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A PROVOCATIVE EVENT, MEDIA, AND RELIGIOUS CHOICE: THE PUSSY RIOT CASE AS A NATURAL EXPERIMENT

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This paper uses the famous events related to Pussy Riot as a natural experiment to examine the effect of alternative media on church membership. A differences-in-differences strategy is used to explore the effect in question. The hypothesis is that, given a lack of religious background on the majority of the population and strong temporal interest in religious issues promoted by some provocative event, mass media can substantially affect religious choice. To check if this is the case, we compare the dynamics of religious choice of those exposed to alternative media reports on church topics and the rest of the people. As a proxy of familiarity with an alternative view, we use a dummy variable for using Internet. Our main result is that, during the experiment run over the year 2012, the growth of self-reported Orthodox and strict Orthodox believers was significantly lower in the treatment group than in the control group. Exposure to alternative media coverage turned out to heavily affect religious choice.

[*] National Research University Higher School of Economics (St. Petersburg, Russia)
e-mail: skorobogat@mail.ru

1 Introduction

How long does it take for a nation to change its religion? Historical records indicate that it typically takes as long as hundreds, if not thousands of years. Throughout world history, religious choice on the part of nations usually changed very slowly. Bulks of believers in the world belong to the same religions to which the respective majorities of believers belonged a thousand or more years ago. In the United States during the 20th century religious beliefs as to the existence of God, the divinity of Jesus, and so forth, were remarkably persistent (Lawrence R. Iannaccone 1998, p. 1469). Therefore, Oliver Williamson (2000, p. 597) described religion as a part of "embeddedness", being one of the most lasting institutions.

For all that, Russia in our times seems to have changed its main religion in no more than a decade. By the end of the Soviet era, Orthodox Christians comprised a tiny part of the society. From 1988 onward, the Orthodox population increased to reach 18.6% of population of the Russian Soviet Republic the next year (VCIOM 1989). Ten years later this figure was already equal to 60.9% (VCIOM 1999);[1] and by 2012 the percentage of self-reported Orthodox reached 79% (VCIOM 2012). Thus, the Orthodox Church in a short historical period changed its position from a minority group to a vast majority. Now public opinions polls repeatedly show that the church is the most trusted institution, which encourages politics and officials to use it as a symbol of national identity (Nicolai N. Petro 2012). Given the stylized historical facts about religious dynamics, such a rapid transition to a religion is a remarkable phenomenon of recent modern history.

The explosive and encompassing nature of this change implies that over several years some common factors were at work that brought to the change of religious choice of most people. Literature on the economics of religion contains a number of theoretical and empirical contributions as to rational grounds of religious choice. The latter in the modern world is most distinctly exemplified in transitions between religious and secular groups. Oz Shy treats it in terms of a difference in birth rates across the groups and proportions of conformists within each group (2005). As to adherence to religious doctrines, most recent findings summarized by Gani Aldashev and Jean-Philippe Platteau (2013) imply that it is based on a sort of strategic behavior. It can be related to search for an opportunity to escape redistributive pressures in traditional communities or to get an access to some club goods, such as mutual trust that may be indispensible in commercial activities. Religious choice can be motivated by an adaptive strategy. In this case dynamic people adapt their choice of religion to their activities, keeping in mind regulations and customs of religious alternatives. Their strategic choice of religion can also be driven by religious symbols that may provide them some advantages (pp. 604-613). Finally, there is a long tradition to analyze religious choice in the context of industrial organization, where religious bodies tailor their doctrines and practices to consumer tastes depending on the market structure in which they have to operate (pp. 613-616). These approaches are mostly used for analysis of an individual choice in the context of established and well-known religious alternatives.

Religious choice can be made by a group rather than an individual. Such a choice was often

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[1] Here we refer to the results of the very first poll that included a question about religious affiliation, as well as the latest poll with the same question in 1999.

made by the state. World history is full of stories about religious choices on the part of elites that subsequently imposed their religious decision on common people. It was mostly the way Christianity became a mass religion in the Roman Empire as well as in the Germanic kingdoms and Eastern Slav principalities, including Kievan Rus thereafter (The Cambridge History of Christianity 2006). In autocratic states, religion can be "closely attached to the state" (Karl A. Wittfogel 1957, p. 100), which in the USSR was reflected in nationalization of "the ideology as well as ideologists" (p. 320). In a broader perspective, what is common for politics and religion is that their support is based on some shared beliefs giving rise to respective institutions (Peyton H. Young 1998; Douglass C. North 2005). Religious or quasi-religious views are usually an important ingredient of political ideologies and thereby affect public attitudes toward political parties and leaders. Hence, the latter have an incentive to consciously influence religious choice on the part of the masses, like they have an incentive to maintain in their citizen benevolent attitudes toward themselves.

In this general context, forces behind social support of a leader, institution, or an ideology can be analyzed. In the political economy literature, one of the recent empirical findings is that a sharp change in social support of a political movement is possible, given an adolescent and weak democracy, in which case "voters ha(ve) little prior knowledge about parties and put substantial weight on new information, which mostly comes from mass media during election campaigns." Media can heavily affect election results or other political outcomes, since people lack the ground to make their voting decisions other than information they receive (Ruben Enikolopov et al. 2011, p. 3254). Thus, sharp changes in the support of political bodies are possible when: a.) people know little about alternatives among which to choose; b.) there is abundant media information about political issues; and, c.) events occur that are capable to draw public attention to these issues, such as an election campaign.

When these three conditions are met, can social support for a religion change, like it changes in the political sphere? Evidence on this issue could be informative for the on-going debate about the impact of mass media on society. At the same time, it would shed light on what drives the religious choice of a boundedly rational individual. Finally, this evidence could enable one to better understand to what extent media may be responsible for the religious renaissance in Russia, given the other two conditions, or how an alternative source of information can affect religious affiliation.

Evidence as to these issues include historical records about mass conversions into world religions, specifically in Christian churches (The Cambridge History of Christianity 2006), and, when it comes to modern Russian history, historical and sociological literature about religion in the Soviet period (e.g., Valentina B. Zhiromskaya et al. 1996; Yury A. Levada 2011; Boris A. Grushin 2001). As to the current events in post-Soviet Russia, there are some crude results of surveys by VCIOM and the Levada Center on similar topics, but systematic research of the issue addressed here has never been conducted.

When exploring the effect of media, one faces a number of identification problems. One is the endogeneity of self-reported media exposure (Markus Prior 2009). When examining trends in

media coverage accompanied by those in the religious sphere, one also deals with an additional compounding factor related to potential correlation between media reports, adherence to religions, and an unobservable covariate.

Our research was facilitated by recent events capable to serve as a natural experiment. Within the latter, people were to be divided into the treated and control groups depending on their exposure to different sources of information about religion. The key difference here is that between positive and negative information, the former being information that encourages people to explicitly support a religious institution and the latter being information that discourages them to do it. The treatment group was to be comprised of those potentially exposed to negative information about the church, while the control group was to be subject to only positive information. At the same time, given that religion is not a thing to be interested in everyday life on the part of most people, the experiment was to include an event that can draw much public attention to religious issues. The experiment was designed to check whether there were systematic differences between the two groups in their religious choices. Given that the other two conditions – heavy media coverage and public interest in religion – were met, the presence of these systematic differences would mean that media did matter for making a religious choice.

To check whether the media play the same role, given that the other conditions are absent, we run a placebo experiment. The religious choice of the same groups was explored on earlier data dating back to the time nothing capable to draw public attention to the religion took place, like Pussy Riot's performance and imprisonment. If in this case the two groups did not show up a systematic difference, like that revealed by the natural experiment, one could conclude that media matter only given the other conditions.

As an experiment, we treated the notorious events related to punk band Pussy Riot. Its performance in the church and subsequent arrest of the participants initiated intensive public debate on its appraisal and the proper treatment of the participants. Apart from other consequences, this story drew huge attention in Russia to the church, its clergy, and ordinary Orthodox Christians. Various media intensively reported the respective events. Most mass media outlets in Russia were state-controlled TV channels and Internet, among which the former actually reached all the population, while the latter reached about a half of it. Based on this fact, we used Internet users as a treatment group, while the rest of the people were considered here as a control group. Using the standard differences-in-differences method, we tested the hypothesis that the alternative source of information affects Orthodox affiliation, given the aroused public interest in the church. And the same method was employed, provided that public attention was away from the church. Our results strongly supported the hypothesis. Specifically, the systematic differences between the groups were revealed when the natural experiment was conducted, but none of such differences were observed when the placebo experiment was run. This suggests that media does matter for religious choice, but their impact is subject to whether the two other conditions are present.

The rest of the paper is organized as follows. In Section 2 we outline a historical review of religion and its media coverage in Russia over the recent decades. Section 3 describes the data and presents preliminary conclusions based on the analysis of sample statistics. Section 4 outlines the

econometric model and empirical strategy. Section 5 summarizes the main results and discusses their implications. The last Section provides a conclusion.

2 Orthodoxy and its media coverage: hypothesis

2.1 Media coverage of the religious issues

The official ideology of the Soviet state was atheistic and pronouncedly hostile to any religion. The main target of the anti-religious policy was the Orthodox Church. It was the most mass religious body of the Russian empire. A number of Russian thinkers considered Orthodox Christianity as an essence of Russia herself. As Anton Kartashev expressed it, "Orthodoxy could dispense without Russia, but... there is no Russia without Orthodoxy", which could even induce the new atheistic rulers to replace the name Russia with the acronym USSR (1953, p. 182). The revolutionary rulers considered the Orthodox beliefs as an ideological foundation of the old regime. Starting from ideological concerns, people as law-abiding citizens could perceive the revolutionaries as just rioters and criminals and make attempts of a counter-revolution.[2] The goal of the Soviet state, as it was formulated right after the Revolution of 1917, was to completely eliminate the church.[3] During the prewar period this was being accomplished via physically destroying its members, buildings, and organizational arrangements. Thereafter, the same goal was pursued mostly by means of anti-religious propaganda and education. Provided all mass media were under state control (cf. Daron Acemoglu et al. 2006, p. 9), any issues related to the Orthodox Church, its clergy, or ordinary members were reported by media in a negative tone.

Negative media coverage of religious issues was maintained up until 1988 – the millennium of Russia's Baptism. This year the mass media for the first time during the Soviet period began to systematically give information about the church in a favorable tone. It was acknowledged that the church played a major role in forming Russian culture and national self-consciousness. Since then mass media gave more and more positive information about the church. Afterwards, this tendency in the media coverage was reinforced by the collapse of the Communistic regime in 1991 and still more by the Putin presidency since 2000. The former event meant the disappearance of the main promoter of atheistic ideology; the latter has been conducive to systematic attempts to propose a new ideology based, at least in part, on treating the Orthodox faith as an intrinsic component of Russian identity. Thus, while in the 1990s media coverage of church issues was motivated by simple rejection of the Communistic past, since 2000 it was prompted by the government's aims. The same reason that inspired negative coverage of the religion in the Soviet past is inspiring its positive coverage today.

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[2]This perception of the church is predicted by Douglass C. North's neoclassical theory of the state, which, in particular, defines ideology as a means of making individuals obey rules when individually rational calculus would not induce them to do so (1981, pp. 45-46). Besides, as Karl A. Wittfogel put it (1957, p. 112), "total control... was accomplished through the pulverization of all nongovernmental human relations", which, in particular, implied the 'pulverization' of religious activities and human relations.

[3]An immense literature exists about leaders of the Russian revolution and their attitudes toward the church. See,. e.g., John Curtiss (1953); Jane Ellis (1986); Dimitry V. Pospielovsky (1987); Richard Pipes (1990); Glennys Young (1997); Daniel Peris (1998); William B. Husband (2000); Edward Roslof (2002).

What facilitates promoting the church in mass media is that all the TV channels with broad audiences have been taken under government control and thereby report the official viewpoint. Alternative information is now reported only by TV channels with comparatively small signal power and much smaller audiences.[4] A similar process touched upon other media as well, though not so comprehensively. More diversity in radio broadcasting or newspapers cannot offset the effect of official TV, being the most massive and influential media (Ruben Enikolopov et al., p. 3282).

The only media outlet capable of competing with TV for influence on public opinion is the Internet. Its spread is growing permanently. During the last decade, the Internet has more and more entered the lives of ordinary people. According to the RLMS dataset (for a description of the dataset, see below), the share of Internet users was 8.9% in 2003, 29.9% in 2009, 43.9% in 2011, and 49.3% in 2012. Thus, the share of Internet users grew with an accelerating pace and for a decade increased more than five times, having reached almost a half of the Russian population.

Unlike other media, the Internet is much more difficult to control. The result is a great diversity of views on any issue presented there. Like other outlets in the competitive media market, websites adjust their content to their audience (Matthew Gentzkow and Jesse M. Shapiro 2010). Given the mass spread of the Internet, this means that by now it has become the main source of alternative information. It is facilitated by the very technology that frequently makes its information much more available than that from any other outlet. Naturally, the government does not miss the opportunity to use this medium to promote its ideology, as it does via other traditional mass media it controls. There are a number of websites promoting still more patriotic and pro-religious worldviews. However, what is crucially important in this context, the Internet makes available plenty of information and reports reflecting liberal and secular views. Thus, Internet usage can serve as a good proxy for being a recipient of alternative information, which is potentially not so favorable, if not outright inimical, for the church.

2.2 The Orthodox population in the late Soviet and post-Soviet periods

The systematic violence and oppression of various believers in the early decades of the Soviet regime, though surely conducive to the shrinking religious population, were far from achieving their goal of total eradication of religion. In the course of the general census in 1937, 56.7% of the population reported themselves as being believers, among whom 75.3% were Orthodox Christians (The All-Nation 1937 Census 2007, pp. 118-123; Valentina B. Zhiromskaya et al. 1996, pp. 99-100).[5] The shares of self-reported Orthodox were strongly positively correlated with age (Valentina B. Zhiromskaya et al. 1996, pp. 101-102; Sheila Fitzpatrick 1999). However, as old generations educated in pre-revolutionary Russia were replaced by the following generations, these figures began to rapidly fall. To a large extent, it was the result of mass deprivation of youth of their

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[4]Cf. with results as to state-owned media (Simeon Djankov et al. 2003) and media market in resource-rich countries (Georgy Egorov et al. 2009).

[5]These figures are likely to be strongly understated if one accounts for the social context in which the census was conducted. Among those who were to reply the questions about religion, some 20% refused to do so (Valentina B. Zhiromskaya 2000).

families with their potential religious influence. Kindergartens and orphanages replaced homes as placing to raise children due to the collectivization, labor mobilization of the female population, mass arrests, and the war. The Soviet educative bodies released people with world-views totally different from those of their parents.[6] So, by the 1980s religious people, including Orthodox believers, comprised a tiny percent of the population. For the most part, they were elderly people or marginal persons deprived of any opportunities to make a carrier in Soviet society.[7]

As was mentioned, 1988 was marked by a sharp change in media coverage of church issues. As the state refrained from anti-religious propaganda in favor of more positive media reports, the population of religious people began to grow. The latter fact is documented by the results of public opinion polls. At just that time the VCIOM was created – an agency for running surveys in Russia. The first poll that contained questions on religion was run in May of 1989, a year after the anniversary of Russia's baptism. After that survey, the VCIOM conducted numerous polls dedicated to various topics, and many, though not all of these polls included questions concerning religious affiliation. Though these polls gave various results as to the shares of Orthodox Christians, the general tendency of growth of the Orthodox population is evident. The fastest growth took place during the first decade after the 1988 anniversary; for this period the share of self-reported Orthodox more than tripled. Afterwards, during Putin's rule, this figure increased more to reach values between 70% and 80%.

Thus, for about a hundred years the religious policy of the state made a cycle from strong support under the czarist regime to brutal violence under Lenin, Stalin, and partly Khrushchev, to chiefly moral oppression of the late Soviet years, to more liberal treatment during Perestroika, to moderate benevolence in the 1990s, and back to strong support now. And following changing religious policy, the Orthodox population changed from a vast majority to a small minority and, once again, to an undoubted majority.

Obviously, governmental policy played a key role in changing wide-spread views. Both small shares of believers in the Soviet times and their overwhelming majority today can be ascribed to respective governmental policies as to ideology and religion. The state supported some views via both direct violence and persuasion. The first transition from relatively religious to nonreligious society was made to a huge extent by means of violence and deprivation of traditional education. The following generations were maintained in their nonreligious disposition mainly via persuasion. One of the means in the hands of the state to persuade people was and remains mass media. And

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[6]As Pavel P. Blonsky, a Soviet psychologist and educator, wrote as early as 1929, "more than half (about 60%) of children enter our school while being believers... By the end of step I, the believers already comprise only a quarter of the pupils... Teenage years are years of release from influence of family and thereby from religious influence". (as cited in Yury A. Levada 2011, p. 295). Also Yury A. Levada refers to results of polls of Soviet propagandists according to which the Soviet educative bodies played key role in taking people away from religion (p. 297).

[7]There are some indirect indicators of public attitudes toward religion. For example, according to the results of poll conducted in Belgorod in 1984 only 2.9% replied positively to the question "What is your attitude towards religious education?" (AS USSR Sociology Institution 1984). This result is telling also because Belgorod is one of the oldest Russian cities with a traditional culture. Boris A. Grushin cites results of one of the surveys that dates back to the Khrushchev era, according to which, unlike other groups of the population, the intelligentsia (the intellectuals) and students, i.e., just those most oriented to be respected members of society, never reported they were involved in any religious activities (2001, pp. 480, 484). As of 1980, a survey among young scholars indicated that only 0.8% tried to regularly celebrate religious holidays (AS USSR Sociology Institution and Higher Komsomol School 1980).

almost until the end of the Soviet era the media heavily discouraged people to have religious views.

Unlike the Soviet transition to atheistic society, the transition back from atheistic to religious world-views has occurred without any violence or even any softer incentives apart from persuasion. This implies that the atheistic and communistic convictions were not firmly adopted by the people. Likewise, the current religious renaissance seems not to be accompanied by firm religious convictions (Geoffrey A. Evans and Ksenia Mankowska 2011). The results of respective surveys run by various research bodies repeatedly reveal a quite weak compliance between convictions and conduct in modern Russia. For example, according to one of the surveys, as of 2008, though 71.1% reported themselves as Orthodox, only 31.6% firmly believed in the existence of God, 20.3% believed in the afterlife, and no more than 7.7% mentioned religious rites as a potential part of their way of life (Levada Center 2008; for similar results in other survey see also Alan Cooperman et al. 2014).[8]

In this respect, the situation regarding religion in transition periods may have a common feature with that of politics. In the Soviet times the state actually prohibited people to get religious knowledge for the sake of the official atheistic ideology it promoted. By the time of Perestroika, the result of this policy for the most part was negative, meaning that people were not imbued with communistic views, but did not have any religious views as well. So, when the state stopped promoting atheistic views, an ideological vacuum came into being. People mostly did not have any world-views or fundamental beliefs. As to religion, it implied the absence of "religious human capital" (Lawrence R. Iannaccone 1998, p. 1481), in particular, a lack of religious education and firm religious convictions on the part of most Russians, so that they could easily change their views and support religious confessions depending on currently available information about religious things.

In the late Soviet years people formally accepted atheistic ideology while not receiving information other than that encouraging them to stick to it. And the same people were giving up their atheistic views as they were being familiar with the alternative information about religion. However, there is an important difference in this respect between the Soviet and modern times. In the Soviet times official mass media were almost the only source of information, so that people might change their views following changing media coverage. Nowadays there is an available source of alternative information – the Internet – and it profoundly influences some people while leaving the other untouched.

2.3   The outbreak of public attention to church issues in 2012

On February 21, 2012, in Moscow's Cathedral of Christ the Savior, punk-rock band Pussy Riot gave an improvised concert that was named by the artists a punk moleben ("punk public prayer" in Russian). By the content the performance was an action of political opposition. However, its distinctive feature was the form, rather than content. For the first time during post-Soviet history, the country's main church was an object of such loose treatment, which was considered by many

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[8]The Orthodox Church is strict in the sense that Lawrence R. Iannaccone uses this term. So, it is to succeed as an organization that better copes with free-riding (1992, 1994). This explanation, as the results of polls imply, may be true for relatively few religious enthusiasts, but surely not for the vast majority of self-reported Orthodox who loosely observe religious traditions.

Figure 1: Google trend for search request for "RPZ" (Russian Orthodox Church)
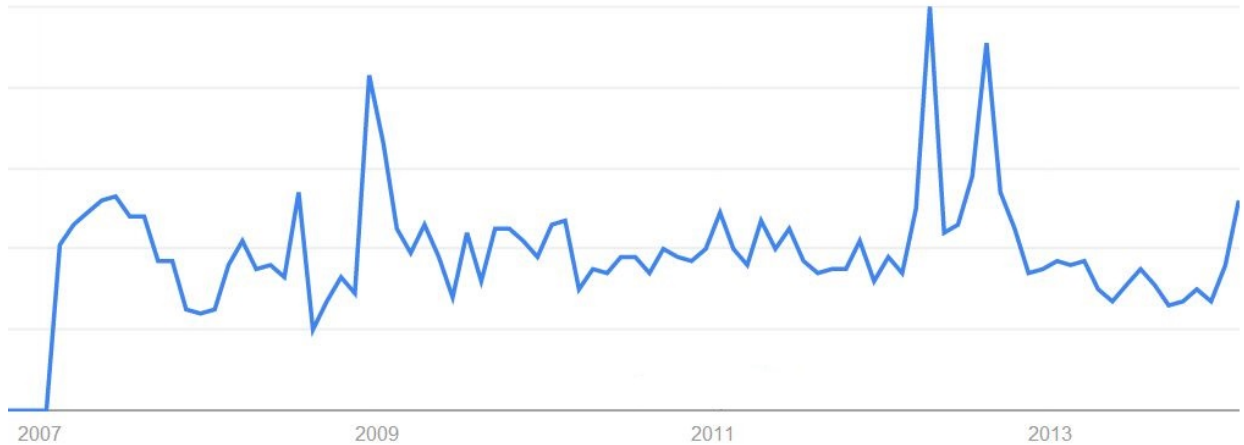
people as insulting for the church, Christians, and even Russia herself. On March 3 of that same year the participants of the performance were imprisoned until the judicial decision on their case, which soon came to be treated as a criminal case. The judgment was pronounced on August 17, according to which the participants of the action were imprisoned for two years, including the time they had already spent detained during the trial.

As Dmitry Uzlaner put it, "the Pussy Riot case became the main event of 2012, if not in the social and political spheres, then at least in the area of religion" (2014, p. 24). The performance and subsequent events were in the public eye throughout the year 2012. The events turned out provocative, since as a side effect in the limelight were the church and its members. The outbreak of public attention to the church as a result of the concert can be documented referring to the Google statistics of the respective search requests.

Figure 1 presents the dynamics of search requests for RPZ – the acronym for the Russian Orthodox Church ("Russkaya Pravoslavnaya Zerkov" in Russian) – the most frequently used notation for the Russian Orthodox Church in Russia. For the most recent decade there were three highest peaks. The first is for December of 2008, which is related to the death of Patriarch Alexei II. The two other peaks are higher and immediately follow the performance and condemnation of the participants.

The highest peak is for April of 2012 when information about the performance and the participants began to intensively spread due to a number of memorable events related to the performance. On the 3rd of April Amnesty International declared the participants prisoners of conscience; on the 22nd of April outside the Cathedral a mass prayer for the faith and the sacred objects was offered; on the 23rd of April an attempted murder of a judge using an ax was made as a manifestation of request for the release of the participants; and on the 26th of April a discussion between the participants and prime-minister Dmitri Medvedev took place. The next peak is for August 2012, in which the sentence for the convicts was passed and came to be known by the public. Other months of 2012 were also featured by more frequent searching requests for RPZ, compared with both the previous and the following years. Thus, compliance in time between important events related to Pussy Riot and a surge of public attention to the church is evident.

The aroused interest in the church was met by the media. The respective events and their

appraisals were intensively reported and discussed in various media outlets. Expectedly, in the official mass media the story was usually reported in a way favorable for the church, while alternative media presented a diversity of views. An abundance of opinions was most readily available via the Internet, which, as was mentioned, had reached a half of the Russian population by this time.

2.4   Self-reported religious affiliation and the alternative media

Factors that affected self-reported religious affiliation during 2012 may have common features with that of support for the political party and the leader in the elections in 1999-2000. In both cases people had little initial knowledge about alternatives among which to choose. It made them more exposed to the potential influence of new information. There were events or processes capable to draw public attention to the respective area of social life. In one case it was the performance along with the subsequent story with its participants, in other case it was the election campaign. Mass media increased their supply of the respective information. At the same time, people consumed more information due to just their more interest. Both on the eve of the century and a year ago the media market was featured by weak competition, in which circumstances an alternative source of information may heavily influence public opinion (Matthew Gentzkow and Jesse M. Shapiro 2006; Stefano DellaVigna and Matthew Gentzkow 2010; Peter M. DeMarzo 2003). According to Ruben Enikolopov et al. (2011), the alternative source of information did affect the election results much.

The religious area of social life in post-Soviet Russia seems to have the same transitional features as those that politics has. The presented historical review of religious and media policies and public attitudes toward to religion indicates that the distinct factors that featured the political process in the 1990s were at work in case of religion during the same period, as well as the later one. People knew little about religion; their attention was drawn by a number of occasions; mass media heavily reported related information.

A hypothesis that naturally follows from a comparison of politics and religion in this respect is that an alternative source of information was to negatively affect Orthodox affiliation, like it had affected political outcomes. In particular, just as the NTV channel affected voters during the elections in 1999-2000 (Ruben Enikolopov et al. 2011), the Internet affected public opinion as to religion. Internet users were to be affected by the events related to Pussy Riot's performance in a different way compared to non-users, just like the effect of the election campaigns of 1999-2000 on those watching NTV channel had been different from that of other voters.

3 Data

3.1 Dataset

Our research is based on data of the Russian Longitudinal Monitoring Survey (RLMS).[9] This nationally representative survey was started from the very beginning of the post-Soviet period for the sake of analysis of transitional processes in Russia. The first sample was dropped after running four rounds. Since 1994, after changing the sample, the survey has been performing annually.

As of today the dataset is comprised of 17 rounds, 5-21 ones, for 1994-2012. Using one of the sample designs proposed by Leslie Kish (1987) the survey was organized as a split panel. Each round contains data on a representative sample of dwelling units. As the sample shrinks as a result of the attrition, new dwelling units are added without loss of representativeness. In fact, these renewals of the sample even more than offset the attrition. Therefore, the actual size of the sample has enlarged. For example, the sample of 19 round is 1.7 times as much as that of the 18 round.

People actually residing in the representative dwelling units are not totally the same from one year to another, for the most part due to moving. So, at the representative addresses interviewers survey both those who lived there in previous years and new people who recently moved there. At the same time, people who lived there and moved from there are also interviewed as far as possible, though they naturally are not included in the representative sample of a current year any more. Thus, on the one hand, each round keeps being representative; on the other hand, longitudinal data on the population of the dwelling units are also available. To make a proper panel analysis, one needs to use a representative sample of a round that actually serves as their starting point. As for the subsequent rounds only data on those who lived at the representative addresses in the starting year are to be chosen, both those who keep living there and those who moved from there. Thus, a researcher can keep track of people comprising a representative sample of their starting year.

The dataset was used by a number of researchers to address various issues related to today's Russia. All the rounds of RLMS contain rich information about various aspects of a respondent's lifestyle, albeit rounds somewhat differ from each other with respect to the included questions. Specifically, questions about religion, which are of principal interest for our research, were included in only four rounds; questions about using the Internet first occurred in the questionnaires only in 2003.

We used data from the 11th, 12th, 20th, and 21st rounds of the RLMS for the years 2002, 2003, 2011, and 2012, respectively; all the rounds were run during October-December of their respective years, with the exception of the 20th, which was run during five months with the additional two winter months of 2012. Such a choice of the rounds was prompted by the hypothesis to be tested along with the available data on our interest variables. Only these rounds contain information about self-reported religious affiliation; the latest three rounds among them contain data about using the Internet. Thus, we chose rounds with data about variables that were most relevant for our purposes.

The 11th and 12th rounds were used as a two-period panel for the sake of a sensitivity analysis.

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[9]This was initiated by the Carolina Population Center at the University of North Carolina and until recently was coordinated by the same Center as well as the RAS Sociology Institution (Moscow). Now the main coordinator of the survey is National Research University Higher School of Economics (Moscow).

For testing the hypothesis, the 20th and 21st rounds were used. It is these rounds that are of principal importance for us because they enable us to trace the state of minds before and after the story with Pussy Riot. It is worth stressing that the 20th round of the survey was finished by February 2012 and the 21st round was started in October 2012. It means that at our disposal there were results of the surveys of the same people immediately before and right after the main events related to the performance.

The size of the representative sample for 2002 is 9209 observations; for 2011 the representative sample size is 17024. However, the final number of observations that were actually used for testing the hypothesis and making the main inferences was much less. The main reason was that in our panel analysis only respondents who changed their self-reported religious affiliation were included, which was motivated by our empirical strategy and estimation method. Also when including control variables some observations were lost due to missing values. As a result, our actual sample of respondents for some specifications shrank up to 1295.

All the rounds contain post-stratification weighting variables. They correct composition of samples for gender, age, and location of residence (urban and rural). Such a correction is needed to offset potential bias related to nonrandom patterns of attrition, as well as non-response bias. As is indicated in the description of the dataset, using the weights is at a researcher's discretion. Provided that the three characteristics for which the weights correct samples are potential covariates of religious affiliation, we used them in our regression analysis. However, it is worth noting that our results (see below) are basically the same whether we use the weights or not.

3.2   Analysis of summary statistics

In constructing our dependent variables we relied on questions about religion. Specifically, respondents were asked to name the religion to which they ascribed themselves. Another question was about one's attitude toward religion, and among the five variants of response the first one was for those who took religion seriously. This question is important because, as was noted above, the bulk of those who report Orthodox Christianity or another religion as their religion actually do not take their religious affiliation seriously.

Using these two questions we constructed two religious variables. One is dummy variable for self-reported Orthodox affiliation; another is for strict Orthodox affiliation. The difference between them is related to the self-reported importance of religion. Specifically, the Orthodox dummy variable equals to unity if a respondent calls the Orthodox faith their religion and zero otherwise; the strict Orthodox dummy variable equals to unity for self-reported Orthodox Christians who called themselves committed believers as well.[10]

For the sake of comparison, we also constructed other religious dummy variables using the same questions. One was for self-reported Muslim affiliation and the related one was for strict Muslim believers. These dummy variables were constructed on the consideration that Islam is

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[10]We did not go further into details of religious views of respondents, because the dataset does not contain any additional questions on this topic. Besides, our study is dedicated to public support of a religious institution, and the available data are sufficient to explore it.

the second largest religion in Russia. Other two religious dummies referred to any conscious religion, except for the Orthodox faith, but including Islam. They were used to picture the religious composition in Russia in terms of all the religions other than the most mass one.

Our main interest variable was the Internet dummy variable. This equals unity for those who used the Internet during the latest 12 months as for the moment of a survey, and zero otherwise. Thus, this dummy variable serves as a proxy of using the Internet and, what is of most importance here, obtaining alternative information from it.

Finally, we used extensive sets of controlling variables depending on a specification. We used personal characteristics, namely gender, log age, dummy for higher education, as well as three dummies for residing in a city, a small town, and a settlement (those residing in rural area served as a reference group). Other time-constant controls we used were dummies for self-reported ethnicity with traditional non-Orthodox affiliation: non-Orthodox Christian, Muslim, and other non-Christian (reference group is made up of traditional Orthodox ethnicities). Time-varying controls included family characteristics, namely family size, dummies for official and unofficial marriages, dummies for statuses of divorced and widow; activity, such as dummies for statuses of pensioner and unemployed; health condition measured by dummy for self-reported health problems during last month and body-mass index;[11] and personal income and education. The relevance of these controls when regressing religious behavior was extensively discussed in the literature. Specifically, there is evidence of the important role of socio-economic characteristics, including investment in human capital,[12] as well as personal characteristics for religious choice (Lawrence R. Iannaccone 1998, p. 1473). Family-related variables, such as fertility, are also important covariates of religiousness (Lehrer 1996, 2004; Eric Kaufmann 2010; Rodney Stark 2012).

As for missing values, in many cases we treated them as indication of a negative answer. For example, we treated a respondent an Orthodox one if s/he did report this as their religion. The same decision was made as for using the Internet on the consideration that many people might fail to reply, just because they did not know exactly what it was, or because they were ashamed to admit that they lagged behind life in this respect. The same encoding of the missing values was made also for dummies of pensioners and the unemployed. In other words, we treated those who had not reported whether they received a pension or whether they were registered in the placement service as not entering the respective groups. For the other variables missing values were not encoded, because it was not possible to rely on any plausible interpretation of non-response.

Table 1 contains the statistics for 2011, which is the year that serves as our starting point. Given the above-mentioned features of our dataset, it is this round that is to be used as a representative sample to be traced in the next year. The statistics are presented for the whole sample and for the subsample of Internet users. The latter subsample was formed from those who used the Internet in 2011 and/or 2012. So, we separated a group of respondents who potentially used Internet

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[11]Body-mass index is traditionally defined as $mass/height^2$, where $mass$ is body mass in kilograms, and $height$ is body height in meters.

[12]Karl Marx was one of the first to point out this link when he characterized religion as "the opiate of the masses" that would vanish as people acquired secular education. According to more recent contributions, this link is not so certain. Education can even have a positive impact on religiousness, at least up to some point (Carmel U. Chiswick 2010; Lawrence R. Iannaccone 1998).

Table 1: Summary statistics

Variables	All respondents			Internet users			p-value of t-test for equality of means
	Obs	Mean	Std. dev.	Obs	Mean	Std. dev.	
Internet							
Internet user, 2011	13,831	0.423	0.494	7,080	0.826	0.379	
Internet user, 2011 or 2012	13,831	0.512	0.500	7,080	1	0	
Religion							
Orthodox	13,831	0.687	0.464	7,080	0.731	0.443	0.000
Str. Orthodox	13,831	0.261	0.439	7,080	0.254	0.436	0.055
Islam	13,831	0.0615	0.240	7,080	0.0462	0.210	0.000
Str. Islam	13,831	0.0382	0.192	7,080	0.0278	0.164	0.000
Non-Orth. believer	13,831	0.0672	0.250	7,080	0.0513	0.221	0.000
Str. non-Orth. believer	13,831	0.0422	0.201	7,080	0.0311	0.174	0.000
Personal							
Gender	13,831	0.425	0.494	7,080	0.441	0.497	0.000
Age	13,831	39.43	22.23	7,080	32.19	15.37	0.000
City	13,831	0.374	0.484	7,080	0.430	0.495	0.000
Town	13,831	0.256	0.436	7,080	0.273	0.446	0.000
Settlement	13,831	0.0686	0.253	7,080	0.0634	0.244	0.013
Ethnicity							
Muslim	11,391	0.0806	0.272	6,018	0.0631	0.243	0.000
Christian non-Orth.	11,391	0.0123	0.110	6,018	0.0118	0.108	0.614
Non-Christian	11,391	0.00246	0.0495	6,018	0.00183	0.0427	0.151
Family							
Family size	13,831	3.515	1.725	7,080	3.678	1.554	0.000
Married	13,809	0.425	0.494	7,070	0.442	0.497	0.000
Married inof.	13,809	0.0818	0.274	7,070	0.0893	0.285	0.001
Divorced	13,822	0.101	0.302	7,076	0.0951	0.293	0.012
Widow	13,815	0.112	0.316	7,072	0.0298	0.170	0.000
Status							
Higher education	11,584	0.225	0.417	6,196	0.332	0.471	0.000
Income	11,307	12,949	12,594	5,975	14,968	15,146	0.000
Pensioner	13,831	0.308	0.462	7,080	0.133	0.340	0.000
Unemployed	13,831	0.0142	0.118	7,080	0.00904	0.0947	0.000
Health							
Health problems	13,758	0.394	0.489	7,038	0.304	0.460	0.000
BMI	12,906	25.18	6.225	6,750	24.51	5.501	0.000

information by the time of the survey and during the events related to Pussy Riot.

We can see that in this dataset the share of Orthodox, though not so big as figures from the VCIOM surveys, is near to their most modest results of 70%. Also the share of strict Orthodox, 0.26, is basically in line with the figures as to attendance of religious services (Alan Cooperman et al. 2014, p. 12). What is of interest here is that among Internet users Orthodox Christians are more numerous, but strict Orthodox ones are less numerous, though in the latter case the difference is not much. In this respect Orthodox people differ from other religious people in Russia. For Islam and the religious aggregate, using the Internet is a strong negative covariate. This implies that Orthodox Christians are comparatively more involved in the Internet and potentially more exposed to information from it.

Concerning other variables, it is worth noting that, with the exception of the two ethnic variables, for all them a systematic difference between Internet users and others took place (p-values of t statistics for equality of means allow one to reject the null of zero difference at least on some of the conventional levels of significance). Thus, one can conclude that there are systematic differences between Internet users and the rest of the people in terms of many characteristics, both time-invariant and time-varying. Expectedly, these systematic differences reveal a higher well-being, in broad terms, of Internet users comparing with the other people. They earn more and

Table 2: Summary statistics of differences between 2012 and 2011

Variables	All respondents			Internet users			p-value of t-test for equality of differenced means
	Obs	Mean	Std. dev.	Obs	Mean	Std. dev.	
Religion							
Orthodox	13,831	-0.0228	0.343	7,080	-0.0297	0.377	0.016
Str. Orthodox	13,831	-0.00231	0.443	7,080	-0.0119	0.461	0.009
Islam	13,831	0.000723	0.0954	7,080	-0.000141	0.0987	0.275
Str. Islam	13,831	-0.00506	0.133	7,080	-0.00438	0.121	0.537
Non-Orth. believer	13,831	0.000145	0.112	7,080	-0.000282	0.115	0.647
Str. non-Orth. believer	13,831	-0.00542	0.142	7,080	-0.00466	0.131	0.518
Family							
Family size	13,831	-0.0529	0.739	7,080	-0.0458	0.722	0.000
Married	13,615	0.00242	0.183	7,006	0.0104	0.201	0.000
Married inof.	13,615	-7.34e-05	0.187	7,006	0.00171	0.215	0.252
Divorced	13,633	0.00352	0.179	7,015	0.00513	0.167	0.279
Widow	13,622	0.00661	0.140	7,008	0.00314	0.0810	0.003
Status							
Higher education	11,583	0.00656	0.0945	6,195	0.0118	0.126	0.000
Personal income	11,110	2,318	16,366	5,809	3,299	21,346	0.000
Unemployed	13,831	-0.00130	0.136	7,080	-0.000282	0.122	0.365
Pensioner	13,831	0.0124	0.151	7,080	0.00692	0.152	0.000
Health							
Health problems	13,733	0.00299	0.563	7,032	0.0102	0.566	0.122
BMI	12,524	0.0713	2.653	6,620	0.148	2.229	0.001

less often have problems with employment, as well as less often they have health problems; this is even corresponded by body-mass index, which is within the WHO norm among Internet users, but is slightly above the norm among others; they more often have higher education; also their family condition is more favorable, namely among these there are more married (officially and non-officially) people and there are less of those who lost their spouse as a result of divorce or death. Finally, there are systematic differences between the groups in their time-invariant characteristics. Specifically, Internet usage is more typical for males, younger persons, and inhabitants of urban areas.

The differences in the shares of Orthodox and still more strict Orthodox between the subsamples, though statistically significant, are not dramatic; and the same is true for most other characteristics. At the same time, the small differences in Orthodox and strict Orthodox percentages between the subsamples are of opposite signs, meaning that there is no unambiguous tendency for one of the groups to be more religious. So, the distribution of respondents among the subsamples is near to random with respect to their attitudes towards the religion. Those systematic differences, including those in shares of strict Orthodox believers and the whole mass of Orthodox people, between the subsamples that still exist are likely to be resulted from other characteristics that correlate both with religious Internet dummy variables, which may include those in our list and some unobservable ones. To deal with these compounding factors, we can compare the same groups in terms of dynamics of their shares of Orthodox and strict Orthodox believers. This will enable us to control for time-invariant characteristics, as well as those related to a common trend.

The respective differenced variables are defined as

$$D^I = \frac{1}{n} \sum_{i \in I} (x_{it} - x_{it-l}), \ D^C = \frac{1}{m} \sum_{i \in C} (x_{it} - x_{it-l}) \qquad (1)$$

where x stands for any of our variables, their two subscripts refer to a respondent and a year, and l refers to a time span over which differences are compared; I and C are the subsets of our sample, namely Internet users and others, and n and m are their respective quantities. As most of our variables are dummies, the sign of the differenced variables defined in (1) means the overall tendency in the changing share of x, being plus for upward tendency and minus for the downward one.

When using the two rounds, we took the first one as a representative sample to be continued in the next round by a sample of the respondents who kept residing in their representative dwelling units. Table 2 contains statistics of differenced variables between the most recent nearby rounds that contain religious questions. What is compared here is the difference between the groups in terms of their changes as to our time-varying characteristics from 2011 to 2012. The last column contains p-values for the t-test of equality of these differenced means. Thus, defining the difference as

$$D = D^I - D^C \qquad (2)$$

the null is that $D = 0$, which would mean that the two groups do not differ from each other in terms of dynamics of their shares of x between 2011 and 2012.

The null is rejected for the Orthodox and still more so for the strict Orthodox. Hence, the positive correlation between the Orthodox and Internet variables, shown up in Table 1, is likely to be related to time-invariant characteristics, which are controlled for when comparing the differenced means. Their comparison shows that, though among Internet users the Orthodox are more numerous, the general downward trend as to the Orthodox between 2011 and 2012 was stronger among Internet users. Remarkably, the other religious dummies do not reveal a statistically significant difference with the same or the inverse sign, meaning that overall tendency as to other religions was basically the same among the two groups. (Though a lack of significance may be due to just much less shares of other religions and thereby less respondents for which one can observe the respective differences.)

The differenced means for the control variables in most cases significantly differ from one group to another. This implies that our time-varying controls are potentially informative as to our interesting link between the Orthodox affiliation and using the Internet. If differenced means of the controls correlate not only with Internet, but with the Orthodox affiliation as well, these controls are a potential source of the link we are interested in.

Like the picture in Table 1, using the Internet correlates with dynamics of general well-being. As a whole, Internet users more often get married and more seldom lose their spouses, so that the overall downward trend regarding family size is weaker for them. They also more often get a higher education and their incomes grow faster, which may convert into faster growth of their relative body masses, as the respective figures imply.

Tables 3-4 contain the statistics that characterizes the same differenced variables during previous periods. When comparing the tables one can note that the difference between the groups in terms of dynamics of various characteristics by 2011-2012 became more transparent than it was

Table 3: Summary statistics of differences between 2003 and 2002

Variables	All respondents			Internet users			*p*-value of *t*-test for equality of differenced means
	Obs	Mean	Std. dev.	Obs	Mean	Std. dev.	
Religion							
Orthodox	7,957	-0.0139	0.367	648	0.0139	0.410	0.044
Str. Orthodox	7,957	-0.0648	0.415	648	-0.0602	0.406	0.765
Islam	6,441	0.000776	0.0671	545	0.00367	0.0605	0.293
Str. Islam	6,546	-0.0107	0.145	557	-0.00539	0.127	0.366
Non-Orth. believer	6,441	0.000932	0.0997	545	-0.00367	0.136	0.260
Str. non-Orth. believer	6,546	-0.0113	0.154	557	-0.00898	0.140	0.709
Family							
Family size	7,957	-0.0676	0.792	648	-0.0201	0.730	0.111
Married	7,326	0.00164	0.198	593	0.0135	0.192	0.128
Married inof.	7,326	0.00205	0.176	593	0.0118	0.179	0.159
Divorced	7,326	0.00328	0.168	593	0.00169	0.109	0.810
Widow	7,326	0.00519	0.137	593	-0.00169	0.0411	0.203
Status							
Higher education	7,938	0.00302	0.145	647	0.0216	0.199	0.001
Personal income	6,462	685.0	3,971	545	1,156	8,210	0.004
Unemployed	7,957	-0.00101	0.106	648	-0.00309	0.111	0.603
Pensioner	7,957	0.0147	0.156	648	0.0108	0.130	0.506
Health							
Health problems	7,918	0.000253	0.560	645	-0.0155	0.574	0.456
BMI	6,193	0.215	3.903	560	0.0902	1.901	0,427

a decade ago. Now more aspects change differently in the two groups. While in Table 2 there are 9 variables among 17 for which the difference in the dynamics between groups is statistically significant, Table 3 contains only 3 variables with the significant differences. One of the reasons may be that by 2012 Internet users obtained more distinct social and cultural characteristics.

The other reason lies in changing shares of Internet users. According to representative samples of 2002 and 2011, the share of Internet users in 2003 was 8%, while by 2011 and 2012 this figure reached 42% and 48%, respectively. Also, as was mentioned above, data on Internet users are available only since 2003; therefore, the criterion of the Internet subsample in 2002-2003 in Table 3 is Internet users in 2003, while in Tables 2 and 4 the same criteria are Internet users in both comparing years. Thus, more degrees of freedom in the latter case also contributed to a more distinct difference between the groups in 2012 than a decade ago.

The Orthodox percentage is falling if one compares 2002 with 2003, 2003 with 2011, and 2011 with 2012. It is shown up in the negative figures of the respective differenced means in Tables 2-4. However, the representative figures reveal a reverse picture. Shares of the Orthodox in these four years in the respective representative samples are 66.42%, 66.43%, 68.7%, and 69.6%. An increase rather than a decrease is observed, which is likely to imply that those who stick to participating in the surveys give up their religion more often. If we recall that the Orthodox affiliation correlates with using the Internet in 2011 (Table 1), while the latter does with well-being, the reason of these different directions of the dynamics may lie in the sample attrition in favor of less well-off respondents.

A decade ago only Orthodox affiliation among other religious variables showed up a systematic difference between the groups. The Orthodox share grew among Internet users and the strict Orthodox percentage fell more slowly among them, though the difference is significant only for the first variable. Thus, Internet users showed a more upward dynamic of the Orthodox percentage

Table 4: Summary statistics of differences between 2011 and 2003

Variables	All respondents			Internet users			p-value of t-test for equality of differenced means
	Obs	Mean	Std. dev.	Obs	Mean	Std. dev.	
Religion							
Orthodox	4,912	-0.0411	0.510	1,912	0.00262	0.582	0.000
Str. Orthodox	4,912	0.0403	0.474	1,912	0.0554	0.458	0.074
Islam	4,912	0.00407	0.164	1,912	0	0.158	0.165
Str. Islam	4,912	-0.00183	0.213	1,912	0.00471	0.150	0.086
Non-Orth. believer	4,912	0.00163	0.183	1,912	-0.00262	0.179	0.194
Str. non-Orth. believer	4,912	-0.00265	0.222	1,912	0.00523	0.162	0.047
Family							
Family size	4,912	-0.257	1.374	1,912	-0.197	1.299	0.015
Married	4,121	-0.00825	0.423	1,374	0.0983	0.459	0.000
Married inof.	4,121	0.0235	0.315	1,374	0.0298	0.330	0.364
Divorced	4,123	0.0521	0.301	1,374	0.0626	0.296	0.115
Widow	4,124	0.0706	0.277	1,374	0.0204	0.161	0.000
Status							
Higher education	4,615	0.0518	0.264	1,752	0.127	0.350	0.000
Personal income	3,949	10,233	10,732	1,299	14,277	13,884	0.000
Unemployed	4,912	0.0163	0.177	1,912	0.00575	0.119	0.001
Pensioner	4,912	0.110	0.352	1,912	0.0638	0.307	0.000
Health							
Health problems	4,864	-0.000206	0.595	1,888	-0.0736	0.616	0.000
BMI	3,833	1.527	3.815	1,564	2.332	3.541	0.000

than other respondents. The same is true for the differenced variables in Table 4, meaning a more upward dynamic of the Orthodox percentage among Internet users than among the rest of the population.

Finally, concerning the control variables, one should note similar relationships as to relative well-being as what are seen in Table 2. Between 2002 and 2003 personal income and share of people with higher education grew faster among Internet users. Between 2003 and 2011 these variables showed up the same relative dynamics. Besides, a relative dynamics similar to that in Table 2 was seen in other variables, namely Internet users more often get married and less often lose their spouses, their families grew faster (actually, they shrank more slowly), they more seldom became either unemployed or pensioners, their dynamics regarding their health condition were more favorable and the body-mass index grew sizably faster. Generally, comparative dynamics during all these years reveals a higher well-being and quality of life among Internet users. The direction of dynamics and the respective relationships between the groups were quite similar when comparing Tables 2-4, meaning that the control variables changed both as a whole and across the groups of Internet users and the rest of the respondents from 2011 to 2012 in a similar way as they did from 2002 to 2003 and from 2003 to 2011.

The comparative dynamics are different when it comes to the religious variables of our interest. Between 2002 and 2003 the share of the Orthodox fell among those not using the Internet and increased among Internet users, and the same is true between 2003 and 2011. The strict Orthodox fell deeper between 2002 and 2003, and increased faster between 2003 and 2011 among Internet users. The dynamics for both Orthodox dummy variables was more upward among Internet users when comparing both 2002 with 2003 and 2003 with 2011. The picture changes when examining the same comparative dynamics in Table 2, namely, the Orthodox shares among Internet users began to fall faster. Thus, unlike the control variables, the comparative dynamics as to the Or-

Table 5: Comparative dynamics of Orthodox percentages among Internet users and the remaining respondents

	2003 - 2002	2011 - 2003	2012 - 2011
Religion			
Orthodox	+	+	-
Str. Orthodox	0	+	-
Islam	0	0	0
Str. Islam	0	+	0
Non-Orth. believer	0	0	0
Str. non-Orth. believer	0	+	0
Family			
Family size	0	+	+
Married	0	+	+
Married inof.	0	0	0
Divorced	0	0	0
Widow	0	-	-
Status			
Higher education	+	+	+
Personal income	+	+	+
Unemployed	0	-	0
Pensioner	0	-	-
Health			
Health problems	0	-	0
BMI	0	+	+

thodox variables changed by 2012. Other religious variables did not reveal the same reversal at a statistically significant level.

Table 5 enables one to easily compare the trends. "+" and "-" mean positive and negative signs of the difference (2), and "0" signifies the lack of a statistically significant link. It is readily seen that it is only the two Orthodox variables that revealed the reversal in comparative dynamics. The Orthodox grew faster among Internet users during previous periods, but not between 2011 and 2012; the same is true for strict Orthodox believers (though between 2002 and 2003 the positive difference is not statistically significant). Other religions did not reveal the same pattern. For the most part, significant differences between the groups in their dynamics as to the respective religious variables were absent. The exceptions are the positive differences between 2003 and 2011 for strict religious affiliations.

The presented analysis of the differenced means of our interest and control variables is an initial stage of the standard differences-in-differences (dif-in-dif) analysis. By means of comparison of the relative dynamics, one can control for both systematic differences resulted from time-invariant personal characteristics and those resulted from the general trend. The way Internet users and others differed from each other in their respective dynamics as to the Orthodox percentages suggests that from 2011 to 2012 the two groups were subject to influences that differed much from those they were affected in previous periods. As for other religions as well as other characteristics that change differently among the two groups, they did not show up a similar reversal in their comparative dynamics.

An analysis of the summary statistics ends up in favor of our hypothesis. In line with it, the dynamics of the Orthodox variables among Internet users were more downward than among the rest of the respondents. Moreover, these comparative dynamics were previously quite the opposite, which makes the comparative dynamics from 2011 to 2012 unique. In other words, it is ruled out that the relatively more downward dynamics of the Orthodox among Internet users, like that

observed from 2011 to 2012, is a typical phenomenon that was at work in earlier times. Finally, the fact that other variables in their comparative dynamics during 2002-2012 did not reveal the same reversal means that something that reversed the comparative dynamics as to the Orthodox affiliation mattered only for this variable, not any other.

4 Empirical strategy

4.1 A natural experiment

Pussy Riot's performance with the subsequent story can be treated as a natural experiment (Joshua Angrist and Jorn-Steffen Pischke 2009), which allows us to make an inference about the effect of media on religious self-identification and activity. The general idea behind the experiment is that there are two groups from which one is subject to positive information about an object and the other is subject to negative information about it; an experimenter is to produce a thing that will draw the attention of the two groups to the object to check if there are systematic differences between the groups as to their attitudes toward the object.

In the particular case under consideration, the experiment's design can be outlined as follows. The story related to the performance drew public attention to religious topics and thereby made people think about them. At the same time, there were two different groups with respect to the information they got. In broad terms, there were people who received information from official sources and there were those receiving information from alternative sources, the former mostly being state-controlled TV channels and the latter being Internet. As was mentioned, the official and alternative sources differed from each other by their attitudes toward the church and its clergy. The official outlets reported the story in a way favorable for the church, while the bulk of the alternative media's reports gave a much less attractive picture of the church. If media does play an important role in defining a religious landscape, one would expect in this situation a systematic difference in the dynamics of religiousness between those receiving only official information and those subject to the influence from the alternative source.

A potentially compounding factor is confirmation bias, defined as possible correlation between self-reported usage of media outlets and behavior (Markus Prior 2009). But in our case this is not so severe because, unlike particular TV channels, the Internet presents a wide range of views and as such does not imply any concrete tastes or world-views. Recall that our analysis of summary statistics (Table 1) did not reveal any dramatic and unambiguous differences between the groups in their attitude toward religion, as well as in most other characteristics. This means that using the Internet implies something concerning the potential impact on a person, but actually does not imply anything *a priori* as to the person themselves with respect to their religious views. Finally, using a natural experiment just enables one to control for any long-lasting differences between the groups if they still exist, which motivates us to use it.

We treated the story with Pussy Riot as a natural experiment that was conducted during 2012, after the performance. The treatment group was subject to some negative information about the church, while the control group was not. As a proxy of familiarity with an alternative view on a

topic, we used a binary variable of using the Internet, so that this variable allows us to distinguish between the treatment and control groups, meaning Internet users and those not using the Internet.

To estimate the treatment effect, a standard empirical strategy, dif-in-dif, was used to explore the effect in question. Unlike a usual regression measuring a difference effect, this strategy allows for unobservable differences between the groups. Thus, what we were to measure by means of our regressions was the difference in dynamics between the treatment and control groups. By dynamics, we actually mean differences between the years 2012 and 2011. The choice of these years for the most part is motivated by the uniqueness of the events we treat as a natural experiment. If similar events occurred in other years, we could use more periods. Another reason is the shortage of data as to our main dependent and interest variables, as was seen in the previous section.

As is well-known, dif-in-dif allows one to use repeated cross-sections when panel data are unavailable. A simple comparison of mean differences in outcomes before and after an experiment is sufficient to check whether there is a systematic difference between the treatment and control groups in terms of change after the beginning of the experiment. However, such a structure of data does not allow one to control for time-invariant unobservable differences between individual observations. While having longitudinal data, we use this advantage to obtain more reliable estimates.

Our base-line econometric model is as follows

$$O_{it} = \mathbb{I}(O_{it}^* > 0) \quad i \in \Omega,\ t = 2011,\ 2012. \tag{3}$$

$$O_{it}^* = \mathbf{X}_{it}\boldsymbol{\beta}_1 + \mathbf{C}_{it}\boldsymbol{\beta}_2 + \alpha_i + \varepsilon_{it} \tag{4}$$

$$\mathbf{X}_{it} \equiv (yr2_t, I_{it}, I_{it} \times yr2_t) \quad \boldsymbol{\beta}_1 \equiv (\beta_1, \beta_2, \beta_3)$$

where O_{it} is a binary variable that is equal to unity if ith respondent in tth year reports themselves as an Orthodox Christian (or, a strict Orthodox believer) and zero otherwise; Ω is a set of respondents who participated in the survey during the treatment, meaning those who comprised the representative sample in 2011 and continued to participate in the survey in the next year; O_{it}^* is a latent variable that determines whether a respondent is an Orthodox Christian; $\mathbf{X}_{it}$ is a vector of our interest variables; $\mathbf{C}_{it}$ is a vector of control variables; α_i denotes time-invariant unobservable characteristics of ith respondent; and ε_{it} is idiosyncratic disturbance. (An intercept is cancelled out when using fixed effects logit.)

Our interest variables are $yr2$, I, and their interaction. $yr2_t$ is a dummy variable for 2012; I_{it} is a dummy variable for using the Internet by ith respondent in tth year. The first one controls for trend for the share of self-reported Orthodox compared to the previous year. The second one controls for the difference between Internet users, the treatment group, and control group in their respective shares of Orthodox people. Our main interest variable is the interaction term that allows us to check whether there was a change in the outcome variable over 2012, which was specific to treated ones, meaning Internet users. If our hypothesis is true, then $\beta_3 < 0$, provided the respective

standard error allows one to reject the null of zero coefficient. It would mean that the two groups systematically differed from each other in terms of changes in their Orthodox shares just after the treatment launched. Specifically, in this case the Orthodox share among Internet users would show up a more downward trend than that among the control group. In other words, what is to be checked is whether there was a jump in the trend at the time of the treatment that happened for Internet users, but not for the others.

4.2   Fixed effects logit regressions

To obtain consistent estimates of the model (3) and (4), we use fixed effects panel logit regression. (For an outline of estimation procedure see, e.g., Badi H. Baltagi 1995, pp. 216-219, and Jeffrey M. Wooldridge 2002, pp. 490-492.) To allow for the unobservable individual characteristics, we find the joint distribution of $\mathbf{O}_i$ conditional on $\mathbf{X}_i$, α_i, and $n_i \equiv \sum_{t=1}^{2} O_{it} = 1$. The latter condition in our case, given $T = 2$, is needed to make the coefficients informative as to the outcome variable. Subsamples with $n_i = 2$ and $n_i = 0$ lack any variation in the outcome variable, being the first subsample for respondents who reported Orthodox Christianity as their religion in the two years, while the second subsample for those who did not report themselves as Orthodox Christians in either year. Thus, fixed effects logit model can be estimated only for the subsample of those who did change their self-reported religious affiliation either in favor of the Orthodox faith or having left it, in which cases $\Delta O_i = 1$ and $\Delta O_i = -1$, respectively. These switches to or from the Orthodox religion on the part of ith respondent we will denote by s_i

$$s_i = \begin{cases} 1 & \text{if } O_{i1} = 0, O_{i2} = 1 \\ 0 & \text{if } O_{i1} = 1, O_{i2} = 0. \end{cases}$$

Given these conditions, the joint distribution of $\mathbf{O}_i$ is invariant on fixed effects. For $s_1 = 1$ the respective conditional probability is given by

$$Pr(O_{i2} = 1 | X_i, \alpha_i, n_i = 1) = \frac{Pr(O_{i2} = 1, n_i = 1 | X_i, \alpha_i)}{Pr(n_i = 1 | X_i, \alpha_i)}. \tag{5}$$

So, the switch from 0 to 1 is modeled as a conditional probability of the positive outcome in the second year, given zero outcome in the previous year, i.e.,

$$Pr(O_{i2} = 1, n_i = 1 | X_i, \alpha_i) = \Lambda(\mathbf{X}_{i2}\boldsymbol{\beta}_1 + \mathbf{C}_{i2}\boldsymbol{\beta}_2 + \alpha_i)[1 - \Lambda(\mathbf{X}_{i1}\boldsymbol{\beta}_1 + \mathbf{C}_{i1}\boldsymbol{\beta}_2 + \alpha_i)], \tag{6}$$

$$Pr(n_i = 1 | X_i, \alpha_i) = \Lambda(\mathbf{X}_{i2}\boldsymbol{\beta}_1 + \mathbf{C}_{i2}\boldsymbol{\beta}_2 + \alpha_i)[1 - \Lambda(\mathbf{X}_{i1}\boldsymbol{\beta}_1 + \mathbf{C}_{i1}\boldsymbol{\beta}_2 + \alpha_i)] +$$
$$+ \Lambda(\mathbf{X}_{i1}\boldsymbol{\beta}_1 + \mathbf{C}_{i1}\boldsymbol{\beta}_2 + \alpha_i)[1 - \Lambda(\mathbf{X}_{i2}\boldsymbol{\beta}_1 + \mathbf{C}_{i2}\boldsymbol{\beta}_2 + \alpha_i)], \tag{7}$$

where Λ is a logistic cumulative distribution function. Using (6) and (7) one can reduce (5) to

$$Pr(O_{i2} = 1 | X_i, \alpha_i, n_i = 1) = \Lambda[(\mathbf{X}_{i2} - \mathbf{X}_{i1})\boldsymbol{\beta}_1 + (\mathbf{C}_{i2} - \mathbf{C}_{i1})\boldsymbol{\beta}_2]. \tag{8}$$

For the other switch, when $s_1 = 0$, the probability is just the remaining one

$$Pr(O_{i1} = 1|X_i, \alpha_i, n_i = 1) = \Lambda[-(\mathbf{X}_{i2} - \mathbf{X}_{i1})\boldsymbol{\beta}_1 - (\mathbf{C}_{i2} - \mathbf{C}_{i1})\boldsymbol{\beta}_2]. \tag{9}$$

So the probabilities of the switches (8)-(9), by the construction, did not depend on the fixed effects. The respective conditional log likelihood function is then given by

$$\ln L = \sum_{i:s_i=1} \ln \Lambda[(\mathbf{X}_{i2} - \mathbf{X}_{i1})\boldsymbol{\beta}_1 + (\mathbf{C}_{i2} - \mathbf{C}_{i1})\boldsymbol{\beta}_2]$$
$$+ \sum_{i:s_i=0} \ln\{1 - \Lambda[(\mathbf{X}_{i2} - \mathbf{X}_{i1})\boldsymbol{\beta}_1 + (\mathbf{C}_{i2} - \mathbf{C}_{i1})\boldsymbol{\beta}_2]\}.$$

Thus, when estimating this model one allows for the fixed effects, though in another fashion than in a linear case.

4.3   Placebo experiment

To make sure of the unique effect the experiment had on the Orthodox affiliation, i.e., to exclude an opportunity that difference in the Orthodox dynamics between the groups takes place without the treatment under consideration, we also run a placebo experiment. As was mentioned, only four rounds of RLMS contain data on religious affiliation. The latest two rounds are just those for the period, 2011 and 2012, during which the natural experiment was conducted. The other two rounds with the religious data, for 2002 and 2003, can be used for the placebo experiment. Our key assumption is that between the rounds 2002 and 2003 there had not occurred anything like what occurred between the 2011 and 2012 rounds. This difference means that while during the natural experiment public attention was drawn to church-related topics, during the placebo experiment public attention had not been focused on them. This assumption is based on the mere fact that whereas the events related to Pussy Riot are well-known to the broad public, nothing of this kind had taken place during the placebo experiment.

In an ideal case this would be the only difference. In our case there are two other differences between the two datasets. The first was discussed in the previous section and is related to the respective shares of Internet users. The much higher share of Internet users by the time of the natural experiment can be responsible for more efficient estimates when running the natural experiment regression comparing with the placebo regression. Another difference is related to the available data on Internet users. A lack of 2002 data for Internet users deprives us of an opportunity to estimate the fixed effects regression on the 2002-2003 data, because an important regressor in this case is a time-invariant one.

To cope with this problem, we used the following strategy. First, we estimated random effects regressions along with the fixed effects ones using the subsample for which $\Delta O_i \neq 0$ and panel structure is balanced as to all the variables used. These conditions are necessary for samples used for estimating fixed effects and random effects regressions to be the same, and thereby the obtained

estimates to be comparable. When estimating the random effects probit model, we included a number of time-invariant controls. So, again to make the samples used the same when estimating fixed effects and random effects regressions, we dropped observations with the missing values of these controls.

We then followed the standard procedure of comparing the consistent and efficient estimates by using a Hausman test, as well as just comparing estimates only for our interest interaction variable. If the difference is not significant and, what is most important, the key regressor affects a dependent variable in the same direction, we are warranted to estimate random effects regression for the placebo data. Having done this, we should compare the results with those of estimating the regression on the natural experiment data (naturally, in this case with the respective time-invariant Internet variable).

Our regression model for this case is as follows

$$O_{j\tau} = \mathbb{I}(O_{j\tau}^* > 0) \quad j \in \Psi, \ \tau = 2002, \ 2003. \tag{10}$$

$$O_{j\tau}^* = \mathbf{Z}_{j\tau}\boldsymbol{\gamma}_1 + \mathbf{C}_{j\tau}\boldsymbol{\gamma}_2 + \alpha_j + \varepsilon_{j\tau} \tag{11}$$

$$\mathbf{Z}_{j\tau} \equiv (1, yr2_\tau, I_j, I_j \times yr2_\tau) \quad \boldsymbol{\gamma}_1 \equiv (\gamma_0, \gamma_1, \gamma_2, \gamma_3)$$

where Ψ is again a set of respondents who were contained in the representative sample in a period chosen for the placebo experiment and continued to participate in the survey in the next round. As was mentioned, respondents from the representative sample of the placebo round who did not change their place of residence by the time of our natural experiment entered the representative sample of the respective round along with new participants. In other words, the two samples are intersecting sets. The regression (10) and (11) is for the years 2002 and 2003 that presumably did not face a similar outbreak of public interest in the church. Having estimated the regression, we are to estimate the same regression on data of the natural experiment, viz.

$$O_{it}^* = \mathbf{Z}_{it}\boldsymbol{b}_1 + \mathbf{C}_{it}\boldsymbol{b}_2 + \alpha_i + \varepsilon_{it} \tag{12}$$

$$\mathbf{Z}_{it} \equiv (1, yr2_t, I_i, I_i \times yr2_t) \quad \boldsymbol{b}_1 \equiv (b_0, b_1, b_2, b_3)$$

The two regressions (10)-(11) and (12) are to give us two groups of estimates based on sets of data that are as similar as possible, with the key exception that the events that could affect one dataset could not affect the other. Our hypothesis would be supported if $b_3 < 0$ when using the data for 2011-2012 and $\gamma_3 \geqslant 0$ for the data for the placebo period. The latter would hold, given the respective interaction variable is statistically insignificant or a significantly positive factor of an Orthodox dependent variable. To estimate our random effects regressions, we use a random effects probit estimator. The latter is quite simple compared to a random effects logit estimator (Wooldridge 2001, 490), which causes us to use it for our comparative analysis.

Table 6: Simple probit regressions

	Dependent variable			
	Orthodox		strict Orthodox	
	coef., se	mar. effect	coef., se	mar. effect
Internet	0.3460***	0.1221	0.0153	0.0049
	(0.0230)		(0.0234)	
Internet*yr2012	-0.1477***	-0.0521	-0.0962***	-0.0310
	(0.0227)		(0.0261)	
yr2012	-0.0226*	-0.0080	0.0348**	0.0112
	(0.0115)		(0.0159)	
Observations	27,662		27,662	
Pseudo R-squared	0.0096		0.0004	

Robust standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1

5 Results

5.1 Natural experiment results

Our initial results are those of estimating simple probit regressions for our two main religious dependent variables, Orthodox and strict Orthodox. These regressions include only our interest regressors, namely the 2012 year dummy, the Internet dummy, and their interaction. These regressions, though simple, are acceptable when using dif-in-dif and thereby enable us to test our hypothesis on all the observations that are at our disposal, namely 13831 respondents of the representative sample as of 2011 who continued to participate in the survey the next year. Besides, the simple regressions were estimated by a pooled probit, so that in this case we treated our data for the two years as just two cross-sections to be compared with respect to their Orthodox shares by the treatment and control groups (though calculating robust standard errors with the account of clustering at the individual level).

Table 6 presents the results of estimating the simple probit regressions. The estimates as for the interaction terms for the two religious dependent variables strongly support our hypothesis. In both cases, Internet users show up a highly significant difference as to dynamics of Orthodoxy compared to the rest of respondents. To exactly compare this difference, we calculated average marginal effects. According to these calculations, while among people not using the Internet the share of Orthodox believers dropped 0.8% from 2011 to 2012, among Internet users the same decrease was 6%. For the strict Orthodox this difference is a 1.1% increase for the control group versus a 2% decrease for the treatment group. Thus, among Internet users the share of Orthodoxy decreased much more than among the rest of the respondents, and the share of strict Orthodoxy sizably decreased among Internet users, while among the rest of people this share even increased. For all that, as was seen in summary statistics (Table 1), the share of Orthodoxy is significantly higher among Internet users, though any significant difference in this respect is absent for strict Orthodoxy. So, more-religious (in one dimension) Internet users were more inclined to give up their Orthodox affiliation than less-religious and less-informed people.

Our next specification is presented in columns (1) of Tables 7 and 8. Now the regression for both dependent variables was estimated by a random effects probit estimator, which allows for serial correlation, and with inclusion of time-constant controls. The latter did not eliminate the effect of our interest that had been revealed by simple probit regression. Quite the contrary, the

absolute value of the negative coefficient before the interaction term became much higher, so that allowing for the time-constant characteristics makes our main effect even more distinct. And as is seen below, this is even more so when using a consistent estimator with the additional time-varying controls.

Also, almost all the time-constant controls are significant and have expected signs in line with the findings from the summary statistics analysis. Less inclined to report themselves as Orthodox or strict Orthodox are males, younger persons,[13] graduates from colleges, those residing in big cities, and those ascribing themselves to traditional non-Orthodox ethnicities. However, as is seen below, these controls are significant only when using the whole sample.

Results whereon we place our main emphasis are those of estimating fixed effects logit regressions, which allow for possible omitted time-constant individual features. As was mentioned, these regressions can be estimated only for observations with changed dependent variables from one round to another. Here we deal with only the respondents who changed their self-reported religion in favor of Orthodoxy or away from it and drop all those who stuck to their religious choice during the two rounds, so that in this case we use most relevant observations for our purposes. When running fixed effects we control not only for using the Internet, but any other unobservable time-constant individual characteristics. Finally, including a number of controls, we control for some time-varying characteristics as well. Hence, our actual samples here are those with changing Orthodox affiliation and non-missing time-constant controls. (Recall that the latter condition is to make more reliable subsequent comparisons with the respective random effects estimates.)

Tables 7 and 8 present the results of estimating fixed effects regressions again for the Orthodox and strict Orthodox dependent variables, respectively. In both tables these results are contained in columns (2), (4), (6), (8), (10), while being differed from each other by the controls included. Sample sizes are from 1490 to 1295. So, when having dropped observations with the unchanged religion, as well as those who failed to report their other characteristics, we are left with samples that are some ten times smaller. This fact is worth attention itself. Approximately 10% of the representative sample changed their religion during a year, which reveals a very dynamic religiousness in Russia during the experiment.

In all the five specifications for both dependent variables, our key interaction term is negative and highly significant. As for the other interest variables, we now see that Internet users turn out to be more religious than the rest of respondents in both dimensions, which is seen in that the Internet dummy variable is significantly positive in all the specifications in both tables. When examining the results for the Internet dummy coupled with the year 2012 dummy, one can note that the control group shows an unambiguously downward trend for the Orthodox affiliation, but flat or even upward for the strict Orthodox affiliation. Compared with the control group, the treatment group shows an approximately twice as more downward trend for the Orthodox share; for the strict Orthodox believers, this difference in the dynamics consists in that only the treatment group decreased its self-reported strict Orthodox membership, while the others did not. All this reinforces our previous observation that more religious Internet users were more often ready to drop their

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[13]This is in line with the path-breaking work of Corry Azzi and Ronald G. Ehrenber (1975). In particular, their model of household production of religious activities implies that the latter are to increase with age.

Table 7: Panel regressions. Depvar - Orthodox

	Base-line regression			+ marital controls		+ activity controls		+ income controls		+ health controls	
	RE, full sample	FE	RE	FE	RE	FE	RE	FE	RE	FE	RE
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
Internet	0.3854***	0.5351***	0.3085***	0.5032***	0.3077***	0.5023***	0.3076***	0.5563***	0.3354***	0.5171***	0.3234***
	(0.0610)	(0.1687)	(0.0767)	(0.1708)	(0.0770)	(0.1707)	(0.0770)	(0.1755)	(0.0793)	(0.1823)	(0.0826)
Internet*yr2012	-0.2711***	-0.4215***	-0.4661***	-0.3525***	-0.4591***	-0.3538***	-0.4605***	-0.4155***	-0.5258***	-0.4013***	-0.5144***
	(0.0605)	(0.1135)	(0.0932)	(0.1155)	(0.0935)	(0.1159)	(0.0936)	(0.1198)	(0.0962)	(0.1259)	(0.1008)
yr2012	-0.2002***	-0.3551***	-0.4528***	-0.3511***	-0.4501***	-0.3504***	-0.4487***	-0.3539***	-0.4501***	-0.3915***	-0.4921***
	(0.0430)	(0.0812)	(0.0686)	(0.0827)	(0.0689)	(0.0832)	(0.0689)	(0.0845)	(0.0699)	(0.0899)	(0.0741)
Gender	-0.6845***		-0.0041		-0.0014		-0.0022		-0.0046		-0.0067
	(0.0458)		(0.0468)		(0.0489)		(0.0490)		(0.0505)		(0.0534)
Log age	0.6098***		0.0432		0.0984		0.0903		0.0703		0.0615
	(0.0607)		(0.0657)		(0.0871)		(0.1001)		(0.1051)		(0.1135)
Higher education	-0.2061***		-0.0315		-0.0191		-0.0186		-0.0290		-0.0320
	(0.0540)		(0.0587)		(0.0594)		(0.0594)		(0.0618)		(0.0638)
City	-0.1011*		-0.0203		-0.0203		-0.0215		-0.0314		-0.0256
	(0.0557)		(0.0603)		(0.0607)		(0.0607)		(0.0626)		(0.0662)
Town	0.0356		-0.0040		0.0067		0.0059		-0.0008		0.0028
	(0.0599)		(0.0628)		(0.0631)		(0.0631)		(0.0647)		(0.0685)
Settlement	0.1651*		-0.0131		-0.0304		-0.0301		-0.0347		-0.0270
	(0.0983)		(0.1129)		(0.1154)		(0.1154)		(0.1184)		(0.1226)
Muslim	-4.9466***		0.0181		0.0108		0.0219		0.0211		0.0228
	(0.1473)		(0.1806)		(0.1809)		(0.1818)		(0.1999)		(0.2051)
Christian non-Orth.	-1.0973***		0.0008		-0.0121		-0.0127		-0.0026		-0.0033
	(0.1660)		(0.1742)		(0.1769)		(0.1770)		(0.1803)		(0.1839)
Non-Christian	-2.9157***		0.0149		0.0392		0.0377		0.0516		0.0526
	(0.3751)		(0.2802)		(0.2806)		(0.2806)		(0.2972)		(0.2978)
Family size				0.2520***	0.0356**	0.2536***	0.0361**	0.2527***	0.0368**	0.2494***	0.0353**
				(0.0608)	(0.0164)	(0.0608)	(0.0164)	(0.0617)	(0.0169)	(0.0649)	(0.0178)
Married				-0.4423	-0.0589	-0.4366	-0.0578	-0.5792*	-0.0796	-0.4548	-0.0639
				(0.3123)	(0.0722)	(0.3123)	(0.0736)	(0.3226)	(0.0764)	(0.3289)	(0.0809)
Married inof.				-0.1713	-0.0181	-0.1666	-0.0177	-0.3621	-0.0580	-0.3447	-0.0640
				(0.2374)	(0.0823)	(0.2374)	(0.0826)	(0.2507)	(0.0855)	(0.2617)	(0.0913)
Divorced				0.1690	-0.0030	0.1612	-0.0016	0.1476	-0.0052	0.2390	0.0112
				(0.3478)	(0.0941)	(0.3478)	(0.0957)	(0.3543)	(0.0981)	(0.3606)	(0.1046)
Widow				0.7705	0.0077	0.7677	0.0042	0.6723	-0.0121	0.8108	0.0080
				(0.6163)	(0.1173)	(0.6163)	(0.1174)	(0.6218)	(0.1195)	(0.6256)	(0.1255)
Pensioner						0.0790	0.0119	0.1109	0.0131	0.0280	0.0170
						(0.3287)	(0.0715)	(0.3411)	(0.0734)	(0.3531)	(0.0778)
Unemployed						-0.3815	-0.1938	-0.3918	-0.1881	-0.4521	-0.2242
						(0.4641)	(0.2626)	(0.4659)	(0.2641)	(0.4964)	(0.2781)
Log income								0.0297	0.0099	0.0262	0.0087
								(0.0189)	(0.0087)	(0.0199)	(0.0093)
Health problems										-0.0319	-0.0195
										(0.1037)	(0.0556)
BMI										-0.0122	-0.0005
										(0.0239)	(0.0052)
Observations	22,777	2,980	2,980	2,972	2,972	2,972	2,972	2,824	2,824	2,590	2,590
Pseudo R-squared		0.063		0.074		0.075		0.083		0.089	
p-value of Hausman test	0.000		0.000		0.000		0.000		0.000		0.000

Standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1

Table 8: Panel regressions. Depvar - strict Orthodox

	Base-line regression		+ marital controls		+ activity controls		+ income controls		+ health controls		
	RE, full sample	FE	RE	FE	RE	FE	RE	FE	RE	FE	RE
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
Internet	0.1470***	0.2527**	0.1755***	0.2473**	0.1853***	0.2481**	0.1834***	0.2654**	0.1833***	0.2959**	0.1854***
	(0.0467)	(0.1176)	(0.0573)	(0.1181)	(0.0578)	(0.1182)	(0.0580)	(0.1215)	(0.0596)	(0.1250)	(0.0614)
Internet*yr2012	-0.1495***	-0.2638***	-0.2892***	-0.2586***	-0.2950***	-0.2603***	-0.2949***	-0.2501***	-0.2834***	-0.2373***	-0.2676***
	(0.0466)	(0.0835)	(0.0691)	(0.0843)	(0.0693)	(0.0845)	(0.0694)	(0.0866)	(0.0711)	(0.0908)	(0.0742)
yr2012	0.0290	0.0746	0.0793	0.0849	0.0859*	0.0898	0.0865*	0.1044*	0.1021**	0.1020	0.0901*
	(0.0321)	(0.0575)	(0.0490)	(0.0583)	(0.0492)	(0.0586)	(0.0492)	(0.0594)	(0.0498)	(0.0634)	(0.0528)
Gender	-0.7578***		-0.0020		0.0001		-0.0015		-0.0022		0.0004
	(0.0370)		(0.0357)		(0.0373)		(0.0374)		(0.0386)		(0.0406)
Log age	0.5085***		0.0169		0.0467		0.0617		0.0778		0.0994
	(0.0490)		(0.0515)		(0.0656)		(0.0753)		(0.0787)		(0.0837)
Higher education	-0.2778***		-0.0099		-0.0055		-0.0062		-0.0082		-0.0117
	(0.0435)		(0.0443)		(0.0445)		(0.0445)		(0.0462)		(0.0475)
City	0.0838*		-0.0081		-0.0080		-0.0090		-0.0094		-0.0115
	(0.0443)		(0.0445)		(0.0449)		(0.0451)		(0.0461)		(0.0485)
Town	-0.0515		-0.0035		-0.0001		-0.0009		-0.0008		-0.0010
	(0.0475)		(0.0482)		(0.0486)		(0.0486)		(0.0496)		(0.0527)
Settlement	0.3998***		-0.0056		-0.0067		-0.0088		-0.0097		-0.0121
	(0.0749)		(0.0715)		(0.0724)		(0.0725)		(0.0734)		(0.0767)
Muslim	-2.5700***		-0.0043		-0.0040		0.0065		0.0044		0.0209
	(0.1249)		(0.1913)		(0.1916)		(0.1921)		(0.2017)		(0.2198)
Christian non-Orth.	-0.2012		-0.0084		-0.0202		-0.0230		-0.0262		-0.0325
	(0.1517)		(0.1323)		(0.1342)		(0.1342)		(0.1374)		(0.1425)
Non-Christian	-1.1059***		0.0003		0.0121		0.0067		0.0147		0.0279
	(0.4123)		(0.4618)		(0.4619)		(0.4620)		(0.5443)		(0.5455)
Family size				0.0968**	0.0091	0.0975**	0.0089	0.1043**	0.0097	0.1156**	0.0109
				(0.0490)	(0.0115)	(0.0491)	(0.0115)	(0.0498)	(0.0117)	(0.0525)	(0.0122)
Married				-0.4409*	-0.0403	-0.4476*	-0.0445	-0.5771**	-0.0563	-0.4883*	-0.0450
				(0.2580)	(0.0559)	(0.2586)	(0.0569)	(0.2722)	(0.0587)	(0.2878)	(0.0618)
Married inof.				0.0101	0.0272	0.0035	0.0250	-0.0192	0.0234	0.0322	0.0324
				(0.2050)	(0.0612)	(0.2053)	(0.0618)	(0.2141)	(0.0633)	(0.2191)	(0.0667)
Divorced				-0.4884*	-0.0718	-0.5073**	-0.0762	-0.5529**	-0.0835	-0.6783**	-0.0909
				(0.2538)	(0.0687)	(0.2544)	(0.0691)	(0.2641)	(0.0710)	(0.2836)	(0.0740)
Widow				0.0377	-0.0034	0.0310	-0.0054	-0.0471	-0.0139	-0.0924	-0.0050
				(0.3289)	(0.0790)	(0.3294)	(0.0790)	(0.3356)	(0.0808)	(0.3600)	(0.0856)
Pensioner						-0.1801	-0.0206	-0.3131	-0.0303	-0.4096	-0.0394
						(0.2368)	(0.0522)	(0.2530)	(0.0533)	(0.2669)	(0.0558)
Unemployed						-0.4934	-0.2422	-0.5040	-0.2471	-0.7044*	-0.3527
						(0.3680)	(0.2090)	(0.3683)	(0.2092)	(0.3913)	(0.2225)
Log income								0.0030	0.0006	-0.0069	-0.0014
								(0.0155)	(0.0072)	(0.0163)	(0.0075)
Health problems										0.0893	0.0456
										(0.0770)	(0.0407)
BMI										-0.0574***	-0.0039
										(0.0184)	(0.0038)
Observations	22,777	5,262	5,262	5,238	5,238	5,238	5,238	5,002	5,002	4,590	4,590
Pseudo R-squared	0.004	0.004		0.007		0.008		0.008		0.013	
p-value of Hausman test			0.658		0.173		0.147		0.196		0.017

Standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1

religion during 2012.

The control variables, as a whole, have the expected signs, though in most cases they turn out to be insignificant factors of changing the Orthodox affiliation. The reason obviously lies in insufficient variability of the controls during the two rounds. The only variable that is statistically significant in all the specifications is family size, which is expectedly a positive factor of Orthodox membership in its simple and strong forms (Eric Kaufmann 2010). Among family controls, marriage and divorce are negative significant factors of strict Orthodox affiliation; and in specification (8) marriage is significant for the Orthodox affiliation as well. More statistically significant estimates for the strict Orthodox affiliation are likely to be explained by more observations (about twice as much) for changed strict Orthodox affiliation. Also, for the latter religious dummy variable in (10) unemployment status and body mass index are significantly negative factors.[14]

The estimates for the controls imply that a respondent's interest in religion weakens when they get married or get divorced, but they become more religious as their families are augmented with new members. For the most part, this means that people get less interested in religion when they find or lose their spouse, but they are inclined to be more religious when they become parents. Also, losing a job may make people less religious; and the same is true for increasing relative body mass.

Though most controls are insignificant factors of changing religious affiliation, they somewhat improve goodness of fit. For the Orthodox dependent variable, pseudo R-squared increases from 6% to 9% as we add all the controls; for the strict Orthodox dummy variable it increases from 0.4% to 1.3% from (2) to (10), meaning that in the latter case the controls contribute more to quality of the regression model, which is obviously explained by more significant variables comparing with the former case.

The somewhat low values of pseudo R-squared for the Orthodox and even more for the strict Orthodox variables is in part explained by the nature of this measure of goodness of fit itself. Also, the controls included are responsible for the quality of the models. Though all the controls are obvious covariates of religiousness, their variation turns out to be insufficient to make the respective estimates statistically significant. At the same time, it is worth noting that an alternative measure of goodness of fit gives a better picture. When using the share of predicted outcomes we have more than half of the predicted outcomes even for the lowest values of pseudo R-squared.

5.2 Placebo experiment results

The same comparative analysis of the dynamics when applied to the earlier period we treat as a placebo experiment. As mentioned, the problem with it is that the data on using the Internet are

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[14]We did not include any political variables reflecting a respondent's attitude toward the government and other state establishments, because the respective questions are absent in the rounds of our interest. The most recent round containing political questions dates back to 2006. Among variables existing in rounds for 2011 and 2012, the closest covariate of the political variables is self-reported power in society. We estimated the same fixed effects regressions with inclusion of self-reported power as well as random effects regressions controlling for the political position of respondents measured by a number of political controls for 2006. All the latter turned out insignificant, and the results for our interest variables remained almost untouched, whatever political controls among those mentioned were included.

available only for one of the two rounds we can use for running the placebo experiment. Also, the lower share of Internet users in this period potentially makes the respective estimates much less efficient, so that insignificant estimates as to the placebo experiment may be due to the different structure of data. To make the regressions as comparable as possible, we run random effects regressions. They allow us to estimate time-constant Internet usage and provide efficient estimates.

To make sure of consistency of estimates obtained by random effects regressions, we estimated by random effects probit the same regressions that had been estimated by fixed effects logit. Then we can compare two groups of estimates using the Hausman test and just focusing on variables of our principal interest. Tables 7 and 8 allow us to make this comparative analysis. In both tables, column (1) contains random effects estimates obtained when controlling for time-constant personal characteristics and self-reported ethnicity. These regressions were run on the whole sample with the exclusion of missing values, so that the ultimate sample size was 11407 respondents. Columns (3), (5), (7), (9), (11) are for random effects regressions run on the same samples and with the same time-varying controls as were used for running the respective fixed effects regressions (2), (4), (6), (8), (10). To make random effects regressions nearer to their fixed effects counterparts, all of them include time-constant controls.

The first random effects regression for both dependent variables was already mentioned. It gives us additional evidence in favor of our hypothesis, meaning that the interaction term in both cases is negative and highly significant. Our main concern is in the difference between our consistent and efficient estimates. As is seen in the bottom row of Table 7, the Hausman test for all the five specifications rejects the null of zero difference between the consistent and efficient estimates. When examining the estimates we see that, in all the specifications for both our interest variables and the controls, standard errors decreased, and in many cases they decreased dramatically. The same is true for Table 8 as well. Thus, our main concern when running random effects regressions – namely efficiency gain – was certainly made in both cases.

As for the direction of inconsistency, our main care is in the interaction term. By absolute value coefficients before the interaction terms are overestimated. It implies that we should think about true coefficients as higher than those obtained when running random effects regressions. As for the regressions presented in Table 8 for all the specifications, but the longest one, the Hausman test does not reject the null, which provided us with some grounds to accept random effects estimates when our dependent variable is the strict Orthodox dummy. Potential inconsistency when it comes to the interaction term again has the same direction as that for the other dependent variable.

The bottom line from this comparison is that random effects probit makes sizable efficiency gains and overestimates the absolute values of negative coefficients on the interaction term. What this means for our analysis is that when running our placebo regressions by random effects probit we may not only offset shortages with the statistical significance related to the data structure, but also obtain somewhat overestimated absolute values of the coefficients. Thus, if we obtain insignificant estimates as to the interaction terms when running placebo regressions, we can readily conclude that the respective effect is absent.

Panels A and B of Table 9 present estimates obtained from our placebo regressions (only the

Table 9: Placebo experiment regressions versus natural experiment regressions, time-invariant Internet variable

	simple, full sample	+ personal and ethnic controls	+ FE sample	+ marital controls	+ activity controls	+ income controls	+ health controls
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
	Panel A. Depvar - Orthodox. 2002-2003						
Internet user, 2003	0.1605	-0.1944	-0.1538	-0.1691	-0.1685	-0.1737	-0.1292
	(0.1706)	(0.1216)	(0.1477)	(0.1482)	(0.1483)	(0.1537)	(0.1660)
Internet*yr2003	0.2742**	0.1465	0.2896	0.2771	0.2763	0.2854	0.1834
	(0.1211)	(0.1199)	(0.1977)	(0.1982)	(0.1982)	(0.2057)	(0.2212)
yr2003	-0.1181***	-0.2563***	-0.5218***	-0.5011***	-0.5008***	-0.5183***	-0.4848***
	(0.0373)	(0.0416)	(0.0644)	(0.0647)	(0.0647)	(0.0662)	(0.0744)
Observations	15,914	12,896	1,840	1,834	1,834	1,764	1,402
	Panel B. Depvar - strict Orthodox. 2002-2003						
Internet user, 2003	-0.1419	0.2566**	0.0722	0.0723	0.0677	0.0210	0.0071
	(0.1120)	(0.1185)	(0.1486)	(0.1489)	(0.1491)	(0.1539)	(0.1653)
Internet*yr2003	0.0395	-0.0260	-0.1333	-0.1373	-0.1332	-0.0314	-0.0005
	(0.1167)	(0.1238)	(0.2002)	(0.2004)	(0.2005)	(0.2077)	(0.2218)
yr2003		-0.4968***	-1.0358***	-1.0316***	-1.0326***	-1.0305***	-1.0518***
		(0.0377)	(0.0569)	(0.0570)	(0.0570)	(0.0581)	(0.0666)
Observations	15,914	12,896	2,586	2,576	2,576	2,488	1,910
	Panel C. Depvar - Orthodox. 2011-2012						
Internet user, 2012	0.8255***	0.3348***	0.1889**	0.1878**	0.1869**	0.2059**	0.2051**
	(0.0738)	(0.0663)	(0.0777)	(0.0784)	(0.0785)	(0.0806)	(0.0843)
Internet*yr2012	-0.1462**	-0.2115***	-0.3782***	-0.3709***	-0.3719***	-0.4304***	-0.4266***
	(0.0578)	(0.0584)	(0.0935)	(0.0937)	(0.0938)	(0.0962)	(0.1010)
yr2012	-0.1794***	-0.2126***	-0.4822***	-0.4797***	-0.4785***	-0.4802***	-0.5205***
	(0.0415)	(0.0433)	(0.0708)	(0.0711)	(0.0711)	(0.0721)	(0.0765)
Observations	27,662	22,777	2,980	2,972	2,972	2,824	2,590
	Panel D. Depvar - strict Orthodox. 2011-2012						
Internet user, 2012	-0.0297	0.1149**	0.1233**	0.1323**	0.1298**	0.1196**	0.1068*
	(0.0430)	(0.0511)	(0.0575)	(0.0581)	(0.0583)	(0.0598)	(0.0619)
Internet*yr2012	-0.1026**	-0.1206***	-0.2508***	-0.2562***	-0.2558***	-0.2374***	-0.2103***
	(0.0439)	(0.0449)	(0.0691)	(0.0693)	(0.0693)	(0.0709)	(0.0741)
yr2012	0.0295	0.0215	0.0693	0.0763	0.0767	0.0891*	0.0709
	(0.0309)	(0.0322)	(0.0503)	(0.0505)	(0.0505)	(0.0510)	(0.0542)
Observations	27,662	22,777	5,262	5,238	5,238	5,002	4,590

Standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1

output of our concern is reported). The specifications in the columns are differed from each other by included controls and the ensuing sample size. Specification (1) contains only the interest variables, and it was run on the whole sample. The next specification includes all the time-invariant controls. Specifications (3)-(7) correspond to columns (3), (5), (7), (9), (11) in Tables 7 and 8 with regards to samples and time-varying controls. Samples are restricted by respondents who had changed their Orthodox affiliation to be in line with the respective fixed effects regressions. The controls were consecutively added as it was done in the main regressions.

Panel A of Table 9 contains results for the Orthodox dummy variable as a dependent variable. Among the reported variables only the next year dummy variables turned out significant. Like the time of our natural experiment, the next year saw some decline in the share of self-reported Orthodox. However, neither the Internet dummy, nor, what is of our interest, the interaction term are significant in most specifications. Interestingly, in the simplest specification, the interaction term even turns out significantly positive. In all the other specifications the interaction term is again

positive, but insignificant. Recall that our comparative analysis of the respective fixed effects and random effects results implies that the random effects probit underestimates the interaction term (or overestimates the absolute value of negative coefficients). So, if we allow for this result to correct the estimates of Panel A, they are to be somewhat higher, not lower. What this means is that a significantly negative interaction term in our placebo regressions is ruled out altogether, but a significantly positive sign is quite possible. In other words, during the placebo experiment Internet users showed the same dynamics regarding Orthodox affiliation as everyone else, or even their dynamics might have been more upward.

In Panel B of Table 9 the results for the strict Orthodox dummy as a dependent variable are reported. As a whole, the results are the same as those in Panel A. Again, the next year percentage of self-reported strict Orthodox decreased, while the other interest variables are for the most part insignificant. But there are some nuances, namely, unlike the previous Panel, the Internet dummy in specification (2) is significantly positive and insignificantly positive in the remaining specifications; the interaction term is insignificant in all the specifications, though the sign is negative in all specifications, but the first one. However, if we again correct the estimates in a way as was done with the previous estimates, they will be higher. Thus, the interaction term in this case is an unambiguously insignificant factor, meaning that the two groups did not differ from each other by their dynamics as to their shares of the Orthodox and strict Orthodox.

Finally, to exclude an opportunity that the estimates from the placebo regression would differ much if the data on Internet usage were a panel rather than a single cross-section, we estimated our natural experiment regressions using only one later cross-section on Internet usage. By doing this we, one the one hand, can compare the estimates obtained on panel data about using the Internet with those obtained on a single cross-section; on the other hand, estimates of the natural experiment regressions and those of placebo experiment ones become readily comparable.

The respective results are presented in Panels C and D of Table 9. First of all, the interaction term is negative and highly significant in all specifications and for both dependent variables. So, we can readily conclude that our hypothesis is supported when estimating the natural experiment regressions with a single cross-section of the Internet dummy. It is worth mention that the difference between fixed effects estimates and the respective random effects estimates turns out even lower when the latter obtained using a single cross-section for the Internet dummy. It is seen if one compares fixed effects estimates in Tables 7 and 8 with the respective random effects estimates in the same tables and with those in Panels C and D of Table 9. Thus, when analyzing the results in Table 9, one less needs to correct the estimates for a potential inconsistency.

The difference as to the estimates efficiency between Panels A and B, and Panels C and D can be ascribed also to different sample sizes. As was mentioned, the representative sample was renewed repeatedly to offset the attrition and to make the sample larger. It explains why the sample sizes for the period of our placebo experiment are less than those for the more recent period. Though samples are different by their numbers of observations in both cases, they are sizable enough to make efficient estimates possible. Another remark is that the placebo estimates are insignificant in the specifications that much differ from each other by number of observations

used. Moreover, examining specification (1) in Panels A and B prompts that in larger samples the interaction term tends to be a positive rather than a negative factor. In other words, a larger sample make estimates on the key variable in the placebo regressions even further from their counterparts in the natural experiment regressions.

5.3 Discussion

The results strongly support our hypothesis. Various specifications of our regression model different from each other by the included controls, construction of data and sample size, as well as applied estimation methods are unanimous as to the key for the hypothesis interaction term. In all the specifications it is significantly negative, meaning that during 2012 there was a systematic difference between Internet users and other people as to the dynamics of both our measures of the Orthodox affiliation and/or religiousness. So, between the two surveys in 2011 and 2012, the overall growth of self-reported Orthodox and strict Orthodox believers was significantly lower – and even negative – among Internet users than among those not using the Internet.

Similar data dating back to a decade ago enabled us to run the same regressions to check whether there was the same effect earlier. The respective regressions estimates as to the earlier times we treat as placebo experiment results. All these failed to reveal any systematic difference of the type we observe for 2012. In other words, a relatively more downward trend as to the Orthodox religiousness on the part of Internet users that we observed during 2012 was not observed earlier. We interpret this fact in the context of our assumption that while during 2012 public attention was strongly drawn to church topics, this was not the case a decade ago. This assumption is based on the well-known facts about Pussy Riot's performance and the subsequent events, as well as Google search statistics for "ROC".

Given the assumption, the results of the natural and placebo experiments mean that Internet users showed relatively downward dynamics regarding Orthodox affiliation when public attention was drawn to church topics, but they showed the same dynamics as other people when public attention was away from the church. Our explanation of this phenomenon is related to the nature of information received by Internet users and those not using the Internet. Unlike the latter, the former receive more diverse information and thereby they are potentially exposed to negative information about any phenomenon. This difference in information received can play a key role when public attention is riveted on a phenomenon. In our case this phenomenon was the church.

Our explanation of the results is that when public interest in the church was strong, people consumed much information about it, and systematic differences as to information consumed were translated into systematic differences as to dynamics of attitudes toward the church on the part of information consumers. When public interest in the church was weak, the difference between Internet users and others in media reports about the church they were exposed to was mostly purely hypothetical and unrealized, being the reason that both groups did not think about it.

These results have a number of implications. Firstly, given an ideological vacuum and lack of religious or some other ideological background on the part of most citizens, mass media heavily matter for religious affiliation. Rapid changes of religious affiliation to a large extent can be

attributed to one-sided media coverage for some period followed by another period during which media gave one-sided reports with the opposite content. To the point, it means that the negative impact of the story with Pussy Riot on attitudes toward the church of those exposed to alternative information was due to the overall favorable picture of the church made by the official TV channels, rather than the story itself. The latter just made people think about religion, and the alternative information had a negative impact just because it was comparatively less favorable for the church. So, if an occasion like that with Pussy Riot had occurred in Soviet times when media coverage of religion was mostly negative, the effect would have been just the opposite. The aroused interest would have been met by negative information from the official media, and on this background an alternative source of information, like the Internet, would have had a relatively positive effect.

Secondly, in countries with a state monopoly on media, the availability of alternative sources of information can strongly affect the population's state of mind, including that related to religion and/or ideology. Hence, shifts between religiousness and religious indifference and/or atheism are to be much weaker in the presence of a universally available alternative source of information. Until recently, Russia actually lacked a readily available alternative source of information, which contributed much to the great changes of religious affiliation Russia faced during the last hundred years. The celebration of the millennium of Russia's baptism in 1988 became the first outstanding event that drew public attention to the church due to the clear change in Soviet religious policy. Afterwards, radical changes in the country along with dramatically new facts and comments as to the church kept strong interest in it. This in conjunction with favorable media coverage vastly contributed to the growth of Orthodox believers.

6 Conclusion

The performance of Pussy Riot and the events that took place with their participants thereafter gave rise to an explosion of public attention on the Orthodox Church in Russia during 2012, which is documented by the respective Google statistics. An empiricist's toolkit contains ready-to-use research instruments for addressing religion-related issues. In particular, one can attempt to fill the gaps in our understanding of the relationship between mass media and religious activities. In less than a hundred years Russians twice made fundamental changes in their religious affiliation: for the first time under Communist rule when their vast majority gave up the Orthodox faith, and for the second time when they reverted back to it. As both shifts were accompanied by respective media coverage of religious topics, one can suppose that they to a large extent resulted from media campaigns. On the other hand, religion is one of the most long-lasting institutions as it entails deep-rooted world-views and values. In light of this, a question arises: can mass media actually have such a decisive impact on religious self-identification, as it seems to have had in Russia?

To address this question, we used the events related with Pussy Riot as a natural experiment. What the events did was to draw public attention to the church. Rise of both demand for religious topics in the media and, as a response, a supply of respective information lead to more consumption of this information. At the same time, society – for the most part lacking any religious background

– was to put a significant weight on current information from the media. In these circumstances, if the media did influence religious affiliation, systematic differences were to be seen as to resultant religious affiliation between people subject to information from different media outlets. Today in Russia media outlets reaching a large audience are state-owned TV channels and Internet. The main difference between them as to church topics is the presence of negative information in the latter. Therefore, we used a dummy variable for Internet usage as a proxy for being exposed to alternative and thereby potentially negative information. The latter was used to distinguish the treatment group comprised of Internet users from the control group consisting of non-users. As the natural experiment was being conducted during 2012, namely as public attention was focused to religious topics, the treatment group was subject to some negative information about the church, whereas the control group was not.

To check whether these differences actually took place, we used an empirical strategy based on a standard differences-in-differences method. Dependent variables were dummies for Orthodox affiliation, as well as strict Orthodox affiliation, being the difference related to the self-reported importance of religion. We estimated fixed effects logit regressions, and we estimated the same regressions on the data as of a decade ago. Results on the current and past data we treated as those of natural and placebo experiments, respectively, being the difference related to the intensity of public interest in the church.

The results of estimating these regressions were as follows. During 2012, the overall growth of self-reported Orthodox and strict Orthodox believers was significantly lower among Internet users than among those not using the Internet. Using differences-in-differences fixed effects specification suggests that these results were obtained when controlling for time-constant systematic differences between the groups and the trend factor, as well as unobservable individual characteristics. We also controlled for a number of time-varying characteristics. The same specifications for 2002 and 2003 did not show up any similar results as to the difference between the groups. Thus, Internet users and the rest of the people significantly differed from each other as to their dynamics of percentages of Orthodox and strict Orthodox believers when their attention was drawn to religion, but they had not shown any similar difference when their attention had been away from religion.

Thus, the role of provocative occasions, such as that with Pussy Riot, is in provoking interest in religion, whereas the effect of alternative information on public attitudes to religion depends on background information from official sources. When this background is mostly positive for religion, alternative sources are to negatively affect attitudes toward religion, as they highlight some negative aspects of it, and, vice versa, mostly negative background information would imply that alternative sources were alone that paid attention to some positive aspects and thereby were to affect positively.

Unlike Soviet times, there is a powerful source of alternative information today. The Internet promotes a diversity of views regarding religion, politics, and other topics. In this respect, the Internet offsets weak competition in the traditional media market. Thanks to this, society can be expected to have more various and more sustained religious, political, and other views. This is to promote a transition from a homogenous and unstable society with respect to its ideology to a

more heterogeneous society that is less dependent on changeable state policy.

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Alexander S. Skorobogatov

National Research University Higher School of Economics

e-mail: skorobogat@mail.ru