

Written evidence submitted by Dr Daniel Jolley, Professor Karen Douglas and Professor Silvia Mari (COR0158)

Consequences of conspiracy theories

1. Executive summary

- a. A growing body of research has shown that conspiracy theories can negatively impact individuals and society in a variety of areas, including their work life, medical choices and political engagement.
- b. In our evidence, we articulate how conspiracy theories are likely to have a negative impact during the COVID-19 crisis in similar ways.
- c. Counterarguments to dispel conspiracy theories are important, but developing proactive approaches (such as improving people's critical thinking abilities) is also crucial.

2. About the authors

- a) **Dr Daniel Jolley** is a Senior Lecturer in Psychology at Northumbria University. In his research, he uses experimental methods to examine the social consequences of conspiracy theories. He has also tested tools to address the negative impacts of conspiracy theories.
- b) **Professor Karen Douglas** is a Professor of Social Psychology at the University of Kent. Her research focuses on the psychological factors that explain why people believe in conspiracy theories, and what the consequences of these beliefs are for individuals, groups, and society.
- c) **Professor Silvia Mari** is an Associate Professor at the University of Milano-Bicocca. Her research interests cover attitudes and conspiracy beliefs in different behavioural domains, including intergroup relationships, political psychology, and on social media.

3. Conspiracy theories and COVID-19

- a) Conspiracy theories explain the ultimate causes of significant events as the secret actions of malevolent groups, who cover-up information to suit their own interests [1].
- b) Conspiracy theories tend to emerge in times of crisis in society [2], when people are seeking to make sense of a chaotic world [3] and need to address feelings of uncertainty and threat [4].
- c) Large and significant events also attract conspiracy theories, because explaining the cause of an important event with a simple or mundane cause does not maintain proportionality between the size of the event and the explanation [5].
- d) The current COVID-19 crisis, therefore, provides fertile ground for conspiracy theories [6].

4. The popularity of conspiracy theories

- a) Conspiracy theories are popular. Research suggests that 60% of the British public believe in at least one conspiracy theory, such as that climate change is a hoax or that the truth about the harmful effects of vaccinations are being deliberately hidden from the public [7].

- b) COVID-19 conspiracy theories also appear to be persuasive. Forty-five per cent of British respondents in a recent survey believed that the coronavirus is a human-made creation [8], with a similar number of American (31%) respondents believing that the coronavirus was purposely made in a lab [9].

5. How are COVID-19 conspiracy theories spread online?

- a) Conspiracy theories are rife on social media and the internet [10].
- b) To take the conspiracy theory that 5G technology is contributing to the spread of COVID-19 as an example, there have been more than 4,800 Facebook posts receiving more than 1.1 million interactions that have in some way linked COVID-19 and 5G in April 2020 [11].
- c) In Ofcom's weekly survey, the 5G COVID-19 conspiracy theory has been seen online by 50% of respondents on average across the last 5 weeks [12]. Such simple exposure is likely to breed COVID-19 conspiracy beliefs [13].
- d) Online social media allow for individuals to build communities with shared narratives and worldviews, acting as echo chambers that can reinforce biased opinions such as conspiracy beliefs [14].
- e) The psychological phenomenon called the *confirmation bias* can help explain this [15]. This is the tendency for people to select the information that adheres to their system of beliefs and to avoid contradictions. People therefore selectively expose themselves to information that supports their previously held opinions whilst ignoring alternative viewpoints.

6. The problem: Conspiracy theories can have a significant impact on important societal issues [16]

- a) Conspiracy theories can change the way people think about events. For example, British people who read conspiracy information concerning the death of Princess Diana were more inclined to endorse conspiracy explanations, even though they perceived that their beliefs had not changed [17].
- b) Belief in medical conspiracy theories can increase distrust in medical authorities, which can affect people's willingness to protect themselves. People who endorse medical conspiracy theories are less likely to get vaccinated [18] or use antibiotics [19] and are more likely to take herbal supplements or vitamins [19]. They are also more likely to say they would trust medical advice from non-professionals such as friends and family [20].
- c) Conspiracy beliefs are also associated with prejudice and discrimination. For example, belief in conspiracy theories about Jewish domination of the world is associated with anti-Semitic attitudes and discrimination towards Jewish people (e.g., favouring policies that prevent Jewish people from buying Polish land [21]).
- d) People who were exposed to Jewish conspiracy theories also displayed increased prejudice towards this group, which then translated into biased behavioural tendencies towards Jewish people. Jewish conspiracy exposure also led to an increase in prejudice

towards a range of other unrelated groups - an effect demonstrating the wide-ranging impact of intergroup conspiracy beliefs [22].

- e) Conspiracy beliefs have also been linked with low-level criminal activity [23], and notably, violent intentions [24]. The FBI recently labelled conspiracy theories as a domestic terrorism threat [25]. Emerging empirical work supports these claims.
- f) Researchers have shown that people high in conspiracy thinking were more supportive of political violence and were more in favour of gun ownership laws [24]. Similarly, when people took the perspective that society is governed by conspiracies (vs. society experiencing little or no conspiracies) people were more supportive of violent extremism [26].

6.1 Consequences of COVID-19 conspiracy theories

- a) Although people are likely endorsing COVID-19 conspiracy theories as a route to make sense of the COVID-19 crisis [6], the consequences of doing so are potentially harmful.
- b) COVID-19 conspiracy beliefs have been associated with motivations to reject information from experts and authority figures and to view other major events as the product of conspiracies [9].
- c) Conspiracy believers are therefore likely to have negative attitudes towards prevention behaviours that are advocated by experts (e.g., distancing) and may prefer to use dangerous alternatives as treatments for the disease [19].
- d) As an example, alternative cures have been suggested by QAnon conspiracy believers, which is a conspiracy theory proposing there is a “deep state” against President Donald Trump. One of these suggestions by QAnon is that the virus can be warded off by drinking bleach [27].
- e) The alternatives at best can be ineffective and at worse, can be lethal [5]. In Iran, over 700 people have died after drinking toxic methanol based on the belief that it would cure COVID-19 [28].
- f) Prejudice and discrimination can increase towards groups who are perceived to be conspiring. Examples include Muslims being blamed for spreading the coronavirus in India, where hospitals were told not to admit any Muslim patients. This resulted in several deaths [29]. Attacks towards people perceived to be East Asian also have increased in the UK in recent weeks [30].
- g) UK police officials also strongly suspect that recent violence against telecommunications engineers and property was motivated by 5G COVID-19 conspiracy beliefs [31]. Similar attacks have been reported in many countries across the world.

7. Addressing belief in conspiracy theories

- a) Although counter-arguments are a promising tool to reduce belief in conspiracy theories, they are only successful when they are presented before conspiracy narratives [32]. Thus, ensuring the social media landscape has the facts readily available will help ‘inoculate’ the UK public against conspiracy theories.

- b) Often, however, the conspiracy account is widespread before the official explanation is published. Moreover, people who already believe in conspiracy theories will already be mistrustful of official explanations. Developing proactive approaches is therefore also important.
- c) One proactive technique that seems to work is to help people think more analytically. When people think clearly and critically, they are less likely to endorse conspiracy theories [33].
- d) Fulfilling psychological needs that draw people to conspiracy theories, such as feelings of control, also seems to help. Research has shown that people who are made to feel in control are less likely to believe in conspiracy theories [34].

8. Summary and recommendations

- a) People are drawn to conspiracy narratives because they provide simple explanations for complex problems. Belief in conspiracy theories in itself is not irrational. This is why many millions of people subscribe to conspiracy theories.
- b) Conspiracy theories are not trivial. They can have a significant and potentially harmful impact in a variety of important areas, including complying with expert advice. They may also inspire violent attacks.
- c) Focusing on interventions is important: counter-arguments can work, but developing proactive tools is also crucial.

May 2020

References

- [1] Douglas, K. M., Sutton, R. M., & Cichocka, A. (2017). The psychology of conspiracy theories. *Current Directions in Psychological Science*, 26(6), 538–542. <https://doi.org/10.1177/0963721417718261>
- [2] van Prooijen, J.-W., & Douglas, K. M. (2017). Conspiracy theories as part of history: The role of societal crisis situations. *Memory Studies*, 10(3), 323–333. <https://doi.org/10.1177/1750698017701615>
- [3] Franks, B., Bangerter, A., Bauer, M. W., Hall, M., & Noort, M.C. (2017). Beyond “Monologicality”? Exploring conspiracist worldviews. *Frontiers in Psychology*, 8, 861. <https://doi.org/10.3389/fpsyg.2017.00861>
- [4] van Prooijen, J. W., & Jostmann, N. B. (2013). Belief in conspiracy theories: The influence of uncertainty and perceived morality. *European Journal of Social Psychology*, 43(1), 109–115. <https://doi.org/10.1002/ejsp.1922>
- [5] Leman, P. J., & Cinnirella, M. (2007). A major event has a major cause: Evidence for the role of heuristics in reasoning about conspiracy theories. *Social Psychological Review*, 9, 18–28. <https://doi.org/10.1002/acp.2995>
- [6] Van Bavel, J. J., Baicker, K., Boggio, P. S., Capraro, V., Cichocka, A., Cikara, M., ... & Willer, R. (2020). Using social and behavioural science to support COVID-19 pandemic response. *Nature Human Behaviour*, 4, 460–471.

[COR0158]

<https://doi.org/10.1038/s41562-020-0884-z>

- [7] Addely, E. (2018, November). Study shows 60% of Britons believe in conspiracy theories. *The Guardian*. Retrieved from <https://www.theguardian.com/society/2018/nov/23/study-shows-60-of-britons-believe-in-conspiracy-theories>
- [8] Dearder, L. (2020, April). Coronavirus 5G conspiracy theories. *The Independent*. Retrieved from <https://www.independent.co.uk/news/uk/home-news/coronavirus-5g-conspiracy-theories-man-made-uk-poll-bleach-a9484066.html>
- [9] Uscinski, J. E., Enders, A. M., Klofstad, C. A., Seelig, M. I., Funchion, J. R., Everett, C. ... & Manohar, N. (2020). Why do people believe COVID-19 conspiracy theories? *The Harvard Kennedy School (HKS) Misinformation Review*, 1.
- [10] Vosoughi, S., Roy, D., & Aral, S. (2018). The spread of true and false news online. *Science*, 359(6380), 1146-1151. <https://doi.org/10.1126/science.aap9559>
- [11] Temperton, J (2020, April). How the 5G coronavirus conspiracy theory tore through the internet. *Wired*. Retrieved from <https://www.wired.co.uk/article/5g-coronavirus-conspiracy-theory>
- [12] Ofcom (2020, May). *Covid-19 news and information: consumption and attitudes*. Retrieved from <https://www.ofcom.org.uk/research-and-data/tv-radio-and-on-demand/news-media/coronavirus-news-consumption-attitudes-behaviour>
- [13] Jolley, D., & Douglas, K. M. (2014). The social consequences of conspiracism: Exposure to conspiracy theories decreases intentions to engage in politics and to reduce one's carbon footprint. *British Journal of Psychology*, 105, 35–56. <https://doi.org/10.1111/bjop.12018>
- [14] Del Vicario, M., Vivaldo, G., Bessi, A., Zollo, F., Scala, A., Caldarelli, G., & Quattrociocchi, W. (2016). Echo chambers: Emotional contagion and group polarization on facebook. *Scientific Reports*, 6, 37825. <https://doi.org/10.1038/srep37825>
- [15] McHoskey, J. W. (1995). Case closed? On the John F. Kennedy assassination: Biased assimilation of evidence and attitude polarization. *Basic and Applied Social Psychology*, 17, 395–409. https://doi.org/10.1207/s15324834basp1703_7
- [16] Jolley, D., Mari, S., Douglas, K. M. (2020). Consequences of Conspiracy Theories. In M. Butter, & P. Knight (Eds.) *Routledge handbook of conspiracy theories*. London: Routledge.
- [17] Douglas, K. M., & Sutton, R. M. (2008). The hidden impact of conspiracy theories: Perceived and actual influence of theories surrounding the death of Princess Diana. *Journal of Social Psychology*, 148, 210–221. <https://doi.org/10.1080/00220000701482210>
- [18] Jolley, D., & Douglas, K. M. (2014a). The effects of anti-vaccine conspiracy theories on vaccination intentions. *PLoS ONE*, 9, e89177. <https://doi.org/10.1371/journal.pone.0089177>

[COR0158]

- [19] Lamberty, P., & Imhoff, R. (2018). Powerful pharma and its marginalized alternatives?: Effects of individual differences in conspiracy mentality on attitudes toward medical approaches. *Social Psychology*, 49(5), 255-270. <https://doi.org/10.1027/1864-9335/a000347>
- [20] Oliver, J. E., & Wood, T. J. (2014b). Medical conspiracy theories and health behaviors in the United States. *JAMA Internal Medicine*, 174(5), 817–818. <https://doi.org/10.1001/jamainternmed.2014.190>
- [21] Kofta, M., Soral, W., & Bilewicz, M. (2020). What breeds conspiracy antisemitism? The role of political uncontrollability and uncertainty in the belief in Jewish conspiracy. *Journal of Personality and Social Psychology*, 118, 900–918. <https://doi.org/10.1037/pspa0000183>
- [22] Jolley, D., Meleady, R., & Douglas, K. M. (in press). Exposure to intergroup conspiracy theories promotes prejudice which spreads across groups. *British Journal of Psychology*. <https://doi.org/10.1111/bjop.12385>
- [23] Jolley, D., Douglas, K.M., Leite, A., & Schrader, T. (2019). Belief in conspiracy theories and intentions to engage in everyday crime. *British Journal of Social Psychology*, 58 (3), 534-549. <https://doi.org/10.1111/bjso.12311>
- [24] Uscinski, J. E., & Parent, J. M. (2014). *American conspiracy theories*. New York, NY: Oxford University Press.
- [25] Dodson, M. (2019). FBI labels fringe conspiracy theories as domestic terrorism threat. *The Daily Beast*. Retrieved from <https://www.thedailybeast.com/fbi-warns-against-qanon-pizzagate-in-report-highlighting-dangers-of-fringe-conspiracy-theories>
- [26] Imhoff, R., Dieterle L., & Lamberty, P. (in press). Resolving the puzzle of conspiracy worldview and political activism: Belief in secret plots decreases normative but increases nonnormative political engagement. *Social Psychological and Personality Science*. <https://doi.org/10.1177/1948550619896491>
- [27] Broderick, R. (2020, Feb). Trump's biggest supporters think the coronavirus is a deep state plot. *BuzzFeed*. Retrieved from <https://www.buzzfeednews.com/article/ryanhatesthis/trump-supporters-coronavirus-deep-state-qanon>
- [28] Forrest, A. (2020, April). Coronavirus: 700 dead in Iran after drinking toxic methanol alcohol to 'cure Covid-19'. *The Independent*. Retrieved from <https://www.independent.co.uk/news/world/middle-east/coronavirus-iran-deaths-toxic-methanol-alcohol-fake-news-rumours-a9487801.html>
- [29] Wallen, J. (2020, April). Indian hospitals refuse to admit Muslims as coronavirus causes Islamophobia surge. *The Telegraph*. Retrieved from <https://www.telegraph.co.uk/news/2020/04/19/indian-hospitals-refuse-admit-muslims-coronavirus-causes-islamophobia/>
- [30] Giuffrida, A., & Willsher, K. (2020, Feb). Outbreaks of xenophobia in west as coronavirus spreads. *The Guardian*. Retrieved from <https://www.theguardian.com/world/2020/jan/31/spate-of-anti-chinese-incident-in-italy-amid-coronavirus-panic>

[COR0158]

- [31] Waterson, J., & Hern, A. (2020, April 7). How false claims about 5G health risks spread into the mainstream. *The Guardian*.
<https://www.theguardian.com/technology/2020/apr/07/how-false-claims-about-5g-health-risks-spread-into-the-mainstream>
- [32] Jolley, D., & Douglas, K. M. (2017). Prevention is better than cure: Addressing anti-vaccine conspiracy theories. *Journal of Applied Social Psychology, 47* (8), 459 – 469. <https://doi.org/10.1111/jasp.12453>
- [33] Swami, V., Voracek, M., Stieger, S., Tran, U. S., & Furnham, A. (2014). Analytic thinking reduces belief in conspiracy theories. *Cognition, 133*(3), 572–585.
<https://doi.org/10.1016/j.cognition.2014.08.006>
- [34] van Prooijen, J.-W., & Acker, M. (2015) The influence of control on belief in conspiracy theories: Conceptual and applied extensions. *Applied Cognitive Psychology, 29*, 753 – 761. <https://doi.org/10.1002/acp.3161>