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RESEARCH ARTICLE

Cultural Changes in Russia during the Coronavirus Crisis

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Abstract

The paper focuses on cultural changes in Russia during the coronavirus crisis. The analysis of data from the representative Russian national and Moscow regional surveys conducted in autumn 2018 and in summer 2020 revealed the following changes as the level of trust remained unchanged: a reduced planning horizon, a higher uncertainty avoidance, decreased values of autonomy and stimulation, and an increased value of security. The cultural changes identified are manifested both on average in the representative samples and for individual age groups. The cultural changes are more pronounced in the all-Russian sample than in the Moscow regional sample. In the context of different age groups, the greatest cultural changes are identified among people aged 18-35, which may produce long-term effects of the coronavirus crisis on Russia's economic development. Empirical analysis of data from the international surveys WVS, EVS, and ESS has shown that the cultural changes identified in Russia are only partially manifested in other countries, which determines the importance of studying country-specific cultural changes caused by external shocks. Promising areas of research include analysing changes in institutional equilibria provoked by external shocks and corresponding cultural shifts, as well as designing interim institutions that would help smooth the adverse effects caused by the coronavirus crisis.

Keywords

Planning horizon, trust, individualism, institutional change, cultural change, paternalism, COVID-19

JEL codes: Z13, Z18

Introduction

In economic research, culture is usually understood as values and beliefs shared by a certain community and slowly changing over time (Alesina and Giuliano 2015). Culture, through

its impact on the transaction cost structure and competitive advantages of the society, as well as the very nature of its interaction with formal institutions (i.e. rules that are supported by a specialised guarantor), factors into the parameters of economic development, in particular, the pattern of economic growth, production of innovations, etc. (Alesina and Giuliano 2014; Algan and Cahuc 2014; Gorodnichenko and Roland 2017). Furthermore, mutual influence of culture and formal institutions determines the parameters of the institutional equilibrium in which society finds itself (Aghion et al. 2010). Such equilibria are usually stable over time: culture affects formal institutions existing in society, while those, in turn, by influencing the structure of benefits and costs, make the spreading of other values and beliefs disadvantageous (Bisin and Verdier 2001).Where a spontaneous mechanism of the cultural change takes place, which implies competition of routines, the period of transformation can exceed a hundred years (Williamson 2000). For example, the inhabitants of those African regions where the slave trade flourished in the XVI-XIX centuries show up till now lower rates of interpersonal trust (i.e., the norm of mistrust which was effective hundreds of years ago has remained stable) (Nunn and Wantchekon 2011). And up until now the inhabitants of the territory which used to make up the Pale of Settlement from the late 18th century up to 1917 show lower preference for market economy or democracy than the population outside the Pale (norms engrained in the non-Jewish population living inside the Pale continue to be transmitted from generation to generation over time) (Grosfeld et al. 2013), etc.

In case of shocks (e.g., crises, epidemics, military, political or natural disasters, etc.), cultural changes can occur much faster. In particular, a study of values and beliefs of German residents not only revealed certain cultural differences between the residents of the former West Germany and East Germany, but also registered cultural convergence, which allows predicting the disappearance of such differences a few decades after the German reunification (Alesina and Fuchs-Schündeln 2007).

The coronavirus crisis (with its increased incidence and decreased incomes of the population along with the stay-at-home and social distancing restrictions imposed by governments) is an example of a shock capable of triggering institutional changes (Auzan 2020). The importance of culture for economic development and its role in the formation of institutional equilibria determines a promising outlook for the studying of cultural changes which occurred during the coronavirus crisis.

Examples of other external shocks related to epidemics or macroeconomic crises allow predicting the patterns of cultural changes. Furthermore, since human values and behavioural beliefs are predominantly formed before the age of 25, a stronger cultural change among younger people is suggested (Inglehart 1997, 2008).

Several studies have documented the impact of epidemics on ***individualism / collectivism*** dimensions. For example, L. Zhang and K. Pan showed that a large-scale influenza epidemic in certain areas of China in 2005 led to an increase in collectivism, which manifested itself in the development of community-based mechanisms for coping with the crisis (and increased the society's ability to handle similar crises in the future) (Zhang and Pan 2008). It is noteworthy that historical data also show that societies that face natural disasters more frequently show higher levels of collectivism on average (Oishi and Komiya 2017).

A study by M. Ki showed that the Ebola epidemic increased the level of stress and anxiety in people (Ki 2014), which, based on Hofstede's definition (Hofstede 2001), is exactly what determines the ***level of uncertainty avoidance***. Moreover, Hofstede notes that the level of anxiety usually relates to whether a person has experienced external shocks (wars or crises)

while growing up (Hofstede 2001). In other words, cataclysms lead to stress and anxiety, which, in their turn, lead to an increased uncertainty avoidance.

Another group of studies looked at the role of epidemics in the formation of ***social capital and trust***. Thus, the Spanish Flu epidemic after the First World War led to a decline in the level of generalised trust (Aassve et al. 2021). At the same time, in countries where the mortality rate from the disease was higher while there were no restrictions to dissemination of information about the disease, the decline was more severe. G. Prati and L. Pietrantoni revealed a link between a high-risk perception of the Ebola epidemic and the xenophobic attitudes (Prati and Pietrantoni 2016). And P. Baehr (Baehr 2005) in his study of the SARS outbreak in Hong Kong in 2003 described the formation of "communities of fate", groups of people who realised the need of solidarity for saving their lives. "Communities of fate" contributed to their members isolating themselves from the world and increased their stigmatisation by the populations not exposed to the epidemic shock.

To date, there are few studies available on the link between the coronavirus crisis and culture. In most of them, the authors view the values and beliefs as a factor influencing the people's responses to the pandemic and the ensuing restrictions. A number of studies showed a positive impact of social capital and trust on the reduction of population mobility and social distancing (Bai et al. 2020; Bargain and Aminjonov 2020; Barrios et al. 2020; Nikishina and Korobkova 2022). While stronger individualism, on the contrary, reduced the effectiveness of public policies aimed at containing the spreading of infection (in the respective regions or countries, other things being equal, people were less likely to comply with the coronavirus restrictions) (Bazzi et al. 2021; Chen et al. 2021; Maaravi et al. 2021).

There are noticeably fewer studies on the opposite effect, i.e., the effect of the coronavirus crisis on values and behavioural beliefs. Most of them rely on Schwartz's measurements of motivational values (Schwartz 1994). A study made in France during the lockdown period revealed an increase in the values of conservation (security, tradition, conservatism) and a decrease in the values of self-enhancement (hedonism, power, achievement) and openness to change (self-direction, stimulation) (Bonetto et al. 2021). In a study on Poland, too, the values of security and conformity were also found to increase as the value of hedonism decreased, but the value of self-direction, on the contrary, increased (as well as the values of universalism and benevolence) (Bojanowska et al. 2021). A longitudinal study of values in Australia analysing data from five waves of 2017, 2018, 2019, and 2020 (April and November-December) showed that, as the indicators remained stable in the pre-pandemic years, in 2020, the values of conservation increased, the values of openness to change initially declined only to return to the pre-pandemic levels by the end of the year, while the values of self-direction declined slightly at the start of the pandemic and continued to decline by the end of 2020 (Daniel et al. 2022). Daniel and the co-authors emphasise that severe shocks lead to changes in people's values. In particular, the changes registered during the pandemic create a fertile ground for authoritarian policies (people want more order and care less about their loved ones and society as a whole) (Daniel et al. 2022).

During the initial stages of the pandemic, there was evidence of increased trust: according to the Pew Research Center, the share of US residents who trust others to a high degree grew from 22% in 2018 to 29% in the second half of March 2020; the share of those who trust to a medium degree fell from 41% to 32%; while the share of those who do not trust others remained unchanged (35%) (Rainie and Perrin 2020). A.Rarenko, summarising the results of sociological surveys conducted during the pandemic in Australia, France, and Poland, points out the growth of values of stability and order during this period (Rarenko 2022).

Some economists have hypothesised a greater willingness of the populace to see an expanded role of the state even after the pandemic in addressing the problems that it caused (Acemoğlu 2020; Auzan 2021). However, this hypothesis has never been empirically tested.

The largest international study on the topic was conducted on the basis of an online panel of 8,800 respondents in 24 countries (not including Russia) (Lampert et al. 2021). It was characterised by its longitudinal nature: the same respondents were interviewed twice, in early 2020 and then in October 2020. The data obtained allowed confirming the conclusion about a decrease in hedonism, an increase in pessimism, anxiety, and fear, as well as concern about their health in the context of the coronavirus crisis. Furthermore, they found an increase in the values of freedom, concern about socially relevant issues, willingness to participate in the sharing economy and local communities, and a decrease in the demand for the enforcement of law and order by the state. The authors note that the greatest changes are registered among the group of younger people aged 18-35. Lampert and colleagues also stress that changes in values and behavioural beliefs do not always coincide between the developed and developing economies, so that there may be no universal conclusions valid for all countries.

Currently, there are few studies available on cultural changes during the coronavirus crisis based on Russian data. A. Auzan and co-authors used the data from the representative surveys conducted in Russia in 2018 and in 2020 to register a number of cultural changes, including the growth of paternalism, uncertainty avoidance, etc. (Auzan et al. 2020). The study by E. Katkova et al. identified changes in the set of values of college students in Russia's Far East during the pandemic, in particular, the growth of values of health, freedom, self-confidence (Katkova et al. 2021). B. Sokolov et al. used the data of the international sociological survey Values in Crisis to reveal a slight decrease in the level of political support during the initial period of the pandemic (Sokolov et al. 2022).

Considering the role of cultural changes in economic development and the formation of institutional equilibria, this paper intends to analyse the cultural changes which took place in Russia during the initial months of the coronavirus crisis based on the data from the representative sociological surveys commissioned by the Russian Venture Company (RVC) in 2018 and 2020.

What follows begins with a characterisation in the first section of the data used and the research method. The second section describes the key findings of the study. The third section discusses the possible consequences of the registered cultural changes. The final section summarises the key conclusions of the study.

Data and methods

We used data of the quantitative sociological survey conducted by the Institute for National Projects as commissioned by the Russian Venture Company (RVC) in autumn 2018 and in July 2020 on all-Russian representative samples and on Moscow regional representative samples to test the hypothesis that the coronavirus crisis was followed by shifts in the values and beliefs of the Russian population (Auzan et al. 2020).

Those were representative samples by sex, age, type of settlement, and level of education. The surveys were conducted by telephone interviews using quota stratified samples combined with a random selection of respondents by their telephone numbers. The quotas were set by sex, age, type of settlement, and level of education (for all-Russian samples, also by federal districts). The final samples matched the quoting characteristics of the general sam-

ple, post-stratification weights were not used. The size of the all-Russian samples exceeded 2000 respondents. The Moscow sample size exceeded 600 respondents.

Comparison of the results of the surveys conducted according to a unified methodology on the representative samples allows assessing changes in the respondents' answers given before the pandemic (2018) and a few months after its onset (July 2020). Moreover, the analysis of changes on both the all-Russian sample and the Moscow regional sample allows checking, on an individual region, the stability of trends identified for Russia as a whole.

In analysing cultural changes, we relied predominantly on the indicators based on Hofstede's methodology (Hofstede 2001) (used to describe the community culture) and Schwartz's methodology (Schwartz 1994) (used to describe people's motivational values (hereinafter referred to as values) at the individual level). Both of these methodologies are widely used in cross-cultural studies and have an ample evidence of connection with various aspects of economic development (Beugelsdijk and Maseland 2010; Hofstede 2001; Schwartz 2012). The following Hofstede's dimensions were used in the study: individualism, power distance, long-term orientation, uncertainty avoidance. The following Schwartz's values were also used: security, self-direction, and stimulation (see Annex 1 for definitions). To clarify the conclusions regarding the behaviour of indicators which are most significant for economic and innovative development, two dichotomic questions were added to the questionnaire to characterise the level of individualism and uncertainty avoidance.

The study also asked questions to assess the following:

1. **Level of generalised trust.** This is often used to measure social capital in society and is closely related to long-term economic growth rates (Algan and Cahuc 2014; Guiso et al. 2011).
2. **Extent of paternalistic attitudes**. Paternalistic attitudes reflect a person's expectations of the state. Expectations of a broad social support could lead to a lack of initiative, increased state penetration in various aspects of life, and political apathy (Aghion et al. 2010; Alesina and Giuliano 2015).
3. **Planning horizon**. A planning horizon is evidence of a timeframe for which people make their plans. This indicator can be associated with making long-term financial decisions (Polterovich 2015; Auzan 2017).

Annex 1 defines these characteristics.

To answer a question if any similarity exists between the trends to be found in Russia versus other countries, a comparative analysis was made of the earliest data from international databases available after spring 2020. The databases used for this purpose include those of the World Value Survey, European Values Study, and European Social Survey. The analysis was conducted for all the countries for which data were available after the pandemic had started. There are 21 countries in the sample: five countries from the WVS and EVS databases - Armenia, Libya, Morocco, the Netherlands, Ukraine; seventeen countries from the ESS database - Bulgaria, Croatia, Czech Republic, Estonia, Finland, France, Hungary, Iceland, Italy, Lithuania, Montenegro, the Netherlands, Norway, Portugal, Slovenia, Slovakia, Switzerland (the Netherlands is to be found in both databases). Data for Russia after spring 2020 are not available in the above databases.

The t-test was used to check if there were any statistically significant changes in cultural characteristics over time. The regression analysis was used to eliminate potential distortions caused by changes in the socio-demographic structure. For all-Russian samples, the control variables included sex, age, age squared to check for a possible non-linear relationship, level of education, size of the settlement, income level, and federal district of residence. For the Moscow regional samples, the control variables were the same, except for the size of the

settlement and federal district of residence. Although this methodological approach does not allow identifying a causal link between the coronavirus pandemic and values and behavioural beliefs, it still provides for an opportunity to capture changes in the Russian society at the time of a possible turning point and "cleanse" it from the potential effects of socio-demographic changes. To assess the size of the effects, Cohen's d was used.

It should be noted that the changes in the respondents' answers based on the data of only two surveys do not allow confidently separating the coronavirus crisis effect from other factors which may have influenced the change in values and behavioural beliefs during the period. Having said this, the coronavirus crisis was the most significant shock which took place during the timeframe in question, which, given the inertia of culture, suggests that most of the changes are a consequence of the population's responses to it.

Findings

Socio-cultural changes in Russia during the coronavirus crisis

The mean and regression analyses identified certain cultural changes in the Russian society a few months after the pandemic had began (Tables 1 and 2). The following are observed both on the all-Russian sample and on the Moscow regional sample:

- **growth of paternalistic attitudes** (a greater share of people who agree that "the state should take care of everyone", the alternative judgement being "the state should ensure equal rights for all, and everyone should take care of themselves");
- **reduced planning horizon** (more than a twofold decrease in the share of people making plans for more than three years in the all-Russian sample and in Moscow; increased share of people making no plans at all);
- **decreased value of autonomy** (importance for a person to propose new ideas, be a creative person, to go his/her own way);
- **increased value of security** (importance of living in safety, avoidance of any potential danger);
- **decreased value of stimulation** (importance of surprises and constant search for new activities, importance of variety in life).

The above findings are consistent with the findings of earlier studies on other countries (Bojanowska et al. 2021; Bonetto et al. 2021).

The vector of change in Moscow in terms of the values of autonomy, security and stimulation corresponds to the all-Russian trends, but the size of the change is small and is not statistically significant (see Figure 1), which may be due to the regional specifics.

The finding about the change in attitudes towards uncertainty is ambiguous. On the one hand, Hofstede's uncertainty avoidance index did not change in any statistically significant way in either the all-Russian or the Moscow sample. On the other hand, the use of a dichotomic question about the attitudes to new situations (which can be interpreted as one way of measuring uncertainty avoidance) showed that in both samples the share of people who believe that new situations are best avoided because they can be dangerous increased sharply, from 21% to 50% in the all-Russian sample and from 30% to 60% in the Moscow sample). This may be due both to the increase in uncertainty avoidance, which for whatever reason was not "captured" by questions under Hofstede's methodology (see (Minkov and Kaasa 2020) for the critique of this dimension), and the framing effect when answering the question (it is exactly COVID-19 and its challenges that could be understood as "new situations" in June 2020).

Table 1. Comparison of average values of cultural dimensions

		Russia 2018	Russia 2020	Moscow 2018	Moscow 2020
Hofstede	Individualism (VSM)	-	-	52.41	53.95**
	Individualism (dichotomy)	71%	71%	73%	79%**
	Uncertainty avoidance (VSM)	-	-	47.96	47.51
	Uncertainty avoidance (dichotomy)	21%	51%***	30%	60%***
	Masculinity (VSM)	-	-	44.38	44.17
	Power distance (VSM)	-	-	54.82	55.92
	Long-term orientation	-	-	50.05	50.89
Schwartz	Self-direction	0.431	0.235***	0.323	0.242
	Security	-0.33	-0.041***	-0.149	-0.031
	Stimulation	-0.103	-0.194**	-0.176	-0.209
Trust		27%	26%	25%	29%
Planning horizon		33%	14%***	40%	16%***
Paternalism		47%	58%***	48%	60%***

Source: Authors' calculations based on the data of all-Russian and regional surveys conducted by RVC and INP in 2018 and 2020.

Note: The cells contain the average values of the selected cultural dimensions for the corresponding samples and time periods. There are no data available for Hofstede's dimensions on the all-Russian sample. Statistical significance of differences between 2018 and 2020 was established using the t-test. For the dimensions of individualism (dichotomy), uncertainty avoidance (dichotomy), paternalism, and trust, the share of people is given who chose the options "I try to do things my own way, even if it may cause resentment among those around me", "New situations are best avoided: they can be dangerous", "The state should take care of everyone" and "Most people can be trusted", respectively; for the planning horizon, the share of people is given who have plans for more than three years. The theoretical minimum of Hofstede's VSM dimensions is 0 and the theoretical maximum is 100. The minimum value of stimulation, autonomy, and security in the sample is -3.3, the maximum is 3.3. Annex 1 provides for definitions of the dimensions.

*** - differences are significant at 1% level, ** - at 5% level

Table 2. Generalised results of the regression analysis

		Russia 2020	Moscow 2020
Hofstede	Individualism (VSM)	-	1.511**
	Individualism (dichotomy)	0.020	0.317**
	Uncertainty avoidance (VSM)	-	-0.162
	Uncertainty avoidance (dichotomy)	1.406***	1.240***
	Masculinity (VSM)	-	-0.212
	Power Distance (VSM)	-	1.146
	Long-term orientation (VSM)	-	0.906

End of the table 2

		Russia 2020	Moscow 2020
Schwartz	Self-direction	-0.144***	-0.052
	Security	0.217***	0.07
	Stimulation	-0.072*	-0.017
Trust		0.014	0.183
Planning horizon		-1.008***	-1.322***
Paternalism		0.366***	0.534***

Source: Authors' calculations based on the data of all-Russian and regional surveys conducted by RVC and INP in 2018 and 2020.

Note: The cells contain the coefficient values for the survey year variable (used as a predictor) in the regression models. Logit models were used for the alternative dimensions of individualism and uncertainty avoidance, trust, planning horizon, and paternalism, while the Least Squares models were used for other dimensions. The control variables for the all-Russian sample include sex, age, age squared, size of the settlement, federal district, income level, education level. The control variables for the Moscow regional sample are the same as above, except for the size of the settlement and federal district. The least squares regressions and robust standard errors were used. Data on Hofstede's dimensions are not available for the all-Russian sample.

*** - differences are significant at 1% level, ** - at 5% level, *- at 10% level.

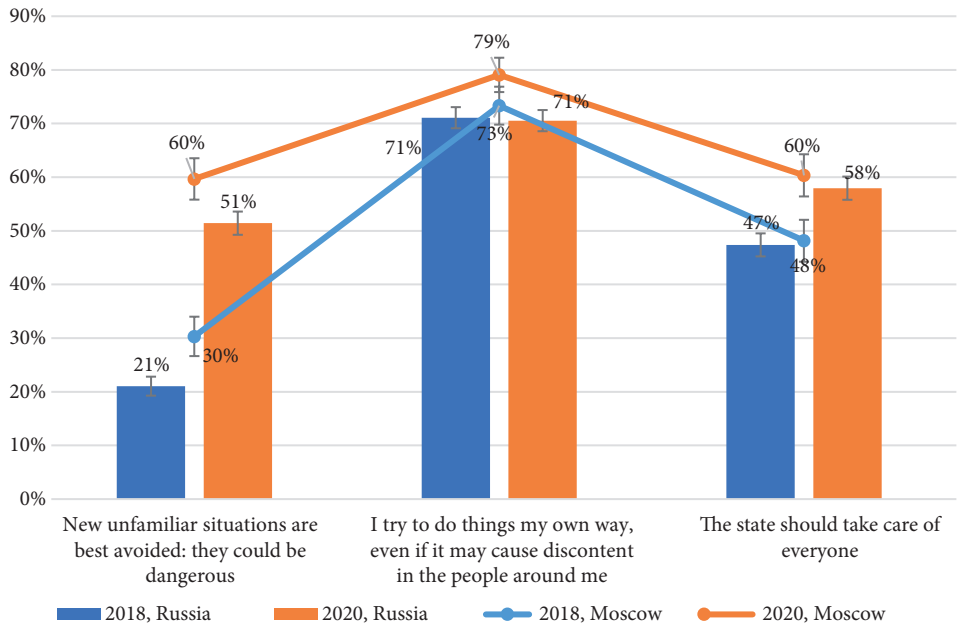

Figure 1. Dynamics in cultural dimensions describing the attitude to new situations, individualism, paternalism. *Source:* Data from the all-Russian and regional surveys conducted by the Russian Venture Company (RVC) and Institute for National Projects (INP) in 2018 and 2020. **Note:** The graph shows the percentage of people agreeing with the respective judgement. Vertical bars indicate 95% confidence intervals.

For individualism, different trends were registered between Moscow and Russia. Both indices of individualism (based on Hofstede's method and on the dichotomic question) increased in Moscow, while in the all-Russian sample their values did not change during the period under consideration. This can be explained both by the specific reaction to the pandemic of the residents of a large city (the weakening of "strong" ties due to strict coronavirus restrictions) and by the effect of self-selection (higher values of individualism in Moscow compared to other regions were registered in earlier studies (Bakhtigaraeva et al. 2021)). Most of Hofstede's dimensions (power distance, masculinity, long-term orientation), as well as the level of generalised trust did not change over the observation period.

The standardised effect sizes for the attitude to new situations and the planning horizon allow considering the changes as large (Cohen's *d* is modulo 0.5 or greater), and for paternalism, autonomy, security, and stimulation, as small or insignificant (Cohen's *d* is modulo approximately 0.2 for the former three dimensions and modulo 0.07 for the last one).

Socio-cultural changes in Russia during the coronavirus crisis in the context of different age groups

From the perspective of long-term development, the magnitude of change is important not only for the national average, but also for different age groups. As it was mentioned above, the fact that people's values and behavioural beliefs are predominantly formed before the age of 25 suggests stronger cultural changes among younger people. A detailed analysis showed that the vector of changes in cultural dimensions did not differ between the age groups 18-35 and over 35. A breakdown into smaller age categories (18-30, 30-45, 45-60, and over 60) confirmed this result. However, the *magnitude of* change varied for some dimensions. The most striking differences between generations can be seen from the attitude to new situations: in the 18-35 age group, the share of people who believe that unfamiliar situations are best avoided because they can be dangerous increased from 11% to 68% (by 57 p.p.), while in the group of 35 and over the respective share increased from 26% to 44% (by 18 p.p.) (Figure 2). There are also noticeable differences in terms of the planning horizon (the share of people over 35 having plans for more than three years decreased from 32% to 12% and in the group of under 35, from 34% to 18%), autonomy (in the group of the respondents under 35 the decrease is more pronounced than in the group of over 35), as well as stimulation (in the group of over 35 the decrease was stronger, although even there it is on the border of statistical significance). No differences in the magnitude of cultural changes during the coronavirus crisis between different age groups were found for the other cultural dimensions in question.

Socio-cultural change during the coronavirus crisis on a broad sample of nations

The above findings describe the changes in cultural dimensions that took place in *Russia* between 2018 and 2020 (until the moment when the most stringent restrictions imposed with the onset of the coronavirus crisis were relaxed). A question arises as to how universal the identified differences are. Unfortunately, comparable data on the above dimensions are not available for other countries over the same period. However, in 2021 and 2022, the next waves of the World Value Survey (WVS), European Values Study (EVS), and European Social Survey (ESS) were conducted in some countries, which also contain similar questions.

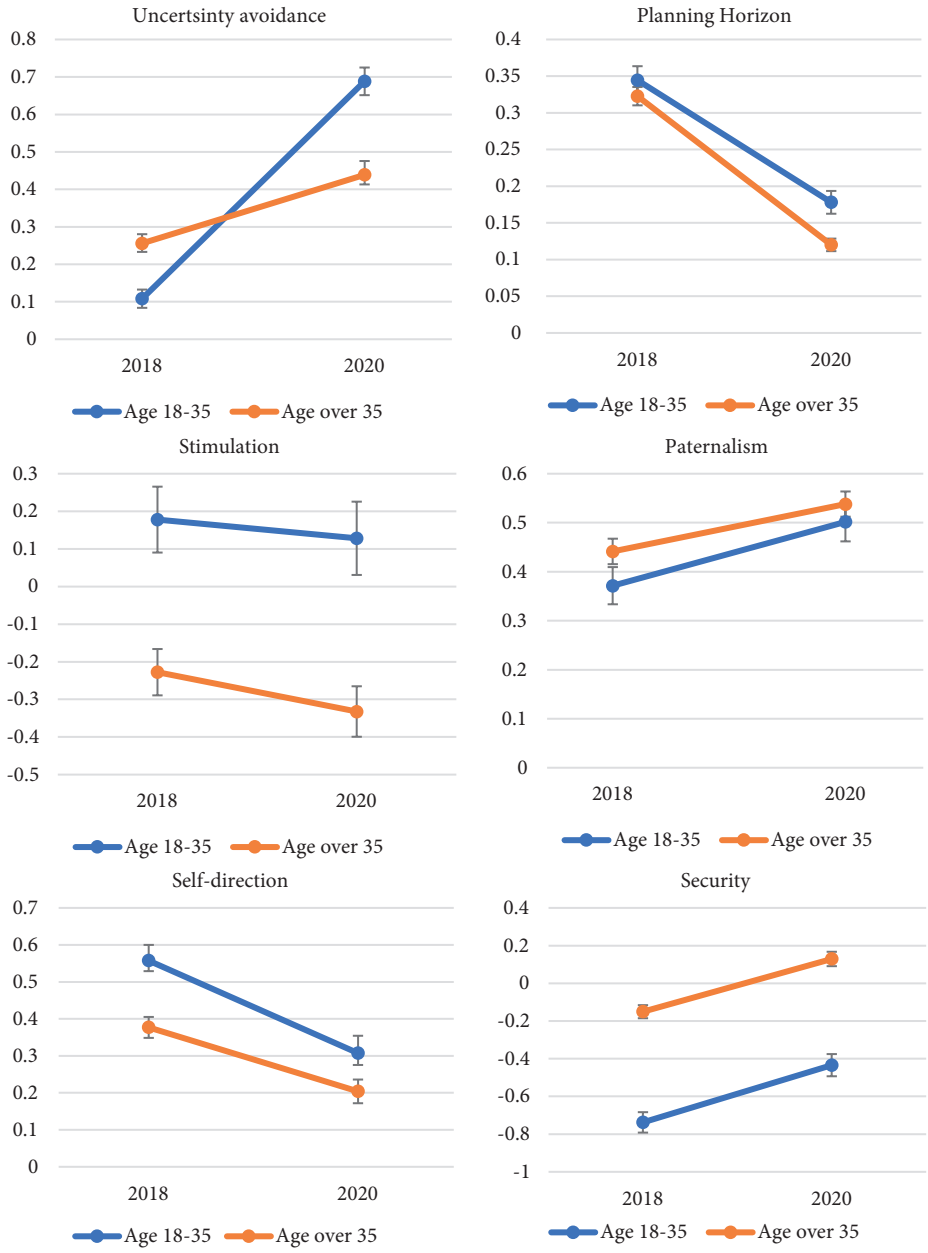

Figure 2. Changes in cultural dimensions from 2018 to 2020 by age group. *Source:* Authors' calculations based on RVC and INP data. **Note**: For the uncertainty avoidance and paternalism, the share of people is given who chose the options "New situations are best avoided: they can be dangerous" and "The state should take care of everyone", respectively; for the planning horizon, the share of people who have plans for more than three years; for stimulation, autonomy, and security, the corresponding average values of these (see Annex 1 for details). Vertical bars indicate 95% confidence intervals.

The WVS and EVS surveys have an indicator of generalised trust (the question coincides with the one used in the Russian survey). Questions corresponding to other dimensions are absent in these surveys, but S. Beugelsdijk et al. constructed a component that demonstrates a close correlation with Hofstede's individualism and allows suggesting corresponding changes in the level of individualism (Beugelsdijk et al. 2015). The ESS survey includes Schwartz's indicators, which allows assessing changes in people's motivational values, in particular the values of stimulation, autonomy, and security (the question coincides with the one used in the Russian survey).

Table 3 gives the aggregated results of the analysis of the dynamics in the average values of trust, individualism (as identified by Beugelsdijk and co-authors (Beugelsdijk et al. 2015)),

Table 3. Dynamics in cultural dimensions for a broad sample of countries during the coronavirus crisis

Dimension	Base	Number of countries for which data are available after the onset of the coronavirus crisis	Number of countries with a meaningful (at a 5% level) increase in the dimension value after the onset of the coronavirus crisis (countries)	Number of countries with a meaningful (at a 5% level) decline in the dimension after the onset of the coronavirus crisis (countries)
Trust	WVS and EVS	6	3 (out of 5): Armenia, Morocco, Ukraine	1 (out of 5): The Netherlands
Individualism	WVS and EVS	6	4 (out of 5): Armenia, Morocco, The Netherlands, Ukraine	1 (out of 5): Libya
Stimulation	ESS	17	7 (out of 17): Bulgaria, Hungary, Italy, Lithuania, Slovakia, Montenegro, Czech Republic	4 (out of 17): Iceland, Norway, Portugal, Finland
Security	ESS	17	0	10 (out of 17): Bulgaria, Hungary, Italy, Lithuania, The Netherlands, Slovenia, Slovakia, Czech Republic, Montenegro, Switzerland
Self-direction	ESS	17	8 (out of 17): Bulgaria, Italy, Lithuania, The Netherlands, Slovenia, Finland, Croatia, Switzerland	2 (out of 17): Hungary, Slovakia

Source: Authors' calculations based on WVS, EVS, and ESS data.

stimulation, autonomy, and security. In most countries there was an increase in individualism, an increase in the motivational value of autonomy and a decrease in the value of security (no country showed an increase in this dimension). Trust and the value of stimulation increased more often than decreased, but the variability of these across countries was higher (for example, stimulation decreased in all Scandinavian nations surveyed, while trust increased in three of the five countries in the WVS/EVS sample but decreased in the Netherlands). Annex 2 contains the numerical values for each country and the timing of each survey. Thus, the Russian trends of decreasing values of stimulation and autonomy and increasing value of security immediately after the onset of the coronavirus crisis are not to be seen in most of the countries analysed. This can be explained, firstly, by the instability of changes in people's motivational values over time (see the study on Australia (Daniel et al. 2022)). In particular, given the specificity of the Schwartz methodology, one can expect that motivational (individual) values are more volatile than societal values (values characteristic of communities / countries as a whole) which are supported by formal and informal institutions in society (Schwartz 1999, 2014). Secondly, the results can be explained by the different timeframes across different countries. Thirdly, by country-specific factors (countries' respective pandemic control strategies and the consequences in the form of excess mortality varied considerably across countries).

Discussion

The changes registered on the Russian data by mid-2020 (the reduced planning horizon, increased uncertainty avoidance, decreased values of autonomy and stimulation, increased value of security) can provoke adverse effects for economic development. In particular, complication of innovations and entrepreneurial activity (due to the increased values of security and uncertainty avoidance, decreased values of autonomy and stimulation), reduction in investment activity (due to a shorter planning horizon). Together, these may lead to lower economic growth rates during the recovery period.

At the same time, the results obtained raise several questions for researchers, the answers to which will allow to better understand the impact of cultural shifts on the socio-economic behaviour of Russians starting from 2020, as well as the general pattern of the response to significant social and economic shocks.

The first question is, how sustainable the observed changes are - do they set a long-term trend, or did the situation return over time to what was the case initially in 2018?

On the one hand, even short-term shifts in the values and beliefs can lead to changes in the institutional equilibrium as determined by the characteristics of formal institutions and culture. For example, an increase in paternalism can lead to an expansion of governmental powers, while a decrease in the planning horizon can result in shorter-term contracts or agreements and rejection of longer-term investments (at least during the pandemic), and a decrease in the values of stimulation and autonomy can lead to the willingness to give up some rights and freedoms.

These events per se may have an impact on socio-economic behaviours (and the set of life strategies available), which would aggravate and "perpetuate" the cultural shift (even if its initial potential impact was relatively small). Thus, small changes in the configuration of formal institutions and culture, due to their cumulative effect, can lead to significant changes (compared to the initial configuration) in the long run and intensify the deviation from the initial development pathway (in part because such a deviation itself can provoke new

shocks, examples of which were especially visible in Russia in 2022). Changes in the cultural characteristics, including in the 18-35 age group (especially in terms of their attitudes to new situations and autonomy), may be an additional argument in favour of the assumption about the long-term effect of the coronavirus crisis: the values of these generations will affect the economic development of the country for a long time to come.

On the other hand, one can assume - this hypothesis is still waiting to be explored - that the growth of paternalism registered in mid-2020 did not only not decrease thereafter, but may have intensified, which manifested itself, among other things, in the readiness of the population to accept the ever-expanding powers of the state and its ever-deeper interference in everyday life, including those radically going beyond the relations between the state and society in Russia that were used to be common in the recent decades.

Hence a second question: do the increasing paternalism, declining value of autonomy and growing value of security help the state in addressing the issues that it considers to be its priority at any given time? Finding an answer to this question may not be as simple as it may seem at first glance. Thus, the willingness of people to tolerate a deterioration in their quality of life (manifested to a greater or lesser extent since 2014 and especially since 2022) and even to put their own lives and health at risk by participating in state-initiated activities, the willingness that was clearly underestimated by many, is balanced by a noticeable anti-vaccination protest of 2021-2022 (albeit often in a latent-passive form), as well as the lack of compliance with the self-isolation and social distancing measures, which was evident in the much larger and more dangerous waves of the COVID-19 pandemic since the autumn of 2020 onwards.

As a working hypothesis, one can assume that the anti-vaccination protest and sabotage of epidemiological measures were caused by the specifics of the issue: for a part of citizens (mostly those influenced by conspiracy theories and distrustful of state institutions), the state's vaccination efforts were perceived as a direct threat to their own health. At the same time, the direction of change in values may contribute to the readiness of the people to "adjust" to the vector of movement chosen by the state. However, if addressing the state priorities should require grassroots initiatives and independent actions on the part of the population, their implementation may face difficulties.

Finally, a third question arising from the findings of this study is about the extent to which the pandemic shock has strengthened - or, conversely, weakened - the divergence of cultural dynamics between major urban agglomerations and Russia as a whole. On the one hand, for quite a long time, major urban agglomerations were "tugging along" other regions of the country through both internal migration and spreading of the consumption patterns, lifestyles, and service industries of the economy. One could even argue that the cultural differences between Russian regions were being largely smoothed out, while, on the other hand, the shocks of 2020-2022 clearly had different effects on different regions, and therefore one can expect different trends in the trust dynamics.

Conclusion

According to the empirical analysis of the representative survey data for Russia and Moscow in 2018 and 2020, the initial months of the coronavirus crisis in Russia were accompanied by cultural changes: in particular, a decrease in the planning horizon, increase in uncertainty avoidance, as well as changes in personal motivational values –decreased values of autonomy and stimulation and increased value of security.

In general, the revealed cultural changes are manifested both across the representative sample and in individual age groups. The greatest cultural changes are registered in the 18-35 age group. This may signal a long-term effect of the coronavirus crisis on the values of the population (since people in a time of value formation, i.e., young adults, are most susceptible to change).

The empirical analysis of cultural changes based on the data from the international surveys WVS, EVS, and ESS has shown that not all trends identified in Russia are manifested elsewhere. This means, on the one hand, good research perspectives for country-specific changes caused by the pandemic shocks, while, on the other hand, it also points out a limited possibility of extrapolating the findings obtained on individual populations.

Given the link between cultural features and formal institutions, it seems promising to conduct further research in institutional changes in Russia, as well as to build intermediate institutions that would help smooth the adverse cultural changes caused by the coronavirus crisis.

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Annex 1: Description of the cultural dimensions used

Dimension	Description	Calculation method
Individualism	It is a characteristic of societies in which interpersonal ties are weak, everyone only cares about themselves and their immediate family. In collectivist societies, people from birth are part of strong and close-knit groups providing them with lifelong protection in return for unconditional loyalty (Hofstede 2001).	Individualism (VSM): *Calculated according to the VSM method (Hofstede and Minkov 2013).* Individualism (VSM): *The possible theoretical minimum is 0, the theoretical maximum is 100.* Individualism (dichotomy): *Which statement do you agree with the most?* *1. I try to do what is customary among those around me.* *2. I try to do things my own way, even if it may cause resentment among those around me.* *The share of the respondents choosing the second option is calculated.*
Uncertainty avoidance	Extent to which people belonging to the same culture fear uncertain or unfamiliar situations (Hofstede 2001).	Uncertainty avoidance (VSM): *Calculated according to the VSM method (Hofstede and Minkov 2013).* *The possible theoretical minimum is 0, the theoretical maximum is 100.* Uncertainty avoidance (dichotomy): *How do you think new, unfamiliar situations should be handled?* *1. They are best avoided: they can be dangerous.* *2. They should not be avoided: they can provide new opportunities.* *The share of the respondents choosing the first option is calculated.*

Dimension	Description	Calculation method
Power distance	Extent to which less powerful members of a society or organisation expect and tolerate unequal distribution of power (Hofstede 2001).	Power distance (VSM): *Calculated according to the VSM method (Hofstede and Minkov 2013).* *The possible theoretical minimum is 0, the theoretical maximum is 100.*
Masculinity	Masculine societies value achievement, assertiveness, success, and competition. Feminine societies value cooperation, moderation, care for the weak, and quality of life (Hofstede 2001).	Masculinity (VSM): *Calculated according to the VSM method (Hofstede and Minkov 2013).* *The possible theoretical minimum is 0 and the theoretical maximum is 100.*
Long-term orientation	Is characteristic of societies that value qualities aimed at future rewards, particularly perseverance and frugality. Short-term oriented societies focus on values related to the past and present, such as respect for traditions, "face-saving", fulfilment of social obligations. (Hofstede 2001).	Long-term orientation (VSM): *Calculated according to the VSM method (Hofstede and Minkov 2013).* *The possible theoretical minimum is 0, the theoretical maximum is 100.*
Self-direction	Independent thought and action -- choosing, creating, exploring (Schwartz 2012).	Self-direction: *I am going to describe some people. Please listen to each description and tell me how similar or dissimilar that description is to you on a scale of one to six, where 1 is completely dissimilar, 6 is very similar.* *It is important to this person to think up new ideas and be creative; to do things one's own way.*
Security	Human desire for safety, harmony, stability of the society and their personal relations with those around them (Schwartz 2012).	Security: *I am going to describe some people. Please listen to each description and tell me how similar or dissimilar that description is to you on a scale of one to six, where 1 is completely dissimilar, 6 is very similar.* *Living in secure surroundings is important to this person; to avoid anything that might be dangerous.*
Stimulation	Characteristic of persons who like excitement, enjoy new challenges (Schwartz 2012).	Stimulation: *I am going to describe some people. Please listen to each description and tell me how similar or dissimilar that description is to you on a scale of one to six, where 1 is completely dissimilar, 6 is very similar.* *He/she likes surprises and is always looking for new things to do; variety in life is important to him/her.*

Dimension	Description	Calculation method
		The minimum value in the sample of each of the three indicators is -3.3, the maximum value is 3.3 *To offset the subjectivity of the respondents' perceptions of the scale, the final values of self-direction, security, and stimulation were obtained by subtracting the average value of all the three dimensions from the survey value of the corresponding dimension (the procedure was performed separately for each individual). Accordingly, the lower the value of the dimension, the lower its role relative to the other two. The higher the value, the higher the role of the dimension relative to the others. A value greater than zero means that the role of the dimension is above the average among the three Schwartz's values considered.*
Planning horizon	A length of time for which people have plans	*What is the maximum length of time you have any plans for?* *The share of the respondents with plans for more than three years is calculated.*
Trust	Trust in a wide, undefined range of people	Trust: *In general, do you think that most people can be trusted, or on the contrary, you need to be cautious when dealing with people?* *1. Most people can be trusted.* *2. You have to be careful with people.* *The share of the respondents choosing the first option is calculated.*
Paternalism	Expectation from the state to fulfil the needs of the population and provide care for the citizens	Paternalism: *Which of the following opinions about the relationship between the state and its citizens is closer to you?* *1. The state should take care of everyone.* *2. The state should ensure equal rights for all, while everyone should take care of themselves.* *The share of the respondents choosing the first option is calculated.*

Source: Authors' compilation based on the data of all-Russian and regional surveys conducted by RVC and INP in 2018 and 2020.

Annex 2. Dynamics in cultural dimensions

Country	Year of Survey prior to COVID-19	Year of Survey since COVID-19	Dimension	Prior to COVID-19	Since COVID-19	Significance	Effect Size (Cohen's d)
WVS/EVS							
Armenia	2011	2021	Trust	0.10	0.18	<0.01	-0.21
			Individualism	-0.73	-0.67	<0.01	-0.12
Libya	2014	2022	Trust	0.12	0.09	0.04	-0.04
			Individualism	-0.92	-1.11	<0.01	-0.10
Morocco	2011	2021	Trust	0.13	0.17	0.01	0.08
			Individualism	-0.92	-0.37	<0.01	0.39
Netherlands	2012	2022	Trust	0.67	0.62	<0.01	-0.11
			Individualism	1.24	1.55	<0.01	-0.87
Ukraine	2011	2020	Trust	0.25	0.29	0.01	-0.08
			Individualism	-0.25	0.00	<0.01	-0.33
ESS							
Bulgaria	2019	2021	Stimulation	-0.34	-0.25	<0.01	-0.12
			Security	0.74	0.39	<0.01	0.35
			Self-direction	-0.44	-0.14	<0.01	-0.37
Hungary	2019	2021	Stimulation	-0.51	-0.28	<0.01	0.01
			Security	0.47	0.38	<0.01	0.07
			Self-direction	0.04	-0.10	<0.01	-0.10
Iceland	2019	2021	Stimulation	-0.26	-0.41	<0.01	-0.11
			Security	0.22	0.30	0.18	0.12
			Self-direction	0.04	0.11	0.11	-0.01

Country	Year of Survey prior to COVID-19	Year of Survey since COVID-19	Dimension	Prior to COVID-19	Since COVID-19	Significance	Effect Size (Cohen's d)
Italy	2019	2022	Stimulation	-0.40	-0.27	<0.01	-0.01
			Security	0.54	0.35	<0.01	0.06
			Self-direction	-0.15	-0.08	<0.01	-0.06
Lithuania	2019	2021	Stimulation	-0.69	-0.52	<0.01	0.12
			Security	0.88	0.56	<0.010	-0.05
			Self-direction	-0.20	-0.04	<0.01	-0.07
Netherlands	2019	2022	Stimulation	-0.15	-0.15	0.94	-0.03
			Security	-0.03	-0.14	<0.01	0.01
			Self-direction	0.18	0.29	<0.01	0.02
Norway	2019	2021	Stimulation	-0.29	-0.37	0.03	0.01
			Security	-0.05	0.00	0.31	0.06
			Self-direction	0.34	0.38	0.30	-0.08
Portugal	2019	2021	Stimulation	-0.47	-0.56	<0.01	-0.29
			Security	0.34	0.41	0.05	0.10
			Self-direction	0.13	0.15	0.45	0.18
Slovenia	2019	2021	Stimulation	-0.20	-0.20	0.91	0.15
			Security	0.31	0.25	0.09	-0.06
			Self-direction	-0.11	-0.05	0.04	-0.08
Slovakia	2019	2021	Stimulation	-0.45	-0.31	<0.01	-0.18
			Security	0.53	0.49	0.30	0.23
			Self-direction	-0.09	-0.18	<0.01	-0.09
Finland	2019	2021	Stimulation	-0.12	-0.23	<0.01	-0.18
			Security	0.13	0.19	0.17	0.30
			Self-direction	-0.02	0.04	0.04	-0.19

Country	Year of Survey prior to COVID-19	Year of Survey since COVID-19	Dimension	Prior to COVID-19	Since COVID-19	Significance	Effect Size (Cohen's d)
France	2019	2021	Stimulation	-0.26	-0.23	0.34	-0.12
			Security	0.10	0.09	0.84	0.14
			Self-direction	0.16	0.14	0.47	-0.04
Croatia	2019	2021	Stimulation	-0.62	-0.63	0.79	0.00
			Security	0.64	0.57	0.07	0.11
			Self-direction	-0.02	0.05	0.02	-0.14
Czech Rep.	2019	2021	Stimulation	-0.44	-0.34	<0.01	0.08
			Security	0.44	0.33	<0.01	-0.04
			Self-direction	-0.01	0.00	0.63	-0.04
Montenegro	2019	2022	Stimulation	-0.46	-0.36	<0.01	0.11
			Security	0.52	0.39	<0.01	-0.08
			Self-direction	-0.06	-0.04	0.36	-0.03
Switzerland	2019	2021	Stimulation	-0.27	-0.28	0.78	0.00
			Security	0.08	0.00	0.04	0.07
			Self-direction	0.20	0.28	<0.01	-0.08
Estonia	2019	2021	Stimulation	-0.28	-0.28	0.86	-0.17
			Security	0.44	0.38	0.10	0.04
			Self-direction	-0.16	-0.11	0.08	0.12

Source: Authors' calculations based on the data of all-Russian and regional surveys conducted by RVC and INP in 2018 and 2020.

Note: The green colour coding shows cases where the magnitude of the value significantly increased after the COVID-19 pandemic, while the red one shows cases where the magnitude of the value significantly decreased after the COVID-19 pandemic.

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