

Article

Religiosity and Cooperation: The COVID-19 Pandemic in Slovenia

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Abstract: We researched the COVID-19 pandemic as a give-some social dilemma. The success of solving the dilemma depends on an adequate proportion of cooperative actors. We were interested in the difference between how religious and non-religious Slovenian citizens reported their level of cooperation with government measures aimed at limiting the spread of the virus during the pandemic. Our research shows that during the first wave of the epidemic in Slovenia, religious citizens were slightly more cooperative than non-religious citizens. However, this statistically significant difference was not the consequence of religiosity per se. Regression analysis suggests that the observable difference was due to factors such as age, gender, concern about health, and trust in the ruling government. We explain the effect of these factors in light of the existing corpus of knowledge about social dilemmas.

Keywords: COVID-19 pandemic; social dilemmas; cooperation; religion



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1. Introduction

The COVID-19 pandemic was a global social shock without comparison in recent history. Containing the spread of the SARS-CoV-2 virus demanded the cooperation of a range of social actors in terms of defining and respecting appropriate rules, limitations, and prohibitions. In our research, we were interested in how the religiosity of citizens influenced this kind of cooperation. Were the religious more cooperative than the non-religious? If religious citizens were more cooperative, was this because of their religiosity or were there other factors? Our research is limited to Slovenia where an empirical public opinion poll was carried out during the course of the pandemic with a representative sampling of the population that contained all the relevant variables.

Out of the many possible theoretical approaches, we decided to study the situation from the standpoint of “social dilemmas”. This is a multidisciplinary field of research in which social dilemmas are defined as “conflicts between (often short-term) self-interest and (often long-term) collective interest” (Van Lange et al. 2014, p. vii). The paradigmatic example of the social dilemma is the (two-person one-shot) Prisoner’s Dilemma in which the (individual) pay-off of the player is the highest if he or she decides to not cooperate: that is, to defect. However, if both players decide to defect, their collective pay-off is the lowest. In contrast, their collective pay-off is the highest if both players cooperate. In our opinion, this approach is suitable because it adequately reflects the fundamental problem of cooperation in the pandemic situation. It is relatively easy to define cooperative and non-cooperative behavior, and it is possible to explain differences in cooperation in the context of the rich corpus of research and knowledge about social dilemmas.

The discussion is organized in the following way: (1.) First, we explore what challenge the pandemic posed for religious organizations and people given the characteristics of religion and religious life and given the demands of the lockdown. (2.) Second, we define the pandemic in the framework of social dilemmas. (3.) In the third step, we present

certain key findings of existing research about the relation between various social dilemma situations and religion or religiosity. (4.) Fourth, we present research about the behavior of religious and non-religious citizens during the course of the pandemic as regards some of the rules of safe behavior defined by the Slovenian government. (5.) In the conclusion, we present and comment on the main findings of the research, placing them in the context of a range of other research and themes.

2. The Pandemic and the Nature of Religion

Even in the era of advanced secularization in the West and globally,¹ religions remain important actors: to a greater or lesser extent, they impact the behavior of billions of people. Already during the first wave of the pandemic, it became clear that the attempt to limit the spread of the virus by introducing various forms of “social distancing” represented an enormous challenge for religious organizations (Chelini-Pont 2020). There are three characteristics of religions that contributed to this problem: the collective/community quality of religion, the importance of physical contact in religion, and the significance of religious activities during situations of increased contingency and questions of meaning.

The first wave of the pandemic occurred during a period of important religious holidays for all the largest faiths.² Holidays are an expression of the community nature of religion. Religion involves socializing and communication in the direct presence of other people, especially on particular days of the year. A more or less strict lockdown, which most countries in the West required in March 2020, made it impossible to celebrate the main religious holidays that had been practiced en masse for centuries if not millennia.

Religions are by nature connective. The celebration of holidays and other rituals are events that include close physical contacts (touch, handshaking, hugging, kissing), through which (from the believer’s point of view) the exchange and communication between the human world and the sacred, supernatural, and divine takes places. In many cases, this connection is based on the magical thinking. In the Christian Eucharist (especially in its Catholic and Eastern Orthodox variants), certain elements of contagious magic are easily recognized. Religious funerals, events that are much more frequent during a pandemic, often involve numerous contacts. Physical contact is completely contrary to the demands of lockdown and, for this reason, religious organizations found themselves facing the challenge of shutting down their most characteristic method of functioning.

In contemporary sociological definitions of religion, we find the conclusion that religions respond to questions of contingency and meaning. Stolz and Usunier (2018, p. 2) understand religion as “/ ... / a cultural symbols-system that responds to problems of meaning and contingency by alluding to a transcendent (i.e., superempirical) reality, which influences everyday life but cannot be directly controlled.” A pandemic is a situation of elevated contingency and the intensified questions of meaning. Precisely because of the circumstances caused by the demands of the lockdown, religions were not able to play their usual role in their usual manner. As a result, religious actors (both organizations and individuals) were, more than others, confronted with the ordeal of whether to obey the demands of lockdown (also by looking for temporary alternative solutions) or not.

3. The Pandemic as a Situation of (Multiple) Social Dilemmas

Responding to the first wave of the pandemic in the Italian region of Bergamo, Giacomo Agostini (2020), a former world champion motorcyclist, described the situation as follows: “I’m hoping for the best. I am shut in my house, I respect the rules, and I think everyone should. It is a great sacrifice /that will be rewarded/ if we all contribute by not going out, otherwise the problem will last for many months. I believe that a strict lockdown for a certain amount of time is the right decision. It is a great loss, but life is more precious than money.” This citation encapsulates the essence of certain type of social dilemma called give-some games (Komorita and Parks 1996, pp. 12–13), give-some dilemmas, or public goods dilemmas (Van Lange et al. 2014, p. 6).

In give-some dilemmas, there is a conflict between the collective interest for a certain public good, which is generated only as a result of the contributions of individuals, and the (short-term) temptation of individuals to avoid the contribution. If a significant enough proportion of actors contribute, the public good will remain and be beneficial even to those who do not contribute, so-called free-riders but if there are too many free-riders, the good will deteriorate. In terms of the pandemic, this means the following: it is in the interest of the collective (society) to preserve the good of public health, which means to keep the spread of the virus at a level that does not lead to a high number of victims and the collapse of the healthcare system. It is also desirable that the solution takes place at a level of lockdown that has the least harmful effects on other social activities. Society can accomplish this balance with the appropriate contributions of individuals in the form of respecting the lockdown measures (maintaining physical distance, using masks, not socializing, safe shopping habits, etc.). In theory, the virus would be eliminated if everyone followed the rules for a given amount of time. The problem is that many actors prefer not to contribute. At a sufficient level of cooperation, free-riders enjoy both the benefits of cooperation and of their own defection, but only up until a certain point. If there are too many free-riders, the collective social goal is not achieved.³

Many authors have presented COVID-19 pandemic as a social dilemma⁴ and put forward this perspective already during the first wave of the pandemic in their advice to decision makers (Johnson et al. 2020; Ling and Ho 2020; Van Bavel et al. 2020). Many authors noted that it is possible to find various types of social dilemmas in the pandemic, not only give-some dilemmas. Karlsson and Rowlett (2020) recommend that we conceptualize the challenge of the pandemic as the iterated N-person Prisoner's Dilemma. When the shelves of grocery store were emptied during the first wave, many characterized the panic buying as a bad solution to the take-some dilemma, the resource dilemma, or the social trap. Vaccination, which will presumably end the pandemic (if enough people get vaccinated!), is a social dilemma as well, more precisely a give-some dilemma (Van Lange et al. 2014, p. 139). Among the many social dilemmas that have been manifested during the course of the pandemic, we identify the hyperbolic discounting factor, which is a common mechanism in interpersonal and intrapersonal social dilemmas for abandoning long-term collective goals. Decisions of certain governments to delay measures were critically evaluated in this light (Krugman 2020).

The key element in our research is the difference between cooperators and defectors or free-riders. In the theory of social dilemmas, this difference has emerged in research about social value orientations, and the distinction between (non-cooperative) pro-self orientations and (cooperative) pro-social orientations.⁵ In different environments, research into public goods dilemmas reveals a greater or lesser tendency toward cooperation or defection. Fischbacher et al. (2001) concluded that in experimental situations of public goods dilemmas, thirty percent of people behave non-cooperatively and fifty percent conditionally cooperate; this means they cooperate if they are convinced that others are also cooperating. Particularly in iterated public good games, conditional cooperators stop cooperating or consistently cooperating if they see unpunished free-riders. In such situations, overall cooperation is reduced. Many research studies have observed significant cultural differences in responding to social dilemmas. One of the most important distinctions is found between (collectivist) Eastern Asian societies that express greater levels of cooperation, and certain (individualistic) Western societies that express a lower level of cooperation (Hemesath and Pomponio 1998; Parks and Vu 1994; Vollen et al. 2017; Krockow et al. 2017). This distinction quickly became apparent in the epidemiological pictures of various countries and the spread of COVID-19.

4. Religion, Religiosity, and Social Dilemmas

Social dilemma researchers have not neglected religious factors. Johnson (2005) states that the belief about the existence of God is positively correlated with cooperation. Rand et al. (2014) concluded that reading holy texts triggered a prosocial response to

the Prisoner's Dilemma games among believers. [Anderson and Mellor \(2009\)](#) in their experiment with an iterated public goods game did not observe a difference in levels of cooperation between religious and non-religious players, although the religious players were slower to stop cooperating during the iterations of the game. [Ahmed and Salas \(2013\)](#) came to the following conclusion about the effect of a religious environment: in a "sacred space", players in public goods dilemma game responded in a more pro-social way than they did in a neutral context. On the other hand, [Ahmed and Salas \(2009\)](#), while researching the situation of a public goods dilemma in three religions environments (Catholic, Hindu, and Protestant), found no significant difference between religious and non-religious players in terms of the level of cooperation.

Certain authors consider the problematic quality of religiously motivated pro-social behavior. [Batson et al. \(1989\)](#) suggest that religious prosocial behavior motivated by the promise of rewards in the afterlife is not an expression of unselfishness, because it counts on a return on the investment. Several authors suggest that religiously motivated cooperation can be morally questionable or even inhuman, for example, if it is connected to intimidation. [Ben-Ner et al. \(2009\)](#) believe that religiously motivated cooperation can be an expression of narrow community solidarity that is closed (non-cooperative) in relation to the wider community. From both the history of epidemics and the history of religion, we know that anti-epidemic cooperation has sometimes been linked to religious intolerance against a (minority) scapegoat.

In terms of the COVID-19 pandemic, we have at our disposal a vast amount of media material that reveals the cooperation or non-cooperation of various religious actors. On the global level, it is easy to identify many expressions of cooperation: in general, organized religions have more or less adapted to the various kinds of lockdowns. The holidays (mentioned in Note 2) as well as basic rituals were all either cancelled in their usual formats or took place in a modified manner ([Morón et al. 2021](#); [Vekemans 2021](#); [Ganiel 2021](#)). In contrast, there were also many conscious or unconscious expressions of defection among religious actors. It was also noticed that religions (i.e., religious activities) were often vectors for the spread of the virus.⁶ It is possible to identify a range of factors and motives for this. We can identify entrepreneurial motives, conservative inadaptability, negative views of science, magical thinking ("Jesus is my vaccination!"), defiance (religious organizations acting in opposition to the state), lack of knowledge (or awareness), and (theological) fatalism. Future research will show whether one or another religious culture influenced control or lack of control over the pandemic in various parts of the world.⁷

In terms of scientific research on the relation between religion (religiosity) and protective behavior (cooperation) during the pandemic, there are currently no grounds for broad generalizations: different countries show different results; different (branches of) religions show different results. [Hill et al. \(2020\)](#) believe that their research confirms "the suspicion that religious populations/in the United States/may be especially likely to acquire and spread the coronavirus", as these populations tend to be more resistant to public health recommendations because of more negative views of science. [Perry et al. \(2020\)](#) found that Christian nationalism (albeit not religious commitment per se) was the leading predictor of incautious behavior in the United States. [Gonzalez et al. \(2021\)](#) found that mask usage tends to be lower in American counties with more evangelical Christians. In Europe, [Vermeer and Kregting \(2020\)](#) found that religion most likely facilitated the spread of the virus in the Netherlands in both direct ways (through religious services) and indirect ways. In contrast, [Barmania and Reiss \(2021\)](#) believe that religion should not necessarily be seen as a problem. In the United Kingdom, elevated risk for certain religious groups may be explained by geographical, socio-economic, demographic, and ethnic factors. They even believe that religion might function as an important vehicle for disseminating public health information about COVID-19. In Denmark, [Kühle and Larsen \(2021\)](#) found high willingness of religious communities to cooperate with authorities in overcoming the pandemic. Many researchers, among them [Nedelescu \(2021\)](#), have identified examples of problematic attitudes and practices (about hygienic measures) in the European Orthodox Churches.

5. Research: Methods and Findings

The research presented here is based on data collected by the Slovenian Public Opinion Survey (SPOS)⁸ 2020/1. These data were collected on a representative sample (N = 853) between 1 April and 31 May 2020 in Slovenia. This means that it was begun after the official announcement of the epidemic (12 March 2020)⁹ and ended after the official announcement of the end of the first wave of the epidemic (15 May 2020). Slovenia was only modestly impacted during the first wave (a little over a hundred dead) while during the second wave of the epidemic, Slovenia had one of the highest death rates per capita in the world.

In addition to the usual variables, some of which relate to religion, the research also included a set of variables that specifically have to do with the epidemic. As indicators of religiosity (independent variable), we considered statements on the importance of religion in the lives of respondents, and how often they attended religious services (before the time of the pandemic). As indicators of cooperation (dependent variable), we considered statements regarding to what extent respondents respected six recommendations or rules of safe behavior during the pandemic (see Table 1). We assumed that, in response to the questions, i.e., the variables, all respondents provided answers that reflect their actual behavior.¹⁰

We proposed the following hypotheses:

Hypothesis 1 (H1). *People who define themselves as the most religious tend to express a greater level of cooperation.*

Hypothesis 2 (H2). *If we also consider relevant non-religious factors that influence both religiosity and cooperation, there is no significant correlation between indicators of religiosity and indicators of cooperation.*

In the first step, we established the cooperation of the general population with six indicators. In the second step, we compared the cooperation of the differently religious (importance of religion) and the non-religious as measured by the six indicators and a variable that combines all indicators. In the third step, we used regressive analysis to determine the actual effect of the religious factor by including in our model other factors that we suspect might influence both religiosity and cooperation. In the final step, we used a bivariate analysis incorporating the indicator of frequency of church attendance to determine the effect of the selected nonreligious factors. All data were appropriately weighted.

It is clear from Table 1 that the most respondents adhered to the recommendation regarding not shaking hands during encounters (89.2% of respondents reported that they always abided by that measure, or an average rating of 4.85). The second most respected recommendation was going to stores only for necessary purchases (83.9% of respondents reported that they always abide by that measure, or an average rating of 4.78). The measures that respondents least respected were “not socializing with people outside of the household” and “staying at home”. In general, the reported level of cooperation was high.

Table 1. Adherence to recommendations and rules during the pandemic.

K1 How Have You Modified Your Behavior in Everyday Life during the Period When Prohibitions and Other Measures Were Implemented to Prevent the Spread of Coronavirus? To What Degree Do the Statements below Apply to Your Behavior?									
		Does Not Apply at All				Applies Completely	(Don't Know)	(No Answer)	Avg.
		1	2	3	4	5	8	9	\bar{x}
(a)	I stay home.	3.1	4.6	8.9	21.4	60.4	0.3	1.7	4.34
(b)	I do not socialize with people outside of my household.	3.0	3.8	8.6	22.1	59.7	0.3	2.6	4.36
(c)	I wash my hands more regularly and thoroughly than I did before.	1.0	2.1	7.5	14.3	72.4	0.1	2.5	4.59
(d)	I do not shake hands when I meet people.	1.4	0.7	1.5	4.0	89.2	0.5	2.7	4.85
(e)	I go to the store only for necessary purchases.	1.1	0.8	2.7	9.1	83.9	0.3	2.0	4.78
(f)	During necessary personal contact, I maintain a physical distance of at least two meters.	1.3	2.5	6.5	19.0	67.7	0.6	2.5	4.54

The cross-tabulation of data about the importance of religion and indicators of cooperation (Table 2) shows that above-average cooperation was expressed by two categories of respondents for which religion was very important in their lives. Cooperation in the two categories of respondents for which religion meant little or nothing in their lives was not above-average in any indicator.

Table 2. The importance of religion and adherence to rules and recommendations.

S18f. Importance of Religion:	K1a:guifenI Stay at Home.	K1b. guifenI Do Not Socialize with People outside of My Household.	K1c. guifenI Wash My Hands More Regularly and thoroughly Than I Did before.	K1d. guifenI Do Not Shake Hands When I Meet People.	K1e. guifenI Go to the Store Only for Necessary Purchases.	K1f. During Necessary Personal Contacts, I Maintain Physical Distance of at Least 2 m.
0 not at all important	4.15	4.25	4.46	4.84	4.76	4.41
1	4.16	4.11	4.53	4.67	4.57	4.35
2	4.26	4.30	4.46	4.90	4.71	4.47
3	4.30	4.47	4.75	4.92	4.82	4.43
4	3.54	4.03	4.64	4.80	4.81	4.53
5	4.48	4.43	4.63	4.85	4.76	4.62
6	4.56	4.34	4.77	4.94	4.91	4.77
7	4.29	4.34	4.52	4.80	4.78	4.37
8	4.15	4.35	4.57	4.80	4.83	4.70
9	4.72	4.72	4.65	4.92	4.84	4.79
10 extremely important	4.65	4.49	4.76	4.94	4.87	4.64
Total	4.32	4.35	4.59	4.85	4.78	4.54

In the following analysis, indicators of cooperation were combined into one variable. This was done using Crombach's alpha indicator that showed all six variables measured as one dimension (0.789).

The correlation matrix showed a statistically relevant but weak correlation between variables of importance of religion and individual indicators of cooperation; mainly 'I stay at home' ($r(801) = 0.14, p < 0.001$) and 'maintaining a physical distance' ($r(798) = 0.12, p = 0.001$). There was also a statistically relevant but weak correlation between the importance of religion and the combined indicators ($r(789) = 0.15, p < 0.001$).

We presume that certain intervening factors influenced the confirmed correlation. Among such factors we would include age, gender, education, the concern of the respondents for their health during the pandemic, and trust in the Slovenian government (in connection with the pandemic).

The reasoning for this presumption is the following: SARS-CoV-2 is a virus that threatens different age groups to a different degree. The oldest demographic is the most threatened (Staerk et al. 2021). Members of this demographic realize that, for them, the virus represents a greater risk of causing death (Bruine de Bruin 2021). By the end of 2020, only one person under 35 years of age had died in Slovenia, 37 people between the age of 35 and 54 had died, and 2853 people over the age of 55 (Covid sledilnik 2020).¹¹ The picture was similar during the much milder first wave. In Slovenia (and, as a rule, in all of Europe), age positively correlates with religiosity; this was true in the past for both indicators of religiosity that we included in the current research project. The greater risk of

death for older people (who tend to be more religious) means there are several reasons for their cooperation. It also means that younger people (who tend to be less religious) are less motivated toward cooperation. The variable that reflects concern for health in connection with the virus is also more relevant for older people (who tend to be more religious). On the other hand, the cost of responding to the pandemic as a give-some dilemma is much higher for young active people (who are generally less religious), and, as a result, the temptation for defection is much higher. Agostini's statement regarding the urgency of cooperation is in principle correct but nevertheless does not take into account the different life situations of actors and differing expectations regarding responses to the pandemic between, for example, pensioners (older people) and those in employment (younger people).

Religiosity in Slovenia is more associated with women and with a lower level of education. For this reason, it is necessary to evaluate what these two variables contribute to the correlation. During the first wave of the pandemic and through the end of 2020, women in all age categories represented the majority of confirmed infections. More women than men also died. Partially contributing to this outcome is the fact that women are on average older than men (due to longer average lifespan) and that they are more highly represented in jobs that tend to have greater exposure to the virus (the healthcare profession). In addition, women represent the majority of the residents in care homes (70%) that were particularly hard-hit. Nearly 58% of those who died of COVID-19 in 2020 were in care homes. We know from the literature on social dilemmas that women are not a priori strongly correlated with a higher level of cooperation (Balliet et al. 2011). However, for the reasons mentioned above, it is safe to assume that women had a greater motivation for cooperation during the epidemic.

Trust is an important condition determining the response to social dilemmas (Van Lange et al. 2014, pp. 97–99). The level of generalized trust in others is positively correlated with the willingness to cooperate in various types of social dilemmas. This leads to our assumption that the level of cooperation is also a result of the (political) trust in the ruling government and the measures they imposed related to the epidemic. The current Slovenian government is defined as right-wing,¹² which tends to imply an inclination toward the largest religious organization in Slovenia—the Roman Catholic Church. It can also be argued that during 2020, the ruling government in Slovenia ushered in a period of political polarization that reduced the level of trust in the government (Hafner-Fink and Uhan 2021). This polarization was most clearly expressed in the government's conflict with (generally less religious) young people active in the sphere of culture. Many of them felt deprived and humiliated by the measures that were imposed during the lockdown.¹³ It is reasonable to assume that this also had an effect on cooperation or the difference in cooperation between young and old (less religious and more religious). See Table 3.

Table 3. Correlation between cooperation possible intervening factors.

	K1_idx Cooperation Index	Sig. (2-Tailed)	N
Concern for health	0.282 **	0.000	808
Trust in the government	0.230 **	0.000	780
Being older (61 years old or more)	0.167 **	0.000	816
Primary educated	0.081 *	0.020	816
Gender/Female	0.172 **	0.000	816
Importance of religion	0.147 **	0.000	789

Notes: * $p < 0.05$, ** $p < 0.01$, two-tailed.

In the correlation matrix observing possible intervening factors, we see the strongest correlation between adherence to the measures (cooperation) and concern for health ($r(808) = 0.28$, $p < 0.001$), trust in the government ($r(780) = 0.23$, $p < 0.001$), being older

(($r(816) = 0.17, p < 0.001$), and female (($r(816) = 0.17, p < 0.001$), and only then with the importance of religion (($r(789) = 0.15, p < 0.001$). Education does not play an important role (($r(816) = 0.08, p = 0.020$).

In order to isolate individual influences, we included the following variables in a multistep regressive model: gender: dichotomization (gender-female); age (belonging to the age demographic of 61 years or older); education: primary school; importance of religion; concern about health during the epidemic; trust in the Slovenian government in connection with the epidemic. See Table 4.

Table 4. Regression model: cooperation with selected factors.

	Step 1		Step 2		Step 3	
Adjusted R Square	0.020		0.120		0.144	
R Square	0.022		0.123		0.151	
F	17,460		35,061		22,031	
Degree of freedoms	1		3		6	
Model Sig.	0.000		0.000		0.000	
	S C		S C		S C	
	Standardized Coefficients Beta	Sig.	Standardized Coefficients Beta	Sig.	Standardized Coefficients Beta	Sig.
(Constant)		0.000		0.000		0.000
Importance of religion	0.147	0.000	0.045	0.212	0.028	0.443
Concern for health			0.253	0.000	0.221	0.000
Trust in the government			0.190	0.000	0.192	0.000
Being older (61 years old or more)					0.093	0.010
Primary educated					0.005	0.890
Gender: female					0.143	0.000

With first step linear regression, we can see a significant effect between the importance of religion and cooperation ($F(1, 787) = 19.462, p < 0.001, R^2 = 0.02$). In the next step ($F(3, 747) = 35.06, p < 0.001, R^2 = 0.12$), when the variables concern for health and trust in government are also included, the effect of importance of religion decreases. The newly included demographic variables in the third step ($F(6, 744) = 22.03, p < 0.001, R^2 = 0.15$) explain the significant impact on cooperation to an even greater extent. In addition to the predictors concern for health ($Beta = 0.221, p < 0.001$) and trust in government ($Beta = 0.192, p < 0.001$), the demographic being older ($Beta = 0.093, p = 0.01$) and female gender ($Beta = 0.143, p < 0.001$) were also significant predictors in the model, while at the same time the impact of the importance of religion decreases ($Beta = 0.028, p = 0.443$).

Finally, we tested the variable of frequency of church attendance. Respondents were asked how often they attended church services before the pandemic. Bivariate analysis showed that the frequency of church attendance (scale +−) is positively correlated with respect for measures to limit the epidemic, although the correlation was very weak ($r(787) = -0.10, p = 0.004$). When we included all variables in the regression analysis ($F(6, 742) = 23.25, p < 0.001, R^2 = 0.16$), namely support for the government ($Beta = 0.198, p < 0.001$), concern for one's health ($Beta = 0.239, p < 0.001$), belonging to an older age demographic ($Beta = 0.087, p = 0.016$), and the female gender ($Beta = 0.150, p < 0.001$), the influence of the frequency of church attendance on cooperation was nullified ($Beta = -0.004, p = 0.908$). Summarizing the last two steps in the analysis, we conclude that the second

hypothesis is confirmed: religiosity as such is not a factor that affects differences in cooperation. Rather, the apparent correlation is the effect of intervening factors. The higher cooperation of those who are religious is an expression of the fact that they generally belong to categories that are more at risk in the epidemic.

6. Discussion

The COVID-19 pandemic represented a challenge to which society needed to respond with an elevated level of cooperation among its members, including adherence to the measures that prevent the spread of the virus. Different societies and different actors in society showed different levels of cooperation. Religions belonged among the more interesting actors globally because their fundamental activities were limited, and at the same time, both members and clergy were (in some regions) on average more at risk because of their age.

In our research, we examined the effect of the religious factor in Slovenia. The Slovenian religious landscape, that has become very pluralized in the last three decades, is comprised of 53 registered¹⁴ and several dozen unregistered religious communities. Approximately 90% of all members of religious communities are members of the Roman Catholic Church. Approximately 60% of the Slovenian population state that they are religious.

During the first wave of the epidemic, and even more so during the second, there was a great deal of discussion in the public sphere about who was guilty for the spread of the virus. Religious actors were also a part of this discussion. Reproaches were aimed at the Roman Catholic Church regarding certain privileges (occasional exemptions from various measures) that led to forms of behavior that caused new outbreaks of the virus.¹⁵ Such comments were also directed against the Serbian Orthodox Church that (in the name of tradition) during Easter services did not respect certain rules of safe behavior.¹⁶ Some intellectuals expressed the conviction that certain ideological currents and followers of new age movements actually encourage risky (non-cooperative) behavior because of doubts about the very existence of the virus.

In contrast, gratitude was expressed for the prompt response of religious communities during the pandemic,¹⁷ for their adaptability and innovation in introducing new ways of performing church rituals.¹⁸ Certain clergy members expressed the opinion that the Roman Catholic Church and the religious population in general behaved more conscientiously during the epidemic, because they are guided by powerful feelings for their fellow man. Some even suggested that it was left-wing critics of the government who were guilty of spreading the virus because of their lack of compassion. Perhaps this opinion was encouraged (in the sense of *pars pro toto*) by the few but vocal influencers who publicly opposed the restrictive measures claiming that the virus did not exist or the pandemic was a conspiracy. One of the aims of this research is to illuminate the actual situation regarding the relation between religiosity and cooperation in the fight against the virus.

The first hypothesis was confirmed; the most religious Slovenians expressed higher level of cooperation. The second hypothesis was based on our already mentioned assumption: namely, we were skeptical about the expectation that the religious are more cooperative for the reason of religiosity itself because we had found in our previous research that the religious in Slovenia do not necessarily express higher levels of social solidarity (Smrke and Uhan 2012; Smrke 2019). Indeed, we found that religious Slovenians express a greater level of social distance to various social minorities than do the non-religious or convinced atheists (Smrke and Hafner-Fink 2008).

The regression model justified the choice of potentially intervening variables/factors. The factor of concern for health can be understood as a confirmation that the pandemic was experienced as more threatening by certain categories. Older demographics and women were more at risk because of the virus and they were aware of this. Concern for health is an emotion akin to fear, which, according to the theory of social dilemma situations, can be an important factor for cooperation. In this sense, cooperation, which is objectively pro-social,

does not necessarily need to be understood as altruism or unselfishness. Young people, in contrast, had less reason to fear for their health, and were more fearful of the negative externalities of the lockdown: job loss, financial pressure, and other costs of the measures. To some extent, these were the factors that motivated the (short-sighted) defection among the young. Some other researchers have confirmed concern for health as important factor of cooperation in other states (Yildirim et al. 2021; Jørgensen and Peterson 2021).

We also considered the political factor because the literature about social dilemmas concludes that distrust and political polarization can have a negative influence on cooperation (Harrell and Simpson 2016; Linde 2018; Van Bavel et al. 2020). Political institutions, if they enjoy the trust of the population, are crucial in terms of the cooperative response to both take-some dilemmas and give-some dilemmas (Van Vugt 2009). This can be discerned as early as antiquity, for example in the works of Homer. The *Iliad*, in our opinion, is an epic about social dilemmas (Smrke 2020). The political conflict in the Greek camp negatively affected the cooperation (in a give-some dilemma) to such an extent that their military efforts were on the verge of collapse. Agamemnon had exploited the military situation to enhance his own power, and, as a result, Achilles withdrew from the fighting (cooperation). Although Achilles's band of fighters was not numerous, their withdrawal from battle made a victory for the Greeks impossible. Many in Slovenia viewed the government's functioning during the epidemic as "a catastrophe within a catastrophe". Whether or not this evaluation is objective and justified, it is reasonable to assume that this experience of the situation did not encourage cooperation. In any case, we will further conduct similar relevant analysis using data collected during the second wave of the epidemic.¹⁹

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Notes

- ¹ Despite critiques of the secularization thesis, we believe that it is possible to verify the progressive secularization of consciousness in the West. In this sense, we agree with authors such as Bruce (2011) and Norris and Inglehart (2011).
- ² These include Sakura Matsuri in Shintoism (March–April), Visakha Puja in Buddhism (30 April), Holi in Hinduism (10 March), Purim (9–10 March) and Pasha (8–16 April) in Judaism, Nowruz (20 March) and Chaharshanbe Suri in Zoroastrianism, Mahavir Jayanti in Jainism (6 April), Easter in Catholicism and Protestantism (10–13 April), and Eastern Orthodoxy (17–19 April), Ramadan and Bayram in Islam (23 April–23 May), Vaisakhi in Sikhism (14 April), and Ridván in the Bahá'í Faith (April–May).
- ³ Countries as a rule defined clear criteria during various phases of lockdown (the number of infections per capita in a certain time period, the number of hospitalized, the number of dead, etc.). There were situations where a single non-cooperative act (in a multitude of cooperative acts) could lead to a tightening of restrictions.
- ⁴ The foundation of these perspectives is that health is a public good. The United Nations also supports this general perspective. See Kaul and Faust (2001).
- ⁵ In this regard, we note the skepticism about whether cooperation should be equated with altruism and defection with selfishness is justified. The situation is certainly more complicated than that.
- ⁶ A few examples: Shincheonji Church of Jesus (South Korea), Lighthouse United Pentecostal Church (USA), Muslim gathering in Bangladesh, Haredi Jews in Bnei Brak and Jerusalem, Israel. See also Wildman et al. (2020).

- 7 Here we are thinking especially of the tenets of Confucianism that may have been a factor related to the more successful handling of the pandemic in certain Asian countries.
- 8 The Slovenian Public Opinion Survey (SPOS) represents the longest-running longitudinal opinion poll and has been conducted in Slovenia since 1968. SPOS is run by the Public Opinion and Mass Communication Research Centre at the Faculty of Social Sciences, University of Ljubljana. The Public Opinion and Mass Communication Research Centre partners in international cooperation with organizations such as the International Social Survey Program, World Value Survey, European Social Survey, and others.
- 9 From 16 March 2020, all childcare and educational institutions were closed, as well as non-essential stores and public transportation. Movement was limited to within municipalities. Slovenia never introduced a total lockdown in the sense of prohibiting people from leaving their living space.
- 10 However, skepticism in this regard is often justified. It has frequently been observed during research about religiosity that respondents express socially desired patterns of behavior (see Bruce 2011).
- 11 The Covid sledilnik is a contact and tracing app created by a number of experts from various fields who volunteered to collect and distribute certain kinds of information during the course of the epidemic. The data are valid through 3 January 2021. According to the National Institute of Public Health (NIJZ), 2891 people died of Covid through the end of 2020. Covid sledilnik is available online: <https://covid-19.sledilnik.org/sl/stats> (accessed on 24 September 2021).
- 12 There was a change of ruling government in March 2020 right before the announcement of the epidemic. Marjan Šarec, president of the left-center government, stood down, making room for a government formed by Janez Janša, the president the Slovenian Democratic Party.
- 13 Protests, the so-called bicycle protests, have been taking place in Ljubljana every Friday, starting on 24 April 2020. The protests are not against the measures to contain the pandemic, but against the government, which, in the opinion of the protestors, has been taking advantage of the pandemic in order to introduce policies that undermine democratic values.
- 14 Religious communities are registered at the government Office for Religious Communities. In 2021, the present government dissolved the Office (est. in 1993).
- 15 A number of events like this took place. The organization of the Roman Catholic Church in Slovenia was fined EUR 4000 for not obeying the rules at Brezje, the pilgrimage center of Slovenian Catholicism.
- 16 During Easter services, many did not forego the traditional “pričešće” eucharist (a shared communion spoon) and kissing of icons.
- 17 The Slovenian Bishops Conference of the Roman Catholic Church published a reminder of the importance of respecting rules to limit the spread of COVID-19 on their website.
- 18 Here we would include the rapid transition of the largest Slovenian churches to online forms of worship.
- 19 We repeated the research using the data from SPOS 2020/3 (N = 1102) which was conducted between 10 November 2020 and 31 January 2021. The results were highly consistent with the results (as regards relationship between non/religiosity and cooperation) of the present research.

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