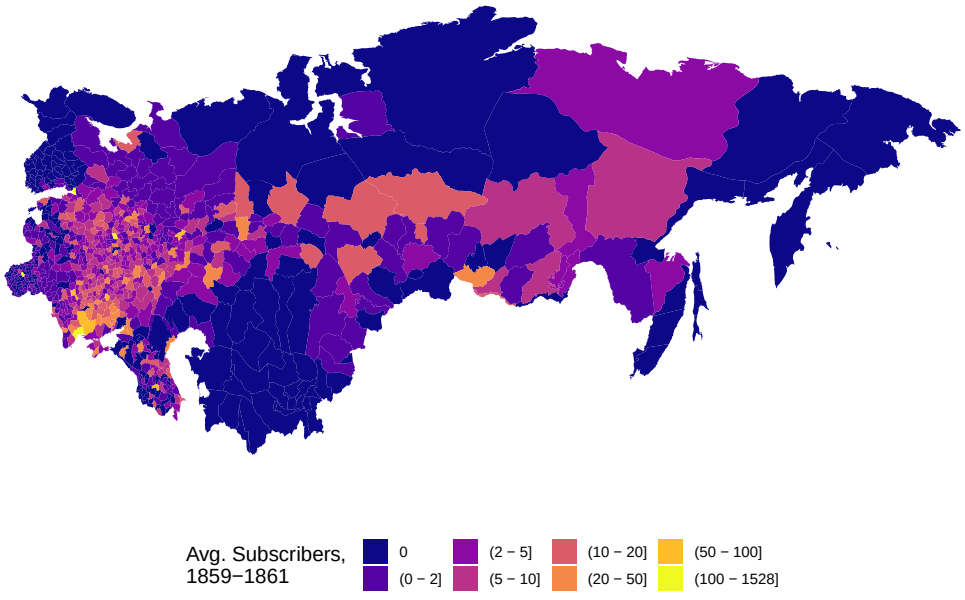
(B) One of the "Book of Russian Sorrow" pages

FIGURE III: Geographic Distribution of Violent Attacks and Magazine Subscriptions

(A) The Number of Violent Attacks against the State

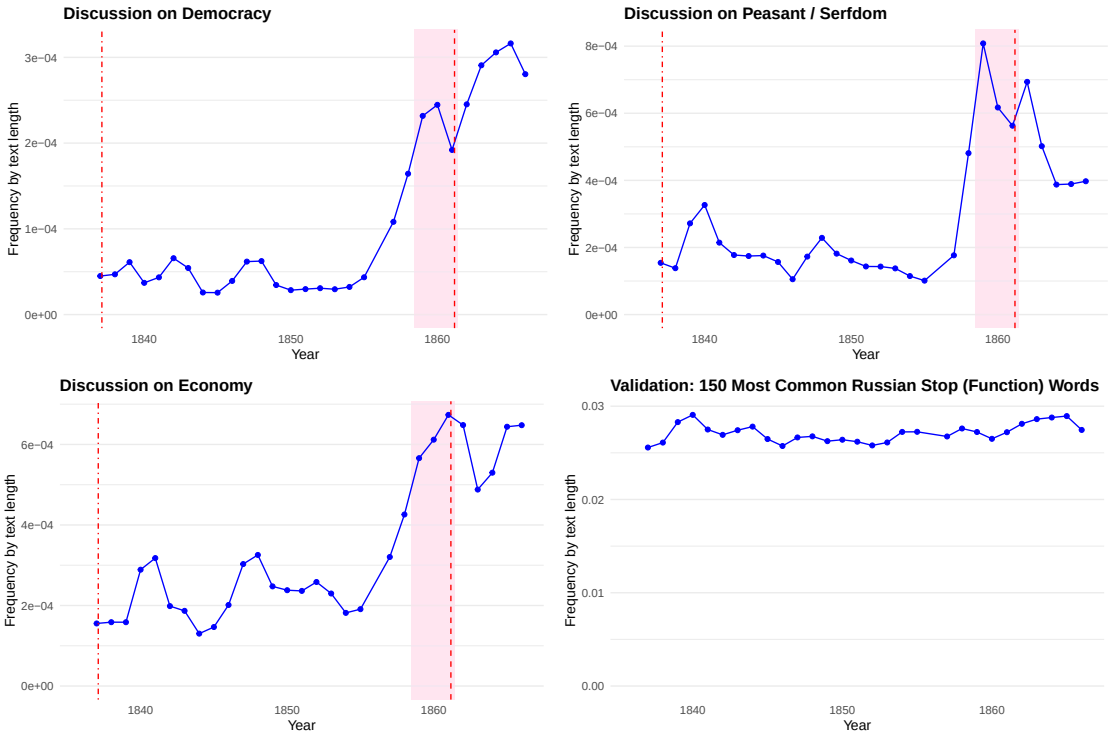


(B) The Average Number of Subscriptions of the "Sovremennik" Magazine



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

FIGURE IV: Results of text analysis of the Sovremennik corpus



Notes: 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 hand-selected terms, which were later enriched with the closest terms from a word embedding trained on the magazine corpus. The unit of observation is the year. Additionally, we present a validation exercise by plotting the distribution of the 150 most common functional words in the Russian language over the observation period. We also present two vertical lines corresponding to two significant events. The first, a dot-dashed line, indicates the death of Alexander Pushkin, the founder of Sovremennik. The second, a dashed line, marks the abolition of serfdom in 1861.

TABLE I
"SOVREMENNIK" SUBSCRIPTIONS AND VIOLENCE AGAINST THE STATE

	OLS		2SLS, second stage	
	(1)	(2)	(3)	(4)
Panel A. OLS and second-stage results				
	Dep. Var.: Political Violence			
Number of subscribers,	0.0988***	0.0807***	0.1887***	0.1883***
average 1859-61, log	(0.0104)	(0.0124)	(0.0382)	(0.0693)
Controls				
Geographic controls	✓	✓	✓	✓
Main controls		✓		✓
Province FEs	✓	✓	✓	✓
Observations	824	824	824	824
Mean of dependent variable	0.28	0.28	0.28	0.28
Panel B. First-stage results				
			Dep. Var.: Number of subscribers, log	
Number of Pushkin contacts, log			0.3194***	0.1896***
			(0.0386)	(0.0347)
Controls				
Geographic controls			✓	✓
Main controls				✓
Province FEs			✓	✓
F statistics (Kleibergen-Paap)			68.373	29.827
Observations			824	824

Notes: 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 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 employ the shares of serfs, the logarithm of the number of writers born before the *Sovremennik* launch, the logarithm of population density in 1858 and number of post stations. 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 II
PUSHKIN CIRCLE: "ONE-OFF" ENCOUNTERS AND TEXTUAL ANALYSIS OF CIRCLE-PUSHKIN RELATIONSHIP

	(1)	(2)	(3)	(4)	(5)
Panel A: 2SLS, second stage					
	Dep. Var.: Political Violence				
Number of subscribers,	0.1567**	0.1919**	0.2300***	0.2475***	0.1554**
average 1859-61, log	(0.0755)	(0.0795)	(0.0746)	(0.0883)	(0.0686)
Panel B: Reduced form					
Number of contacts, log	0.0327**	0.0386**	0.0465***	0.0393***	0.0292**
	(0.0163)	(0.0160)	(0.0142)	(0.0121)	(0.0129)
Panel C: First-stage					
	Dep. Var.: Number of subscribers, log				
Number of contacts, log	0.2085***	0.2013***	0.2023***	0.1588***	0.1880***
	(0.0419)	(0.0358)	(0.0404)	(0.0351)	(0.0338)
Controls					
Geographic controls	✓	✓	✓	✓	✓
Main controls	✓	✓	✓	✓	✓
Province FEs	✓	✓	✓	✓	✓
Instruments:	**One-off encounters**	**No friends**	**No relatives**	**No liberals**	**No revolutionaries**
Fit statistics					
F statistics (Kleibergen-Paap)	24.811	31.679	25.076	20.441	30.886
Observations	824	824	824	824	824
Mean of dependent variable	0.28	0.28	0.28	0.28	0.28

Notes: 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 encounters (plus 0.1), on a dummy variable for at least one act of political violence against imperial officials.Here we present a set of alternative instruments. In column 1 we focus exclusively on 'one-off' encounters — those with a short article length, below the median size, in our source book (Chereiskii, 1988). In Columns 2 to 3, we construct instrumental variables using text analysis. We measure cosine distance between articles on Pushkin's contacts and small dictionaries related to friendship and kinship in pre-trained CBOW embeddings. In columns 4 and 5, we exclude from the set of Pushkin's contacts those whose biographies were labeled as liberal or revolutionary by the BART model. As in Table 1, we exclude Decembrists from each version of our instruments. Panel A presents the second stage, Panel B the reduced form estimates, and Panel C the first stage of our 2SLS analysis. We use the same controls as in Column 2 and 4 of Table 1. 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 III
"SOVREMENNIK" SUBSCRIPTIONS AND FUTURE HUMAN CAPITAL

	OLS	2SLS	OLS	2SLS	OLS	2SLS
	(1)	(2)	(3)	(4)	(5)	(6)
Dep. Var.:	Literacy		Total county number of schools per 1000, 1894		Total number of schools per 1000, 1911	
Number of subscribers,	0.0969	1.355	-0.0142	-0.0043	0.0034	0.0994
average 1859-61, log	(0.4353)	(1.478)	(0.0089)	(0.0304)	(0.0213)	(0.0778)
Controls						
Geographic controls	✓	✓	✓	✓	✓	✓
Main controls	✓	✓	✓	✓	✓	✓
Province FEs	✓	✓	✓	✓	✓	✓
F statistics (Kleibergen-Paap)		25.147		25.147		23.954
Observations	488	488	488	488	484	484
Mean of dependent variable	32.77	32.77	0.46	0.46	1.49	1.49

Notes: 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 encounters (plus 0.1), on various human capital outcomes. Odd and even columns present OLS and 2SLS estimates, respectively. 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. We employ the full set of controls in the same way as in Table I. 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 IV
PLACEBO: (A) EPISTOLARY NETWORK OF CATHERINE THE GREAT (1762 - 1796) AND (B) PRE-TREATMENT ESTABLISHMENTS FROM PIADYSHEV ATLAS (1820)

2SLS, second stage	(1)	(2)	(3)	(4)
Panel A: Epistolary network of Catherine II				
	Dep. Var.: Political Violence			
Number of subscribers,	0.2704	0.1567	0.1868***	0.1886***
average 1859-61, log	(0.1901)	(0.1053)	(0.0700)	(0.0699)
Has Catherine			0.0267	
Connections			(0.0580)	
Has Catherine				-0.0162
Correspondents				(0.0672)
Instruments:	**Catherine Connections**	**Catherine Correspondents**	**Baseline IV: Pushkin encounters**	
Fit statistics				
F statistics (Kleibergen-Paap)	3.3531	3.8216	3.8216	31.008
Observations	824	824	824	824
Mean of dependent variable	0.28	0.28	0.28	0.28
Panel B: Pre-treatment establishments from Piadyshev atlas (1820), IV Pushkin				
Dep. Var.:	# of Factories	Has military installations	# of tavernas	# of monasteries
Number of subscribers,	-0.0831	0.0422	0.0197	0.0388
average 1859-61, log	(0.0595)	(0.0309)	(0.0247)	(0.0449)
Controls				
Geographic controls	✓	✓	✓	✓
Main controls	✓	✓	✓	✓
Province FEs	✓	✓	✓	✓
Fit statistics				
F statistics (Kleibergen-Paap)	29.827	29.827	29.827	29.827
Observations	824	824	824	824

Notes: This table presents results from two placebo exercises. Panel A examines Catherine II's epistolary network. Column 1 shows 2SLS estimates of the effect of the logarithm of magazine subscriptions (plus 0.1), averaged from 1859 to 1861, instrumented with a dummy variable indicating whether a county contains locations of Catherine's letter recipients or the locations from where the letters were sent, on a dummy variable for at least one act of political violence against imperial officials. Column 2 uses a similar approach but focuses only on the locations of letter recipients. Columns 3 and 4 use our baseline instrument based on Pushkin encounters, with variables from Catherine's network as controls. Panel B examines the presence and numbers of various establishments from the Piadyshev atlas of the Russian Empire as outcome variables, using our baseline IV strategy based on Pushkin encounters. The list of military installation includes fortresses, military cordons, foreposts, guardhouses (karauls), and redoubts. We apply the full set of controls as in Table I and 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 V
"SOVREMENNIK" SUBSCRIPTIONS AND UNDERGROUND REVOLUTIONARY PAMPHLETS

	OLS		2SLS, second stage	
	(1)	(2)	(3)	(4)
	Dep. Var.: Revolutionary Publications			
Number of subscribers,	0.0726***	0.0505***	0.2444***	0.2806***
average 1859-61, log	(0.0114)	(0.0105)	(0.0424)	(0.0713)
Controls				
Geographic controls	✓	✓	✓	✓
Main controls	✓	✓	✓	✓
Province FEs	✓	✓	✓	✓
Fit statistics				
F statistics (Kleibergen-Paap)			68.373	29.827
Observations	824	824	824	824
Mean of dependent variable	0.131	0.131	0.131	0.131

Notes: 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 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 and the same controls as in Column 2 and 4 of Table 1. 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 VI
MECHANISMS: EFFECT ON FUTURE LITERATURE SUPPLY AND DEMAND

	OLS		2SLS, second stage	
	(1)	(2)	(3)	(4)
Panel A: Literature Supply				
	Dep. Var.: Number of writers born after 1866, log			
Number of *Sovremennik* subscribers,	0.3823***	0.2584***	0.9555***	0.8259***
average 1859-61, log	(0.0483)	(0.0508)	(0.1353)	(0.2477)
Panel B: Literature Demand				
	Dep. Var.: "A writer's diary" subscribers, 1881			
Number of *Sovremennik* subscribers,	0.0848***	0.0654***	0.2167***	0.2317***
average 1859-61, log	(0.0128)	(0.0134)	(0.0335)	(0.0662)
Controls				
Geographic controls	✓	✓	✓	✓
Main controls	✓	✓	✓	✓
Province FEs	✓	✓	✓	✓
Fit statistics				
F statistics (Kleibergen-Paap)			68.373	29.827
Observations	824	824	824	824
Mean of dependent variable	0.38	0.38	0.38	0.38

Notes: 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 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 and the same controls as in Column 2 and 4 of Table 1. 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

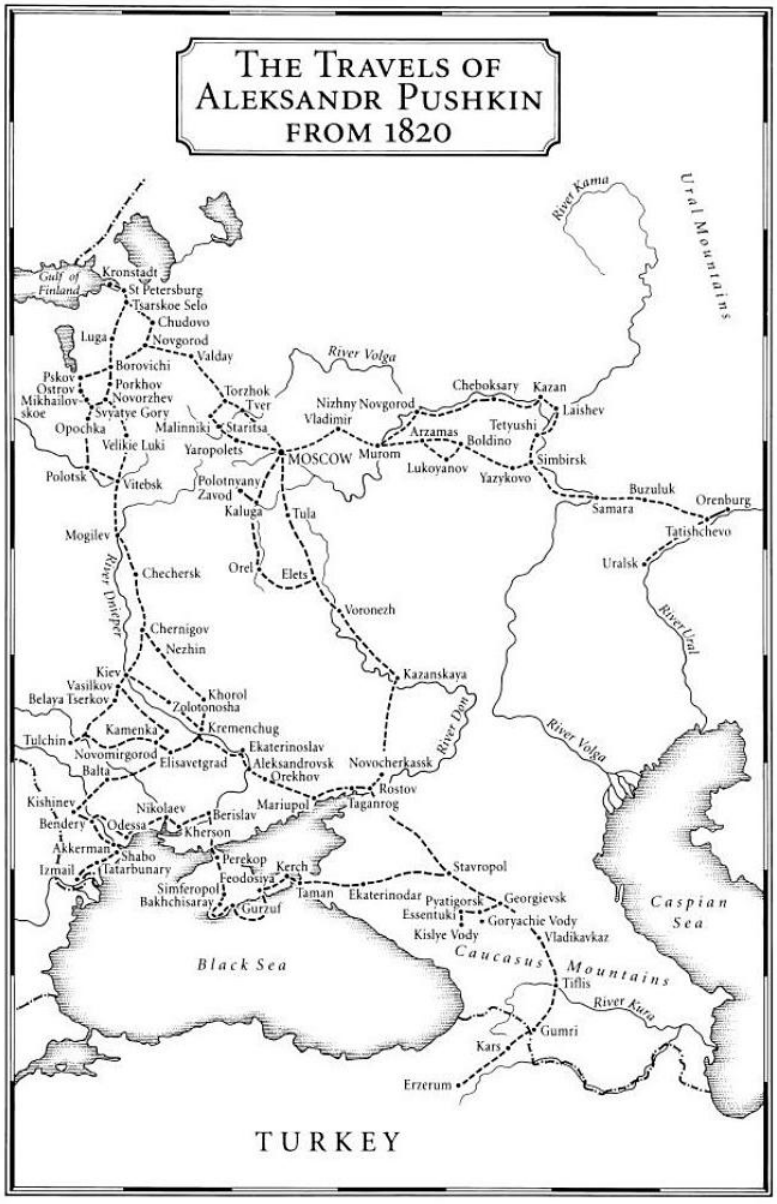
TABLE VII
MECHANISMS: IMPACT ON EMERGENCE OF FUTURE REVOLUTIONARIES

	OLS		2SLS, second stage	
	(1)	(2)	(3)	(4)
	Dep. Var.: Revolutionary born after 1836			
Number of subscribers,	0.0780***	0.0576***	0.1932***	0.2081***
average 1859-61, log	(0.0116)	(0.0138)	(0.0379)	(0.0717)
Controls				
Geographic controls	✓	✓	✓	✓
Main controls	✓	✓	✓	✓
Province FEs	✓	✓	✓	✓
Fit statistics				
F statistics (Kleibergen-Paap)			68.373	29.827
Observations	824	824	824	824
Mean of dependent variable	0.131	0.131	0.131	0.131

Notes: 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 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 and the same controls as in Column 2 and 4 of Table 1. 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

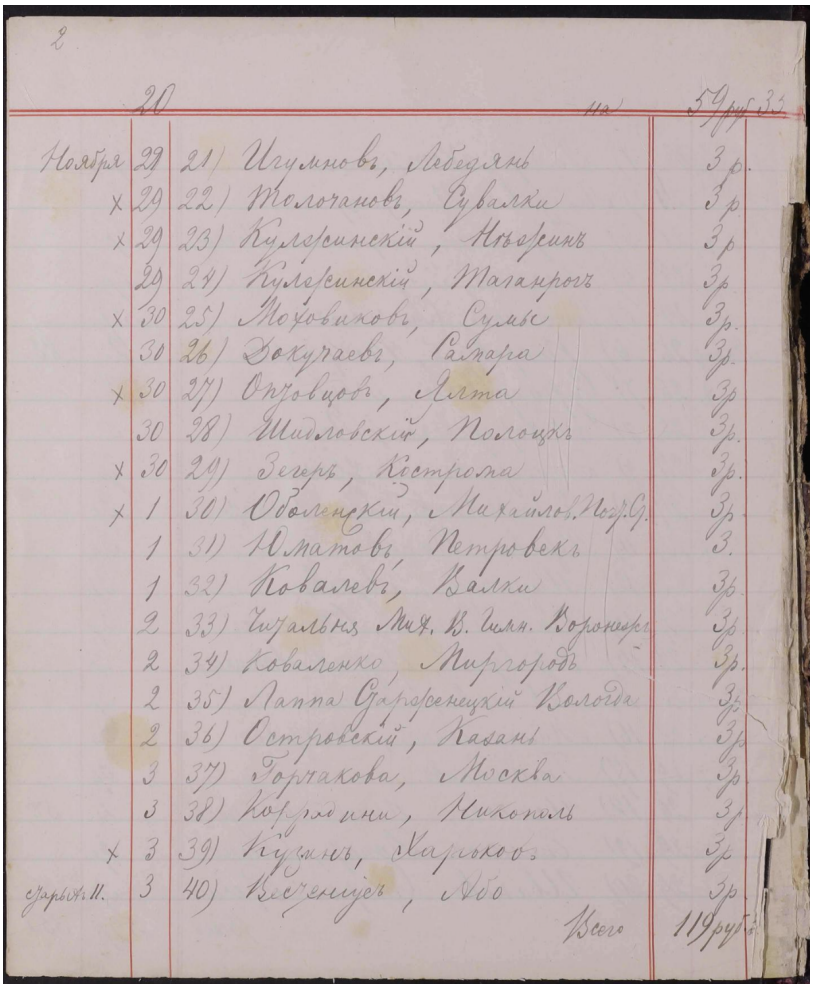
Appendix A

FIGURE A1: The Travels Of Alexander Pushkin from 1820



Notes: The map of Pushkin travels from 1820, including Southern Exile, from Binyon (2007).

FIGURE A2: Subscription Book of Dostoevksy's Magazine "A Writer's Diary" (1881)



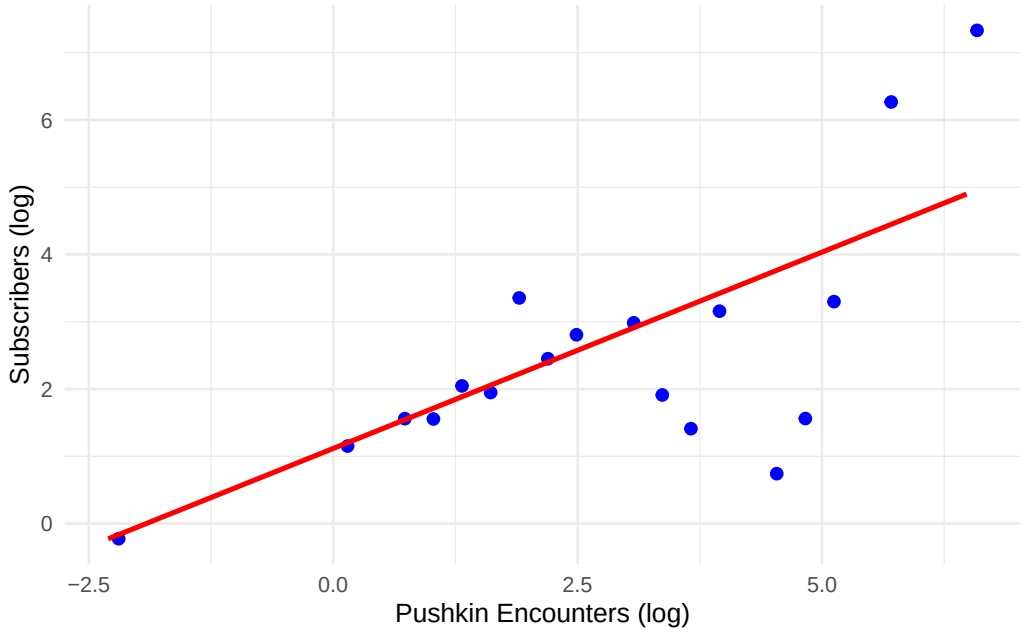
Notes: The picture of the *Subscription Book* for Fyodor Dostoevsky's magazine *A Writer's Diary* (1881), managed by Anna Dostoevskaya, with the names of subscribers and their cities.

FIGURE A3: Political Violence: Photograph of an Attack with Explosives

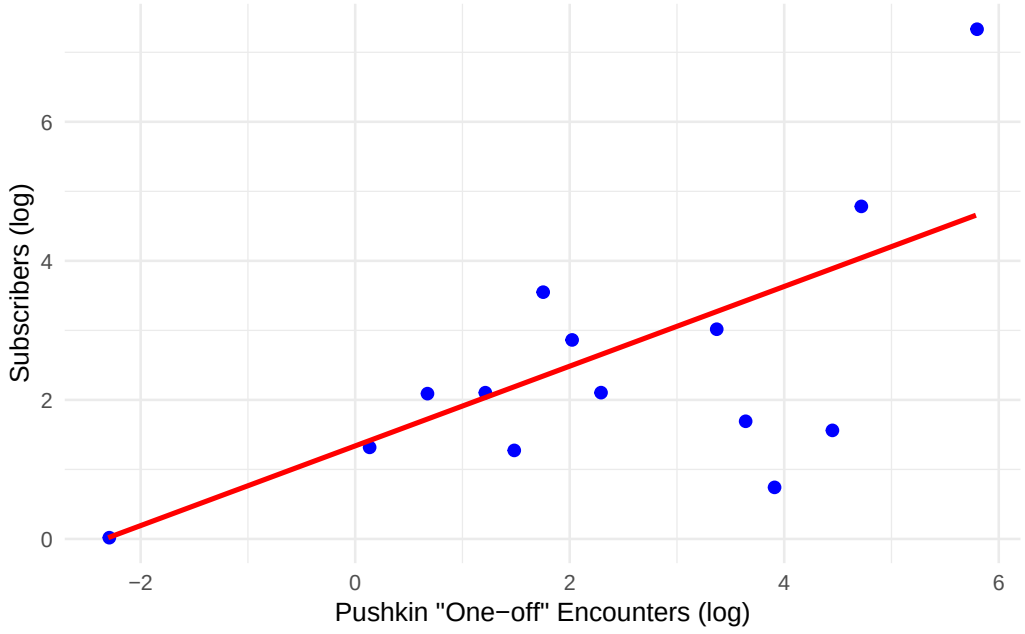


Notes: Scene following the 'failed' assassination attempt on Stolypin in 1906, an attack that resulted in 27 fatalities

FIGURE A4: First-stage Binned Scatter Plots



(A) All Pushkin Encounters



(B) Pushkin "One-off" Encounters

Notes: 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 Pushkin encounters. We present two versions of the instrumental variable. In Panel A, the instrumental variable is calculated as the logarithm of all Pushkin encounters (plus 0.1). In Panel B, we focus exclusively on 'One-off' encounters — those with a short article length, below the median size, in our source book (Chereiskii, 1988). For the 'One-off' instrument, we also use the logarithm of the encounter count (plus 0.1).

FIGURE A5: Distribution of Attacks over Time

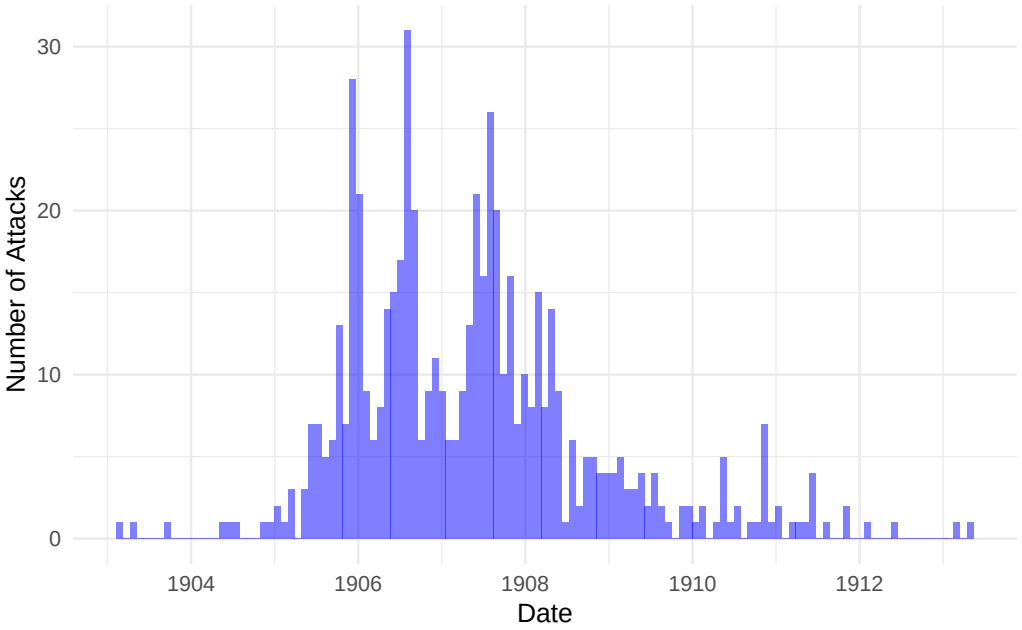


FIGURE A6: Robustness Check: Baseline Specification, Main Coefficients Excluding One Province at a Time

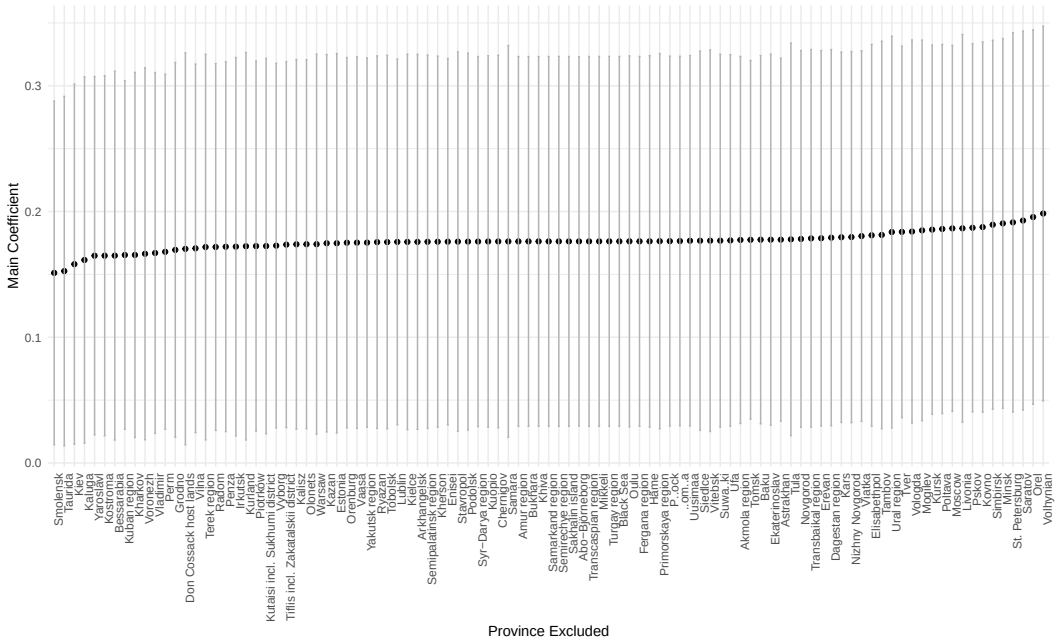


TABLE A1
DESCRIPTIVE STATISTICS, COUNTY-LEVEL

Variables:	N	Mean	St. Dev.	Min	Median	Max
At least one attack	824	0.28	0.45	0	0	1
Num. attacks	824	0.70	1.99	0	0	32
At least one pamphlet	824	0.13	0.34	0	0	1
Num. pamphlet	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
Has Catherine II correspondence location	824	0.10	0.30	0	0	1
Has Catherine II correspondence receivers	824	0.05	0.22	0	0	1
factories	824	0.18	0.87	0	0	12
has_military_obj	824	0.09	0.28	0	0	1
tavernas	824	0.04	0.24	0	0	4
monasteries	824	0.09	0.34	0	0	3
Num. writers born after 1856	824	2.36	9.18	0	1	179
Num. writers born after 1866	824	2.11	8.22	0	1	150
Num. writers born after 1876	824	1.77	6.77	0	1	125
Num. writers born after 1886	824	1.42	5.59	0	0	102
At least one *Dostoevsky* subscriber	824	0.38	0.49	0	0	1
Num. *Dostoevsky* subscribers	824	1.21	6.25	0	0	152
revolution_count_post_1836	824	0.44	1.37	0	0	26
Num. *Sovremennik* subscribers	824	7.52	56.86	0.00	2.00	1,528.00
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, avg.)	824	1.22	12.42	0	0	298
Num. Pushkin contacts (no friends, min.)	824	1.22	13.09	0	0	309
Num. Pushkin contacts (no relatives, avg.)	824	1.22	12.12	0	0	281
Num. Pushkin contacts (no relatives, min.)	824	1.18	11.89	0	0	281
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	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

Notes: 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 B1.

TABLE A2
PUSHKIN CIRCLE: COMPOSITION AND CORRESPONDENCE

Panel A: Composition of Pushkin Circle

Category	Count	Share
Noble	155	0.34
Peasant	301	0.66
Loyalist	300	0.72
Revolutionary	118	0.28
Conservative	81	0.13
Liberal	525	0.87
Military	201	0.52
Civilian	187	0.48

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."

Notes: The table's Panel A presents the composition of Pushkin's circle based on text analysis of articles from Chereiskii (1988). We use a zero-shot classification method based on the BART model (Lewis et al., 2019) to determine whether a given article belongs to the specified categories. Panel B presents excerpts from Pushkin's correspondence promoting his magazine, The Contemporary.

TABLE A3
ROBUSTNESS ACCORDING TO CHEN AND ROTH (2024) AND ALTERNATIVE DEFINITIONS OF DEPENDENT VARIABLE

	(1)	(2)	(3)	(4)
Panel A: Robustness According to Chen and Roth (2024)				
Dep. Var.: Value of X if # of Attacks = 0	X = 0	X = -0.1	X = -1	X = -5
Number of subscribers,	0.1883***	0.2071***	0.3766***	1.130***
average 1859-61, log	(0.0693)	(0.0762)	(0.1386)	(0.4158)
Panel B: Alternative Definitions of Dependent Variable				
Dep. Var.:	# of attacks	log(attacks + 1)	IHS(attacks)	Poisson
Number of subscribers,	1.057***	0.3019***	0.3840***	0.9094***
average 1859-61, log	(0.3765)	(0.0955)	(0.1220)	(0.2990)
Controls				
Geographic controls	✓	✓	✓	✓
Main controls	✓	✓	✓	✓
Province FEs	✓	✓	✓	✓
Fit statistics				
Observations	824	824	824	824

Notes: 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 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. All specifications include province-level fixed effects and the same controls as in Columns 2 and 4 of Table 1. Standard errors (in parentheses) are clustered at the province level. ***: 0.01, **: 0.05, *: 0.1.

TABLE A4
BALANCE TEST

	(1)		(2)		(1)-(2)	
	No Pushkin contact		Has Pushkin contact		Pairwise t-test	
Variable	N/Clusters	Mean/(SE)	N/Clusters	Mean/(SE)	N/Clusters	Mean dif.
Factories in 1868	271	25.058	210	29.998	481	-4.940
	50	(5.232)	48	(5.526)	51	
Gulag camps	276	0.188	212	0.222	488	-0.033
	50	(0.036)	48	(0.037)	51	
Schools before 1856	273	0.056	211	0.047	484	0.010
	50	(0.012)	48	(0.008)	51	
Percent of serfs	585	40.176	239	40.835	824	-0.659
	98	(1.647)	64	(2.429)	99	
Forest cover	276	38.112	212	33.609	488	4.503
	50	(3.485)	48	(3.226)	51	
Wheat index	276	6.441	212	6.911	488	-0.470
	50	(0.308)	48	(0.251)	51	
Percent of jews 1870	276	0.057	212	0.063	488	-0.005
	50	(0.022)	48	(0.026)	51	
Distance to Moscow	585	1324.089	239	737.253	824	586.836
	98	(125.293)	64	(66.154)	99	
Distance to	585	1516.629	239	1061.632	824	454.997
St.Petersburg	98	(130.483)	64	(72.462)	99	

Notes: Standard errors clustered by province (Gubernia) in parentheses. Province (Gubernia) fixed effect used in pairwise regressions. For every variable first row is number of observations in both groups, second row is a number of clusters.

TABLE A5
CONTROLLING FOR ELITES OF VARIOUS OCCUPATIONS BORN IN THE COUNTY BEFORE THE ADVENT OF SOVREMENNIK MAGAZINE

2SLS, second stage	(1)	(2)	(3)	(4)	(5)	(6)
	Dep.Var.: Political Violence					
Number of subscribers,	0.1647***	0.1938***	0.1839***	0.1633***	0.1629***	0.1751***
average 1859-61, log	(0.0525)	(0.0466)	(0.0528)	(0.0532)	(0.0528)	(0.0567)
All prominent individuals, log	✓					
Politicians, log		✓	✓	✓	✓	✓
Military, log			✓	✓	✓	✓
Scientists, log				✓	✓	✓
University teachers, log					✓	✓
Artists, musician, theater, log						✓
Controls						
Geographic controls	✓	✓	✓	✓	✓	✓
Main controls	✓	✓	✓	✓	✓	✓
Fixed-effects						
Province	✓	✓	✓	✓	✓	✓
Fit statistics						
F statistics (Kleibergen-Paap)	37.220	41.496	47.990	33.638	46.036	38.570
Observations	824	824	824	824	824	824

Notes: 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 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 6, 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. 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 A6
ROBUSTNESS TO ALTERNATE DEFINITIONS OF EXPOSURE TO MAGAZINE: SUBSCRIBERS BY 1859, 1860, 1861

	OLS	2SLS	OLS	2SLS	OLS	2SLS
	(1)	(2)	(3)	(4)	(5)	(6)
	Dep.Var.: Political Violence					
Number of subscribers,	0.0555***	0.1928**				
1859, log	(0.0127)	(0.0736)				
Number of subscribers,			0.0642***	0.1710***		
1860, log			(0.0113)	(0.0620)		
Number of subscribers,					0.0757***	0.1777**
1861, log					(0.0105)	(0.0680)
Controls						
Geographic controls	✓	✓	✓	✓	✓	✓
Main controls	✓	✓	✓	✓	✓	✓
Fixed-effects						
Province	✓	✓	✓	✓	✓	✓
Fit statistics						
F statistics (Kleibergen-Paap)		22.157		33.167		23.944
Observations	824	824	824	824	824	824

Notes: 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 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). 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. Standard errors (in parentheses) are clustered at the province level. ***: 0.01, **: 0.05, *: 0.1

TABLE A7
ROBUSTNESS WITH ALTERNATE DEFINITIONS OF DEPENDENT VARIABLE: ATTACKS BY TIME PERIODS

	OLS	2SLS	OLS	2SLS	OLS	2SLS
	(1)	(2)	(3)	(4)	(5)	(6)
Dep. Var. period:	First half of period		Second half of period		Excluding peak days	
	Dep. Var.: Political Violence					
Number of subscribers,	0.0642***	0.1478**	0.0622***	0.1688***	0.0834***	0.1829***
average 1859-61, log	(0.0094)	(0.0616)	(0.0117)	(0.0597)	(0.0112)	(0.0673)
Controls						
Geographic controls	✓	✓	✓	✓	✓	✓
Main controls	✓	✓	✓	✓	✓	✓
Fixed-effects						
Province	✓	✓	✓	✓	✓	✓
Fit statistics						
F statistics (Kleibergen-Paap)		29.827		29.827		29.827
Observations	824	824	824	824	824	824

Notes: 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 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. 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 A8
ROBUSTNESS TO ACCOUNTING FOR CONLEY SPATIAL CORRELATION

Panel A. Radius 50km				*Panel B. Radius 100km*		
	(1)	(2)	(3)	(1)	(2)	(3)
	Dep. Var.: Political Violence					
Log(Number of Subscribers + 0.1)	0.099***	0.096***	0.096***	0.099***	0.096***	0.096***
	(0.010)	(0.011)	(0.011)	(0.010)	(0.005)	(0.005)
Province Fixed Effects	✓	✓	✓	✓	✓	✓
Controls		✓	✓		✓	✓
Pretreatment Controls			✓			✓
Panel C. Radius 200km				*Panel D. Radius 300km*		
	Dep. Var.: Political Violence					
Log(Number of Subscribers + 0.1)	0.099***	0.096***	0.096***	0.099***	0.096***	0.096***
	(0.009)	(0.005)	(0.005)	(0.009)	(0.002)	(0.002)
Province Fixed Effects	✓	✓	✓	✓	✓	✓
Controls		✓	✓		✓	✓
Pretreatment Controls			✓			✓
Panel E. Radius 400km				*Panel F. Radius 500km*		
	Dep. Var.: Political Violence					
Log(Number of Subscribers + 0.1)	0.099***	0.096***	0.096***	0.099***	0.096***	0.096***
	(0.007)	(0.002)	(0.002)	(0.004)	(0.003)	(0.003)
Province Fixed Effects	✓	✓	✓	✓	✓	✓
Controls		✓	✓		✓	✓
Pretreatment Controls			✓			✓
Mean Dep. Var.	0.282	0.282	0.282	0.282	0.282	0.282
Observations	824	824	824	824	824	824

Notes: Standard errors robust to spatial correlation in parentheses. The dependent variable is dummy variable on political attack in the county. Log Subscribers is logarithm of number of subscribers to *Sovremennik* in the county. Controls added at column (2) include population density, share of serfs, distance to Moscow and St. Petersburg, coordinates of county centroid. Pre-treatment controls added at column (3) include number of post stations per square km in the county as for 1820, logarithm of number of writers born before 1836 in the county. Province fixed effects used in the regression. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

TABLE A9
ROBUSTNESS TO ALTERNATE FIXED EFFECTS

Panel A. Cell 333x333km fixed effects			
	(1)	(2)	(3)
	Dep. Var.: Political Violence		
Log(Number of Subscribers + 0.1)	0.104***	0.099***	0.080***
	(0.012)	(0.013)	(0.014)
Cell 333x333km Fixed Effects	✓	✓	✓
Controls		✓	✓
Pretreatment Controls			✓
Mean Dep. Var.	0.282	0.282	0.282
Observations	824	824	824
Panel B. Cell 444x444km fixed effects			
Log(Number of Subscribers + 0.1)	0.092***	0.089***	0.069***
	(0.011)	(0.011)	(0.012)
Cell 444x444km Fixed Effects	✓	✓	✓
Controls		✓	✓
Pretreatment Controls			✓
Mean Dep. Var.	0.282	0.282	0.282
Observations	824	824	824

Notes: Standard errors clustered by region (gubernia) in parentheses. The dependent variable is dummy variable on political attack in the county. Log Subscribers is logarithm of number of subscribers to Sovremennik journal in the county. Case controls added at column (2) include population dencity, share of serfs, distance to Moscow and St. Petersburg, coordinates of disrtict centroid. Case pretreatment controls added at column (3) include number of post stations per square km and number of monasteries in the county as for 1820, logarithm of number of writers born before 1836 in the county. Fixed effects listed in the panel are sell 3x3 degree (333x333km) sell fixed effects, sell 4x4 degree (444x444km) sell fixed effects. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

TABLE A10
ALTERNATIVE MECHANISM: PEASANT UNREST

	(1)	(2)	(3)	(4)
Dep. Var.:	Peasant Unrest		Log of Peasant Unrest	
Number of subscribers,	-0.0030	-0.0078	0.0346	-0.0428
by years, log	(0.0078)	(0.0081)	(0.0372)	(0.0352)
Controls				
county FEs	✓	✓	✓	✓
Year FEs		✓		✓
Fit statistics				
Observations	2,484	2,484	2,484	2,484

Notes: The table shows the effect of the logarithm of magazine subscriptions (plus 0.1), on peasant unrest (columns 1 and 2) and the log of peasant unrest (columns 3 and 4). All models include county-level fixed effects, while year fixed effects are included in columns 2 and 4. Standard errors (in parentheses) are clustered at the county level. ***: 0.01, **: 0.05, *: 0.1

Appendix B: Data Construction and Sources

TEXT ANALYSIS

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. Almelhem, 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.

TABLE B1
DESCRIPTION OF DATA SOURCES

Variable	Description	Source
Sovremennik corpus	Contents of the *Sovremennik*	"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)
Attacks	A list of violent attacks, extracted from the biographies of individuals who died during revolutionary unrest	*Kniga russkoi skorbi [The Book of Russian Sorrow]* (1908–1914)
Agitation leaflets	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)
Subscribers to *A writer's diary*	Subscribers to Feyodor Dostoevsky's magazine *A writer's diary* (1881)	Subscription book
Literacy	Literacy rate from 1897 Census	Buggle and Nafziger (2021)
Schools, 1894	Total county number of schools per 1000, 1894	Buggle and Nafziger (2021)

TABLE B1
(CONTINUED)

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

TABLE B1
(CONTINUED)

Variable	Description	Source
Artists, musicians, theater	Number of artists, musicians, theater workers by year and location of birth	Wikidata
Post stations	Post stations on Piadyshev atlas (1820)	The Imperiia Project (2024)
Factories	Factories on Piadyshev atlas (1820)	The Imperiia Project (2024)
Military objects	Military objects on Piadyshev atlas (1820)	The Imperiia Project (2024)
Tavernas	Tavernas on Piadyshev atlas (1820)	The Imperiia Project (2024)
Monasteries	Monasteries on Piadyshev atlas (1820)	The Imperiia Project (2024)
Province (Gubernia)	Province shapefiles (1897)	Kessler (2017)
county (Uezd)	county shapefiles (1897)	Kessler (2017)
Lat and lon (centroid)	Latitude and longitude of county centroid	Own calculation
Distances to Moscow and Saint Petersburg		Own calculation
Distances to Moscow and Saint Petersburg		Own calculation

TABLE B1
(CONTINUED)

Variable	Description	Source
Shares of serfs	Share of serfs before Abolition of serfdom (1861)	Buggle and Nafziger (2021)
Logarithm of population density in 1858		Buggle and Nafziger (2021)
Other controls	Factories in 1868, Gulag camps, Schools before 1856, Forest cover, Wheat index, Percent of Jewish people 1870	Buggle and Nafziger (2021)