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A Masked Truth?

Public Discussions about Face Masks on a French Health Forum

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Abstract: By analyzing the discussion on a health forum, we examine how wearing sanitary masks during the Covid-19 pandemic changed people’s lives and what adjustments were required. During our review, we encountered theories referred to by participants as “conspiracy theories” that led to heated exchanges on the forum. Surprisingly, these interactions promoted, rather than prevented, collective exploration and resulted in a rich discussion of the issues related to wearing masks.

Using a combination of quantitative and qualitative methods, we first analyze the dynamics of the discussion, its progression, and the conditions under which it was maintained over time, even given the radical expression of irreconcilable positions. Second, we examine the results of the discussion in terms of describing the problems triggered by the mask and the different authorities on which these descriptions were based.

We conclude that the boundaries between science and non-science were occasionally blurred because of the wavering of scientific authorities and the uncertainty of the questions related to the pandemic, rather than because of a generalized distrust of science. We recognize that paradoxically, “conspiracist” theories contribute to the production of knowledge and that the adherence to these theories may stem more from the personal experiences of the individuals who profess them, rather than from the contaminating power of conspiracy theories.

Keywords: conspiracy theories, Covid-19, face mask, online forum, laypeople, knowledge

The Covid-19 pandemic gave rise to numerous arguments connected to conspiracy theories that questioned the existence of the virus and its origin, the effectiveness and “real” purpose of face masks and later vaccines, or the will of governments to use sanitary measures and devices as a means to test the population’s propensity to obey. Many commentators expressed concerns about this issue, and the World Health Organization (WHO) even coined the term “infodemic” to refer to the spread of false or misleading information and developed strategies to counteract it.¹

Faced with the development of conspiracy theories and the emergence of alternative truths, a number of authors are worried and wonder about the novelty of the phenomenon, trying to characterize it and to unravel its causes (D’Ancona, 2017; McIntyre, 2018; Tandoc et al., 2021). Others focus on the delusional statements of some participants, highlight their irrationality, and question the growing number of conspiracy theories that circulate on social networks. They consider these theories as pathological, and therefore try to elucidate their underlying causes so as to better combat them (Bronner, 2013). With regard more specifically to the Covid-19 pandemic, the authors frequently draw parallels between the spread of the virus and the spread of false information (Atehortua & Patino, 2021; Ball & Maxmen, 2020; Claassen, 2021) and do not hesitate to multiply medical metaphors, thus signaling a normative goal of cure or eradication.

The perspective we adopt is somewhat different. Rather than questioning what makes conspiracy statements spread, we have chosen to look at what this spread produces in the specific context of Covid-19: to what extent does the dissemination of conspiracist views constitute a serious threat to public health and democracy? What is the propensity of these views to alter the opinions of the people exposed to them and who might not share them a priori? Do they undermine commonly accepted theories, or do they ironically strengthen them? What is the basis of the arguments put forward by the advocates of conspiracy theories? Does the expression of these views lead irrevocably to the impossibility of discussion and to the disintegration of rational thought? Does it make any collective exploration of issues at stake impossible?

¹ <https://www.who.int/news-room/spotlight/let-s-flatten-the-infodemic-curve>. Consulted on August 18, 2022.

In shifting to such a line of questioning, we are taking a step aside, in the wake of authors who do not oppose the truthfulness of Science with a capital “S” to conspiracy theories, fake news, and other post-truth evils. Following Harambam (2020), who neither stigmatizes nor normalizes conspiracy theories, we adopt an agnostic yet comprehensive view of these theories, which implies not to a priori label the proponents of conspiracy theories as irrational. We propose to address these questions based on the analysis of discussions on an online forum about a topic titled “Mask wearing: What do you think?” launched in July 2020 on the social network Healthhelp (pseudonym) – a network whose members have various health conditions, some of which are quite serious.

We first review the data, theoretical assumptions and methods we rely on. More precisely, after describing the forum and its organization, we present the theoretical underpinnings of our research: in particular, drawing on previous literature on conspiracy theories (Harambam, 2020; Fenster, 2008) we promote another view of the notion of “uncertain knowledge”: rather than seeing conspiracist views of face masks as weak and controversial, we consider them as contributing to the exploration and advancement of knowledge. We conclude this introductory section with a brief presentation on the methods we rely on and how the forum works. The next section presents the results. We examine how the discussion generated descriptions of the problems triggered by masks and the related ontologies, and we also consider whether these descriptions were based on the use of different authorities. In particular, we examine the role of science in these discussions. In the last section, we examine the way in which the participants' personal experiences are articulated with their positions: we show that conspiracist views are not abstract ideological statements but ways to make sense of personal experiences. More generally, we reflect on the discussion dynamics and what it results in: we propose the expression “pre-truth” dynamics as opposed to the well-known concept of “post-truth” dynamics. By pre-truth dynamics, we mean the channeling of wild, controversial, uncertain, and exploratory discussions that lead to more assured forms of knowledge. All in all, we conclude that the boundaries between science and non-science were occasionally blurred because of the wavering of scientific authorities and the uncertainty of the questions related to the pandemic, rather than because of a generalized distrust of science.

Data, theory and methods: Accounting for uncertain knowledge on the Healthhelp forum

The healthhelp forum, a privileged space to observe the interaction with conspiracy theorists

To support our research, we analyzed discussions on an online forum. Specifically, we followed the discussion topic titled “Mask wearing: What do you think?” launched in July 2020 on the social network Healthhelp (pseudonym) – a network whose members have various health conditions, some of which are quite serious. On the Healthhelp forum, we quickly encountered the expression of theories, which the participants themselves referred to as “conspiracy theories.” The participants included people who were recalcitrant about wearing masks. Some expressed the idea that the mask is devoid of any real sanitary utility and is an instrument of domination. Others strongly opposed such views, developed counterarguments, and even called for the deletion of problematic messages.

The choice of a health forum to investigate this type of issue has two motivations.

Firstly, the quality of information on health forums has been a concern very early, as health quickly became one of the most important reasons for using the Internet (Cole et al., 2016; Eysenbach et al. 2002; Loader et al., 2002). Faced with the uncertain quality of the information, some authors have argued that the collective and distributed dimension of the search for information limits the risks (Esquivel et al., 2006; Wyatt 2004; Ziebland 2006), and that information reliability is a concern taken very seriously by internet users themselves (Nettleton 2005). But the emergence of so-called fake news and conspiracy theory has reactivated the previous suspicion and questioned former analyses: for some authors, forums would strongly challenge expertise and established knowledge (Breeze 2021, Dixon 2020).

Secondly, choosing a forum in which the members had a wide range of health problems seemed promising to us because this type of platform offers a collective learning space in which laypeople (i.e., people who are not medical experts) question medical knowledge and practices by using knowledge they construct from their personal lives (Akrich, 2010; Akrich and Méadel, 2002; Barker, 2008; Dumit, 2006; Josefsson, 2005; Kazmer et al., 2014). In other words, the participants’ particular sensitivity to health issues makes it easier to trace the relationship between general worldviews, such as the opinions regarding the usefulness of

face masks, and the immediate, situated, and often bodily experiences that people must manage.

Uncertain knowledge in a supposed post-truth era

Drawing on previous literature on conspiracy theories (Harambam, 2020; Fenster, 2008) that challenges other works that present such knowledge as an obvious evil to be fought (Bronner, 2013), we would like to show that non-experts' views contribute to the collective advancement of knowledge about masks and the pandemic, even when they refer to conspiracist views. In order to do so, we propose to focus on the management of the strong divergences that arise among the participants. In other words, in this uncertain and polemical context, we are equally interested in the conditions that allow laypeople to produce a circumstantiated analysis of the questions related to masks, the contents of this analysis, and the ways in which the analysis challenges instituted knowledge.

A key element that prevents us from dismissing conspiracy theorists too quickly on the side of irrationality in regard to some controversies about Covid-19: the health crisis caused by the pandemic has placed everyone face to face with an uncertainty that, even if not radical, is at least polymorphous. When the crisis began, laypeople, government officials, and experts did not fully understand the modes of contamination of the disease or the effectiveness of masks, as shown by the evolution of the positions of WHO, health authorities, and the French government (Gaglio et al., 2022). In the case of the face masks that we focus on, the available information related more to their use in hospital settings rather than in everyday life. The scientific literature was unclear and controversial regarding the efficacy of masks in outdoor settings, which varied according to the materials used for their fabrication (Kwong et al., 2021), complex contamination patterns (Dbouka & Drikakis, 2020), varied use practices (Varanges et al., 2022), and other factors.

Thus, we describe the discourse regarding face masks as “uncertain knowledge.” By uncertain knowledge however, we do not mean claims like rumors, opinions, beliefs, and conspiracies that “lack direct access to secure and definite knowledge” (Fine & Difonzo, 2011) but a provisional state of knowledge in a situation of uncertainty, where all explorations, whether scientific or lay, can contribute to advancing knowledge (Callon, Lascoumes and Barthe, 2011). Accordingly, the pandemic provides a vast space for experimentation and explanation in which everyone formulates conjectures, presents reasons, and posits hypotheses and points of view. People express what they think they know and what they wish to know. In particular,

ordinary people, be they conspiracists or not, remind scientists that “science” is far from exhausting the multiple questions lay people raise about the mask. Even if they don’t rely on any recognized expertise, these questions nevertheless unveil the multi-dimensionality of the device. What matters is less the truthfulness or falseness of their claims than their efforts to challenge existing knowledge, produce arguments to sustain their views, and thus lead their opponents to explore the world and ground their statements better. When facing unclear knowledge in a period of uncertainty, even questions from alleged conspiracists bring value to the debate.

As Harambam (2021) explained, it is not useful to oppose conspiracy theories with rational arguments because conspiracists are not irrational people, as some commonly believe; rather, they are hard-core rationalists who push methodical doubt to the extreme (Harambam & Aupers, 2015; Ylä-Anttila, 2018). Drawing on Fenster (2008), we consider conspiracy theories to be an endless interpretive practice. As the parapsychologists studied by Pinch (1991), conspiracy theorists are obsessed with proving the correctness of their views and spend their time scrutinizing the smallest events in order to look for significant traces that could cast doubt on the dominant interpretation and confirm their views. Some conspiracy theorists engage in significant critical work, and their attitudes may be compared to those of scientists in some ways, except that conspiracy theorists establish the results of their argumentative efforts prior to their demonstration which makes them fall on the side of pseudoscience (Hübl, 2020). Therefore, discussions between conspiracy theorists and non-conspiracy theorists are most often founded on a deep misunderstanding, with each serving as the irrational counterpart of the other and having the potential to fracture family and friendship ties for a long time².

Methods

To understand the exchanges on the forum and their dynamics, we used various approaches to navigate on different scales (Akrich, 2019). Thus, we utilized the following methods:

² See for example : Solène Cordier, “Au sein des familles, le Covid, c’est pire que la religion et la politique [The Covid, it’s worst than religion and politics]”, *Le Monde*, September 18, 2021, https://www.lemonde.fr/societe/article/2021/09/18/au-sein-des-familles-le-covid-c-est-pire-que-la-religion-et-la-politique_6095160_3224.html

- quantitative methods that allowed us to characterize the different forms of participation (number of messages, duration of participation, frequency of responses to messages,³ etc.), follow their temporal dynamics, measure the use of certain sources (videos, articles, websites, etc.), and describe the relationship networks created through exchanges
- qualitative methods that (1) characterized messages by systematically recording the arguments and the authorities used to support them, (2) examined the dynamics of the discussions (according to the level of conflict and the ways in which individuals moved from one level to another), and (3) identified the most active participants by reading their posts and searching the site for information about them (declared pathologies, date of registration, registered friends, participation in other discussion topics, etc.)

How the forum works

Discussions on the forum were generally deliberative. Participants expressed their perspectives, shared their experiences, developed arguments, and responded to each other – the data showed that 61% of the messages were addressed to a specific recipient - without necessarily seeking or reaching a consensus. These exchanges took different turns depending on whether the participants explored an issue together regarding the need to comply with governmental recommendations or whether they challenged others who opposed these recommendations.

For example, the beginning of the discussion on the forum was harmless and involved a friendly exchange among members. Participant SCIE1967 mentioned his acceptance of the mask and his difficulties while wearing it, and he then asked for comments on the question of adapting to the mask. Six people responded in a similar manner and emphasized the need for masks and their difficulties with them. Bouziane, another participant, disrupted the polite exchange and blathered to everyone, “The mask is useless. The virus is too small. 125 nano-microns. Hi!” (8/1/2020).

³ The @Pseudonym feature provided this information.

This statement immediately triggered reactions that began an argumentative discussion to counter Bouziane's statement. Océane responded to Bouziane as follows:

You seem biased and partial to me, @Bouziane. If wearing a mask does not provide 100% protection, it is strongly recommended. I would also like to remind you that the virus is transmitted by speech, spitting, etc. and is therefore transmitted in droplets (aerosols) of different sizes. Mentioning the size of the virus is not enough. The larger droplets will fall to the ground, and the smaller ones will be blocked at 70, even 75% as @Luc1966 points out to you. (8/2/2020)

As shown, forum members quickly spotted heterodox views and information, which led other members to counter them. Discussions then evolved into an exchange in which X's potentially debatable comment that was addressed to everyone was followed by a comment from "Y to @X" to directly ask X to provide evidence to support his or her point of view. Other participants could read this exchange. For example, Océane wrote the following to Etienne: "@Etienne, how can you say that the danger does not come from the atmosphere that we breathe? Have you tested? Have you checked?" (10/30/2020).

The participants often rebutted others by addressing them in front of everyone, which became a public joust. Members highlighted inconsistencies in participants' remarks and developed counterarguments mobilizing identifiable sources that are generally considered reliable by public and scientific authorities. Based on an informal horizontal and distributed fact checking, the interventions of the non-conspiracists act as antibodies attacking the virus of what they consider as questionable information. For example, the members occasionally disqualified the sources upon which the contested assertions were based. Aspic wrote the following to @Beethoven2014:

I just watched a video recommended by you about a conspiracy doctor, Eve Engerer, who is going to be disbarred, and for good reason. She was prescribing anti-mask certificates; she claimed that masks are a pedo-satanic ritual, that it was an act of submission, that she was an eagle, and the others were earthworms! (10/7/2020)

Several observations can be made at this point:

- Generally, the exchange of arguments and counterarguments contributed less to the search for a consensus than to the development of a sorting operation that led opposing camps to identify themselves, unite, and reinforce each other, according to the classic game of identity and opposition that Touraine (1978) identified. The forum's deliberation resembled a dialogue of the deaf, which invalidates, at least in this case, the idea that opinions are easily "contaminated" on social networks.

- The forum was not limited to private colloquiums among participants. Rather, the exchanges of viewpoints and arguments led participants to mobilize external entities and resources that made it possible to relate the legitimacy of the proposals to different levels of importance.

The forum's characteristics make it possible to understand how exchanges on the mask, even if they do not take place in a pacified environment, could last a long time. Nonetheless, what are these exchanges about? Focusing on the content of the exchanges helped us identify how the exchanges, whether developed from the conspiracy angle or not, helped to establish a pre-truth dynamic, as opposed to the classic post-truth hypothesis.

The Forum as a Machine for Proliferating Ontologies and Authorities

For those who want to easily review the various issues related to wearing masks, the forum is a windfall because it addressed every issue related to masks. These issues, whether sanitary, psychological, behavioral, or political, pertain to a plurality of ontologies, which is “what belongs to the real, the conditions of possibility we live with” (Mol, 1999, p. 74-75), and each issue is covered by a specific science. According to Mol (1999; 2000), plurality is key:

Ontologies: note that. Now the word needs to go in the plural. For, and this is a crucial move, if reality is *done*, if it is historically, culturally, and materially *located*, then it is also *multiple*. Realities have become multiple (Mol, 1999, p. 75, italics in original).

In the following subsection, we explain that the participants described specific aspects of the mask in such a way that we can speak of ontologies. The references that participants made to scientific disciplines were often indirect, implicit, involuntary, and even unthought of; however they were obvious to us because establishing the “facts” was at the heart of the shared questions. This relationship between mask discussions and the underlying sciences shows the multiplicity of mask ontologies and the varied and often conflicting ways to address the mask as an object of inquiry and thus the fundamental uncertainty of scientific knowledge related to it.

The Forum as a Machine for Proliferating Ontologies

Let us examine the concerns expressed on the forum that could be classified as “comfort”. Information about this aspect of wearing masks implicitly requires the sciences of ergonomics, dermatology, and pneumology. Because of the health problems that led the participants to join the forum, they were highly sensitive to the manifestations of their own

body – an entity they have to live with on a daily basis. Many participants complained of dermatological problems, irritation, and folliculitis when their skin contacted the mask. Some mentioned other problems, such as facial sweating, nausea, dizziness, and respiratory issues. Aspic wrote the following to Angel16:

On November 1, for All Saints' Day, I went, like almost everyone else, to the cemetery, and I put on the mask because it was mandatory. There were a lot of people there, especially policemen. I walked 500 meters at the end of which I was practically in respiratory failure . . . All this to tell you that it is far from being psychological (11/19/2020).

Faced with these inconveniences, the participants asked questions about the effectiveness of the mask, especially in an open environment, and indirectly referred to infectiology and virology. The conspiracy theorists had a clear position—the masks had no effectiveness. But they are not the only ones to question the effectiveness of masks. Are the virus particles too small to be stopped by the mask barrier? This assertion, made by several people, led to a discussion on the transmission of the virus, although the information related to this issue was uncertain at that time. SCIE1967 wrote the following to another participant: “Wearing a mask outside may seem like overkill, yet it would make sense. In fact, it is not advisable to use fans in homes because they carry away saliva droplets; outside, it is windy” (8/7/2020).

In addition, forum members questioned the effectiveness of the mask in real-life conditions: should theoretical efficiency not be modulated according to the conditions of practical use? Laypeople, similar to scientists, have uncertain knowledge, but ask useful questions (Callon et al., 2011). For example, Babinette75 stated, “We do what we can with these masks. We take them down, we put them back up on the nose, we adjust them. In short, we fiddle with them a lot. So I doubt they are very effective” (10/20/2020).

These different problems revealed a technological sensitivity, which served as a reminder that, contrary to the public and scientific discourse on wearing masks, masks are not generic, homogeneous objects, and people value masks differently based on their technological characteristics or whether they prioritize comfort or effectiveness. Various engineering sciences apply to masks. Forum members compared the comfort and efficiency of fabric masks with polypropylene masks. For example, Babinette75 stated to Aspic, “I find disposable masks easier to wear than cloth masks, which make your face even hotter. What about you? And the others? Which ones do you use?” (9/12/2020). Goodspirits explained to the forum members, “At work they give us washables of a cotton that crumples in the wash,

and when we breathe, it gets into our mouths[, which is] very unpleasant” (8/5/2020).

Maria36 stated the following to Star:

They’ve been saying for a few days now that cloth masks don’t work (especially against the [British] variant). So, in that case, WHY did I get a dozen in the mail yesterday???? They want to eliminate me because I’m useless to society? Plus, they stink; it’s an infection. (1/26/2021)

The issue of wearing masks can be analyzed from several angles. Some participants mimicked the science of economics by mentioning the economic dimension and explaining that wearing masks is essentially a business. Other participants imitated the science of psychology and explained the psychological and sanitary benefits of wearing masks to reassure wearers. For example, Angel16 stated the following to Aspice: “Psychologically, those who wear [masks] feel protected a little better than the others, and when the psychic goes, everything goes” (11/20/2020).

Some forum members relied on notions close to the science of sociology and worried about the sociological consequences of wearing masks, which could degrade learning relationships, end communication, and aggravate the relational problems of those who are most fragile. Etienne explained to Angel16, “Think also of the young children who are learning to express themselves. What do they see of the faces of the people who address them?” (11/2/2020). Beethoven214 mentioned, “Yesterday’s session at the barber shop . . . The mask practically silenced us” (9/12/2020).

Nearing political science, participants raised political-ethical issues that were a recurring topic of contention and that led to a wide spectrum of irreconcilable positions. According to conspiracists, the pandemic offered a good opportunity to increase rulers’ control over the population. Vero66, one conspiracist, explained to Sissi1802, “I only put [masks on] in the shops out of respect for the shopkeepers . . . And we have to stop shitting ourselves!!!! So, you don’t see that they exaggerate on everything and take advantage of it to ‘suck’ our freedoms? Wake up!!! (10/2/2020). Maria36 stated to Crochette, “Wearing a mask has become mandatory to verify that we are sheep!” (8/16/2020).

While some participants regretted that “*Chinese-way*” restrictive measures were not taken, others called upon the science of ethics or philosophy and considered the question of wearing masks and its impact on freedom from the ethical angle. SCIE1967 made the following comments to Maria36:

Everyone can do what they want at home, but in the presence of other people, out of respect, you have to wear the mask, because you are not wearing it for yourself but for the one in front of you . . . You know, “Our freedom stops when the freedom of others begins.” To follow this principle is just common sense. (8/7/2020)

The forum provided an epistemic dialogic space. The many speakers and perspectives circumscribed a plurality of angles to define and judge the practice of wearing masks and to draw on, whether consciously or not, various sciences, which multiplied the observations, opinions, proposals, and questions. The lack of consensus was essential to continuing the discussion. Conspiracy theorists were not content to assert their convictions; they also sought to support their position. For the conspiracy to be plausible, it was better to prove the ineffectiveness of wearing masks or their psychological or social harm. Thus, the conspiracists tended to identify the smallest loophole in the rationale for mask use. Similar to the 19th-century phrenologists whom Shapin (1979) studied, the conspiracists challenged proponents of the official theses and forced them to expand their arguments. None of the protagonists were ready to question their starting points. Non-conspiracist SCIE1967 clearly acknowledged this by explaining the following to Babinette75:

We listen to each other talk, thinking we are right. My way of thinking and seeing things is often different from the people in front of me. In my mind, I am convinced that I am the one who is right, but in fact?? If you manage to prove me wrong, eh! Well, I won't tell you, but I'll still think that it's me and me alone who has the right word. Human beings are really stupid. (8/25/2020)

The phrenological controversy concerned the possibility that the shape of the brain is representative of the person's abilities and that the shape of the skull follows that of the brain. Opponents of this thesis have relied on the sinuses to demonstrate that this last hypothesis could not be verified. The controversy produced knowledge about sinuses that has remained valid to this day. While the forum we study here did not reach this level, it nonetheless helped problematize the question of wearing masks in many ways.

The conspiracists were not the only participants who asked questions and produced baseless or debatable arguments. Faced with uncertainty, everyone developed their arguments according to their experiences, sensitivities, knowledge, and specific questions. Thus, the discussion among laypeople shows that the mask is discussed from a variety of angles. The debates were not limited to an opposition between pro- and anti-maskers or to a discussion of the effectiveness of mask use. In other words, there was no single controversy, but rather a

host of controversies, about wearing masks, each underpinned by different scientific disciplines.

The Forum as a Machine for proliferating Authorities

The forum discussion summoned not only a number of ontologies but also an array of authorities that the protagonists convoked to consolidate their positions. What were these authorities? Did we witness a devaluation of science and hard facts?

First, we observed that if Wikipedia's influence increasingly led online participants to support their statements, the forum itself favored the use of certain sources. These included sources that are within the reach of a click, such as blogs, YouTube videos, and articles from certain media. These sources were often preferred over major news journals, whose full access often requires a subscription, or international bibliographic databases that are free only for professional scientists. Additionally, the lack of a footnote system in the forum software supported weblink references that could easily be copied and pasted into the text.

Furthermore, militant anti-maskers and conspiracists did not use the same types of sources as those with a less radical point of view. The former group preferred YouTube videos (mentioned in one message out of six) and used information gleaned from other social networks, while non-conspiracists favored major news sites. However, a quick schematization, opposing science on one side and credulity on the other, would be superficial and questionable. Despite mobilizing different sources, the participants did not rely exclusively on science.

Second, while conspiracists used references that mostly appeared in messages sent to everyone (71% of the messages), non-conspiracists used sources mostly in messages addressed to conspiracists (47% of the messages, whereas only 15% of their messages were addressed to conspiracists). Therefore, the use of references by non-conspiracists was strongly linked to their debates with conspiracists, which spurred the non-conspiracists to deepen their arguments and to seek for external support.

What were these sources of support? Many references were mobilized, among which science occupied a prominent place. Participants cited "studies," "doctors," and "epidemiologists" to support their views. These vague expressions can be read as ways of rejecting a battle among personalities. The participants also observed that science, despite its often anonymous character and unanimous appearance, is neither unified nor pure. For example, Océane explained the following to Etienne:

As for the scientists, I imagine they will be divided and not only for medical reasons. Some small settlements of scores and various interests to preserve often lead to small virtual murders between friends (?) who know each other well. (20/23/2020)

In a sense, laypeople also proved to be good sociologists in that they reminded readers that science is practiced in a rich and controversial social world and provides various points of view and multiple theses. This observation makes it difficult to oppose, on one hand, “the” scientific truth, and on the other hand, credulous laypeople who would be lost in the torments of post-truth.

The universe of mask handling is still enriched by the invocation of web “stars,” of characters – among whom are doctors or supposed scientists – who have acquired a reputation by taking controversial positions on Covid-19.

Analyzing the forum allowed us to discover a real “who’s who” of people who have promoted polemic or conspiracist-like statements, “alternative” truths, and other “fake” news.⁴

Considering 29 quotations from various personalities, 23 were from three conspiracists, whereas the quotations from non-conspiracists were accompanied by oratorical precautions that explained the latter’s lack of adherence to the cited speakers.

The major opposition between mostly anonymous scientists and media personalities did not exclude the intervention of technical authorities who were just as significant and endowed with their own agency. Indeed, we must consider the impact of social networks, videos, YouTube, and Twitter, as the mention of these sources was endemic on the forum. In fact, it is

⁴ Stéphane Blet (anti-Semitic conspiracy pianist); Robert Bibeau and Richard Boutry (journalists); Guillaume Chopin (star of essential oils on social networks); Ève Engerer (conspiracy doctor from Strasbourg who prescribed anti-mask certificates); Pierre Etchart (conspiracy osteopath); Benjamin Fulford (author of an abundant review of scientific literature on the uselessness of sanitary masks, including during surgery); Jean-Bernard Fourtillan (former pharmacy professor who is under investigation for illegal clinical trials); Alexandra Henrion-Caude (geneticist and former director of research at INSERM, the French National Institute for Health and Medical Research); Thierry Meyssan (muse of the Voltaire network who has conspiracy and anti-Semitic tendencies); Dominique Michel (anti-mask blogger and author of a detailed anti-masking text); Philippe Ploncard d’Assac (author of conspiracy and anti-Semitic theses); Jean Robin (a journalist who denounced France’s alignment with Chinese policy); Didier Raoult (the now famous pro-chloroquine infectiologist, who was ironically presented as “Saint Raoult”); Sylvano Trotta (YouTuber and company director who became popular from his conspiracy theses on the health crisis), etc.

difficult to reduce the Internet to an unreliable source of information because almost all scientific knowledge is available online, either directly or indirectly through literature reviews or popularization sites, such as *sante.log* (cited by forum participant Océane), a website that relays information from academic or institutional publications.

Among the digital sources cited on the forum, we also find contributions made by laypeople, but these contributions were measured and well-informed. Instead of taking a position in favor of or against wearing masks, these contributions carefully identified all possible theses. In addition, the conspiracists willingly relied on standard scientific literature that they combined with other sources of information. While doing so, the conspiracists explained that antagonistic statements could be found in the scientific literature, which made it difficult to untangle the web of truth and falsehood. In short, before attacking the unreliability of electronic media for the sake of the transparent, unified, and easily available truth that conspiracist views would threaten, it is necessary to know the diversity, complexity, and usage of these media.

The Combination of Ontologies and Authorities

Participants offered propositions that echoed the concerns of different sciences, but they also drew upon various authorities. How do these two aspects of the discussion fit together? What are their possible consequences for knowledge mobilization or production? Two points need to be emphasized.

First, the connections between the content and the authorities are fragile in the forum. Forum members provided a significant amount of information without always providing the details that made it possible to identify its sources. As Océane noted to Babinette75, “I can also attach for each opinion given, the sources and the related articles, but then they will not be messages anymore but a series of links.” (8/17/2020, 15:19).

These characteristics of the forum and the casualness of some Internet users led to many orphan propositions whose fanciful character could be suspected but not immediately established without costly fact-checking operations. These circumstances contributed to the production of uncertain knowledge for which participants could not be held entirely responsible.

Second, the debates staged the plurality of not only the ontologies but also the authorities mobilized in the discussion. Noting the plurality of ontologies means understanding that one cannot use lay positions to oppose Science with a capital S related to masks. Indeed, “in the

name of science” is always “in the name of such and such a science.” Since scientific perspectives are dissimilar and non-fungible (Mol, 2002), each science tends to reduce its object to the narrow dimension on which it is based.

Bronner, a French scholar in conspiracy theories, relied on De Gré’s (1985) image of a multicolor pyramid to clarify that knowledge is often faulty when based solely on a situated point of view (Bronner, 2020). In an interview, Bronner summarized his argument:

If one places an individual in front of each of the four faces painted in different colors of a pyramid, each individual will attribute to the pyramid the color of the face in front of which he is placed. Only if they are allowed to walk around the pyramid will they discover their error. (Bronner in Hirschhorn, 2017)

The forum reversed this metaphor. It is not the supposedly credulous laypeople who see only one side of a pyramid that is otherwise known to scientists. Rather, scientists are the ones who see only the narrow side through which they focus their studies. Reversely, by exchanging experiences, laypeople deployed the plural and situated knowledge of wearing masks, which should help scientists walk around the pyramid. In other words, it is no longer a question of opposing the credulity of the public about the external truth that individuals with partial views struggle to grasp, but it is meeting the partial views as the condition and the prerequisite to advance toward better knowledge.

If the situated laypeople’s points of view affect the production of knowledge, it is not only because their aggregation contributes to the production of an overall image, but also because they are rooted in personal trajectories (Harambam & Aupers, 2015). Considering these trajectories is the only way to grasp the reasons behind the adoption of conspiracy theories.

Behind the masks

The forum seems *a priori* formatted to allow, according to a typically Habermasian logic (Habermas, 1981), the confrontation among anonymous expressions, all turned toward the engagement of a “disembodied” dialogue and aiming at converging toward an agreement. However, a review of the discussion indicates that the *rise in generality* goes hand in hand with *frequent descents into particularity*. More precisely, a combination of both movements can be observed. Similar to participants on health discussion boards (Akrich, 2010), the forum participants demonstrated that it was impossible to construct a valid general argument without considering the particular conditions that gave rise to it.

The position of conspiracy theorist Maria36 was not evaluated in the same way as one would do from a general perspective because the evaluation depends on whether one stops with her potentially debatable arguments or considers her personal experience in which these arguments are rooted. Maria36 is overweight and suffers from respiratory failure, so her rejection of masks was a way of dealing with her inability to wear them, and her adoption of admissible anti-mask arguments is a way of making a difficult situation bearable. In other words, Maria36 experienced classic cognitive dissonance (Festinger, 1957), and she drew on reasoning to minimize it. Maria36 expressed the following in the forum:

Personally, I never wear it [the mask]. I've tried it, but I get sick every time, so in agreement with my doctor, I don't wear it anymore. Besides, masks don't protect against viruses (if you buy a box, it says so). So personally, since I am at risk (overweight, a respiratory capacity greatly diminished since a car accident, and with tendencies [for] asthma), I go to the stores as little as possible and use the distancing and the gel. (12/27/2020)

It would be a mistake to assume that consideration of lived situations provides a mechanical key to understanding personal positionings in the debate. The forum showed that people are endowed with reflexive capacities, even more so when faced with a new situation that is not entirely related to past experiences. The participants' illnesses may have been old, but the virus and the mask were new. All along their lives, people must negotiate and establish compromises between what their previous trajectories prescribe and what the new situations offer. In other words, these people must manage what Rosanvallon (2021) referred to as "the trials of life." This is the opposite of the Bourdieusian homology between social conditions and standpoints⁵ that we observed. The participants all have a disease, but they differ regarding the ways in which their diseases impact their attitudes toward masks.

Etienne, who suffers from Parkinson's illness, was angry because he believed there was a lack of effective treatments for his disease and a lack of research devoted to this pathology. The therapeutic impasse in which he is trapped made him distrust the medical industry that he believes is venal and inattentive to his situation. Etienne explained the following to Océane:

⁵ "Any standpoint on the social world is ordered and organized from a determined position in this world, that is, from the point of view of the conservation and increase of power associated with this position" (Bourdieu, 1984, pp. 25–26).

Things are simple. On the one hand, there is a treatment that does not heal, doctors who impose it, health insurance that is ruining itself, and shareholders of the pharmaceutical industry who are getting rich without making the slightest effort. On the other hand, there is the suffering of a lot of people and a few attempts to heal differently. It is not a matter of indignation but of resistance in the face of a situation that is openly unjust and contrary to the interests of the greatest number. We must seek, we must try, we must experiment. The right to be cared for in the best possible way is not debatable. This is my position.

Etienne. (10/21/2020)

Similar to Maria36, Etienne questioned the official data to minimize the situation and ultimately adopted the conspiracist and anti-mask posture.

Conversely, similar medical experiences led to the adoption of more common, equally outraged positions by people with serious morbidities who clung to masks as if they were lifelines and who did not support those individuals, such as Maria36 and Etienne, who adopted selfish behavior that would expose them to unacceptable risks. For example, Lebloc wrote the following to Etienne:

The mask is not an answer to the epidemic. It is a way to protect yourself and especially to protect others. But you are free to run the risk of being affected by this virus by not protecting yourself. But, at least for the people around you, protect them by wearing it. (10/20/2020)

Aspic explained the following to Etienne:

For as long as you've been blabbering on the site what do you have to offer? Besides saying that I show my submission (...), what is your big mouth... uh no!!! What do you propose? And when you keep reminding us of Parkinson's etc., do you think we're in Club Med [Holiday Resort] here? (10/20/2020)

Some participants even called on the forum moderator to suppress the expression of conspiracy theories. For example, SCIE1967 wrote the following to Cindy, the Healthhelp forum moderator:

Excuse me, but sometimes, grrr! @Cindy, how can you let people write conspiracy statements without removing them, let them say that the coronavirus is a conspiracy, [and] let them say that it's Macron's fault and much more? How can you reprimand us because we want to put things back the way they should be? This is a serious matter. We should not joke about it . . . Clean these forums of these false things and of those who propagate them, and you will have constructive exchanges. (10/6/2020)

Thus, the general discussion and the underlying quest for a hypothetical truth about the question of masks are inextricably linked to another form of truth—the truth of lived situations, personal dramas, physical feelings, and all the other dimensions that belong to the intimate sphere. The participants did not express themselves abstractly with generalities. They anchored their comments in their personal experiences of managing their illnesses and

wearing masks. As noted in the introduction, the fact that the participants had certain medical conditions gave them a particular sensitivity and reflexivity about the manifestations of their bodies. Similar to other subforums in which the participants discuss the effects of treatments, the participants oscillated between their personal experiences and external information to understand what they were feeling. This analysis may result in new questions and require additional investigation. The current situation involves a form of “pre-truth” existence in that the expression of these physical and private concerns fostered a debate that otherwise would have been presented as based on science. In this process, the discussion expanded the range of research topics about masks by addressing questions in other terms. Thus, a disembodied discussion on the relevance of the use of masks was reformulated by considering the discomfort that masks cause and their occasional problematic incompatibility with the medical conditions of those whose attitudes are not initially unfavorable toward masks but who experienced difficulties using them. From this point of view, the biases of the participants, be they conspiracists or not, do not hinder but contribute to the work of collective investigation. The term “bias” should be understood as a universally shared feature. As Haraway (1988) explained, knowledge is always situated because it is embedded in the specific relationships that humans have with the objects they study. This does not prevent the construction of robust knowledge that complies with the rules of the scientific method.

Conclusion

Does the Covid-19 threaten the truth as much as health? Against the backdrop of the mask debate, do masks obscure science as much as faces? This is not necessarily the case. As we have emphasized, the pandemic is fertile ground for conspiracy theories. We observed several participants spread conspiracy theories in the Healthhelp forum. However, a careful examination of the forum quickly reversed this impression. The forum showed in a rather reassuring way that all opinions were not equal or expressed in the same way and that they did not have the same propensity to convince people. On the one hand, all sorts of theories circulate on this kind of media because information within the reach of a click is more easily accessible. On the other hand, vigilant Internet users quickly mobilize to counter questionable statements and provide data and sources for the discussion that cannot be reduced to beliefs.

We do not claim that our observations of this forum can be generalized to all spaces of public expression. Certain characteristics of the forum allowed the discussion to continue in a productive manner, despite the virulent interventions by some conspiracy theorists that

bordered on “trolling”, i.e. deliberately provoking or getting a rise out of others. First, all members of the Healthhelp forum suffer from serious health problems. Proximity (or not) to conspiracy theories was only a secondary consideration and probably played no role in the participants’ decisions to join the social network. Second, the participants often exchanged messages in subforums and felt that they belonged to a community. Like in the case observed by Lee (2005), some non-conspiracists developed multiple strategies to prevent this community from breaking up and to cool down exchanges, such as ignoring certain provocations or considering the humanity of the other person⁶. This required non-conspiracists to set aside sterile confrontations regarding mask usage to renew the dialogue with empathic logic. Diverting the conversation to subjects of common interest, such as music, and providing information about the other person’s illness were ways to show that people cared.

Under these conditions, even expressions of conspiracy theories advanced the state of knowledge. Public discussions over truth, even when related to conspiracy theories, actually improve the quality of truth instead of deteriorating it. Each point of view reflected a particular perspective, and emphasized the need to avoid considering masks from the perspective of a single ideal science. To some extent, our case even shows that discussions in which conspiracies thrive may promote if not the truth, at least pre-truth dynamics, rather than degenerate the truth. This occurs by challenging existing views, unveiling and opposing every aspect of the specific topic, and calling for better development and articulation of existing knowledge. In the post-truth, which is a notion that has thus far attracted considerable attention (Cosentino, 2020; D’Ancona, 2017; Kalpokas, 2018; McIntyre, 2018), the prefix and the noun pose a problem. The noun (truth): today’s issue of knowledge production involves constructing knowledges—not knowledge (Wynne, 1991). Moreover, it is important to construct these knowledges with and not against laypeople (Callon et al., 2011). The prefix: it is also important to consider the knowledges not as the starting point, but as the horizon of

⁶ While a quarter of the messages received a reply within 13 minutes, this time period increased to 30 minutes for conspiracy theorists. Moreover, 35% of the messages that remained unanswered within 18 hours came from these participants, although they only sent 20% of the messages.

action that is dependent on considering prior expressions that are necessarily plural (i.e., that should be perceived as pre-truths rather than post-truths).

Thus, our examination joins previous work that has shown that conspiracy theories cannot be reduced to an oversimplistic vision of a single scientific truth endangered by the spread of grassroots-based erroneous beliefs (Boullier et al., 2021; Fenster, 2008; Harambam, 2020). Our work shows how interactive discussions among laypeople contributed to the construction of knowledge(s). As we observed, these discussions considered a variety of aspects of the specific topic. More importantly, the participants' situated experiences largely fueled their worldviews. As such, they participated to the recent shift from matters of fact to matters of concern: according to Latour who coined this dichotomy, "Reality is not defined by matters of fact. Matters of fact are not all that is given in experience. Matters of fact are only very partial and, I would argue, very polemical, very political renderings of matters of concern and only a subset of what could also be called *states of affairs*" (Latour, 2004: 232). Consequently, we cannot just stop at the words exchanged and simply label them as "conspiracist" by considering actor-based or external definitions. Instead, we must realize that these words were anchored in collective and personal histories. Those who participated in the discussion about wearing masks on Healthhelp also addressed other topics and sought to support one another with the diseases they suffer. The expression of opinions was closely linked to the life trials that each person encountered. Thus, we understand that we would probably manage the dangers of the so-called post-truth era more effectively if we were less interested in conspiracy and more in conspiracists, as well as in their reasons for supporting these theories, which are primarily developed to reassure them and to make their world livable.

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References

Akrich, Madeleine. 2010. From communities of practice to epistemic communities : Health mobilizations on the Internet, *Sociological Research Online*, 15(2), 116-132.

- Akrich, Madeleine and Cécile Méadel. 2002. Prendre ses médicaments/prendre la parole : Les usages des médicaments par les patients dans les listes de discussion électroniques. *Sciences Sociales et Santé*, 20(1), 89-116.
- Akrich, Madeleine. 2019. Temporalités, régimes de participation et formes de communauté. Comprendre la dynamique d'un forum grand public autour du dépistage prénatal. *Réseaux*, 37(214-215), 26-66.
- Atehortua, Nelson A. and Stella Patino. 2021. COVID-19, a tale of two pandemics: Novel coronavirus and fake news messaging. *Health Promotion International*, 36(2), 524-534
- Ball, Philip and Amy Maxmen. 2020. The epic battle against coronavirus misinformation and conspiracy theories. *Nature*, 581(7809), 371-374.
- Barker, Kristin K. 2008. Electronic Support Groups, Patient-Consumers, and Medicalization : The Case of Contested Illness. *Journal of Health and Social Behavior*, 49, 20-36.
- Boullier, Henri, Baptiste Kotras and Ignacio Siles. 2021. Uncertain Knowledge. Studying “Truth” and “Conspiracies” in the Digital Age : Introduction. *RESET* (10).
- Bourdieu, Pierre. 1984. *Homo Academicus*, Paris, Minuit.
- Breeze, Ruth. 2021. Claiming Credibility in Online Comments : Popular Debate Surrounding the COVID-19 Vaccine. *Publications*, 9(3), 34.
- Bronner, Gérald. 2013. *La démocratie des crédules*. Paris: PUF.
- Bronner, Gérald. 2020. Pourquoi une sociologie compréhensive augmentée ? *L'Année sociologique*, 70, 153-174.
- Butter, Michael and Peter Knight. 2015. Bridging the great divide : Conspiracy theory research^h for the 21st century. *Diogenes*, 62(3-4), 17-29.
- Callon, Michel, Pierre Lascoumes, and Yannick Barthe. 2011. *Acting in an Uncertain World: An Essay on Technical Democracy*. Cambridge, MA: MIT Press.
- Callon, Michel and Pierre Lascoumes. 2020. Penser l'après : Le Covid-19 pousse les scientifiques hors de leurs laboratoires. *The Conversation*. <http://theconversation.com/penser-lapres-le-covid-19-pousse-les-scientifiques-hors-de-leurs-laboratoires-137336>
- Claassen, George. 2021. The viral spreading of pseudoscientific and quackery health messages on twitter – finding a communication vaccine. *Current Allergy and Clinical Immunology*, 34(1), 18-22.
- Coady, David, ed. 2019. *Conspiracy Theories: The Philosophical Debate*. London: Routledge.

- Cole, Jennifer, Chris Watkins & Dorothea Kleine. 2016. Health Advice from Internet Discussion Forums : How Bad Is Dangerous? *Journal of medical Internet research*, 18(1), e4.
- Cosentino, Gabriele 2020. Social media and the post-truth world order: the global dynamics of disinformation. Cham, Switzerland: Palgrave Macmillan.
- D'Ancona, Matthew 2017. Post truth: The new war on truth and how to fight back. London: Ebury Press.
- Dbouka, Talib and Dimitris Drikakis. 2020. On respiratory droplets and face masks. *Physics of Fluids* 32(063303).
- De Gré, Gérard. 1985. The Social Compulsions of Ideas, Toward a Sociological Analysis of knowledge. New Brunswick : Transaction Books
- Dixon, Graham. 2020. Undermining Credibility : The Limited Influence of Online Comments to Vaccine-related News Stories. *Journal of Health Communication*, 25(12), 943-950.
- Dumit, Joe. 2006. Illnesses you have to fight to get : Facts as forces in uncertain, emergent illnesses. *Social Science & Medicine*, 62, 577-590.
- Esquivel, Adol, Fulma Meric-Bernstam, & Eder Bernstam. 2006. Accuracy and self correction of information received from an internet breast cancer list : Content analysis. *BMJ*, 332, 939-942.
- Eysenbach, Gunther, John Powell, Oliver Kuss, & Eun-Ryoung Sa . 2002. Empirical Studies Assessing the Quality of Health Information for Consumers on the World Wide Web : A Systematic Review. *JAMA*, 287, 2691-2700.
- Fenster, Mark. 2008. *Conspiracy Theories. Secrecy and Power in American Culture*. Minneapolis: The University of Minnesota Press.
- Festinger, Leon. 1957. *A Theory of Cognitive Dissonance*, New York, Harper.
- Fine, Gary Alan and Nicholas Difonzo. 2011. Uncertain knowledge, *Contexts*, 10 (3), 16-21
- Gaglio, Gérald, Cédric Calvignac and Franck Cochoy. 2022. Chronique d'un "mensonge". Déclarations gouvernementales sur l'inutilité du port du masque en population générale et réactions indignées du public, *Lien social et politiques* (forthcoming).
- Habermas, Jurgen. 1981. *The theory of communicative action*, Beacon Press Boston.

- Harambam, Jaron. 2020. *Contemporary Conspiracy Culture: Truth and Knowledge in an Age of Epistemic Instability*, London: Taylor and Francis.
- Harambam, Jaron. 2021. Against modernist illusions : Why we need more democratic and constructivist alternatives to debunking conspiracy theories. *Journal for Cultural Research*, 25(1), 104-122.
- Harambam, Jaron and Stef Aupers. 2015. Contesting epistemic authority : Conspiracy theories on the boundaries of science. *Public Understanding of Science*, 24(4), 466-480.
- Haraway, Donna. 1988. Situated Knowledges : The Science Question in Feminism and the Privilege of Partial Perspective. *Feminist Studies*, 14(3), 575-599.
- Hirshhorn, Monique. 2017. “Conversation avec Gérald Bronner. Ce n’est pas la post-vérité qui nous menace, mais l’extension de notre crédulité”, *The Conversation*, <https://theconversation.com/conversation-avec-gerald-bronner-ce-nest-pas-la-post-verite-qui-nous-menace-mais-lextension-de-notre-credulite-73089>. Consulted on January 18, 2023.
- Hübl, Philipp. 2020. In Search of a Master Plan: How Conspiracy Theorists Get the Scientific Method Wrong. *Elephant in the Lab*. <https://doi.org/10.5281/ZENODO.3964396>. Consulted on January 18, 2023.
- Josefsson, Ulrika. 2005. Coping with illness online : The case of patients’ online communities. *The Information society*, 21, 143-153.
- Kalpokas, Ignas 2018. *A political theory of post-truth*. Cham, Switzerland: Palgrave MacMillan.
- Kazmer, Michelle, Mia Liza Lustria, Juliann Cortese, Gary Burnett, Ji-Hyun Kim, Jinxuan Ma and Jeana Frost. 2014. Distributed knowledge in an online patient support community : Authority and discovery. *Journal of the Association for Information Science and Technology*, 65(7), 1319-1334.
- Kwong, Laura H., Rob Wilson, Shailabh Kumar, Yoshika Susan Crider, Yasmin Reyes Sanchez, David Rempel, and Ajay Pillarisetti. 2021. Review of the breathability and filtration efficiency of common household materials for face masks. *ACS Nano*, 15(4), 5904–5924.
- Latour, Bruno. 2004. Why has critique run out of steam? From matters of fact to matters of concern. *Critical Inquiry*, 30(Winter), 225–48.
- Lee, Hangwoo. 2005. Behavioral Strategies for Dealing with Flaming in an Online Forum. *Sociological Quarterly*, 46, 385-403.

- Loader, Brian D., Muncer, Steve, Burrows, Roger, Pleace, Nicholas, & Sarah Nettleton. 2002. Medicine on the line? Computer-mediated social support and advice for people with diabetes. *International Journal of Social Welfare*, 11(1), 53-65.
- McIntyre, Lee. 2018. *Post Truth*, Cambridge, MA: MIT Press.
- Mol, Annemarie Ontological Politics. 1999. A Word and Some Questions, *The Sociological Review* 47(1_suppl):74-89.
- Mol, Annemarie. 2002. *The Body Multiple. Ontology in Medical Practice*. Durham: Duke University Press.
- Nettleton, Sarah, Burrows, Roger, & Lisa O'Malley. 2005. The mundane realities of the everyday lay use of the internet for health, and their consequences for media convergence. *Sociology of Health & Illness*, 27, 972-992.
- Pinch, Trevor J. 1991. En parapsychologie, rien ne se passe qui ne soit scientifique... in M. Callon & B. Latour (Eds), *La science telle qu'elle se fait* (pp. 297-343). Paris: La Découverte.
- Rosanvallon, Pierre. 2021. *Les épreuves de la vie, Comprendre autrement les français*, Paris, Seuil.
- Shapin, Steve. 1979. The Politics of Observation : Cerebral Anatomy and Social Interests in the Edinburgh Phrenology Disputes. *The Sociological Review*, 27(1_suppl), 139-178.
- Tandoc, Edson C. J., Ryan J. Thomas and Lauren Bishop. 2021. What Is (Fake) News? Analyzing News Values (and More) in Fake Stories. *Media and Communication*, 9(1), 110-119.
- Touraine, Alain. 1978. *La Voix et le regard*, Paris, Seuil.
- Varanges, Vincent, Baris Caglar, Yann Lebaupin, et al. 2022. On the durability of surgical masks after simulated handling and wear. *Scientific Reports* 12(4938).
- Ylä-Anttila, Tuukka. 2018. Populist knowledge : 'Post-truth' repertoires of contesting epistemic authorities. *European Journal of Cultural and Political Sociology*, 5(4), 356-388.
- Wyatt, Sally, Flis Henwood, Angie Hart, & Hazel Platzer. 2004. L'extension des territoires du patient : Internet et santé au quotidien. *Sciences Sociales et Santé. Volume*, 22, 45-68.
- Wynne, Brian. 1991. Knowledges in Context. *Science, Technology, & Human Values*, 16(1), 11-121.

Ziebland, Sue. 2004. The importance of being expert : The quest for cancer information on the Internet. *Social Science & Medicine*, 59, 1783-1793.