



Covid Vaccination Disputes in Czechia: Political Myth-Making and Boundary Work

Radek Chlup¹

Accepted: 5 July 2023 / Published online: 29 July 2023
© The Author(s) 2023

Abstract The paper argues that one of the reasons the suppression of scientific dissent during the Covid pandemic has been so severe was because the dominant scientific Covid narrative has been turned into a political myth, i.e. a narrative mobilizing groups in support of key moral values. Taking the example of Covid vaccination, I show the key values with which it became linked in Czechia. Questioning vaccination came to be seen as endangering these values, which made scientific dissent appear as particularly dangerous. I further analyse how this schematic discourse dealt with “free-vax” scientists, who were not against Covid vaccination as such but only against its blanket application. I show that their discreditation was mainly carried out by various fact-checking NGOs or social media influencers, who attempted to delegitimize them not by scientific arguments but rather by associating them with more dubious groups of social actors, or labelling their views as “disinformation”. This discrediting strategy was largely successful, but it also had some undesirable social and political backfire effects, in that it pushed some of the free-vaxxers out of the liberal democratic mainstream and forced them to seek alliance with more anti-systemic segments of the population in attempts at political resistance.

Keywords COVID-19 · Vaccination · Boundary-work · Political myths · Disinformation · Suppression of dissent

✉ Radek Chlup
radek.chlup@ff.cuni.cz

¹ Department of Philosophy and Religious Studies, Faculty of Arts, Charles University, nam. J. Palacha 2, 116 38 Prague, Czech Republic

Introduction¹

The Covid-19 pandemic led to many scientific disputes and controversies. The urge to save human lives and develop quick methods to fight the virus greatly intensified the “boundary-work” (Gieryn 1999), i.e. the rhetorical strategies that are used to present some views as scientifically correct, while others as having nothing to do with true science. In the course of 2020, there emerged what Liester (2022) calls “the dominant narrative”, namely “that COVID-19 vaccines are safe and effective, vaccine mandates are justified to reduce the morbidity and mortality associated with COVID-19, and non-FDA approved treatments for COVID-19 are ineffective or unsafe whereas FDA approved treatments are effective and safe against COVID-19.” Views dissenting from this narrative were suppressed and censored, sometimes in drastic ways that included retractions of scientific papers and dismissals from institutions (Shir-Raz et al. 2022).

When Liester (2022) speculates about the reasons scientific dissent was suppressed so strongly during the pandemic, the answers he offers are connected either with various cognitive biases (dissent is uncomfortable, changing one’s opinion is difficult etc.) or with financial gain of the pharmaceutical industry and the institutional actors cooperating with it. While I do not deny these factors, I find it equally important to highlight another dimension of the matter, one that comes into play when scientific debates take place not just in peer-reviewed journals and in scientific conferences, but in public media as well. In such cases, boundary-work is carried out by various popularizing scientists and journalists, as well as by self-educated laypeople, which changes its meaning slightly. As Barker et al. argue, while scientists create meanings of science that help them improve their reputation and receive public support for their research, “laypeople create meanings of science that challenge normative ambiguity and render their moral claims to be self-evident. The practical utility of science is to win a moral battle” (2021: 4). Public Covid debates are a case in point. They were not just neutral arguments about our state of knowledge. They were at the same time powerful disputes about morally proper behaviour, about ways to save human lives, about crucial democratic values such as freedom and responsibility.

In this regard, scientific narratives can easily turn into “political myths”, i.e. collectively transmitted narratives “by which the members of a social group (or society) make significance of their political experiences and deeds” (Bottici 2007: 179). To function as a political myth, a narrative must not only possess strong authority but also be dramatic, arousing strong collective emotions (Bouchard 2017). The Covid narratives of the deadly virus and the power of science to protect us against it fulfilled these criteria perfectly. But myths do not just put a drama on stage. They also offer its moral resolution, some kind of “closure, that summing up of the ‘meaning’ of a chain of events that we normally expect from well-made stories” (Bottici 2007: 211). In doing this, the myth transforms the dramatic emotions into an “ethos”, “a

¹ This article is part of the Special Issue “Corona Truth Wars” guest edited by Jaron Harambam and Ehler Voss.

set of aspirations, beliefs, principles, values, ideals, moral standards, visions of the world” (Bouchard 2017: 53), and mobilizes groups around these values and ideals. Again, this is exactly what we saw in the Covid debates.

The concept of “myth” in this sense does not imply that the narrative would be factually false (“just a myth”). A scientific myth can be factually correct, but it is mythical in that it makes a selection of scientific facts and arranges them into a narrative that arouses collective emotions and makes a strong moral point. “In short, scientific conceptions become myths whenever they are used as moral justifications, rather than intellectual explanations” (Walsh 2001: 62, summarizing Toulmin 1982). In this way, scientific conceptions are turned into *symbols*, i.e. highly condensed and polyvalent images that “come ... to absorb into their meaning-content most of the major aspects of human social life” (Turner 1967: 43–44). Thanks to this, they no longer refer to the scientific conceptions only but also to various social facts and ideological values. This in turn influences the scientific conceptions in question; for once such a conception is seen as closely linked to some highly prized moral values, it becomes difficult to subject it to neutral scientific debate. As a result, heterodox medical views may be rejected not on account of their scientific inaccuracy, but rather due to being perceived as endangering the moral values with which the dominant view has been associated on the symbolic level. It is for this reason, I argue, that the suppression of alternative scientific views was so strong during the Covid pandemic.

Covid Vaccination Disputes: The Free-Vaxxers

In my paper, I would like to illustrate this on the Covid debates in Czechia. I will focus on attitudes toward vaccination, as this has gradually become the most important distinguishing mark between various positions on the pandemic. Vaccines generally have strong symbolic power, and they are easily turned into building blocks of emotion-charged political myths. While in the early stages of the pandemic, the symbolic role was played by other types of measures, such as facemasks or lockdowns, once Covid vaccines emerged, they started to dominate the debate and function as its key symbol. For this reason, my main analysis only starts at the end of 2020 with the emergence of Covid vaccines.

Studies on boundary-work in vaccination disputes usually focus on the debate between the pro-vaxxers and the anti-vaxxers (Scott 2015; Barker et al. 2021). With regard to the quickly developed Covid vaccines, however, such a polarity is too simplistic. Kaine et al. (2022), for instance, distinguished no less than five different attitudes among New Zealanders: vaccination enthusiasts, vaccination moderates, vaccine cautious, vaccine ambivalent, and vaccine sceptics (who doubted the safety and efficacy of Covid vaccines, though they were not against vaccination in principle). Moreover, when mapping the willingness to be vaccinated in the general population, the tendency is frequently to regard vaccination as indisputably beneficial and to regard all kinds of vaccine cautiousness solely as a matter of insufficient knowledge and trust in science. As a result, when vaccine reservations are taken seriously at all by scholars, they are often conceptualized not as matters of scientific knowledge but

rather as symbolic articulations of various complex fears that our digitalized late modern global society arouses (Sturm and Albrecht 2020; Fuchs 2021; Lello et al. 2022). While I agree with such symbolic interpretations, this is not the line that I wish to pursue here. I am interested in those types of vaccination doubt that can be seen as a legitimate part of scientific knowledge debate, though one that has been marginalized and sometimes even violently suppressed during the pandemic (Liester 2022).

My main focus, therefore, will be on an intermediate group of established scientists and doctors, who were not against vaccination as such, but only against its blanket application during the Covid pandemic. While some would designate this group as “vaccine-hesitant”, I have decided not to use this term, for in many cases vaccine hesitancy is pictured as an implicitly defective stance caused by “lack of knowledge, trust and confidence in science and specific vaccines, and misinformation by social media” (Polzer and Wakewich 2021: 97). The scientists I will describe certainly do not suffer from lack of knowledge, and many of them are doctors who regularly vaccinate their patients and before the pandemic had no problems with vaccination whatsoever. It was only in relation to Covid vaccines that they started to be more cautious, although they still recommended them to many patients individually. I will designate these scientists as “free-vaxxers”, a term that has the advantage of being value-neutral and originally emic.²

The Czech “free-vaxxers” that I am focussing on in this paper are not against Covid vaccines, but they see them as imperfect both with respect to their efficacy (which has turned out to be much worse and shorter lasting than promised) and in view of their potential side effects.³ Accordingly, they insist that before vaccination we should assess the risks and benefits for each individual, leaving the decision up to them (ideally in consultation with their GPs). Based on Covid mortality statistics, this approach sees the benefits far outweighing the risks in the case of the “risk groups”, which consist of people over 60 years of age or people suffering from adverse health conditions. To these groups, vaccination should be recommended as strongly as possible. The imperative to vaccinate as many people as possible, on the other hand, is described as devoid of any scientific foundation. At the same time, free-vaxxers strongly favour natural immunity, arguing that it is more complex and long-lasting than that induced by vaccines. Thus, vaccination is useless for those who have already had Covid.

Although the free-vax position was marginalized in Czechia (as elsewhere), it was publicly supported by a number of established scientists and medical experts working at various state institutions. The best known among the general public is Jiří Beran, epidemiologist and vaccinologist, director of the Vaccination and Travel Medicine Centre at the Institute for Postgraduate Medical Education, an organization

² The term was particularly common in Italy (Pentin 2021; Morsello and Giardullo 2022), but it was occasionally used in Czechia as well (see freevax.cz), though only rarely.

³ The views summarized in this paragraph are distilled from the SMIS website (see below, the “Data and Methods” section), where they appear in numerous articles. See e.g. <https://smis-lab.cz/2021/11/18/pocty-ockovanych-a-neockovanych-pacientu-hospitalizace-a-jip-k-16-11-2021/> or <https://smis-lab.cz/2021/11/12/vyskyt-infekce-sars-cov-2-u-osob-neockovanych-a-ockovanych/>, accessed 26 March 2023.

founded by the Ministry of Health. Beran is an important authority in the field, and was thus allowed to speak in the mainstream media to a limited extent. Another important figure is Vojtěch Thon, an internationally respected immunologist from the Recetox research centre at the Faculty of Science of Masaryk University. Thon was the guarantor of an extensive study investigating the immune response to Covid-19, which was conducted by the Health Insurance Company of the Ministry of the Interior. His renown, combined with his careful way of communicating a mild version of the free-vax position, allowed him occasionally to speak in the mainstream media throughout the pandemic.⁴

The most important part in the free-vax milieu was played by the Association of Microbiologists, Immunologists, and Statisticians (SMIS), a civic organization established in 2020 by the virologist Hana Zelená (Center for Clinical Laboratories, Faculty of Medicine, University of Ostrava), immunologist Zuzana Krátká (Deputy Head of Immunology Laboratory at the private Gennet clinic), microbiologist Václav Fejt (Head of the Laboratory of Immunology and Serology, Havlíčkův Brod Hospital), expert in mathematical modelling Tomáš Fürst (Department of Mathematical Analysis and Applications of Mathematics, Palacký University Olomouc), and statistician Arnošt Komárek (Department of Probability and Mathematical Statistics, Faculty of Mathematics and Physics, Charles University, Prague).

SMIS was put together to allow efficient communication of an alternative view of the pandemic. Its activity has consisted, on the one hand, in publishing and disseminating various short studies, critical comments, and press releases, on the other hand in conducting original research, the results of which could be published in peer-reviewed journals (though mostly just Czech ones). SMIS soon started to function as a hub that brought together in one place the research and viewpoints of many other scientists and medical doctors, including GPs.

The social position of the free-vax scientists has been highly interesting. They were marginalized in mainstream media and frequently criticised by their pro-vax colleagues (see below, section “Free-Vaxxers in the Media”). However, they have not been fully expelled from the scientific community. They continued to be employed by respectable institutions and to publish occasional peer-reviewed papers (e.g. Janošek and Komárek 2023; Thon et al. 2023). They have remained more or less respected as experts in the scientific community. A telling sign of this is the fact that when in December 2021 the new Health Minister Válek established the National Institute for Pandemic Management (www.mzcr.cz/nizp/), the members included Thon, Zelená, Fejt, and Komárek. Their voice in the Institute was too weak, but it shows that in the scientific community they had not lost all credit.

⁴ The Czech media database Anopress.cz lists 54 mentions of Beran and 118 mentions of Thon in national printed newspapers and TV and radio stations in 2021.

Data and Methods

In what follows, I will examine the main mythical features of the dominant Covid vaccination narrative and will show how they were utilized in media discourse as rhetorical tools for discrediting all heterodox views including the free-vax one. I will also briefly analyse some of the social and political consequences this kind of mythical boundary-work has had on the free-vax community.

Methodologically, my study is based on long-term monitoring of Czech media, supplemented by “netnographic” participant observation of the Czech Facebook milieu (Kozinets 2010). The time span covered is between December 2020 (when vaccination started) and February 2022 (when the pandemic abruptly ended and all the Covid measures were lifted in Czechia). To provide wider context, I occasionally also refer to the months preceding this period, and in the “Backfire Effect” section also to further developments between March 2022 and March 2023.

As I focus on the free-vaxxers, I have been following all the important Czech free-vax blogs and Facebook pages, particularly those run by various scientists and having many thousand followers. The most important source for me has been the SMIS website (<https://smis-lab.cz/>) and their Facebook page (<https://www.facebook.com/smislab>, 9000 followers). I have been studying all the discussions taking place on them, as well as all the external web pages they were referring to (mostly news website articles or peer-reviewed papers from scientific journals). Regarding the dominant pro-vax position, my main source of information has been the Facebook pro-vax group “Supporters of the Snow Initiative” (<https://www.facebook.com/groups/iniciativasnih>, 11,000 members), which has served as a hub in which pro-vax activists (both laypeople and scientists) meet, share information, and do collective boundary-work. The group thus offers a representative portrait of all the important narratives that circulate in the pro-vax community. All of these Facebook groups also regularly referred to various fact-checking websites and social media pro-vax influencers, who were an important part of the debates; it is these external references that I use as my main sources in the boundary-work section. At the same time, I occasionally participated in Facebook discussions myself, asking further questions or testing the reactions of other users.⁵

By monitoring both the pro-vax and the free-vax Facebook groups, I was also able to get a good overview of the Covid narratives spread by the official media, since these were constantly referenced in the Facebook discussions. It is these official media articles that I use to reconstruct the mythical side of the pro-vax approach. In my analysis of the official media coverage, I was greatly helped by the Anopress.cz full-text database, which monitors all the Czech official media and which has allowed me to search them systematically using various keywords. In this way, not only have I discovered articles that slipped my attention at the time of their publication, but I could also assess the frequency of various topics (such as counting

⁵ I was doing this under my own real academic identity and was open about being a researcher.

all the instances when free-vax scientists were given opportunity to present their views in the mainstream media).

The Dominant Pro-vax Position as a Political Myth

I will start my analysis by briefly introducing the main mythical features of the dominant pro-vax position. Without claiming to be exhaustive, I will highlight three moral and ideological principles with which the pro-vax position was closely tied in public discourse. I have selected them on the basis of the frequency with which they appeared in Facebook discussions in the groups that I followed. Two of these principles were widely shared internationally, the third one is specifically Czech. In each case, I will briefly comment on the way these mythical schemes are one-sided and over-simplistic.

Vaccination as a Sign of Moral and Social Responsibility

The basic moral ethos associated with vaccination was that of social responsibility. Proponents of vaccination saw themselves as defending the interests of the entire body of society over the interests of the individual. Thus, they were ready to accept various limitations of individual freedom in order to protect the safety of society as a whole.

A good example is the article in the *Deník N* newspaper “The pandemic is Changing the Traditional Understanding of Personal Freedom: Our Body is no Longer Just Our Body” by the influential journalist and philosopher Petr Fischer, former head of the Vltava station of Czech Radio. As Fischer (2021) argues, the pandemic “makes unacceptable the voluntary acceptance of the risk of disease because this is always associated with the risk of infecting others”. Vaccination is a case in point: “it not only protects the individual from the disease, but also prevents further spread of the disease because, as studies show, a vaccinated person will hardly spread the disease even if he or she becomes infected”. In effect, “we have to give up freedom in the sense of ownership of the body, because my body, as the pandemic situation shows, is always already disposing of the bodies of others”.

Fischer certainly was not alone in expressing such views. As another philosopher, David Černý, put it in an interview for *Deník N*, “Covid vaccination is a moral obligation, the unvaccinated ride as stowaways” (Horák 2021). It was on this basis that in June 2021 health insurance companies proposed to no longer reimburse Covid tests for the unvaccinated. As a member of the Board of the Association of General Practitioners Václav Šmatlák said for *Czech Radio* on this occasion: “These people should really take a share of the responsibility, and they should definitely contribute financially, because they rely on the protection by the vaccinated community within which they reside” (Fenyková 2021).

In scientific terms, these arguments were not without problems. Initially, they relied on the notion that vaccinated people will be protected from catching the disease. Once it became clear that the vaccinated are not protected against being

infected by Covid, it was argued that they do not spread it further, or spread it much less. By October 2021 it was already clear that not even this expectation was fulfilled (Singanayagam et al. 2021). Accordingly, in the Ministry of Health's November 2021 vaccination campaign, the only benefit of the vaccines mentioned was protection against serious forms of the disease, and the social responsibility entailed was claimed to consist in alleviating the overcrowded hospitals.⁶ Although this was true, it ignored the fact that those who had already had Covid were apparently protected against severe disease to an equal degree even without vaccination (Chemaitelly et al. 2021; Turner et al. 2021; Gazit et al. 2021). We can thus see that the ideological notion of "responsible protection of others" remained constant, but at different times it was justified by different scientific arguments.

Vaccination as a Mark of Rationality

The acceptance of vaccination as the main solution of the pandemic was generally seen as equal to embracing scientific consensus, to rejecting "myths" in the name of "facts". Science was pictured as a source of reliable knowledge, and journalists frequently claimed that the state would be governed better if it relied on scientific experts rather than unreliable politicians who only wish to please their voters.

A good example is the article "Ten Reasons for a Liberal to Support Mandatory Vaccination" by Petr Honzejek (2021), the deputy editor in chief of the *Hospodářské noviny* newspaper. As one of these reasons, Honzejek gives "respect for rationality":

The scientific consensus of epidemiologists and vaccinologists is that vaccination helps. The benefits clearly outweigh the risks for all age groups, including children. Of course, it is possible to dispute this; there is always a minority viewpoint on which to base one's doubts. But it is worth considering that in other areas we generally trust experts. We sit in an aircraft with the confidence that a professional pilot is behind the controls. ... What has raised our standard of living to its present level is respect for the scientific method and applied rationality. Not faith in conspiracy theories or the belief that chanting or eating onions will ward off infection.

Again, Honzejek was only formulating clearly what was implicitly present in dozens of other newspaper articles. "Covid-19 is bad, yes. But we're facing worse, a pandemic of bad thinking", claimed philosopher David Černý in another *Hospodářské noviny* piece (Černý 2021). There was a persistent link being drawn between unwillingness to be vaccinated and the acceptance of conspiracy theories. "Why are People Scared of the End of the World, Chemtrails or the Covid Vaccine", asked the headline of an article at the *Aktualne.cz* media server (Gazdík 2021), thus suggesting the irrationality of Covid vaccine rejection. "Conspiracy theories" in this discourse served as a discrediting label for beliefs that are clearly irrational

⁶ <https://www.mzcr.cz/tiskove-centrum-mz/roadshow-v-ramci-ockovaci-kampane-pokracuje-tentokratve-fakultni-nemocnici-bulovka/>. Accessed 26 March 2023.

(Harambam 2020a). On other occasions, vaccination reluctance was presented as a result of “disinformation” (see below, section “Disinformation as a Political Myth”).

The mythical distortion in this case consists in presenting a schematic black-and-white image of realities that were actually much more complex. While many anti-vax positions did indeed go against the standards of scientific rationality, this was not true in all cases. Free-vax scientists were just as rational as their pro-vax colleagues. Moreover, a survey carried out by researchers from Masaryk University found that in December 2020 the highest distrust of vaccination (40%) was among university educated people, although at the same time this group was most willing to get vaccinated. As one of the researchers commented on this paradox, “increased trust in institutions appears to allow educated elites to overcome otherwise perceived risks and fears associated with vaccination”.⁷ The correlation between vaccine acceptance and rationality is thus more complicated than the mythic scheme suggests.

Vaccination and the West–East Divide

Although the previous two mythical principles were widespread throughout the world, in Czechia they were frequently coloured by the Czech “geopolitical imagination” (Dimtter and Dodds 2008). In the Czech case, the crucial geopolitical imagination is tied to the West–East distinction, which divides the world into the developed, progressive, democratic West, and the relatively less developed East that is lacking in these achievements. In European post-communist countries, this has led to a tendency to imitate the West and denounce all that the elites of each country want to eradicate as “Eastern”. In symbolic geopolitics of identity, the West stands for the ideal self-image of the nation, while the East stands for the dangerous Other who casts this self-image in doubt (Eberle 2018).

It is therefore not surprising that even the Covid debate was framed in West–East terms. From the beginning, the mainstream elites criticised both Czech government and the free-vax scientists as too “Eastern”, referring to various Western countries as examples of how the pandemic can be successfully managed. They have repeatedly argued that the Czechs, unlike the citizens of more civilized Western countries, are doing so badly during the pandemic because they are too distrustful of state institutions and scientific consensus. To quote some sample media headlines: “The New Iron Curtain. Eastern Europe, Including Czechia, Lags Behind the West in Vaccination, Mainly Because of Vaccine Distrust” (Houska 2021). “Europe Once Again Divided into West and East. This Time Around Vaccination” (Palata 2021). “Czechs Suffer From Post-Communist Syndrome, That is Why They Don’t Want to be Vaccinated, Says Psychologist” (Dohnalová 2022).

Once again, geopolitical myths of this kind are all too simplified. A longitudinal research organized by the Psychological Institute of the Czech Academy of Sciences

⁷ <https://www.muni.cz/pro-media/tiskove-zpravy/covidovy-ockovaci-paradox-vedci-z-mu-zjistili-ze-vzdelani-lide-duveruji-ockovani-nejmene-ze-vsech-ockovani-proti-covid-19-vsak-podporuji-nejvice>. Accessed 26 March 2023.

has indeed shown a remarkable correlation between the willingness to get jabbed and one's identification with the West and with "democratic Europe"; on the other hand, the vaccination rate has also been found to be higher among those who identify with the East (Marek 2022). In other words, the anti-vax attitude seems to be more about a general lack of identification than about the West–East divide. In addition, it is not clear whether the decreased identification with the West is the cause or effect of vaccine reluctance. My own long-term observation of the free-vax science Facebook bubble has shown, for instance, that most of its members shared liberal democratic attitudes at first, and it was only as the liberal pro-Western worldview came to be mythically identified with the pro-vax approach in public discourse that some of the free-vaxxers have become disillusioned with it (see the "Backfire Effect" section below). As the SMIS member Krátká put it before the October 2021 parliamentary elections: "The traditional parties that we used to vote for have failed us completely. Clearly, respirators have reduced the oxygen supply to the brain of their MPs. ... So we quit and vote for new smaller [protest] parties to bring the big ones to their senses."⁸

Neutralizing the Free-Vaxxers

Free-Vaxxers in the Media

I may now proceed to analyse how the dominant mythical discourse dealt with the free-vaxxers. I will start by a brief survey of how the free-vaxxers were dealt with by the mass media, which play an important part in boundary-work, frequently taking "upon themselves the task of distinguishing genuine scientific knowledge from putatively less responsible claims" (Gieryn 1999: 17).

As one might expect, mainstream media were generally pro-vax, though not exclusively. The Czech mainstream media form a scale,⁹ on top of which one finds what I would call "media with a moral mission", which do not just want to inform, but also to educate. The prime example is *Czech Television* and *Czech Radio*, but not less important are various non-state liberal newspapers and media servers, such as *Deník N*, *Hospodářské noviny*, and *Seznam Zprávy*. These were all fully pro-vax, and if they mentioned free-vax positions at all, they immediately relativized them and counterbalanced them with pro-vax comments. At the lower end of the scale one finds media which mix serious news with elements of infotainment, such as the *CNN Prima News TV*. While these were also largely pro-vax, they tried to entertain their

⁸ https://www.facebook.com/gvendy/posts/pfbid0uYfdJyZlJHARlYUjV6nD8yJrQsscE4nuBypTuw4wTzQyJlzf1wFNcBdTizPrAnHjl?comment_id=10221337561210342&reply_comment_id=10221345841377341. Accessed 14 May 2023.

⁹ While no comprehensive analysis of Czech media and their ideological viewpoints exists, we can get a good provisional picture from the Media Map project, which analyses Czech online media on the basis of their Facebook audiences and the likes they give to various media posts (Malecký 2018). The characterization of ideological positions that I give in what follows is partly based on the Media Map, partly on my long term observation particularly during the pandemic.

audience by occasionally doing interviews with free-vax scientists. In January 2022, *CNN Prima News* even hosted a “super-debate” between four pro-vax and four free-vax scientists.¹⁰ As a result, the public had enough opportunities to get acquainted with free-vax views.

At the same time, mainstream media did not really acknowledge the free-vax position as a named category of its own. Rather, the basic tendency was to reduce the wide range of Covid positions to a simple binary scheme, contrasting the science-based and morally responsible pro-vax position with the irrational and irresponsible “anti-vaxxers”. These two alternatives soon started to function as powerful mythical images which allowed the public to make sense of untidy collective experiences by subordinating them to a simple pattern, and leaving each citizen with an unequivocal choice between just two positions.

How did the media deal with the free-vaxxers, who did not quite fit this binary scheme? One would expect that the free-vaxxers might be classified as anti-vaxxers, but while this did indeed happen on social media (e.g. in the “Supporters of the Snow Initiative” Facebook group, <https://www.facebook.com/groups/iniciativasnih>), mainstream media did not usually have recourse to this strategy. Since the free-vaxxers were often respected doctors and scientists, they were not so easy to deprive of their scientific status. When *CNN Prima News* TV staged the above-mentioned “super-debate” between four pro-vax and four free-vax scientists, these were framed as standard exchanges of different scientific opinions. Not even the pro-vax scientists taking place in these debates doubted the scientific credit of their opponents, though they expressed strong disagreement with some of their views. Even when the free-vax scientists were mentioned by some of the “media with a moral mission” (e.g. by *Deník N*, which regularly featured various in-depth analyses of scientific Covid debates), their views were presented as more or less legitimate, though highly improbable because on account of contradicting the “scientific consensus”. In the end, the free-vaxxers proved to be a recalcitrant category, and obviously the safest way to deal with them was to mention them as little as possible. It is telling that the Anopress.cz database only shows twelve mentions of SMIS in national printed newspapers and TV and radio stations altogether since June 2020. None of them are negative, but most of them are very brief, and only in five cases do they consist of short interviews with SMIS members which gave them space to present their views. This is in sharp contrast to the pro-vax scientists, who were interviewed by mainstream media on a weekly basis throughout the pandemic.

However, the free-vaxxers turned out to be impossible to silence completely. For one thing, there was a small group of mainstream media which adopted the free-vax approach: the conservative news website *Echo24* (both online and printed, with 64,000 readers per printed issue), and the weekly journal *Reflex* (both online and printed, with 276,000 readers per printed issue). An important role was played by the journalist Angelika Bazalová, a member of the Board of the Czech News Agency, who regularly conducted lengthy interviews with free-vax scientists. While

¹⁰ <https://cnn.iprima.cz/epidemie-skoncila-a-neni-co-resit-ze-ockovani-chrani-naivni-kroutil-hlavou-sinkora-56456>. Accessed 26 March 2022.

till January 2021 she was able to publish these in various mainstream liberal media (including the “morally responsible” *Deník N*), since February 2021 she was only admitted to *Echo24* and *Reflex*. Still, the overall influence of *Reflex* and *Echo24* is relatively small and cannot match that of other mainstream media, especially as both websites are partly behind a paywall.

An even more important part was played by various alternative media, particularly the moderate ones which avoid straightforward conspiracism and focus on critically commenting on everyday politics. The most important one is the *Parliament News* (www.parlamentnilisty.cz), a political tabloid giving ample space to various mildly anti-systemic viewpoints. In January 2022, *Parliament News* was the ninth most visited news server in Czechia with more than 5 million visits per month.¹¹ At the same time, it is commonly classified as a “disinformation” website, and most public actors who see themselves as part of the mainstream would never have anything to do with it. It is all the more significant, therefore, that the free-vax scientists, such as Beran or the SMIS members Krátká and Fürst, have transgressed this unwritten rule and have repeatedly given interviews to *Parliament News* – much to the moral panic of some of the mainstream elites. “Scientists Against Scientists. Renowned Experts Explain Why They Allow Themselves to be Used by Disinformers”, as the morally responsible *Deník N* newspaper characterized the situation in one of its headlines (Moláček 2022).

The pandemic has thus partly blurred the formerly clear moral boundary between the alternative media and the mainstream. Suddenly, respected scientists working for state institutions have been pushed out of the mainstream to the formerly forbidden zone of the moderate alternative media. At the same time, alternative media started to publish detailed summaries of papers from renowned scientific journals, such as *Nature* and *Lancet*, whenever these seemed to contradict the dominant pro-vax position (e.g. when reporting on the efficacy of natural immunity).¹² In this way, alternative media used respected science to undermine official Covid narratives. This again helped to blur the distinction between the mainstream and the alternative, and between proper science and fake science (cf. Akrich and Cochoy 2023). As the free-vaxx journalist Angelika Bazalová summarized the situation in retrospect:

I used to boycott *Parliament News*, like a proper member of the liberal elite. I didn’t read them, I didn’t share their articles. I used to read *Deník N*, to which I contributed. But then came the pandemic. And everything was turned upside down. Suddenly, *Parliament News* was one of the few places where one could hear the opinions of scientists labelled as “disinformers” and “Russian-paid

¹¹ <https://www.similarweb.com/website/parlamentnilisty.cz/#overview>. Accessed 26 March 2022.

¹² While *Parliament News* usually did so in a superficial tabloid manner (e.g. <https://www.parlamentnilisty.cz/arena/monitor/Kdo-skutecne-siri-nakazu-covidem-Britsky-pruzkum-vse-prevraci-naruby-A-co-ted-683379>), on other alternative websites the summaries were sometimes surprisingly detailed and accurate, e.g. <https://www.ac24.cz/zpravy-ze-sveta/meli-jste-covid-pravdepodobne-si-budete-vytva-ret-protilatky-po-cely-zivot-pise-nature/>, or <https://www.ac24.cz/zpravy-ze-sveta/studie-dokazuji-ze-tbunky-minimalizuji-poskozeni-zpusobene-omikron-variantou/>. All accessed 26 March 2022.

trolls” by other “proper” journalists. I knew this wasn’t true. And so I rehabilitated *Parliament News*, and I parted ways with *Deník N* for good.¹³

Rhetorical Strategies of Boundary-Work

While in the mass media, the free-vaxxers appeared as a disquietingly “liminal” group, it was in various slightly more specialized science popularization forums that the actual boundary-work was being done and the free-vaxxers were dealt with unequivocally. One such important platform was the Czech Skeptics Club Sisyfos (www.sisyfos.cz), founded in 1994. In December 2021 Sisyfos issued a statement whose aim was to delegitimize SMIS (Sisyfos Committee 2021). Instead of doing this by means of scientific arguments, however, Sisyfos used a more oblique rhetorical strategy. It criticised SMIS because some of its members were associated with the Healthy Forum, a civic platform that united a wide range of critics of the dominant approach to the pandemic, from scientists and medical doctors to psychotherapists, lawyers, and artists. The Healthy Forum was a political activist platform, not a scientific one, and on its website (www.zdraveforum.cz) it was quick to share all kinds of information criticising the official measures. It is therefore not difficult to criticise them for sharing some dubious texts (e.g. from the conspiracist *Open Your Mind* website, <https://otevrisvoumysl.cz>). In the eyes of Sisyfos, this “contaminates” even all associated organizations, such as SMIS (whose members are listed on the Healthy Forum website as its supporters):

The disinformation character of the Healthy Forum is so fundamental that it contaminates even affiliated associations that try to pose as professional groups, such as ProLibertate (association of lawyers) in the legal field or the Association of Microbiologists, Immunologists and Statisticians (SMIS) in the medical and epidemiological field. The associations try to present themselves as associations of experts, but their strong links to the disinformation group Healthy Forum severely undermine their credibility. This means that any expert text they produce is a priori unreliable and requires careful scrutiny of both their sources and their work with those sources before use. Because the content tends to be more technical texts, this checking is ultimately more time-consuming than writing a similar article de novo. Apriori implausibility does not necessarily mean that every text produced by, for example, SMIS is false or misleading. It does mean that the risk of fallibility is disproportionately high. ... SMIS appears to be a particularly dangerous disinformation organization because their members have formal erudition in the subject matter. For this reason, they are capable of producing, perhaps unintentionally but quite possibly intentionally, sophisticated disinformation. Precise fact-checking of

¹³ <https://www.facebook.com/gvendy/posts/pfbid02zNanYmpkVHTFMwQuaC1ztpZt5gr3vSjLdbne2xar7e4bYFFhFh1mhB1pdV8DSkxKI>, 7 June 2023. Accessed 18 June 2023.

such texts is extremely difficult, so the appropriate strategy to filter out disinformation is to ignore the content produced by SMIS.

This text may be seen as paradigmatic, illustrating all the important features of boundary-work in relation to the free-vaxxers. This boundary-work mostly avoids actual analyses of free-vax claims. A good example is the pro-vax Facebook group “Supporters of the Snow Initiative” (https://www.facebook.com/groups/iniciativa_snih), which features dozens of mentions of SMIS, but no actual attempt to thoroughly deal with their claims. All I found on a few occasions were attacks at various isolated points of the argument (neglecting this kind of data or getting this piece of data wrong), without really considering the entire argument as such. Thus, e.g., when on several occasions users asked the group to comment on the SMIS paper “Antibodies from Previous Infection Bring Sufficient and Long-Term Protection Against COVID-19” (Krátká et al. 2021) and find faults in its arguments, the comments were few and insubstantial.¹⁴

Instead, free-vax views were delegitimized by means of various rhetorical strategies. Two of such strategies are particularly frequent and powerful (for both, cf. Shir-Raz et al. 2022). (1) Free-vax views are labelled as “disinformation”, and it is suggested that they are not just factually wrong, but that there is actually a secret intention to mislead the audience by superficially clothing the argument in scientific dress. Thus, e.g., a SMIS post shared in the “Supporters of the Snow Initiative” group elicited the following comments:

I’ve read a couple of SMIS posts... and it’s pure hell! I don’t understand how such a thing is possible – a bundle of lies, manipulation, disinformation!
It’s a deliberate lie. Anyone who understands percentages can see that. Which is what I’d expect from a doctor. So there’s no point in explaining anything to them. They know the truth, but they refuse to admit it.¹⁵

(2) The “contamination” strategy (called “discredit by association” by one of the informants in Shir-Raz et al. 2022) associates free-vaxxers with various more dubious groups of social actors, ideally stretching the chain of associations all the way to the conspiracist anti-vaxxers. The aim of this strategy is to show that in the end there are really just two options to choose from, pro-vax and anti-vax, and all the seemingly intermediate positions are nothing but anti-vax views in disguise. At the same time, the anti-vax position is delegitimized by being associated with “irrational” conspiracism. In the “Supporters of the Snow Initiative” group, this was usually done by calling SMIS “the science section of the Healthy Forum”, and then

¹⁴ See https://www.facebook.com/groups/iniciativasnih/posts/337759661223104/?comment_id=340054914326912, <https://www.facebook.com/groups/iniciativasnih/posts/336136968052040/> and <https://www.facebook.com/groups/iniciativasnih/posts/411139257218477/>, 5 August, 30 July, and 26 November 2021 respectively, all accessed 18 June 2023). Of these, only the first post managed to elicit some scientific comments in a separate Google Docs file (https://docs.google.com/document/d/1sPs_YjTbFB_e0NAKH_y2IOocw2A24j83WNRIQc8Jl_c/edit), but all of them just minor ones.

¹⁵ <https://www.facebook.com/groups/iniciativasnih/posts/414022800263456/>, 2 December 2021. Accessed 18 June 2023.

listing other dubious actors associated with the Healthy Forum who held esoteric or conspiracist views.¹⁶

Both strategies may be illustrated by a highly influential text by Petr Ludwig, a social media influencer with 42,000 followers on Facebook, and one of the most important propagators of the pro-vax position. In his recommendation on who to trust during the pandemic (international scientific journals and institutions) and who not (ordinary Czech media), he has a special section on SMIS:

Beware of the SMIS website, which is close to the Health Forum, which in turn often shares messages from the disinformation website *Open Your Mind*. This is a more sophisticated version of disinformation, often translated from foreign anti-vax servers and often manipulating sources and data.¹⁷

This is an illustrative simplified version of the “contamination” approach: Ludwig discredits SMIS by associating them with the Healthy Forum, who in turn are associated with the conspiracist *Open Your Mind* website. In this way, the toxicity of *Open Your Mind* is transmitted all the way to SMIS, and one gets the impression that the manipulation of sources and data applies to SMIS too. At the same time, SMIS is accused of deliberately spreading disinformation.

Disinformation as a Political Myth

The “disinformation” charge is not just another way of saying that the free-vax position is incorrect. In Czech political debates, “disinformation” is a frequently used term that serves as a highly condensed mythical symbol. It differs from the more neutral “misinformation” (a term rarely used in Czechia) by implying the intention of creating information chaos. It is closely linked to the “Russian hybrid warfare” narrative (Daniel and Eberle 2021), giving the impression that it is spread by organized armies of Russian-paid “trolls” with the aim of dismantling the Czech democracy from within. In this way, “disinformation” associates a mythical battle between the West and the East, the “Elves” (as the Czech fact-checkers call themselves) and the “Trolls”, between democracy and autocracy, order and disorder, truth and lies, reason and irrationality (Baumann 2020). This gives particular weight to all the disinformation charges. Thus, even vaccination doubts were occasionally presented as the result of Russian propaganda. “The Anti-Vaccine Frenzy Shows we’ve Lost yet Another Kremlin Attack,” as one journalist put it (Gabal 2021). However, it needs to be said that this association of anti-vax views with Russia was rare in 2021, and it only became intense after the Ukraine invasion in February 2022.

In view of this, it is not surprising that a crucial part in boundary-work vis-à-vis the free-vaxxers was done by Czech fact-checking organizations. The most

¹⁶ See, e.g. <https://www.facebook.com/groups/iniciativasnih/posts/420060879659648/>, 11 December 2021, or <https://www.facebook.com/groups/iniciativasnih/posts/499612291704506/>, 20 April 2022, both accessed 18 June 2023.

¹⁷ <https://www.facebook.com/petrudwig/posts/10158606790808087>, 6 December 2021. Accessed 26 March 2022. The post has 1,000 likes and 288 shares.

important one is <https://manipulatori.cz/>, with the journalist Jan Cemper as its editor-in-chief. Although the website presents itself as “fact-checking”, a more appropriate characterization would be “narrative-checking”, for unlike other websites that neutrally check the factual correctness of all types of political actors regardless of their ideological orientation (in Czechia, e.g., <https://demagog.cz/>), manipulatori.cz takes a distinct ideological stance, defending liberal democratic, pro-EU, anti-Russian and mainstream scientific views. The aim is to discredit all alternative narratives by showing them as factually incorrect, but in this the factual side is frequently mixed up with non-factual elements. Thus, e.g., their typical way to debunk anti-vax views that designate the mRNA Covid vaccines as “experimental”, and thus dangerous, is to argue that the vaccines have been properly approved by all relevant institutions (e.g. Cemper 2021a). While this is true (if we skip over the fact that the approval has been “conditional” only, i.e. based “on less comprehensive clinical data than normally required”),¹⁸ it says nothing about the actual safety of the vaccine, but solely about its institutional legitimacy.

As one might expect, manipulatori.cz devoted most of their debunking articles to anti-vax views. While these articles tended to be detailed and frequently contained sophisticated scientific arguments, with the free-vaxxers the situation was completely different. SMIS was attacked in one single article, which accused them of “twisting hospital statistics” (Cemper 2021b). The “twisting” took place in an article by Fürst (2021b) which showed that according to official statistics the number of patients hospitalized in ICUs in 2021 was actually 10 % lower than in previous years, and Covid patients represented less than 5 % of this number. The article was not actually published on the SMIS website, but on the blog of the film director Jaroslav Tománek, one of the founding members of the Healthy Forum. Cemper debunked the article by arguing that although the total number of patients was indeed lower, the length of their stay in ICU was almost 30% longer. While this is a legitimate argument, what is more interesting is the rhetoric in which it was wrapped. Cemper did not just correct Fürst; he accused him of “twisting the statistics” (though in reality Fürst just seems to have had less complete data). In addition, in the same article Cemper discussed another such “twisting”, this time by the political anti-systemic Chcípl PES initiative, which was (in)famous for organizing rude anti-lockdown protests and was constantly ridiculed by the mainstream media (its ethos was roughly analogous to the Canadian convoy protest of Jan–Feb 2022). By discussing SMIS hand in hand with this much more plebeian organisation, Cemper applied the “contamination” strategy”, creating the impression that there is little difference between the two groups.

Labelling SMIS as spreaders of “disinformation” was a very efficient way of establishing the boundaries of “proper science”. As a result, not a single argument raised by SMIS was taken seriously by the pro-vaxxers. As an example, I can give an experiment that I carried out on Facebook in November 2021. At that time there was a war raging on social media between the advocates of vaccination and the

¹⁸ <https://www.ema.europa.eu/en/human-regulatory/marketing-authorisation/conditional-marketing-authorisation>. Accessed 26 March 2022.

defenders of natural immunity. The latter appeared to be more efficient according to several studies (Chemaitelly et al. 2021; Turner et al. 2021; Gazit et al. 2021), but there was also one CDC study (Bozio et al. 2021) that suggested the opposite, claiming that the efficacy of vaccine-induced immunity was five times higher than that of natural immunity. The study was widely shared on social media and propagated by *Czech Television*.¹⁹ SMIS immediately did an analysis of the study, pronouncing it methodologically faulty (Fürst 2021a).²⁰ I tried to refer to Fürst's arguments in several Facebook discussions, asking pro-vax supporters to demonstrate faults in his reasoning. The answer was always the same: the pro-vaxxers refused to read the article, claiming that SMIS spreads disinformation (and "proving" this by referring to Cemper 2021b). Similarly, when in 2022 the media server *Seznam Zprávy* in the user comments banned references to the SMIS website because of its alleged "disinformation nature", the ban was justified by reference to Cemper 2021b and the Sisyfos statement on SMIS quoted above.²¹ The "disinformation" label thus has an "epistemic quarantine" effect: it presents some websites as essentially toxic, disqualifying all the arguments contained in them.

Backfire Effect: Free-Vaxxers Turn Political

The attempt to frame the free-vaxxers as disinformers threatening Czech society and its pro-Western democratic values has been largely successful. Yet, as Shir-Raz et al. (2022) show, attempts to suppress one's opponents can frequently be counterproductive, causing dissenters to resist and fight back. This is just what has happened in Czechia as well.

For a long time, free-vax scientists resisted turning their approach into a political myth of its own. SMIS in particular insisted that its task is to provide neutral scientific analyses based on data and research. There were of course various ideological principles that one could trace behind these seemingly impartial analyses. From the outset, there were warnings against restricting individual freedom and subordinating science to financial gain. As SMIS states in its opening manifesto (<https://smis-lab.cz/smis/>): "Laboratories should be partners with epidemiologists and clinicians, but they should not become a tool for politicians to restrict rights and freedoms. Nor should they help select groups make huge financial gains from health insurance." But the main ideological principles were only expressed after the pandemic in March 2022 in the Charta 2022 manifesto, of which many free-vax scientists were the founding signatories. Among other things, it says (<https://charta2022.cz/charta-2022/>):

¹⁹ <https://ct24.ceskatelevize.cz/veda/3394966-ockovani-je-proti-covidu-az-petkrat-ucinnejsi-nez-prodelani-nemoci-ukazuje-rozsahla>. Accessed 26 March 2022.

²⁰ In his analysis Fürst was leaning heavily on the Swedish biostatistician Martin Kulldorff (2021), one of the authors of the Great Barrington Declaration.

²¹ See <https://www.blogosvet.cz/article/dezinformator-expertem-xdqjN>. Accessed 26 April 2023.

The well-being of society can never be achieved at the expense of the well-being of individuals. We know from the history of our country and from world history that every attempt to achieve individual well-being through the principle of the greater good has ended in failure. ... It is not the duty of the state to dictate to people what they should do with their lives and health; it is the duty of the state to create the conditions that allow everyone to take responsibility for his or her own life and health.

In this way, the free-vax approach was gradually becoming a political myth of its own. Hand in hand with this came the increasing political activism of some of the free-vaxxers. Whereas throughout 2021 the aim of free-vax scientists was to influence the state authorities through standard institutional channels, e.g. by issuing expert opinions on various pandemic measures, in 2022 they increasingly turned to political protests – and in these they started to cooperate with some of the more radical anti-systemic activists. Thus, for example, when the Czech Parliament debated the Pandemic Law in January 2022, SMIS propagated the daily demonstrations organized by the radical anti-systemic Chcípl PES initiative. As they put it in the invitation: “We have almost nothing in common with the organizers and their partners. The only thing that connects us is that we consider it essential that everyone who wants to prevent the approval of the amendment to the Pandemic Law comes to Lesser Town Square. We will be there.”²²

This trend continued with the Charta 2022 platform, whose aim was to unify various critics of the pandemic measures (and whose name associated the famous Charta 77 signed by Czech anti-communist dissidents). This brought some of the free-vaxxers together with several more anti-systemic public actors, such as the lawyer Jindřich Rajchl, who soon after that launched a populist political party PRO, with the SMIS member Zelená as one of its (unsuccessful) candidates for the September 2023 Senate elections. Rajchl took part in large anti-systemic protest rallies in Prague in September 2022, and he himself organized another such rally in Prague on 11 March 2023. These rallies were not just critical of the government, but also of the strong official support of Ukraine, advocating for a pragmatic neutral position of Czechia in the style of Victor Orbán’s Hungary. When SMIS advertised the March 2023 rally on its Facebook page, the post received 1,000 likes, but dozens of fans expressed strong dissatisfaction and started to leave the group.²³

“SMIS should have remained apolitical. Revolutions have never solved anything.”

“I am so sorry that you take part in events like this. At what point did you develop this pro-Russian attitude?”

“I really admire your Covid activities, but I fear that Mr. Rajchl and his companions have decided to use you and are heading in a very dubious direction.”

²² <https://www.facebook.com/smislab/posts/221595740187916>, 24 January 2022. Accessed 26 February 2022.

²³ See <https://www.facebook.com/smislab/posts/pfbid0mFn7EdxV2Yf474CEXHiSJWbzzJ9TFGPaMeDxYtHYt4t4wkoqv4cZ37brDh8ZDrQLI>. Accessed 25 March 2023.

It might seem that in this way the politically engaged part of the free-vax group did indeed confirm the “Russian propaganda” accusation that the pro-vaxxers had already hurled at them in February 2022. In fact, however, the causality seems to have been quite the opposite. I argue that it was rather these very accusations that denied the free-vaxxers the right to legitimately voice their scientific opinions, in effect forcing some of them to seek allies in the anti-systemic milieu. Free-vax scientists experienced strong disillusionment with the state institutions they had so far trusted. Apparently, they had to face pressures from their superiors, as well as from various influential science officials (cf. Shir-Raz et al. 2022). While the exact nature and extent of these behind-the-scenes pressures is difficult to assess, on social media they are a constant part of free-vax narratives. As an example, I will take a Facebook post by the above-mentioned journalist Angelica Bazalová:

You have no idea what a man like XXX [anonymised, one of the prominent pro-vax scientists] is doing. He sends defamatory letters to all institutions about his colleagues in the name of the Academy of Sciences. He calls them. He castigates them. They organize various joint snitch events so that these institutions get scared for their funding. You have no idea what goes on behind the scenes. ... Believe me, people who speak out in public must be pretty brave. Every single one of them thinks every day about what they're going to do if their workplace loses money that dozens of people depend on.²⁴

It is not difficult to imagine that experiences such as this will strongly erode one's trust in the integrity of state institutions. It is therefore not surprising that some of the free-vax scientists have gradually adopted anti-systemic views.

Conclusions

Scientific Covid disputes throw interesting light on the relation between science and politics. According to Bertuzzi et al. (2022), the Covid pandemic has intensified the neoliberal trend towards technocratic styles of government legitimized by scientific evidence. It was pictured as a “natural” apolitical disaster that must be dealt with in a technical, scientific manner. Science was presented in the mainstream media as providing “facts”, while all dissenting opinions were portrayed as based on ignorance or political manipulation. From the perspective of STS, this picture is highly problematic. As Harambam argues in his programmatic “Corona Truth Wars” paper (2020b: 61), STS scholars should “help move public debate beyond prevalent simplistic oppositions between science vs politics, facts vs opinions, information vs manipulation”. Science is not an autonomous domain insulated from political processes – especially not when scientific research influences political decision-making (Campo et al. 2022).

²⁴ <https://www.facebook.com/gvendy/posts/10221931828906663>, 29 January 2022. Accessed 26 February 2022.

The aim of my paper has been to demonstrate this blending of science and politics. I have argued that the implicit ideological nature of technocratic Covid measures became obvious in media discussions, where the dominant Covid narrative became a political myth. Scientific conceptions started to function as symbols, referring not just to biomedical realities but also to various highly prized moral and social values. Taking the example of vaccination, I have shown three such moral and ideological principles with which the pro-vax position was closely tied in Czech public discourse. Vaccination was depicted in the mainstream media (1) as a sign of moral and social responsibility, (2) as a mark of rationality, and (3) as an indication of one's pro-Western geopolitical orientation. Questioning vaccination thus came to be seen as endangering these moral values with which the pro-vax view has been associated on the symbolic level. This black-and-white picture was, in turn, internalized by members of the medical and scientific establishment, which helps to explain why the suppression of scientific dissent during the Covid pandemic was so severe.

I have further analysed how this schematic politicised discourse dealt with "free-vax" scientists and doctors in Czechia who did not fit this black-and-white scheme, for they were not against Covid vaccination as such, but only against its blanket application during the pandemic. I have shown that there were practically no direct engagements with free-vax scientific arguments. Instead, delegitimization was done by associating the free-vaxxers with various more dubious groups of social actors, or by labelling their views as "disinformation". Thus, the free-vax position was framed as a deliberate attack on Czech society and its democratic values, which made detailed analysis of its scientific arguments redundant.

This discrediting strategy was largely successful, but it also had some undesirable social and political backfire effects. Before the arrival of Covid-19, the free-vaxxers mostly identified with the mainstream and its liberal democratic values. In the course of the pandemic, they were partially pushed out of the mainstream and had to resort to various alternative media platforms that they previously avoided. In effect, while they still clearly differed from the anti-vaxxers in their scientific views, some of them felt more and more allied with them politically. In this way, some sections of society that would normally still be a part of the social mainstream, sharing most of its values, have been expelled from it and forced to cooperate with the more anti-systemic segments of the population, taking up their ethos of distrust of mainstream institutions. At the same time, parts of the anti-systemic milieu have gained legitimacy by cooperation with the free-vax scientists employed at respected institutions. Thus, the attempt of pro-vax activists to safeguard the liberal democratic moral order of society by delegitimizing free-vax views has been counterproductive. This shows that the technocratic strategy of basing political decisions on supposedly apolitical scientific views is of questionable efficacy. It may easily result in a sort of "political polarisation of science" (O'Connor and Weatherall 2020), which not only stifles scientific debate, but may also have harmful effects on society at large.

Acknowledgements The author would like to thank Jaron Harambam, Peter Weingart and Ehler Voss for the comments on a draft of this article, as well as the anonymous reviewers.

Funding Open access publishing supported by the National Technical Library in Prague. This work was supported by the European Regional Development Fund-Project “Creativity and Adaptability as Conditions of the Success of Europe in an Interrelated World” (No. CZ.02.1.01/0.0/0.0/16_019/00007 34).

Declarations

Conflict of interest No potential conflict of interest was reported by the author.

Open Access This article is licensed under a Creative Commons Attribution 4.0 International License, which permits use, sharing, adaptation, distribution and reproduction in any medium or format, as long as you give appropriate credit to the original author(s) and the source, provide a link to the Creative Commons licence, and indicate if changes were made. The images or other third party material in this article are included in the article’s Creative Commons licence, unless indicated otherwise in a credit line to the material. If material is not included in the article’s Creative Commons licence and your intended use is not permitted by statutory regulation or exceeds the permitted use, you will need to obtain permission directly from the copyright holder. To view a copy of this licence, visit <http://creativecommons.org/licenses/by/4.0/>.

References

- Akrich, Madeleine, and Franck Cochoy. 2023. A Masked Truth? Public Discussions about Face Masks on a French Health Forum. *Minerva*. <https://doi.org/10.1007/s11024-023-09493-0>.
- Barker, Kristin Kay, Alexis M. Kenney, and R. Neil Greene. 2021. Wrong versus Right(eous): Online Reader Comments as Scientific Boundary-Work. *Sociological Forum* 36(3): 601–623. <https://doi.org/10.1111/sofc.12717>.
- Baumann, Mario. 2020. “Propaganda Fights” and “Disinformation Campaigns”: The Discourse on Information Warfare in Russia-West Relations. *Contemporary Politics* 26(3): 288–307. <https://doi.org/10.1080/13569775.2020.1728612>.
- Bertuzzi, et al. 2022. Politics During and After Covid-19: Science. *Health and Social Protest, Partecipazione e Conflitto* 15(3): 507–529. <https://doi.org/10.1285/i20356609v15i3p507>.
- Bottici, Chiara. 2007. *A Philosophy of Political Myth*. Cambridge: Cambridge University Press.
- Bouchard, Gérard. 2017. *Social Myths and Collective Imaginaries*. Toronto: University of Toronto Press.
- Bozio, Catherine H., et al. 2021. Laboratory-Confirmed COVID-19 Among Adults Hospitalized with COVID-19-Like Illness with Infection-Induced or mRNA Vaccine-Induced SARS-CoV-2 Immunity—Nine States, January–September 2021. *Morbidity and Mortality Weekly Report* 70(44): 1539–1544. <https://doi.org/10.15585/mmwr.mm7044e1>.
- Campo, Enrico, et al. 2022. Early Home Therapies against Covid-19. An Italian Case of Politicisation of Science? *Partecipazione e Conflitto*. <https://doi.org/10.1285/i20356609v15i3p567>.
- Cemper, Jan. 2021b. Jak Chípl PES, Zdravé fórum a Smis-lab překrucují statistiky z nemocnic. <https://manipulatori.cz/jak-chipl-pes-zdrave-forum-a-smis-lab-prekrucuji-statistiky-z-nemocnic/>. Accessed 26 Mar 2022.
- Cemper, Jan. 2021a. Nesmyslný narativ: Vakcína je experimentální. <https://manipulatori.cz/nesmyslny-narativ-vakcina-je-experimentalni/>. Accessed 26 Mar 2022.
- Černý, David. 2021. Covid-19 je zlý, to ano. Ale čelíme horší věci, pandemii špatného myšlení. *IHNed.cz*, 15 December 2021 <https://HN.HN.CZ/c1-67012000-covid-19-je-zly-to-ano-ale-celime-horsi-veci-pandemii-spatneho-mysleni>. Accessed 26 Mar 2023.
- Chemaitelly, Hiam, et al. 2021. Waning of BNT162b2 Vaccine Protection Against SARS-CoV-2 Infection in Qatar. *The New England Journal of Medicine* 385(24): e83. <https://doi.org/10.1056/NEJMo a2114114>.
- Daniel, Jan, and Jakub Eberle. 2021. Speaking of Hybrid Warfare: Multiple Narratives and Differing Expertise in the “Hybrid Warfare” Debate in Czechia. *Cooperation and Conflict* 56(4): 432–453. <https://doi.org/10.1177/00108367211000799>.
- Dimtter, Jason, and Klaus Dodds. 2008. Popular Geopolitics Past and Future: Fandom. *Identities and Audiences. Geopolitics* 13(3): 437–57. <https://doi.org/10.1080/14650040802203687>.

- Dohnalová, Anna. 2022. Češi trpí postkomunistickým syndromem, i proto se nechtějí očkovat, říká psycholožka. *Aktualne.cz*, 9. February 2022. <https://zpravy.aktualne.cz/domaci/cesi-trpi-postkomunistickym-syndromem/r~21f5584a85b411ec8d900cc47ab5f122/>. Accessed 26 Mar 2023.
- Eberle, Jakub. 2018. Desire as Geopolitics: Reading the Glass Room as Central European Fantasy. *International Political Sociology* 12: 172–189. <https://doi.org/10.1093/ips/oly002>.
- Fenyková, Šárka. 2021. Kdo odmítá očkování, měl by převzít finanční odpovědnost za testy, navrhuji zdravotní pojišťovny. *iRozhlas*, 2 June 2021. https://www.irozhlas.cz/zpravy-domov/testovani-ockovani-proti-koronoviru_2106022340_pj. Accessed 26 Mar 2023.
- Fischer, Petr. 2021. Pandemie mění tradiční chápání osobní svobody. Naše tělo už není jen naším tělem. *Deník N*, 10 May 2021. <https://denikn.cz/620010/pandemie-meni-tradicni-chapani-osobni-svobody-nase-telo-uz-neni-jen-nasim-telem/>. Accessed 26 Mar 2023.
- Fuchs, Christian. 2021. *Communicating COVID-19: Everyday Life, Digital Capitalism, and Conspiracy Theories in Pandemic Times*. Bingley: Emerald Publishing.
- Fürst, Tomáš. 2021a. Lysenkova cena pro CDC. <https://smis-lab.cz/2021/11/05/lysenkova-cena-pro-cdc/>. Accessed 26 Mar 2022.
- Fürst, Tomáš. 2021b. Kterak jsme kolaps zdravotnictví jen o vlásek odvrátili. <https://blog.aktualne.cz/blogy/jan-tomanek.php?itemid=40516>. Accessed 26 Mar 2022.
- Gabal, Ivan. 2021. Protičkovací šílenství ukazuje, že jsme prohráli i další útok Kremlu. *HlidacíPes.org*, 14 November 2021. <https://hlidacipes.org/ivan-gabal-protičkovaci-silenstvi-ukazuje-ze-jsme-prohrali-i-dalsi-utok-kremlu/>. Accessed 26 Feb 2022.
- Gazdík, Jan. 2021. Proč lidé propadají strachu z konce světa, chemtrails či z očkování proti covidu? *Aktualne.cz* 2 December 2021. <https://zpravy.aktualne.cz/domaci/proc-lide-propadaji-strachu-z-konce-sveta-chemtrails-ci-z-oc/r~8649af7a4c5d11ec878fac1f6b220ee8/>. Accessed 26 Mar 2023.
- Gazit, Sivan, et al. 2021. Comparing SARS-CoV-2 Natural Immunity to Vaccine-Induced Immunity: Reinfections Versus Breakthrough Infections. *medRxiv*. <https://doi.org/10.1101/2021.08.24.21262415>.
- Gieryn, Thomas F. 1999. *Cultural Boundaries of Science: Credibility on the Line*. Chicago: University of Chicago Press.
- Harambam, Jaron. 2020a. *Contemporary Conspiracy Culture: Truth and Knowledge in an Era of Epistemic Instability*. London: Routledge.
- Harambam, Jaron. 2020b. The Corona Truth Wars: Where Have All the STS'ers Gone When We Need Them Most? *Science & Technology Studies* 33(4): 60–67. <https://doi.org/10.23987/sts.99550>.
- Honzek, Petr. 2021. Deset důvodů liberála, proč podporovat povinné očkování. *Hospodářské noviny*, 26 November 2021. <https://archiv.hn.cz/c1-67003340-deset-duvodu-liberala-roc-podporovat-povinne-ockovani>. Accessed 26 March 2023.
- Horák, Otakar. 2021. Etik Černý: Očkování proti covidu je morální povinnost, neočkovaní se vezou jako černí pasažéři. *Deník N*, 8 September 2021. <https://denikn.cz/683808/etik-cerny-ockovani-proti-covidu-je-moralni-povinnost-neockovani-se-vezou-jako-cerni-pasazeri/>. Accessed 26 Mar 2023.
- Houska, Ondřej. 2021. Nová železná opona. Východ Evropy včetně Česka v očkování zaostává za Západem, hlavně kvůli nedůvěře lidí ve vakcíny. *Hospodářské noviny*, 8 August 2021. <https://archiv.hn.cz/c1-66958160-nova-zelezna-opona-vychod-evropy-vcetne-ceska-v-ockovani-zaostava-za-zapadem-hlavne-kvuli-neduvere-lidi-ve-vakciny>. Accessed 26 Feb 2022.
- Janošek, Jaroslav, and Arnošt Komárek. 2023. Post-infection Immunity Provides Excellent Protection from COVID-19 ICU Hospitalization During Delta and Omicron Waves. *Infectious Diseases* 55(1): 74–77. <https://doi.org/10.1080/23744235.2022.2125575>.
- Kaine, Geoff, Vic Wright, and Suzie Greenhalgh. 2022. Predicting Willingness to be Vaccinated for Covid-19: Evidence from New Zealand. *PLoS ONE* 17(4): e0266485. <https://doi.org/10.1371/journal.pone.0266485>.
- Kozinets, Robert V. 2010. *Netnography: Doing Ethnographic Research Online*. London: Sage.
- Králík, et al. 2021. Protílátky po prodělané infekci poskytují dostatečnou a dlouhodobou ochranu proti onemocnění COVID-19. *Časopis lékařů českých* 160(7–8): 167–175.
- Kulldorff, Martin. 2021. A Review and Autopsy of Two COVID Immunity Studies. <https://brownstone.org/articles/a-review-and-autopsy-of-two-covid-immunity-studies/>.
- Lello, Elisa, et al. 2022. Vaccine Hesitancy and Refusal During the Covid-19 Pandemic in Italy: Individualistic Claims or Repoliticization? *Partecipazione e Conflitto* 15(3): 672–696. <https://doi.org/10.1285/i20356609v15i3p672>.
- Liester, Mitchell B. 2022. The Suppression of Dissent During the COVID-19 Pandemic. *Social Epistemology Review and Reply Collective* 11(4): 53–76.

- Malečký, Robert. 2018. Mapa českých webových médií. Hlavní proud, bulvár, investigace, dezinformátoři a ti druzí. *HlidacíPes.org*, 22 November 2018. <https://hlidacipes.org/mapa-ceskych-webovych-medii-hlavni-proud-bulvar-investigace-dezinformatori-a-ti-druzii/>. Accessed 10 May 2023.
- Marek, Lukáš. 2022. Čeští vědci zjistili, jak souvisí ochota k očkování se vztahem k demokracii. Seznam Zprávy, 25 January 2022. <https://www.seznamzpravy.cz/clanek/koronavirus-cesti-vedci-zjistili-jak-souvisi-ochota-k-ockovani-se-vztahem-k-demokracii-186538>. Accessed 26 Feb 2022.
- Moláček, Jan. 2022. Vědci proti vědcům. Uznávání experti vysvětlují, proč se nechají využívat dezinformátory. *Deník N*, 13 January 2022. <https://denikn.cz/785894/vedci-proti-vedcum-proc-se-cast-expertu-plavi-na-jedne-lodi-s-dezinformatory/>. Accessed 26 Mar 2022.
- Morsello, Barbara, and Paolo Giardullo. 2022. Free Choice in the Making: Vaccine-Related Activism as Alternative Form of Citizenship During Covid-19. *Partecipazione e Conflitto* 15(3): 697–719. <https://doi.org/10.1285/i20356609v15i3p697>.
- O'Connor, Cailin, and James O. Weatherall. 2020. Hydroxychloroquine and the Political Polarization of Science. *Boston Review*, 4 May 2020. <https://bostonreview.net/articles/cailin-oconnor-james-owen-weatherall-covid-19-and-polarization/>. Accessed 26 Mar 2023.
- Palata, Luboš. 2021. Evropa se zase dělí na Západ a Východ. 11. 8. 2021. *Český rozhlas*, 9 August 2021. https://www.irozhlas.cz/komentare/ockovani-koronavirus-covid-19-evropa-vychod-zapad_2108090558_ern. Accessed 26 Feb 2022.
- Pentin, Edward. 2021. Rome Theologian Discusses the Vaccine Mandate, 'Green Pass' and Conscience Exemptions. *National Catholic Register*, 7 September 2021. <https://www.ncregister.com/features/rome-theologian-discusses-the-vaccine-mandate-green-pass-and-conscience-exemptions>. Accessed 26 Mar 2022.
- Polzer, Jessica, and Pamela Wakewich. 2021. Mothers Who Know Best: Narratives of Motherhood and Epistemological Anxieties in Vaccine Hesitancy Discourse. In *Narrative Art and the Politics of Health*, eds. Neil Brooks and Sarah Blanchette, 95–116. London: Anthem Press.
- Scott, Jennifer Bracken. 2015. Boundary-work and the Construction of Scientific Authority in the Vaccines-Autism Controversy. *Journal of Technical Writing and Communication* 46(1): 59–82. <https://doi.org/10.1177/0047281615600638>.
- Shir-Raz, Yaffa, et al. 2022. Censorship and Suppression of Covid-19 Heterodoxy: Tactics and Counter-Tactics. *Minerva*. <https://doi.org/10.1007/s11024-022-09479-4>.
- Singanayagam, Anika, et al. 2021. Community Transmission and Viral Load Kinetics of the SARS-CoV-2 Delta (B.1.617.2) Variant in Vaccinated and Unvaccinated Individuals in the UK. *Lancet Infectious Diseases* 22: 183–195. [https://doi.org/10.1016/S1473-3099\(21\)00648-4](https://doi.org/10.1016/S1473-3099(21)00648-4).
- Sisyfos Committee. 2021. Stanovisko Českého klubu skeptiků Sisyfos k dlouhodobým aktivitám Zdravého fóra a jeho odnoží. 11 December 2021. <https://www.sisyfos.cz/clanek/1531-stanovisko-ceskeho-klubu-skeptiku-sisyfos-k-dlouhodobym-aktivitam-zdraveho-fora-a-jeho-odnozi>. English translation at <https://blog.mosl.cz/society/statement-sisyfos-healthy-forum/>. Accessed 26 Mar 2022.
- Sturm, Tristan, and Tom Albrecht. 2020. Constituent Covid-19 Apocalypses: Contagious Conspiracism, 5G, and Viral Vaccinations. *Anthropology & Medicine* 28(1): 122–139. <https://doi.org/10.1080/13648470.2020.1833684>.
- Toulmin, Stephen E. 1982. *The Return to Cosmology*. Berkeley: University of California Press.
- Turner, Jackson S., et al. 2021. SARS-CoV-2 Infection Induces Long-Lived Bone Marrow Plasma Cells in Humans. *Nature* 595: 421–425. <https://doi.org/10.1038/s41586-021-03647-4>.
- Turner, Victor. 1967. *The Forest of Symbols: Aspects of Ndembu Ritual*, 19–47. Ithaca, NY: Cornell University Press.
- Thon, Vojtěch, et al. 2023. Investigation of SARS-CoV-2 Seroprevalence in Relation to Natural Infection and Vaccination Between October 2020 and September 2021 in the Czech Republic. *BMJ Open*. <https://doi.org/10.1136/bmjopen-2022-068258>.
- Walsh, Richard. 2001. *Mapping Myths of Biblical Interpretation*. Sheffield: Sheffield Academic Press.

Publisher's Note Springer Nature remains neutral with regard to jurisdictional claims in published maps and institutional affiliations.

Radek Chlup is a lecturer in religious studies at Charles University in Prague. Originally he specialized in ancient Greek religion and philosophy, as well as in general theories of religion. Recently he has expanded his interests into the area of modern political and national myths and rituals, as well as the study of conspiracy theories.