

WHO IS AFRAID OF FAKE NEWS?

THE BELIEF IN CONSPIRACY
THEORIES AND THE POTENTIAL
TO CHANGE THE BELIEF IN FAKE
NEWS ABOUT COVID-19
— AN EXPERIMENTAL CHECK

dr. MIRJANA
TONKOVIĆ

dr. ANDREA
VRANIĆ

dr. NEBOJŠA
BLANUŠA

REPORT

IMPRESSUM

Authors:

Dr. Mirjana Tonković, Faculty of Humanities and Social Sciences, University of Zagreb

Dr. Andrea Vranić, Faculty of Humanities and Social Sciences, University of Zagreb

Dr. Nebojša Blanuša, Faculty of Political Science, University of Zagreb

Design:

Sven Sorić

Bojan Crnić

Infographics:

Bojan Crnić

Publisher:

Gong

Executive Director:

Oriana Ivković Novokmet

Mihanovićeva 14

10 000 Zagreb

e-mail: gong@gong.hr

web: www.gong.hr

Zagreb, December 2022

Pro-fact: Research, education, fact-check and debunk COVID-19 related disinformation narratives in Croatia

Coordinator of the Pro-Fact:

Gong

Partners:

Faculty of Political Science in Zagreb,

University of Dubrovnik,

Faculty of Electrical Engineering and Computing and Faktograf.hr

Ova publikacija odražava isključivo stajališta autorica i Europska komisija nije odgovorna za bilo kakvu upotrebu informacija koje sadrži. Ovaj je projekt financiran iz Programa rada Europske unije za 2020., prema Ugovoru o dodjeli bespovratnih sredstava br. LC-01682252.

WHO IS AFRAID
OF FAKE NEWS?
THE BELIEF IN CONSPIRACY
THEORIES AND THE POTENTIAL
TO CHANGE THE BELIEF IN FAKE
NEWS ABOUT COVID-19
— AN EXPERIMENTAL CHECK

dr. MIRJANA TONKOVIĆ

dr. ANDREA VRANIĆ

dr. NEBOJŠA BLANUŠA

PRO-FACT

EDMO
European Digital Media Observatory

European Union
European Commission

GONG

FER

fpzg
Faculty of Political Science
University of Zagreb

Faculty of Social Sciences
University of Zagreb

FAKTOGRAF HR

F

INTRODUCTION

Building on the findings of the previous research phases within the Pro-fact project, in the final phase of research activities we aimed to determine more precisely the thought processes involved in the emergence and transformation of belief in disinformation and conspiracy theories. In this sense, one of the best known theories of dual information processing, the heuristic-systematic model, seemed to us to be the most appropriate theoretical starting point. The heuristic-systematic model of persuasive information processing assumes that information that wants to convince us of something or change our opinion about an object or subject of thought can be processed in two ways (Chaiken and Ledgerwood, 2012). The first way is deliberate, thoughtful, careful, and requires an investment of cognitive effort and an evaluation of the arguments, while the second way is intuitive, quick, and relies on peripheral signs and heuristics, i.e., mental shortcuts, rather than on the quality of the arguments presented. Changes in attitude (its expression, intensity, not necessarily direction) that depend on the quality and direction of the arguments presented indicate that the change in attitude is based on a process of systematic, not intuitive, processing of information. This theoretical framework served as a frame of reference for reflecting on and drawing conclusions about the process of processing fake news, which we examined in more detail in this study.

The aim of this experimental part of the project was to test whether it is possible to influence belief in the information presented by guiding information processing and encouraging critical thinking about the content of fake news. We were also interested in whether there are differences in the possibilities and scope of this influence between groups that are differently inclined to believe in conspiracy theories. The results of the experiment show us at least one possible way of processing and consequently accepting fake news and whether there is a way to change the level of acceptance of fake news. Furthermore, the goal of the experiment was to investigate the emotional reactions to fake news and the possibility of influencing them by guiding the processing of the presented information.

We assume that highlighting information that might increase belief in the truth of claims presented in a short video increases belief in their plausibility, whereas highlighting information that suggests their falsity decreases belief in their plausibility, compared to the situation in which information processing is not directed in any direction after viewing. We expect that this influence will be greatest in the group of participants who only partially believe in conspiracy theories, while in the groups of participants who believe least and most in conspiracy theories, this influence will be less because

their (more extreme) opinions are more rooted in their models of understanding the social and political world. For the group that is partially inclined to conspiracy theories, we assume that influence is possible because their views are not extreme or polarized. At the same time, this group is the most interesting in practical terms because it represents people who can easily fall under the influence of fake news. Therefore, it is necessary to study how to prevent such an outcome.

METHOD

Participants

Participants in the experiment were selected based on the results of the survey portion of the study, i.e., their responses on the scale of belief in conspiracy theories about COVID-19 (Blanuša et al., 2022). By sampling, we aimed to obtain three groups of participants: 1) those whose score on the scale of belief in conspiracy theories about COVID-19 is in the 30% of highest scores, 2) those whose score is in the 30% of lowest scores, and 3) those whose score is in the 30% of scores that are in the middle of the range of all scores. Participants were recruited by the IPSOS agency, which sent links with an invitation to the survey to potential participants who were selected based on the data from the survey.

$N=544$ adult residents of the Republic of Croatia participated in the study (44.2% women, mean age $M=43.9$ ($SD =12.7$)). Of these, $N=175$ were in the group with the lowest scores on the scale of belief in conspiracy theories about COVID-19, and their scores on the scale of belief in conspiracy theories were in the range from the 1st to the 20th percentile in the total sample of participants who took part in the survey part of the research. In the group of those who believed in conspiracy theories about COVID-19, $N=183$ individuals were in the middle of the range identified in the survey, and their results ranged from the 38th to the 67th percentile. In the group of those who believed most in conspiracy theories about COVID-19, $N=186$ were in the middle of the range identified in the survey, and their results ranged from the 76th to the 100th percentile.

Those participants whose total time for solving the questionnaire was less than 5 minutes were excluded from the data analysis, as this was not enough to know the content of the video clip, which was an essential part of the research process and answering the following questions. There were 10 such participants in the group of those who least believe in conspiracy theories about COVID-19, 21 in the group that falls in the middle in terms of belief in conspiracy theories about COVID-19, and 23 in the group that most believes in conspiracy theories about COVID-19.

Ultimately, the results in this report are based on $N=490$ participants (44.6% women, mean age $M=44.6$ ($SD =12.6$))¹. In the group of those who believe least in conspiracy theories about COVID-19, there were $N=165$ participants (38.9% women, mean age $M=46.4$; $SD =13.0$), in the group of those who believe on average $N=162$ (50.0% women, mean age $M=44.4$; $SD =12.2$), and in the group of those who believe most in conspiracy theories $N=163$ (45.0% women, mean age $M=43.1$; $SD =12.5$).

Research design and procedures

Participants from each of these three subgroups were randomly assigned to one of three experimental situations. The task for participants in all subgroups was to watch a short video showing an interview with an individual who was introduced as a researcher and claimed to have discovered that there were chips in the vaccine against COVID-19². Below you will find a description of three experimental situations:

- In the first experimental situation, after viewing the video footage, participants answered ten questions designed to highlight those data from the film that could potentially *increase belief* in the truth of the statements made. The questions required a “yes” or “no” response and were presented to participants as a test of their memory for details from the footage. An example of a question in this situation

-
- 1 The mean age and proportion of women were calculated based on 475 participants for whom age and sex data were available.
 - 2 This video footage is publicly available on the BitChute web platform (<https://www.bitchute.com/video/IW5GtPU59Jzx/>) and can be accessed without creating a separate account. The terms of use for the material published on said platform (<https://support.bitchute.com/policy/terms/>) also include the following: “BitChute does not claim any ownership rights to any Content posted to the Service.” Under the chapter “Content Rights Granted by You,” it states, “By making any Content available through the Service, you grant to BitChute a worldwide, royalty-free, transferable license with the right to sublicense, to use, copy, modify, create derivative works, display, perform, and distribute your Content in order to operate, provide, and promote the Service and Content to you and other users of the Service.” In addition, the “Content Rights Granted by BitChute” section states, “Subject to your compliance with these Terms, BitChute grants you a limited, non-exclusive, non-transferable, non-sublicensable license to view, copy, display and perform the Content solely in connection with your permitted use of the Service and solely for personal and non-commercial purposes.” In our case, the material is used for scientific research purposes, which implies a non-commercial use of this material. In addition, the author of the video material invites its sharing and further use. For the implementation of the experiment designed in this way, the positive opinion of the Ethics Committee of the Faculty of Political Sciences of the University of Zagreb was obtained.

is following: “Did you notice that a researcher showed microscope images to medical professionals?” or “Did you notice that a professional researcher was qualified to recognize integrated circuits?”. The goal of answering these questions was not to test the memory, but to highlight some of the information presented in the film.

- In the second experimental situation, immediately after watching the film, participants answered ten questions aimed at highlighting those data from the movie that clearly indicated the unreliability of the claims made, assuming that such a presentation of the movie content should *reduce belief* in their truthfulness. The form and presented purpose of these questions were the same as in the first experimental situation, but they differed in content. An example of a question in this situation is following: “Did you notice that the researcher in the program is not a doctor?” or “Did you notice that the doctors he asked what was in the pictures did not know the answer, but that was enough for him?”.
- The third experimental situation was a control situation. After watching the film, the participants did not answer the guiding questions but immediately continued with the rest of the questionnaire.

• After watching the video clip and answering questions about the film (in the two described situations), participants rated the credibility of the film and the arguments presented in it. At the end of the questionnaire, they were told the purpose of the study and that the video they had seen contained unverified information with no scientific basis.

Measuring instruments

- *The intention to get vaccinated.* After watching the film, participants first answered a question about their intention to get vaccinated in the future. The question was, “*Do you intend to get vaccinated against COVID-19 in the future if recommended?*” and responses were given on a scale of 1 (definitely not) to 5 (definitely).
- *Belief in the content of the video.* Participants answered two questions about the credibility of the video presented (“*To what extent do you believe in the content of this video?*”, “*To what extent do you believe that the information presented in the video is true or false?*”) on a scale of 1 to 7, with a higher number indicating a higher level of belief in the

truthfulness of the information presented. The correlation of responses on these scales is very high and is $r=.94$; $p < .01$, so on their basis an average score was formed that reflects the degree of belief in the truthfulness of the content of the video clip.

- *Emotions.* Participants rated the extent to which the video clip shown elicited the following reactions in them: fear, anger, concern, disgust, confusion, surprise, pleasure, and ridicule. Ratings were made on a scale of 1 (not at all) to 7 (extremely). The order of emotional responses for which participants made their ratings was random.
- *Researcher credibility.* Participants rated the credibility of the researcher who presented the results of his experiments in the featured video clip by answering four questions about his impartiality, honesty, persuasiveness of reasoning, and credibility. The answers were given on a 7-point scale. These responses were found to be highly interrelated (correlations of $r=.60$; $p < .01$ to $r=.91$; $p < .01$), so an average score reflecting the researcher's credibility assessment was formed based on these four questions. The reliability of the scale is $\alpha=.92$.
- *Credibility of the journalist.* Participants rated the credibility of the journalist interviewing the researcher in the featured video clip by answering three questions about his or her impartiality, honesty, and credibility on a 7-point scale. These responses were found to be highly interrelated (correlations of $r=.76$; $p < .01$ to $r=.88$; $p < .01$) and based on them an average score was formed reflecting the assessment of the journalist's credibility. The reliability of the scale is $\alpha=.93$.
- *Method and form of informing and reporting on COVID-19.* We also asked participants how much they trust sources like this video and if they would share this video on social media. In addition, we asked them several questions that we did not expect to be influenced by the experimental manipulation of highlighting different types of information, but would depend primarily on their belief in conspiracy theories about COVID-19. These questions related to whether they had encountered this type of content on social networks in the past year and who benefited most from the spread of such messages and who caused the most harm.

RESULTS

We analyzed the results separately for each of the three groups of participants described, which differed according to their belief in conspiracy theories about COVID-19.

Participants least likely to believe in conspiracy theories about COVID-19

Of a total of 165 participants who least believed in conspiracy theories about COVID-19, $N=52$ of them were randomly assigned to a group that, after watching the video, answered questions that highlighted those elements that might reinforce belief in the video's content, $N=56$ were assigned to a control group, and $N=57$ were assigned to a group that answered questions that highlighted those elements that indicated the unreliability of the statements made.

These three groups differed statistically significantly in their ratings of the researcher's credibility ($F=3.25$; $df=2/162$; $p < .05$), with the group that received information aimed at reinforcing belief in the content of the film giving the highest ratings, the control group giving lower ratings, and the group that received information suggesting untruth giving the lowest ratings. It should be noted that the ratings in all three groups are extremely

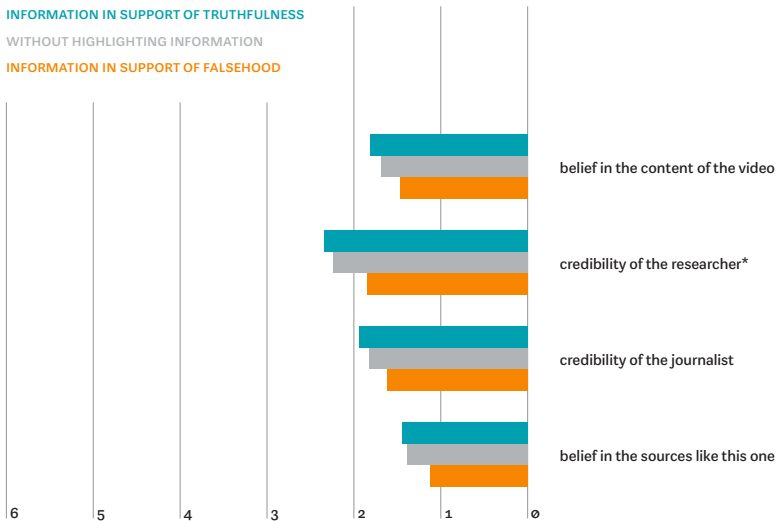


Figure 1. Average ratings of the items shown in the video as a function of the experimental situation for participants who do not believe in conspiracy theories about COVID-19 (statistically significant differences are marked with an asterisk *)

low, suggesting that the participants who least believe in conspiracy theories about COVID-19 generally rate the credibility of the researcher in the video as very low (Figure 1).

Participants in these three subgroups differed statistically significantly in the intensity of anger ($F=4.00$; $df=2/162$; $p < .05$), disgust ($F=4.96$; $df=2/162$; $p < .01$), and ridicule ($F=3.84$; $df=2/162$; $p < .05$) that the video elicited in them. Specifically, highlighting information that indicated the falsity of the video content resulted in higher perceived intensity of anger, disgust, and ridicule than in the control situation, whereas the experience of anger, disgust, and ridicule was lowest after highlighting information aimed at

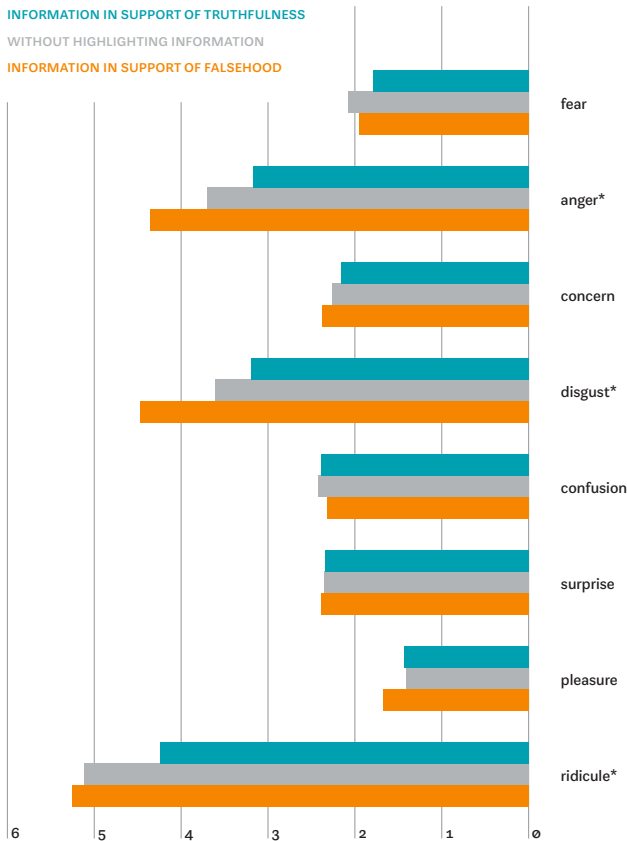


Figure 2. Average ratings of the items shown in the video as a function of the experimental situation for participants who do not believe in conspiracy theories about COVID-19 (statistically significant differences are marked with an asterisk *)

increasing belief in the content (Figure 2). In addition, anger, disgust, and ridicule are the reactions for which participants generally give the highest rating of perceived intensity.

When asked if they would share this video on social media if given the opportunity, almost all participants responded that they would not. However, this number was (borderline) statistically significantly different depending on what information was highlighted after watching the video ($X^2=5.92$; $df=2$; $p=.052$). A slightly higher percentage (7.7%) answered “yes” in the group presented with questions suggesting the video was true than in the control group (1.8%) or the group presented with information supporting the video was untrue (0%).

Differences between participants on all other measures, depending on what type of information was highlighted after viewing the video clip, were not statistically significant. In other words, their ratings of the intention to get vaccinated, belief in the content of the video, credibility of the journalist and other similar sources, and intensity of fear, anxiety, confusion, surprise, and satisfaction were not influenced by the type of information to which they were exposed.

Although the general ratings of the credibility of the presented material in this group of participants are low, as expected, the results show how they were influenced by the subsequently highlighted information in the sense that the ratings of some elements and some emotions were also influenced by them. This suggests that the participants in this group actively processed the available information.

Participants who are in the middle (neither susceptible nor not susceptible) in terms of their belief in conspiracy theories about COVID-19

Of a total of 162 participants who least believed in conspiracy theories about COVID-19, $N=55$ of them were randomly assigned to a group that, after watching the video, answered questions that highlighted elements that might reinforce belief in the content of the video, $N=50$ were assigned to a control group, and $N=57$ were assigned to a group that answered questions that highlighted elements that indicated the unreliability of the statements made.

These three groups differed statistically significantly in their assessment of the credibility of the researcher ($F=4.41$; $df=2/159$; $p<.05$) and the credibility of the journalist interviewing him ($F=3.24$; $df=2/159$; $p<.05$), with the group that received information aimed at increasing belief in the content of the film giving the highest ratings, the control group giving lower ratings, and the group that received information indicating untruthfulness giving the lowest ratings (Figure 3). The ratings in all three groups are relatively low, indicating a distrust of the researcher and

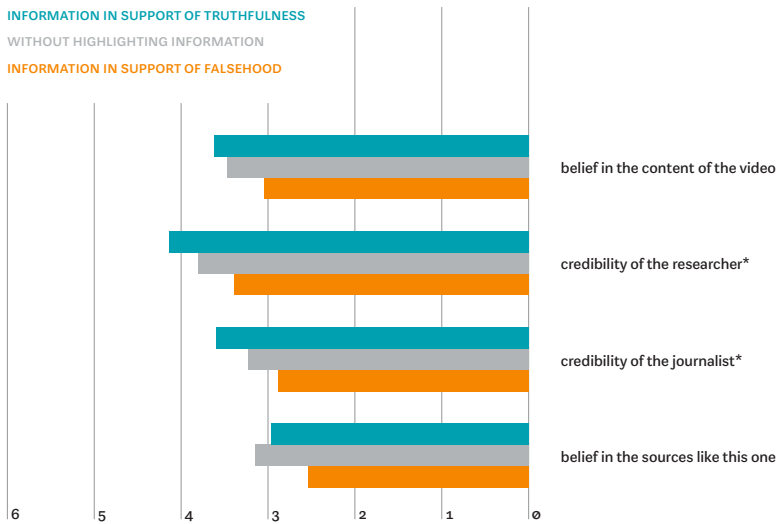


Figure 3. Average ratings of items shown in the video as a function of experimental situation for participants with medium belief in conspiracy theories about COVID-19 (statistically significant differences are marked with an asterisk *)

journalist in the video, but they are significantly higher than the ratings of the group of participants least likely to believe in conspiracy theories³.

Regarding reactions to the video, the analysis showed that there are statistically significant differences in experienced fear ($F=3.09$; $df=2/162$; $p<.05$), anger ($F=3.11$; $df=2/162$; $p<.05$), and concern ($F=4.09$; $df=2/162$; $p<.05$) among participants exposed to different types of information after watching the film. At the same time, it is noticeable that the highlighting of information indicating the untruthfulness of the statements made reduces the fear, anger, and anxiety compared to the control group and the group exposed to the highlighting of information supporting the truth, in which these emotions occur to the same extent (Figure 4). None of the emotions studied stood out in terms of intensity, with the exception of a strikingly low level of satisfaction.

3 The differences in all of the above variables between the three groups of participants who have different levels of belief in conspiracy theories about COVID-19 are statistically significant, in the direction that those who believe the least in conspiracy theories have the least confidence in the video ($F=159$; $df=2/487$; $p<.01$), researcher ($F=151$; $df=2/485$; $p<.01$), journalist ($F=148$; $df=2/485$; $p<.01$), and similar sources ($F=174$; $df=2/484$; $p<.01$) show the most trust, while those who believe the most in CT show the most trust, while those who believe in CT in the middle have a medium level of trust.

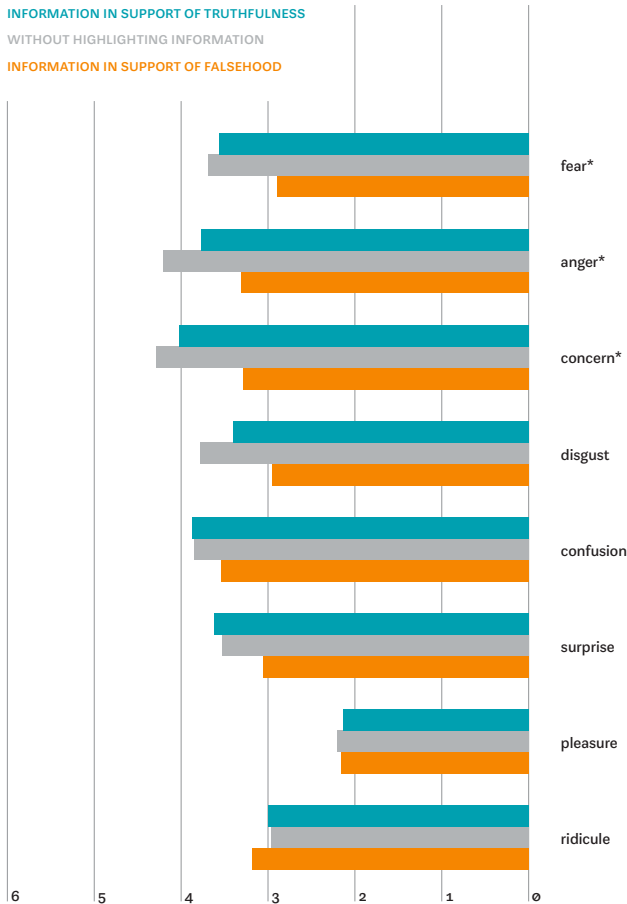


Figure 4. Average ratings of the intensity of reactions to the video as a function of experimental situation for participants with medium belief in conspiracy theories about COVID-19 (statistically significant differences are marked with an asterisk *)

When asked if they would share this video on social media if given the opportunity, most participants responded that they would not (80.2%) and this percentage was independent of the information highlighted after watching the video ($\chi^2=3.38$; $df= 2$; $p=.05$).

Differences between participants on all other measures, depending on what type of information was highlighted after viewing the video clip, were not statistically significant. In other words, their ratings of the intention to get vaccinated, belief in the content of the video and other similar sources, and intensity of anger, concern, disgust, confusion, surprise, pleasure, and

ridicule were not influenced by the type of information to which they were exposed.

As in the group of those least likely to believe in CT, the results in this group also show that participants are influenced by the type of information that stands out after watching the video, at least for some of the observed variables. This suggests that these participants also actively processed the available information. Furthermore, a striking difference from those least likely to believe in CT is the effect that the subsequently highlighted information had on the emotions experienced. In this group, the information supporting the untruthfulness of the video decreased feelings of fear, anger, and anxiety, while in the group of those who least believed in CT, it increased feelings of anger and disgust. This reverse direction of the effect of this information on anger is probably due to the fact that among those who do not believe in CT, anger occurs in response to those who produce and disseminate such materials, while among those who believe in CT to a less extreme and more undecided degree, anger occurs in response to the possibility that the statements made are true. Therefore, it is possible to reduce this emotion in them with information that supports their untruthfulness.

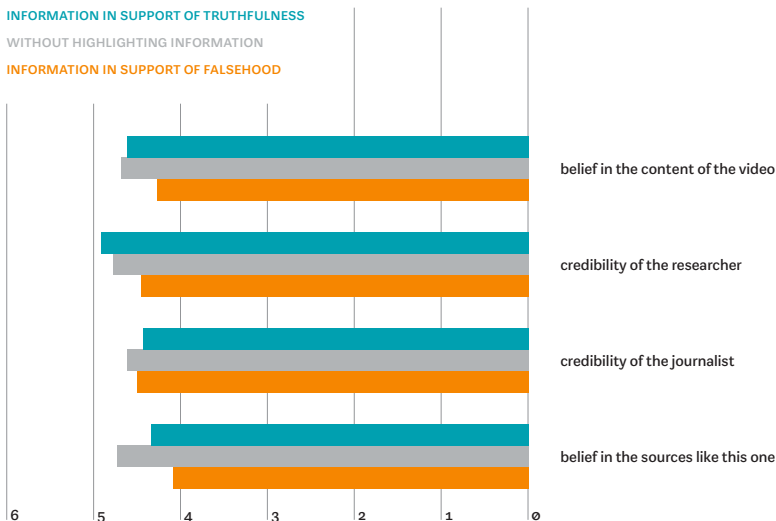


Figure 5. Average ratings of items shown in the video as a function of experimental situation for participants who most believe in conspiracy theories about COVID-19 (statistically significant differences are marked with an asterisk *)

Participants most likely to believe in conspiracy theories about COVID-19

Of a total of 163 participants who most believed in conspiracy theories about COVID-19, $N=54$ of them were randomly assigned to a group that, after watching the video, answered questions that highlighted those elements that might reinforce belief in the video's content, $N=55$ were assigned to a control group, and $N=54$ were assigned to a group that answered questions that highlighted those elements that indicated the unreliability of the statements made.

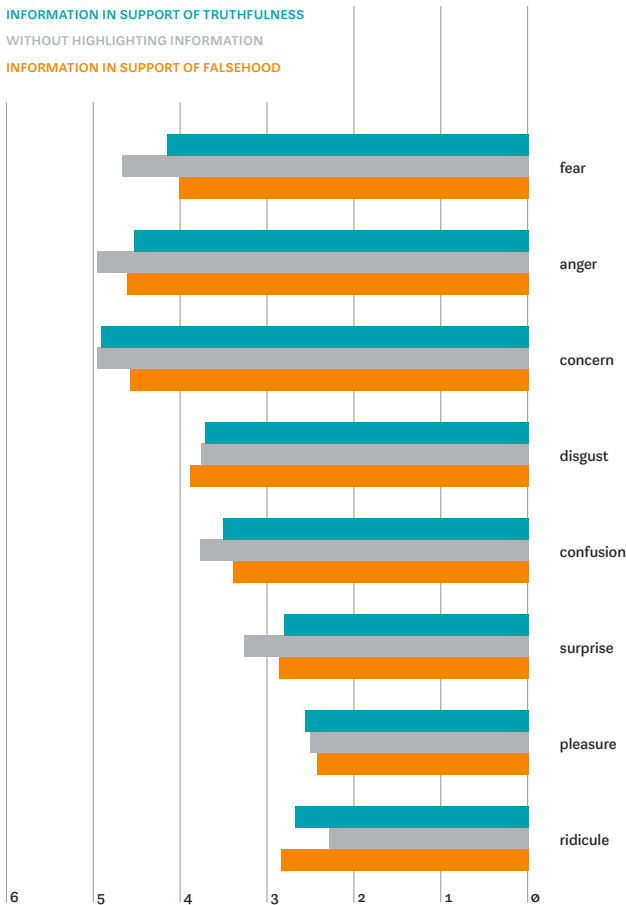


Figure 6. Average ratings of the intensity of responses to the video as a function of the experimental situation for participants who most believe in conspiracy theories about COVID-19 (statistically significant differences are marked with an asterisk *)

The difference between participants according to the type of information emphasized after viewing the clip was not statistically significant on any of the observed measures, i.e., the different types of information did not affect the rating of the credibility of the video or the intensity of the emotions experienced (Figure 5 and Figure 6). It is noticeable that the ratings related to the content of the video, the researcher, the journalist and similar sources are higher than those of the previous groups. Besides, for this group they are positive on average, that is, they reach values higher than the neutral point of the scale.

When asked if they would share this video on social media if given the opportunity, as many as half of the participants responded that they would (50.3%) and this percentage was independent of the information highlighted after watching the video ($\chi^2=3.01$; $df= 2$; $p=.05$).

The results from this group of participants clearly demonstrate that their responses and ratings were not influenced by the type of information subsequently highlighted. Such results indicate a lack of active processing of the displayed content.

Comparison of emotions experienced by participants with different levels of belief in CT

When we talk about the evaluation of the credibility of the presented content, the differences between the groups according to the belief in conspiracy theories about COVID-19 are clear and expected. The lowest ratings are given by those who believe least in CT, followed by those who only partially believe in conspiracy theories, and the highest ratings are given by those who believe in them most. However, when we look at the ratings of the intensity of the emotions experienced, the situation is not so clear. Therefore, in the next step, we compared the participants who believe in CT to different degrees according to what kind of emotions the shown video evoked in them. We only analyzed the responses of participants from the control groups because previous analyzes have shown that the type of information presented after watching a video can influence how emotions are rated.

Therefore, this analysis was conducted with $N=161$ participants, of which $N=56$ belonged to the group that believed least in CT, $N=50$ belonged to the group that believed in the middle range in CT, and $N=55$ belonged to those who believed most in CT. They were not subjected to any experimental manipulation, but answered questions about the emotions they felt after watching the video without emphasizing the information one way or the other.

The analysis showed that these three groups differed statistically significantly for all emotions tested, except for the disgust (Figure 7).

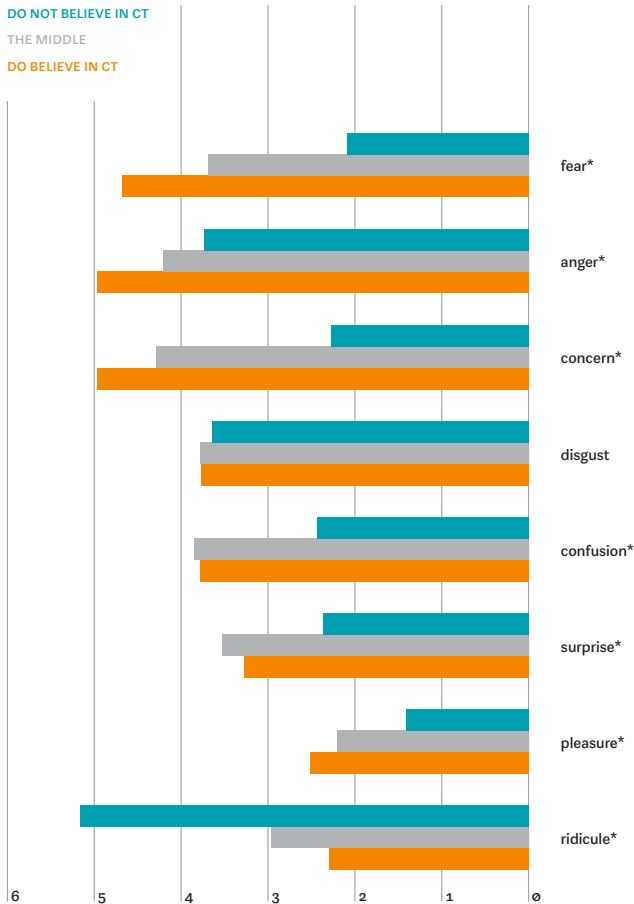


Figure 7. Estimates of the intensity of reactions after watching the video for participants with different beliefs about conspiracy theories about COVID-19 who were in the control group (N=161) (statistically significant differences are marked with an asterisk *)

After watching the video, participants who believe most in CT report the highest anxiety scores, the lowest scores are reported by those who are in the middle, and the lowest scores are reported by those who do not believe in CT ($F=24.51$; $df=2/158$; $p<.01$). The same is true for anger ($F=4.85$; $df=2/158$; $p<.01$). There are also differences in ratings of concern $F=27.31$; $df=2/158$; $p<.01$, confusion ($F=9.60$; $df=2/158$; $p<.01$), surprise ($F=5.24$; $df=2/158$; $p<.01$), and satisfaction ($F=7.07$; $df=2/158$; $p<.01$), with participants who believed the least in CT exhibiting lower levels of intensity than those who

believed the most and those who believed in the middle. It should be noted here that those in the middle who believed in CT rated the emotions they experienced as intense as those who believed in CT, i.e., they experienced an equal amount of apprehension, confusion, surprise, and (low) satisfaction. In the case of ridicule, we see an opposite trend in the results. The highest degree of ridicule is expressed by participants who are least interested in CT ($F=41.50$; $df=2/158$; $p<.01$).

Experiences with similar material and evaluation of benefits

We also asked participants how often they encountered this type of content on social media in the past year. We compared the responses of participants who believe in CT to varying degrees and found that on a scale of 1 (never) to 5 (very often), participants from the group that believes most in CT give the highest average responses, as expected ($M=3.25$; $SD=1.07$), while participants from the group that believes least in TC ($M=2.81$; $SD=1.02$) and participants from the middle group ($M=2.83$; $SD=1.03$) on average give lower responses ($F=9.18$; $df=2/485$; $p<.01$).

All participants were included in this analysis, regardless of the experimental situation, because responses were not to be influenced by processing information that we attempted to manipulate experimentally.

In the same way, we compared the responses of participants who believed to varying degrees in CT to the question of who they thought benefited most and least from the spread of such messages.

Of the participants who least believe in CT, 80.6% think that conspiracy theorists benefit most from such news and that citizens are harmed the most (86.1%). Those who believe most in CT believe that citizens benefit most from the spread of such news (33.5%), followed by conspiracy theorists (24.2%) and journalists and editors (12.4%). According to them, pharmaceutical companies and corporations suffer the most damage (60.9%), followed by citizens (26.7%). Participants who believe in CT in the middle believe that conspiracy theorists (46.0%), followed by journalists and editors (17.4%) and social networks (11.8%) benefit the most. According to them, citizens (62.1%) and pharmaceutical companies and corporations (29.2%) suffer the most harm.

CONCLUSION

- Participants in this experiment watched a short video showing an interview with a person who claimed to have discovered that there were chips in the vaccine against COVID-19. Thus, the video shows alleged evidence of one of the more extreme conspiracy theories that emerged during the pandemic and that is believed by a small percentage of citizens in the Republic of Croatia (9.2% according to Blanuša et al., 2022). The entire content of the video is fake news. Based on the conducted research, we can draw several conclusions:
- Participants who least believe in conspiracy theories about COVID-19 give the lowest ratings for credibility of the content presented, and those who most believe in conspiracy theories about COVID-19 give the most positive ratings for credibility of the content.
- Participants who least believed in CT experienced lower levels of fear, anger, worry, confusion, and surprise in response to the video shown. Participants with a medium belief in CT were as concerned, confused, and surprised as those who most believed in conspiracy theories, indicating their susceptibility to fake news.
- Highlighting information that indicates the falsity of statements presented by participants who least believe in CT decreases ratings of the credibility of some elements presented and increases feelings of anger, disgust, and ridicule toward the situation in which elements that speak to the truth are highlighted.
- Emphasizing information that indicates the untruthfulness of statements presented by participants who demonstrate an intermediate level of belief in CT also reduces ratings of the credibility of some items presented, but also reduces feelings of fear, anger, and anxiety, which is an important positive outcome of this type of intervention.
- Highlighting information indicating the falsity of statements made by participants most likely to believe in CT did not affect ratings of the movie content or emotions that arose in response to the movie.
- After all, half of the participants from the group that believes most in CT would share such video content on social media. This group also has the most experience with such content.

Interventions that promote critical thinking about the content of fake news videos can have a positive impact on people who tend to believe in conspiracy theories, provided that this belief is not extreme.

The research conducted also illustrates well real-life situations where we usually move in a circle of like-minded people and process information in a biased way, perceiving those that fit well with our already formed attitudes. Thus, long-term exposure to fake news, conspiracy theories, and biased information processing can lead to extreme attitudes and beliefs that, when they occur, are difficult to change through critical reflection and are accompanied by feelings of fear, anger, anxiety, and confusion.

REFERENCES

- Blanuša, N., Tonković, M., Vranić, A. (2022). PREVALENCE, STRUCTURE, AND TRENDS OF CONSPIRATORIAL BELIEFS: THE ANALYSIS OF CROATIAN CITIZENS WITH DIFFERENT LEVEL OF SUSCEPTIBILITY TO COVID-19 CONSPIRACY THEORIES. Zagreb: Gong. Available at: <https://pro-fact.gong.hr/publikacije/>
- Chaiken, S., & Ledgerwood, A. (2012). A theory of heuristic and systematic information processing. In P. A. M. van Lange, A. W. Kruglanski, & E. T. Higgins (Eds.), *Handbook of theories of social psychology* (pp. 246–266). Thousand Oaks, CA: Sage.

ABOUT AUTHORS

NEBOJŠA BLANUŠA is a professor at the Faculty of Political Science, University of Zagreb. He teaches courses in Social and Political Psychology, Conspiracy Theories, Cultural Trauma and Politics of Memory. He is the coordinator of research activities of the project *Pro-fact: Research, education, fact-checking and debunking of disinformation narratives related to COVID-19 in Croatia*, funded by EDMO, as well as the principal investigator at the Croatian part of the CHANSE project: *REDACT - Researching Europe, Digitalisation, and Conspiracy Theories*. He has been involved in a number of international scientific collaborations in the area of investigating conspiratorial thinking and cultural trauma. His main research interests are in conspiratorial thinking, cultural trauma, politics of memory, nationalism and populism.

MIRJANA TONKOVIĆ is an associate professor at the Faculty of Humanities and Social Sciences, University of Zagreb, where she teaches courses in research methods in Psychology, Statistics and Psychology of language. She is the Deputy Head of the Doctoral program in Psychology at the Department of Psychology, Faculty of Humanities and Social Sciences, University of Zagreb. She has been involved in several projects founded by Croatian Science Foundation, dealing with post-corona social recovery in the Croatian general population, and dealing with language research and large databases of metaphors and psycholinguistic estimates of words building. Her main research interests are the relationship between language and thinking, effects of metaphorical framing on reasoning and decision making and determinants of pseudo-scientific beliefs.

ANDREA VRANIĆ is an associate professor at the Department of Psychology, Faculty of Humanities and Social Sciences, University of Zagreb. She teaches courses in Cognitive Psychology and History of Psychology. She is the principal investigator of the project *Affective cognitive training: neural, cognitive and behavioral correlates*, funded by the Croatian Science Foundation. Also, she is the main coordinator of the CEEPUS network *Neuroshare: Sharing tools and Expertise in behavioral neuroscience*. She has been involved in a number of international scientific collaborations in the area of cognitive psychology and cognitive aging. Her main research interest lies in the area of human information processing, with the emphasis on the interplay between attention, memory, and reasoning.

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 intersectional 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 seeks to effectively identify Croatian COVID-19 disinformation campaigns, strengthen the capacity of the Croatian multidisciplinary team to detect and counter disinformation campaigns, and increase the media literacy of Croatian journalists and the 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

WHO IS AFRAID OF FAKE NEWS?

THE BELIEF IN CONSPIRACY THEORIES AND THE POTENTIAL TO CHANGE THE BELIEF IN
FAKE NEWS ABOUT COVID-19 — AN EXPERIMENTAL CHECK

dr. Mirjana Tonković

dr. Andrea Vranić

dr. Nebojša Blanuša

Zagreb, 2022.