

# PREVALENCE, STRUCTURE, AND TRENDS OF CONSPIRATORIAL BELIEFS:

THE ANALYSIS OF CROATIAN  
CITIZENS WITH DIFFERENT LEVEL  
OF SUSCEPTIBILITY TO COVID-19  
CONSPIRACY THEORIES

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REPORT

## IMPRESSUM

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# PREVALENCE, STRUCTURE, AND TRENDS OF CONSPIRATORIAL BELIEFS: THE ANALYSIS OF CROATIAN CITIZENS WITH DIFFERENT LEVEL OF SUSCEPTIBILITY TO COVID-19 CONSPIRACY THEORIES

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## INTRODUCTION

This report - as an integral part of multidisciplinary *Pro-Fact project* research activities - focuses on the analysis of citizens with the different level of susceptibility toward COVID-19 conspiracy theories, together with their proclivities towards beliefs in other, previously developed, wider and more specific forms of conspiracism. This research leans on previous phases of the project activities, namely the social network analysis (Brautović, 2022a), the dynamic network analysis (Brautović, 2022b), and especially on the content and discourse analysis (Grbeša Zenzerović, Vučković, 2022), which we used as informational sources in the creation of measurement instruments for this survey. In that sense, after the “online” research phases focused on the digital spread of COVID-19 disinformation eco-systems, we now focus on “offline” issues, such as how widely identified disinformation, especially conspiracy theories, are spread among Croatian citizens. This report is also tightly related to another one regarding behavioral correlates of COVID-19 conspiracy theories (Tonković, Vranić, Blanuša, 2022). These two reports are based on the same methodological approach, database and respondents. With the aim to identify which groups of citizens are susceptible to disinformation and conspiracist beliefs related to COVID-19 pandemic, we conducted a national survey on the nationally probabilistic sample composed of 1401 Croatian citizens. To get more insight into their possibly wider conspiracist/non-conspiracist frame of mind, we also assessed their proclivity toward general conspiracism, beliefs in global and local (Croatian) conspiracy theories. This report gives an overview of this part of the survey results.

It focuses on the following research questions regarding COVID-19 conspiracy theories:

- What is the prevalence of beliefs in the previously online identified COVID-19 conspiracy theories among Croatian citizens?
- In comparison with previously obtained results, do conspiracy theories regarding COVID-19 increase or decrease over time?
- What is the structure of beliefs in conspiracy theories regarding COVID-19 in comparison to other forms of conspiracisms?
- What is the relationship of beliefs in conspiracy theories regarding COVID-19 and some already developed forms of conspiracisms, such as beliefs in local and global conspiracy theories (Blanuša, Kulenović, 2018), conspiratorial mentality (Bruder et al., 2013), beliefs in conspiracy theories related to populism (Blanuša, Kulenović, 2018), and beliefs that evil forces are ‘taking my country away’ (Parker, Barreto, 2013)?

- Which citizens believe in conspiracy theories regarding COVID-19 in terms of their socio-demographic characteristics, relationship to science, media usage, and political characteristics?

## METHODOLOGY

Data collection for this study was conducted online by Ipsos Croatia, from April 29th to May 17th, 2022, on the sample of 1401 adults, aged from 18 to 64. The sample was a national probabilistic sample, representative for the Internet users, double stratified by region (6) and size of settlement (4), with additional quotas for age (4) and level of education (3).

Out of 1401 participants, 717 (51.2%) were women. Average age was  $M = 42.6$  ( $SD = 13.05$ ). In terms of education 2.7% have finished elementary school, 71.3% have finished high school and 25.8% had a BA or higher degree. Regarding the size of their residence, 34.4% of our participants came from settlements with up to 2000 residents, 16.8% came from settlements with 2001 to 10000 residents, 21.1% from settlements with 10001 to 80000 residents and 27.8% from settlements with over 80000 residents.

Conspiracy theories regarding COVID-19 were extracted from the previously conducted content and discourse analysis (Grbeša Zenzerović, Vučković, 2022), while other measurement instruments were mostly used from previous studies and scientific publications.

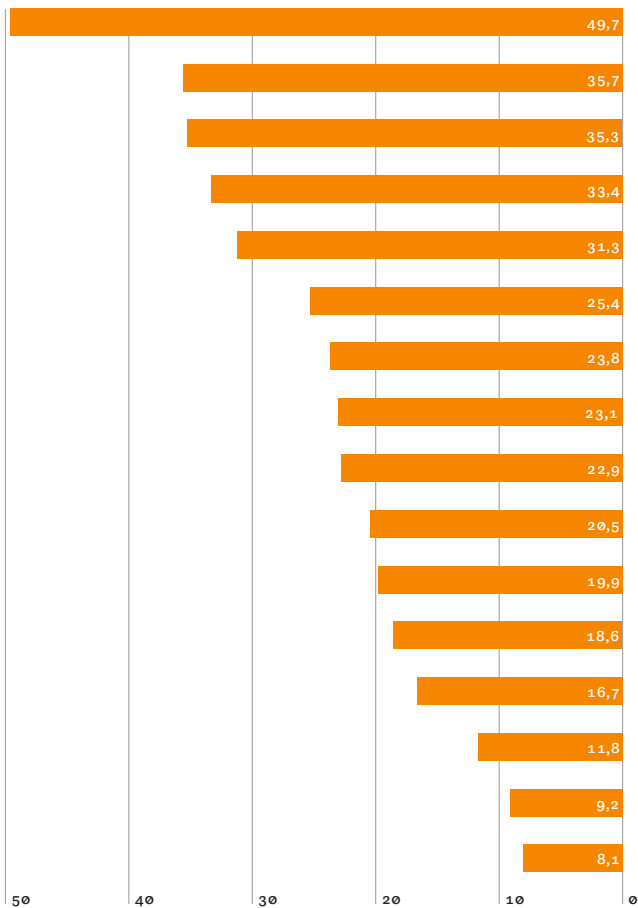
# RESULTS

## 1.

### PREVALENCE OF BELIEFS IN COVID-19 CONSPIRACY THEORIES AMONG CROATIAN CITIZENS

By relying on the thorough content and discourse analysis of online disinformation sources which have discerned a specific plandemic vocabulary (Grbeša Zenzerović, Vučković, 2022: 15), and previous regional studies (e.g., Tonković et al., 2021; Unicef Montenegro, 2021), we constructed 16 Likert-type conspiratorial statements which were used in the survey. Participants were asked to express the level of their belief in each of these conspiracy theories, on a scale from 1 to 5, where 1 means “Completely disbelieve”, 2 “Mostly disbelieve”, 3 “Believe and disbelieve”, 4 “Mostly believe”, and 5 “Completely believe”. General results about the percentage of those who mostly and completely believe in COVID-19 conspiracy theories are presented in the Graph 1↓.

These results show that almost 50% of Croatian citizens (18 - 64 years old) believe that official numbers about the death-rate from coronavirus have been manipulated and exaggerated, presumably done by adding the number of people who died with corona, but from other diseases they have already had. Another similar conspiratorial statement endorsed by 33,4% of citizens considers that COVID-19 is no more dangerous than the seasonal flu, but it is exaggerated with the purpose of more effective population control and limitation of human freedoms and rights. The next group of COVID-19 conspiracy theories endorsed by more than 25% of Croatian citizens is mostly about the secret and detrimental influence of the global-level actors, such as world powers, world elites and pharmaceutical lobbies, who are trying to get more political or economic power and control at dispense of “ordinary citizens”. Less popular conspiratorial interpretations also mention agricultural companies, Croatian authorities, and World Health Organization as other major culprits of global troubles. Furthermore, in the eyes of some Croatian citizens, it is more probable that Chinese scientists are responsible for spreading the virus (22,9% and 19,9%), than the US military (11,8%). The two least believed COVID-19 conspiracy theories are about artificial creation of coronavirus in order to implant microchips into humans via vaccines, in order to monitor and control behavior (9,2%), and that 5G technology is causing or spreading COVID-19, which is covered up (8,1%).



Statistics are manipulated in order to exaggerate the number of people who die from corona, when in fact they were already sick from another disease from which they eventually died.

COVID-19 was deliberately produced and purposefully spread so that the world powers could benefit politically or economically from it.

Corona was manufactured by the pharmaceutical lobby to get rich from selling vaccines.

COVID-19 is no more dangerous than the seasonal flu, but it is exaggerated in order to establish more effective population control and limit human freedoms and rights.

The world elites created the virus with the aim of collapsing some of the world's economies in order to benefit financially from it.

The world elites created COVID-19 to decrease the number of people on the planet

Corona-measures are a deliberate preparation for changing the current way of life and an introduction to a digital fascist dictatorship.

To protect their profits, agricultural companies deliberately hide scientific evidence that genetically modified crops lead to genetic contamination that can allow viruses like COVID-19 to multiply and spread.

Chinese scientists created the coronavirus for biological warfare, but it accidentally escaped from the laboratory

The Croatian authorities are lying according to the instructions of the UN and WHO and are working against the Croatian people in an unconstitutional manner so that we get sick and go bankrupt.

Chinese scientists created the virus and deliberately released it from the lab because they already had a cure for it.

The pandemic was artificially produced to reduce migration and immigration of people from poorer and war-torn countries to richer Western countries.

World's elites created COVID-19 to genetically modify human beings by means of the vaccines against the virus

The US military created COVID-19 as a biological weapon and deliberately spread it in China to weaken it as a competitor.

COVID-19 was artificially created in order to implant chips into humans through vaccines to monitor and control behavior.

5G technology is causing or spreading COVID-19, but this is being covered up so that the corporations working with this technology can continue to make a lot of money.

Graph 1. Percentage of Croatian citizens who believe in COVID-19 conspiracies (N=1401)

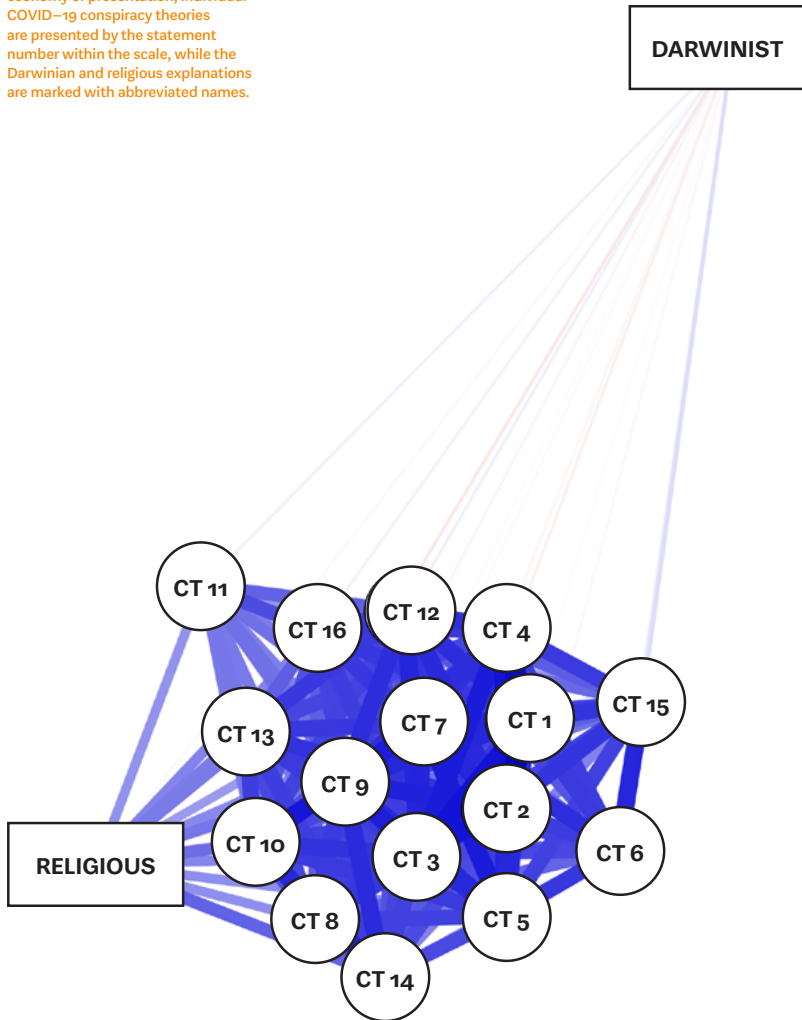


In addition to the previous 16 conspiracy theories, we added two non-conspiratorial interpretations, to test the relationship of conspiratorial thinking with the Darwinist and religious explanations of the causes of the pandemic. According to our results, 52,6% of participants believe that COVID–19 pandemic is a natural process which has similarly occurred previously in the history of mankind, in which the weakest die and the strongest survive, while only 8,1% of them believe that it is God’s punishment for all the evil that humans have done on planet Earth. In the next step we conducted a network correlational analysis in JASP<sup>1</sup>, including 16 conspiratorial and two non-conspiratorial items. The results are shown in the Graph 2↓.

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1 JASP is an open source statistical program supported by the University of Amsterdam, available at: <https://jasp-stats.org/>.

LEGEND: Each circle represents one item. Blue lines represent positive and red lines represent negative correlations between items. The stronger the correlation between the items, the darker, thicker and shorter the line between them is. Due to the economy of presentation, individual COVID-19 conspiratorial theories are presented by the statement number within the scale, while the Darwinian and religious explanations are marked with abbreviated names.



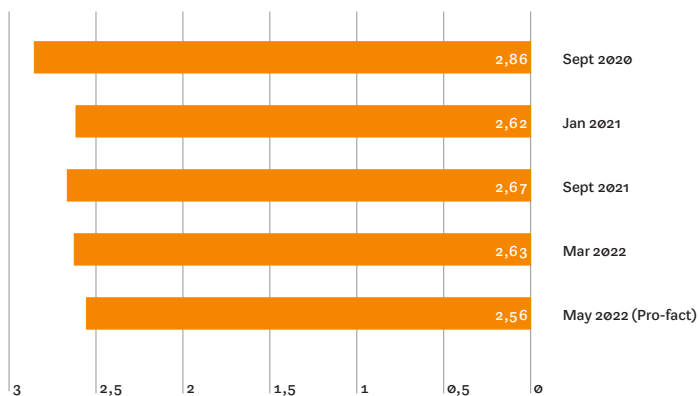
**Graph 2.** Network of bivariate correlations among conspiratorial and non-conspiratorial interpretations regarding the cause of COVID - 19 pandemic.

This kind of analysis provides a spatial representation about the relationships among analyzed beliefs that is easy to interpret. First, we see that conspiratorial interpretations about COVID-19 comprise a very dense network, suggesting if someone believes in one of such conspiracy theories, it is highly probable that he/she will believe in others. The average correlation among all conspiratorial items is .652, which means that believing in COVID-19 conspiracy theories is a monolithic way of thinking. Also, it is obvious that such a way of thinking is much closer to a religious thinking than a Darwinian explanation of the pandemic. Average correlation between Darwinian and conspiratorial interpretations is .001, while the correlation between religious and conspiratorial interpretations is .317. What is also interesting is that the religious explanation of the pandemic correlates in highest degree with 5G (.433) and microchip implantation (.398) conspiracy theories. Our further analysis of average bivariate correlations also revealed that believing in COVID-19 conspiracy theories correlates with distrust in science<sup>2</sup> (.467), lower scientific literacy<sup>3</sup> (-.319), lower actively open-minded thinking<sup>4</sup> (-.282), lower political literacy<sup>5</sup> (-.262), higher national narcissism<sup>6</sup> (.315), and stronger perception of elites and media establishment as sources of fake news<sup>7</sup> (.205).

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- 2 The scale we use to estimate mistrust of science was developed by Hartman et al. (2017), composed of 6 items.
  - 3 The scale we use to estimate scientific literacy was developed by Rutjens et al. (2018), composed of 9 items.
  - 4 The scale we use to estimate scientific literacy was developed by Baron et al. (2015).
  - 5 Political literacy was estimated through the multiple choice answers to questions originally developed at the Faculty of Political Science, University of Zagreb, as a part of larger survey questionnaire measuring electoral behavior. It is comprised of the following five questions: What are civil society organizations? What is the political opposition? Which of the following types of parties advocates minimal state intervention in economic activities? Which of the following types of parties accepts certain restrictions on the personal freedoms of citizens in order to protect morals and traditional values? The political system in the Republic of Croatia is...?
  - 6 The scale we use to estimate mistrust of science was developed by Golec de Zavala et al. (2009), composed of 6 items.
  - 7 For the purpose of this study we developed the following question: Who is responsible for creating fake news and spreading false information in Croatia? On the scale from 1 (not responsible) to 5 (very responsible) our participants gave answers for the next 9 sources: politicians, journalists and editors, conspiracy theorists, civil society associations and activists, citizens, security services, foreign countries, corporate lobbies, social networks. Factor analysis revealed two factors. The first one was named the perception of elites & media establishment as sources of fake news, and the second one as perception of citizens, conspiracy theorists and social media as sources of fake news. In this study we use obtained factor scores as variables in the analysis.

## 2. TRENDS IN THE LEVEL OF BELIEFS IN COVID-19 CONSPIRACY THEORIES

To investigate if beliefs in COVID-19 conspiracy theories have increased or decreased in the last three years, we have compared our results with those obtained in an earlier project, funded by the Croatian Science Foundation, titled ReSPoC (*(Re)building society: A longitudinal study of post-corona social recovery in Croatian general population*). ReSPoC project measured beliefs in COVID-19 conspiracy theories on the same type of sample in four time points from September 2020 to March 2022. However, there are certain limitations in comparing those results with the Pro-fact project data. ReSPoC has used 10 items to assess conspiracy beliefs regarding COVID-19, which have been constructed at the beginning of the pandemic in 2020. Pro-fact team constructed 16 items in 2022, mostly based on the vocabulary discerned from the social networks of disinformation sources and additional analysis of their content and discourse. In these two years, the initial COVID-19 conspiracy theories became more specific, richer in terms of their content and the vocabulary, and so were the items in the Pro-fact survey. However, as those two sets of items deal with the same general and specific topics, it is justified to compare their average results. They are shown in the next graph, where the first four columns represent the results obtained in ReSPoC project, while the last one represents the Pro-fact results.

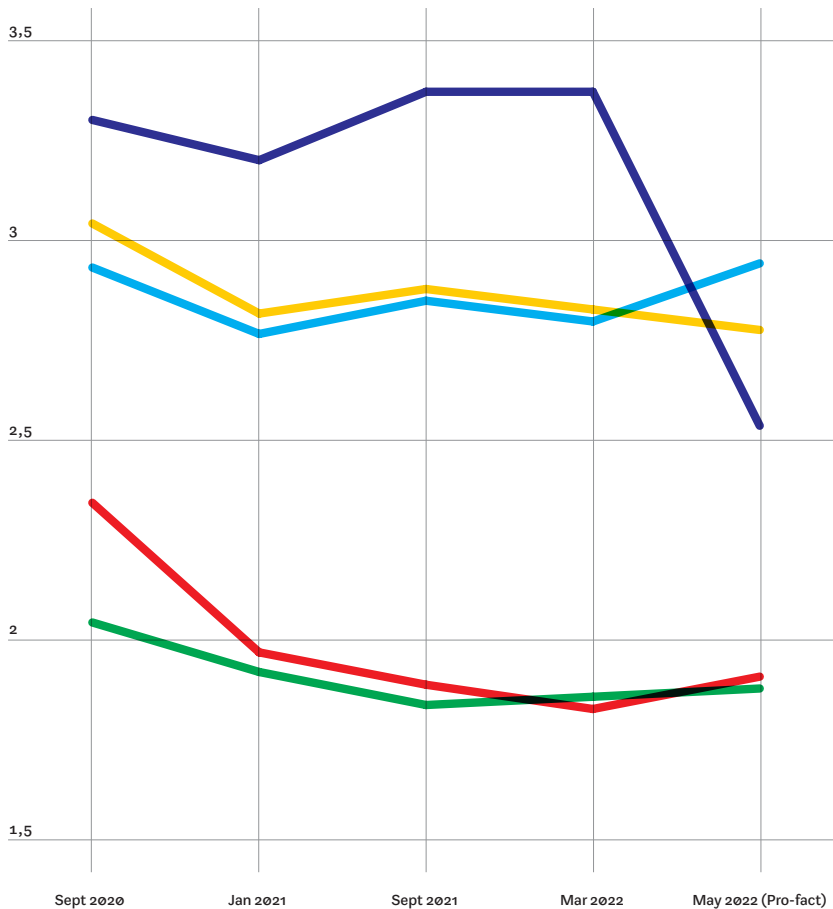


**Graph 3.** Average results on scales of believing in COVID – 19 conspiracy theories averaged across ReSCpoC (Sep 2020-Mar 2022) and Pro-fact (April-May 2022) surveys

In comparison with previous four points of measurement, it seems that believing in COVID – 19 conspiracy theories has only slightly decreased.

In the following steps we have also compared several items of similar content to get a more detailed insight in the trends conspiracies' endorsement. The results are shown in the Graph 4↓.

These results show a trend to that of averaged results, except for one item regarding the creation of the coronavirus in the laboratory. Results of the Pro-fact survey are much lower, probably because of a much more precise statement about it which includes the information that Chinese experts have created for the purpose of biological warfare.



ReSPoC
The coronavirus did not originate from animals but was created by scientists in a laboratory.
The coronavirus was released with the aim of destroying some of the world's economies.
The coronavirus pandemic is the result of an agreement by large pharmaceutical companies to make money from vaccines.
The story about the coronavirus was marketed in order to implant a chip into us with the "developed vaccine".
The coronavirus spreads more rapidly in the presence of 5G networks.

PRO-FACT
Chinese scientists created the virus and deliberately released it from the lab because they already had a cure for it.
The world elites created the virus with the aim of collapsing some of the world's economies in order to benefit financially from it.
Corona was manufactured by the pharmaceutical lobby to get rich from selling vaccines.
COVID-19 was artificially created in order to implant chips into people through vaccines to monitor and control behavior.
5G technology is causing or spreading COVID-19, but this is being covered up so that the corporations working with this technology can continue to make a lot of money.

Graph 4. Level of endorsement for five similar COVID – 19 conspiracy theories.

### 3. THE STRUCTURE OF BELIEFS IN COVID-19 CONSPIRACY THEORIES AND OTHER FORMS OF CONSPIRACISMS

In order to corroborate our previous insights about the monolithic structure of beliefs in COVID-19 conspiracy theories, we performed the factor analysis in the SPSS. Furthermore, to get insight into the wider structure of the selected conspiratorial beliefs, as possible correlates of COVID-19 conspiracy theories, we performed the same procedure for items about local and global conspiracy theories, conspiratorial mentality, beliefs in conspiracy theories related to populism, and nationalist populism, expressed in beliefs that evil forces are ‘taking my country away’. The results for each set of items are presented in the following tables<sup>8</sup>.

Regarding the *beliefs in COVID-19 conspiracy theories* we obtained a unidimensional structure with one general factor, which explains more than 61% of variance of the results (see Table 1↓). Such a structure clearly corroborates our previous supposition about the monolithic character of COVID-19 conspiracism.

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8 All factor analyses were performed in SPSS, by using PCA procedure for extraction and Promax procedure for oblique rotations ( $Kappa=4$ ), where it was applicable. Oblique rotations were used instead of orthogonal because we deal with social and political beliefs which are usually interrelated and more contextualized than e.g., personality dispositions. All factor saturations lower than .30 were omitted as insignificant.

**Table 1. The structure of beliefs in COVID-19 conspiracy theories.**

ITEMS	COVID-19 conspiracism
COVID-19 was deliberately produced and purposefully spread so that the world powers could benefit politically or economically from it.	.870
The world elites created the virus with the aim of collapsing some of the world's economies in order to benefit financially from it.	.881
The world elites created COVID-19 to decrease the number of people on the planet	.865
Corona was manufactured by the pharmaceutical lobby to get rich from selling vaccines.	.841
The Croatian authorities are lying according to the instructions of the UN and WHO and are working against the Croatian people in an unconstitutional manner so that we get sick and go bankrupt.	.824
COVID-19 is no more dangerous than the seasonal flu, but it is exaggerated in order to establish more effective population control and limit human freedoms and rights.	.726
Corona-measures are a deliberate preparation for changing the current way of life and an introduction to a digital fascist dictatorship.	.838
To protect their profits, agricultural companies deliberately hide scientific evidence that genetically modified crops lead to genetic contamination that can allow viruses like COVID-19 to multiply and spread.	.758
World's elites created COVID-19 to genetically modify human beings by means of the vaccines against the virus	.845
COVID-19 was artificially created in order to implant chips into humans through vaccines to monitor and control behavior.	.735
Chinese scientists created the coronavirus for biological warfare, but it accidentally escaped from the laboratory	.575
The pandemic was artificially produced to reduce migration and immigration of people from poorer and war-torn countries to richer Western countries.	.806
The US military created COVID-19 as a biological weapon and deliberately spread it in China to weaken it as a competitor.	.747
5G technology is causing or spreading COVID-19, but this is being covered up so that the corporations working with this technology can continue to make a lot of money.	.693
Statistics are manipulated in order to exaggerate the number of people who die from corona, when in fact they were already sick from another disease from which they eventually died.	.698
Chinese scientists created the virus and deliberately released it from the lab because they already had a cure for it.	.749
% of explained variance	61,2
KMO	.967
Bartlett's Test of Sphericity	18247.047; df=120; p<.001

Items on *local conspiracy theories* investigated in our survey were already used in our previous studies (e.g. Blanuša, 2011; 2013; Blanuša, Kulenović, 2018). This includes a list of 13 chronologically ordered interpretations/beliefs of significant events and processes related to political issues in Croatia since the early 1990s, such as the references to the Homeland war, economic and democratic transition, relationship to internal and external political



and economic actors and international organizations. As this structure of beliefs varied in our previous studies, we tested it in this study through the exploratory procedure. The results are shown in Table 2↓ in the form of a pattern matrix obtained through the factor analysis procedure.

**Table 2. The structure of beliefs in local conspiracy theories.**

ITEMS	Conspiracies of internal and external enemies	Conspiracies of nationalist authorities
Presidents Tudjman and Milošević have arranged the division of Bosnia and Herzegovina in Karadjordjevo.		.760
In the course of aggression against Croatia, some great powers deliberately undermined its independence in order to preserve Yugoslavia.	.420	
Vukovar was sold in 1991 as part of a secret plan of territory swap.		.420
Transition to market economy and privatization were mostly the result of conspiracy between the Mob and the Government.		.820
The International Court in the Hague was founded with the intention of punishing those responsible for the disintegration of the Socialist Republic of Yugoslavia, abolish distinctions between the aggressor and the victims and conceal the real role of g	.700	
For more than a decade, the World Bank, IMF, and other international institutions have been economically and financially colonizing Croatia.	.511	
The intelligence underground in Croatia is networked with criminal groups and behind-the-scenes interests that are being pursued through illegal activities.		.674
The so-called human rights activists who are recruited from yugonostalgic groups and collaborators of foreign secret services are the most dangerous enemies of Croatia.	.865	
Since the mid 90's, so called left and liberal parties have been deliberately destabilizing the country and endangering its independence.	.881	
The European Union is a conspiracy of big business the aim of which is to destroy national states.	.672	
Far from the public eye and, contrary to the desire of its citizens, Croatia is attempting to join a new Balkan federation through regional integrations.	.772	
Croatia was robbed in an organized manner by the so-called great Croats who keep "one hand on their heart and the other in our pocket".		.856
The most dangerous enemies of Croatia are the traitors who never wanted or loved it, but always worked against it.	.703	
<b>Sums of squared loadings after rotation</b>	<b>4.433</b>	<b>3.445</b>
<b>KMO</b>		<b>.887</b>
<b>Bartlett's Test of Sphericity</b>		<b>6682.389; df=78; p&lt;.001</b>
<b>Correlation between factors</b>		<b>-.395</b>

The analysis shows that we can explain 53,5% of variance with two meaningful factors. The first one can be explained as conceived conspiracies of internal and external enemies of Croatia, and their content reflects the mainstream political discourse developed in the 1990s, especially during and after the Homeland war. Most of these supposedly conspiratorial actors were explained in a similar way in the well-known rabid speech of the first Croatian president, Franjo Tuđman in 1997<sup>9</sup>, about the “black, green and yellow devils”. The second factor is in its content alternative to the first one, explaining conspiracies of nationalist authorities, and indicating the most obvious cases of the state capture<sup>10</sup> by such forces. Although these two forms of local conspiracisms are seemingly opposed, our results show they are moderately correlated (.395) in a sense that people who see inner and outer enemies of the state in many actors, can also be critical of those who hold the power presenting themselves as the only true rulers of the state.

*Global conspiracy theories* used in our survey were also already used in our previous studies (Blanuša, Kulenović, 2018) and comprise the list of the usual suspects, from pharmaceutical companies, corrupt scientists, Jews, Freemasons, and other secret groups, as well as the US government. Their supposed wrongdoings that can be found circulating in many countries of the world, especially in the alternative internet ecosystems, were articulated in 13 statements. We tested it in this research through the exploratory procedure. The results are shown in the Table 3↓.

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9 This speech is still publicly available at You Tube: [https://www.youtube.com/watch?v=U5xMo8OrOvw&t=3s&ab\\_channel=HDZTRE%C5%A0NJEVKASJEVER](https://www.youtube.com/watch?v=U5xMo8OrOvw&t=3s&ab_channel=HDZTRE%C5%A0NJEVKASJEVER). For the analysis of the speech see Blanuša (2014).

10 State capture is the concept developed by the World Bank in late 1990s to explain the issues of introducing the market economy and liberal democracy in post-communist states (Klima, 2020: 21). It can be defined as the way of affecting, subverting, and seizing relevant political parties, and through them also the main pillars of the political system by means of informal networks and informal politics (ibid.: XV). See more about the state capture in the Balkans in the special issue of the journal “Perspectives: Political Analysis and Commentary” from 2017, available at: [https://ba.boell.org/sites/default/files/perspectives\\_-\\_09-2017\\_-\\_web.pdf](https://ba.boell.org/sites/default/files/perspectives_-_09-2017_-_web.pdf)

**Table 3. The structure of beliefs in global conspiracy theories.**

ITEMS	Global conspiracism
It is hidden from the public that vaccines are harmful to health.	.764
Large pharmaceutical companies deliberately spread diseases in order to boost the sales of their medical products.	.803
Genetically modified food (GMO) shortens human life through which the global elite seek to control population growth on Earth.	.821
Global warming is a hoax of corrupt scientists who want to continue to spend public money on their research.	.577
The white stripes in the sky that remain behind the plane are actually the chemicals used to perform experiments on humans.	.667
Everyone using their computer online is being secretly monitored and is under surveillance.	.627
Jews control most important world events.	.678
The Freemasons and the Illuminati have influenced government decisions in many countries for a long time.	.769
There is a secret organization in the world whose aim is to destroy nation states and impose a New World Order.	.842
George Soros spies on and undermines the states in which he works through the organizations that he funds.	.754
The 9/11 terrorist attacks on the WTC buildings in New York were secretly organized by members of the USA secret services.	.693
Contacts with extra-terrestrial beings are hidden from the public.	.534
Regardless of who is officially in charge of governments, media and corporations, there is a secret group of powerful people who control world events, such as wars and economic crises.	.789
% of explained variance	52.2
KMO	.956
Bartlett's Test of Sphericity	9537.531; df=78; p<.001

Similarly to the structure of beliefs in COVID-19 conspiracy theories, global conspiracy theories also exhibited unidimensional structure with one general factor, which explains more than 52% of variance of the results. These two forms of conspiracism also share some topics, such as vaccines, manipulation with GMO, detrimental role of pharmaceutical companies and scientists, hidden world elites and powerful groups, but also an attempt to connect them into an overarching frame of supposed order of today's global world.

In contrast to the previous three forms of conspiracism, which are comprised mostly of specific conspiracy theories related to global and local contexts, the following three sets of conspiratorial statements were developed with the purpose of measuring ideologically specific conspiracisms related to populism (Blanuša, Kulenović, 2018), and populist nationalism (Parker, Barreto, 2013), as well as the general tendency toward conspiratorial thinking that would be stripped of its temporal and geographical context,

and conceived as conspiratorial mentality (Bruder et al. 2013). As these conspiracisms historically precede the recent COVID-19 conspiracy theories, they are included in our survey to assess the broader embeddedness and potential relationships of COVID-19 conspiracy theories with them. Their structures are shown in the following three tables.

Relationship of COVID-19 conspiracism - especially in the form of the “pandemic language” - with populism and nationalism was already indicated in the content and discourse analysis of this project (Grbeša Zenzerović, Vučković, 2022), as well as in some previous studies in other countries and on the global scale (e.g. Bieber, 2020; Brubaker, 2021; Thiele, 2022). This is especially important because of a potentially successful populist appeal to mobilize protests against the public health measures (ibid.). To measure specific populists conspiracist beliefs we previously developed a set of four items (Blanuša, Kulenović 2018), with the intent to measure two seemingly contradictory populist inclinations: 1) an anti-elitist conspiracism, as well as the 2) support for the shadowy rule of elites that would not be under democratic checks and balances, which is an expression of affinity of populism to charismatic leadership and elitism, already observed in some previous studies (e.g., Hawkins et al. 2012; Akkerman et al. 2014). Our results clearly corroborate these suppositions.

**Table 4. The structure of beliefs in populist conspiracy theories.**

ITEMS	Anti-elitist conspiracism	Support for shadow government
To prevent the chaos of the rule of the people, the elites should rule from the shadows.		.837
Democratic procedures are just a show for the people, real decisions are made secretly elsewhere.	.839	
Political scandals are showing us that whenever the elites' interests are endangered, they will abuse public institutions.	.891	
The government and the media should be in the hands of the few, who will decide what's best for the people.		.832
Sums of squared loadings after rotation	1.511	1.477
KMO		0.502
Bartlett's Test of Sphericity		775.455; df=6; p<.001
Correlation between factors		.091

To estimate the level of nationalist populism among our participants we used the scale developed by Parker and Barreto (2013), which captures the level of beliefs that some secret evil forces are taking away their country and destroying their rights and liberties. The results of the factor analysis are shown in the next table.

**Table 5. The structure of beliefs at the ‘taking my country away’ scale.**

ITEMS	Taking my country away
Croatia that we know, and love is slipping away, and changing too fast.	.763
There are forces in Croatian society that may be changing the country for the worse.	.545
Most people in Croatia don't realize how much our lives are controlled by plots hatched in secret places.	.782
The people who really run Croatia aren't even known to the voters.	.731
I often feel that the really important matters in Croatia are decided by people we never even hear about.	.750
No sooner do most foreign immigrants get here than they try to bring America down by refusing to abide by our laws.	.616
The true Croatian way if life is disappearing so fast that we may have to use force to save it.	.735
Regardless of what some people say, there are certain races in the world that just can't mix with real Croats.	.510
I am afraid there isn't going to be as much freedom in Croatia as time goes on.	.742
% of explained variance	48,0
KMO	.889
Bartlett's Test of Sphericity	4827.872; df=36; p<.001

In this case we also obtained a unidimensional structure with one general factor, which explains more than 48% of variance of the results.

Finally, we tested the structure of wider conspiratorial tendency via the short version of the conspiratorial mentality scale (Bruder et al. 2013), as a measure of general conspiratorial disposition.

**Table 6. The structure of conspiratorial mentality.**

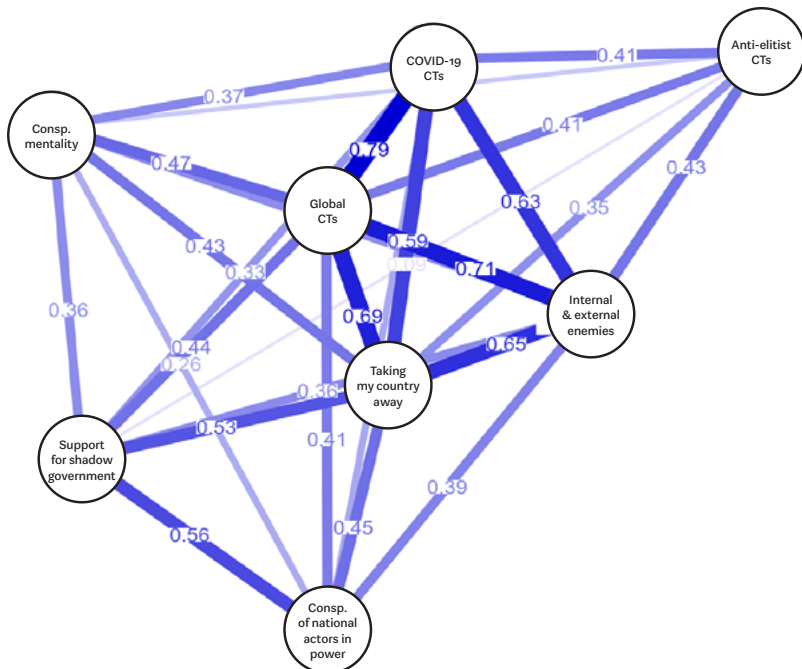
ITEMS	Conspiratorial mentality
I think that many very important things happen in the world, which the public is never informed about.	.805
I think that politicians usually do not tell us the true motives for their decisions.	.796
I think that government agencies closely monitor all citizens.	.833
I think that events which superficially seem to lack a connection are often the result of secret activities.	.853
I think that there are secret organizations that greatly influence political decisions.	.870
% of explained variance	69.17
KMO	0.830
Bartlett's Test of Sphericity	4107.701; df=10; p<.001

The results on this scale can also be explained by one factor, which explains more than 69% of the variance.

In the following step we calculated the factor scores of explained structures and used them in the analysis of the relationship among the selected forms of conspiracism.

#### 4. THE RELATIONSHIP OF COVID-19 AND OTHER FORMS OF CONSPIRACISM

By using the factor scores we managed to get insight into more robust tendencies and relationships among selected forms of conspiracisms (bivariate correlations, i.e, the network analysis). The results are shown in the next graph. As in Graph 2↑, the stronger the correlation between the items, the darker, thicker and shorter the line between them.



Graph 5. Network of bivariate correlations among COVID - 19 and other forms of conspiracism

The analysis clearly shows that all measures of conspiracism are positively correlated. Very high correlations are obtained between the four forms of conspiracism: beliefs in COVID-19 conspiracy theories, global conspiracy theories, existence of internal and external enemies of Croatia and that some secret evil forces are taking away our country. The highest correlation is obtained between COVID-19 and global conspiracy theories (.79). Since global conspiracies have already circulated in the public before the COVID-19 pandemics, this suggests that conspiracy theories about the pandemic were actually crafted on the global conspiracy theories and have used them as the more general discursive framework. Their shared content also supports this conclusion. Although we have used COVID-19 conspiracy theories developed in the regional context, their language and frame of reference seems to be the part of the same global conspiracism. Furthermore, such high relationships of both global and COVID-19 conspiracism with indicators of nationalist populism (taking my country away) and nationalism (internal and external enemies of the state), suggest that we are dealing here with the more general tendency that can be named conspiratorial mentality of sieged nation. In a nutshell, it can be interpreted that coronavirus - as an invisible enemy which makes even the air you breathe dangerous, together with the social anxieties and institutional burden it provoked on a global scale - also produces a new conspiratorial imagination, mostly among those citizens who had already been prone to such way of thinking. In that sense, the next important question is which characteristics make some Croatian citizens believe in COVID-19 conspiracy theories.

## 5. WHO BELIEVES IN COVID-19 CONSPIRACY THEORIES IN CROATIA?

To answer this question, we conducted four separate multiple regression analyses and accompanying ANOVAs, where it was applicable, by using believing in COVID-19 conspiracy theories (factor scores) as a criterion variable and the next groups of predictors for each of them<sup>11</sup>:

- Socio-demographics (age, education, size of settlement, size of household, household income)
- Relationship to science (scientific literacy, actively open-minded thinking (AOMT), trust in science, religiosity)<sup>12</sup>
- Media usage (ways of informing, trust in media, self-awareness of media strategies, critical thinking about media, perception of sources of fake news)
- Political characteristics (Left – Right self-identification, authoritarianism, populist attitudes, political alienation, collective (national) narcissism, political literacy, perception of WWII).

Our results are summarized in the following table.

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<sup>11</sup> All used predictors can be found in the enhanced database of survey results, which is the one of deliverables of the Pro-fact project.

<sup>12</sup> For the explanation of the first three predictors see footnotes 1-3. Religiosity was the manifest variable that can be find in enhanced database of survey results, which is the one of deliverables of the Pro-fact project. It was used in this group of predictors because in the preliminary analysis was negatively correlated with other measures of the relationship to science.



**Table 7. Multiple regression analyses of four groups of predictors of believing in COVID-19 conspiracy theories.**

PREDICTORS	R <sup>2</sup> adj.	Significant predictors [β]	SUMMARY
Socio-demographics	.077	younger adults (esp.25-29) [-.093]; less educated (only elementary and vocational) [-.133]; who live in smaller settlements [-.076] and bigger households (7 or more persons) [.09]; with smaller household incomes (esp. Under 550€) [-.154].	SOCIALLY UNDERPRIVILEGED CITIZENS
Relationship to science	.419	less scientifically literate [-.187]; highly religious [.047]; close-minded (AOMT) [-.136]; very distrustful of science [.474];	VERY SKEPTICAL TO SCIENCE, LESS SCIENTIFICALLY LITERATE & CLOSE-MINDED
Media usage	.213	slightly more inform themselves through social media and social networks [.072]; slightly more than average critical on media [.055] but less aware of media strategies [-.165]; more trust to social media [.088] & to news and info from close people [.079] & less in traditional media [-.284]; perceive elites & media establishment as sources of fake news [.286] but not citizens, conspiracy theorists and social media [-.198]	LESS MEDIA LITERATE
Political characteristics	.329	nationally narcissistic [.249]; less politically literate [-.228]; more politically alienated [.105]; more express populist Manicheism [-.178] and anti-elitism [-.108]; think that Croats were victims not villains during WWII [.216]	LESS POLITICALLY LITERATE & PRONE TO THE RIGHT-WING POPULISM

As evident from Table 7<sup>↑</sup>, the best group of predictors are those measuring the relation to science. These predictors explain 41,9% of the variance of COVID-19 conspiratorial beliefs. More specifically, those who are very skeptical of science and at the same time more religious, close-minded and less scientifically literate are very prone to believe in COVID-19 conspiracy theories. Those who have opposite characteristics will be less prone to such a way of thinking. The same logic is applicable to the below-described results.

The second-best group of predictors are political characteristics, which explain 32,9% of the variance of COVID-19 conspiratorial beliefs. In that sense, citizens who are more narcissist about their nation, more prone to think that Croats were victims during the World War II, and prone to deny the war crimes of the quisling quasi-state of Independent state of Croatia

(NDH) during the same period, more prone to Manicheistic view of politics and populist anti-elitism, more alienated from politics and less politically literate, tend to believe in COVID-19 conspiracy theories more.

Third group of predictors which explains 21,3% of the variance of more conspiratorial beliefs is media usage. Those citizens who trust the traditional media (such as television, radio, press) less and who are more prone to inform themselves through social media and to trust them, as well as those who believe in information they get from relevant others (such as relatives and friends), who consider themselves as critical but less aware of media strategies, and who perceive elites and media establishment as sources of fake news, tend to believe in COVID-19 conspiracy theories more.

Finally, sociodemographic characteristics explain 7,7% of the variance of COVID-19 conspiratorial beliefs. These results show that citizens with smaller household incomes (especially under 550€ per month), who are less educated (especially those who finished only elementary and vocational school), younger (especially those 25 – 29 years old), as well as those who live in smaller settlements and bigger households (with 7 or more persons) exhibit more beliefs in COVID-19 conspiracy theories. Although this group of predictors is of smallest importance, it is clear that underprivileged citizens are more prone to COVID-19 conspiracy theories.

Taken together in a joint multivariate regression analysis, all these predictors explain 51,2% of the variance of COVID-19 conspiratorial beliefs.

## CONCLUSION

All results we have shown in this report suggest that a significant portion of Croatian citizenry believe in COVID-19 conspiracy theories. Almost 50% of them believe in the manipulation of official numbers about the death-rate, 33,4% deny the danger of COVID-19 and more than 25% consider global-level actors as villains who have artificially produced the pandemic because of the profit and limitation of human rights and liberties. Such a way of “thinking” is monolithic in its structure, and highly related to other unwarranted forms of conspiracisms. It has only slightly decreased in the last three years and one of its profound characteristics is its embeddedness into the old split between religious and scientific approach of making sense of the world. COVID-19 is clearly on the side of religion and further nested in global conspiracism and secular religion of populist nationalism.

If we understand such widespread beliefs in conspiracy theories as the wrong answer to the real issues, not only of Croatia, but also of most of today’s world, we can read our results as symptoms of what is wrong with our society and neo-liberal economic and liberal political order. We live in conditions of growing social inequalities which produce bigger and bigger differences and antagonisms between the haves and the have nots. Conspiracism is only one line of such cleavage which can fuel misunderstanding, mistrust, and growing sense of injustice, and become a powerful motivator for protests, riots, and more permanent political instability, especially if it is articulated in the form of the right-wing populist framework. Furthermore, skepticism towards science, perceived as a collaborator in sustaining the unjust order and part of the global conspiracy, is accompanied by the weak scientific, media and political literacy, which is notoriously neglected by responsible state and social institutions in this country. To be clear, we do not want to provide an abolition for scientists, politicians, government officials, media and other carriers of influence (e.g., church dignitaries). During the pandemic some of them have often communicated poorly in the public, mostly on behalf of their own, and at dispense of the public interest. All these public actors should consider themselves not as self-contained notables, but as a part of institutions which have lost a lot of their legitimacy during the pandemic. However, this is easy to say but very hard to accomplish.

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The Project ‘PRO-FACT: RESEARCH, EDUCATION, FACT-CHECK AND DEBUNK COVID-19 RELATED DISINFORMATION NARRATIVES IN CROATIA’ is tackling disinformation related to COVID-19 on multiple levels by a multidisciplinary and intersectoral approach. Through research, awareness raising, and capacity-building methods, the project comprehensively approaches the social, political, and health problem of spreading disinformation campaigns related to COVID-19. Through its activities, it aims to effectively expose COVID-19 related disinformation campaigns in Croatia, strengthen the Croatian multidisciplinary team capacities for detecting and combating disinformation campaigns, and to increase media literacy competencies of Croatia journalists and the general public.

The coordinator of the project is Gong, while the partner organizations are: the Faculty of Political Science in Zagreb, The University of Dubrovnik, Faktograf.hr, and the Faculty of Electrical Engineering and Computing.





PRO-FACT:

Research, education, and fact-checking COVID-19 disinformation narratives in Croatia

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