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Section 4 – Chapter 8

The Internet and the Spread of Conspiracy Content¹

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8.1. Introduction: the mediatisation of conspiracy theories

Contemporary media represent a particularly fertile ground for conspiracy theories (Craft, Ashley and Maksl 2017); while in the past it was difficult to disseminate alternative views of important events (Olmsted 2009), things have radically changed in present day's communicative environments, where the advances in technology have made it relatively easy for people to disseminate a variety of narratives and points of view. This has resulted in a noticeable increase in media messages promoting conspiracy theories, with consequences on the public's belief in such theories (cf. Einstein and Glick 2015; Jolley and Douglas 2014a, 2014b; Mulligan and Habel 2012; Swami et al. 2013). Official news and information is now more frequently put side by side with alternative versions, including unverified data and fake news. In fact, according to the German sociologist and philosopher Jürgen Habermas (2006), the separation between fact and fiction has been increasingly abandoned:

News and reports and even editorial opinion are dressed up with all the accoutrements of entertainment literature. ... What in this way only intimates itself in the daily press has progressed further in the newer media. ... Under the common denominator of so-called human interest emerges the *mixtum compositum*

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of a pleasant and at the same time convenient subject for entertainment that, instead of doing justice to reality, has a tendency to present a substitute more palatable for consumption and more likely to give rise to an impersonal indulgence in stimulating relaxation than to a public use of reason. ... With the arrival of the new media the form of communication as such has changed; they have had an impact, more penetrating (in the strict sense of the word) than was ever possible for the press ([1962] 1991: 170).

Furthermore, technological advances in communication have caused a profound societal change with regard to how information is handled: mistrust in institutional authorities and official information has resulted “in the claim that everyone holds views of current events and of course also in the claim that these views are the only true ones. ... Thus conspiratorial interpreting in time has become a part of the everyday self-evident handling of information for whose part it has gained popularity” (Kimminich 2016: 36). This does not necessarily mean that the Internet and new technologies are driving a new age of conspiracy theories (Uscinski and Parent 2014), but is certainly relevant and points out the need to deal with online communication for a better understanding of conspiracy thinking in nowadays societies. Hence, this chapter aims precisely at analysing how conspiracy theories proliferate through contemporary online media — i.e. the so-called “new media” — and with what effects. While a number of scholarly studies on conspiracy theories have focused on their manifestation in the mass media (e.g. literature, cinema, radio and television), in fact, only a few (see Erdmann 2016, Madisson 2016, Stano 2016, Thibault 2016 and, more generally, Leone 2016 for some case studies) have analysed them in digital media, providing interesting but limited results. The same applies to non-scholarly works (see, for instance, Morello 2004 and McMahon 2004). In order to fill this gap, the following paragraphs will make reference not only to research specifically addressing conspiracy theories, but also to relevant findings in communication studies, finally exploring a particularly relevant case study: anti-vaccination conspiracy theories.

8.2. The Web 2.0: increasing participation or dis-/misinformation?

The expression “Web 2.0” (or “participatory” or “social” Web) was introduced by Darcy DiNucci in 1999 to make reference to websites promoting participatory culture and allowing their users to easily interact with each other through user-generated content in virtual communities. If the first stage of the World Wide Web’s evolution (the so-called “Web 1.0”) made people’s access to online content mainly passive, because of the competences required to produce and distribute it, the Web 2.0 enhances users’ activity and participation by providing them with simpler tools for the creation and diffusion of online information. Weblogs, social networks, online forums, and other digital media have made it easier to produce and share content online. They allow a personalised and multidirectional communication (*many-to-many*) that exploits the bi-directional channel of the network to go beyond the broadcasting model (*one-to-many*) typical of mass communications. Social networks, for instance, not only allow users to easily create and propagate textual, visual or audio-visual posts, but have specific functionalities to help users react to and comment on such posts, as well as to re-share them (e.g. Twitter’s “retweet” button, Pinterest’s “pin” function, Facebook’s “share” option or Tumblr’s “reblog” function).

While such a transition has resulted in evident advances in communication and information systems, enhancing the democratisation of information and making it easier for people to share ideas and knowledge, it has also fomented “disinformation” and “misinformation”. That is to say, it has resulted in the deliberate or unintentional spread of false or inaccurate information, making fake news and conspiracy theories prosper. Information on social media, in fact, does not have to be investigated or confirmed² in order to be shared, and this might lead to unsubstantiated and even false rumours spreading like wildfire.

² Some forms of control have been gradually introduced, precisely as a way to prevent, or at least try to reduce, misinformation, but as we discuss more in detail below, they have not proved to be particularly effective, and so deceptive and fake news still prosper on social media.

Evidently, such phenomena also existed before, but the speed and ubiquity of the Internet have provided an extremely fertile ground for alternative narratives, therefore resulting in their evident enlargement and rapid spread. Not only do people share and comment on official news and bulletins, but more frequently now, as facts occur, Internet users develop their own narratives through weblogs and social networks even before such facts are covered by institutional media. As a result, the “global village” postulated by Marshall McLuhan (1962; 1964) has rapidly taken the shape of an “alternative media ecosystem” (Starbird 2017), namely a complex network of individuals and domains that, among other things, generate and promote conspiracy theories that undermine online readers’ trust in official information.

8.3. The propagation of conspiracy theories online

How do conspiracy theories propagate online? How do they manage to become as visible and shared as — when not even more than — official and proven information? In order to answer these questions, the following paragraphs will briefly recall some models and theories developed to describe the spread of information on and through social media, pointing out the way they can help us understand better how conspiracy theories circulate within contemporary mediascapes.

8.3.1. Virality and memes: reading conspiracy theories through Dawkins’ approach and its recent reinterpretations

The metaphor of **virality** has been increasingly used to refer to online communication and, in particular, social networks (cf. Marino and Thibault 2016). The analogy with viruses suggests the idea of a sort of “contagion” taking advantage of the permeability of culture to allow specific elements to penetrate, and therefore infect, its “DNA”. In accordance with microbiology, such a model conceives viral texts as small infectious agents existing in the form of independent particles, whose “genetic code”, which is protected by a capsule and other layers that make it impenetrable from the outside, is

capable of infecting the DNA of culture's "cells", which, on the contrary, have porous borders and are therefore open to external elements. In this view, viral particles evolve and reproduce by "poisoning" (as the etymology of the word *virus* suggests) a host organism whose immune system is not able to impede — or at least limit — such a contagion.

Building on Richard Dawkins' description of **meme** as a "unit of cultural transmission, or a unit of imitation" (1976), that is to say a sort of "cultural gene" moving from one brain to another (exactly as genes do move from one body to another), both scholarly (see, for instance, Shifman 2013; Cannizzaro 2016) and common language have increasingly adopted the idea of "Internet meme" to describe such mechanisms of contagion. More more specifically, the idea of virality has been used to refer to viral content circulating on the Internet (McKenzie 1996), thus reinterpreting Dawkins' definition as a "fitting metaphor for Internet culture, affording exact copies of digital artifacts, rapid person-to-person spread, and enormous storage capacity" (Marwick 2013: 12).

From such a perspective, the wide spread of conspiracy theories in contemporary mediascapes can be seen as an uncontrolled contagion that, thanks to both the permeability of culture and the agency of memes, has increasingly affected social discourses. Exactly as other viral texts, conspiracy theories would have therefore progressively "infected" the Internet, hence finding larger consent among its users.

However, this view is problematic, since it attributes to Web-users a passive role and represents them as infected objects of an external action (that of the viral content), rather than as active subjects. In other words, virality theories suggest the reductionist idea that messages are totally and unconditionally accepted by their receivers (as it was supported by some outmoded models of communication, such as the so-called "magic bullet" or "hypodermic needle" theory). Conversely, research has shown that the media have selective

influences on people and should be better described by step-flow models³. Furthermore, as Henry Jenkins (cf. Jenkins, Ford and Green 2013) pointed out, memes do not have operational capacity in and of themselves, which means that they cannot propagate without the active intervention of users. The porosity of culture, in other words, is not to be confused with the passivity of those who belong to it, as Lotman (1984) effectively pointed out by insisting on ideas such as the semiosphere⁴'s resistance to change and the distinction between central and peripheral elements within it. Subjects inhabiting the cultural and communicative dimension cannot and should not be conceived as passive receptors, since they actively intervene on texts, making them become “viral” precisely through an act of appropriation that refers not only to a specific intention but also to a particular knowledge (from the simple act of understanding such texts to their re-semantisation).

Consequently, if a contagion takes place, it seems to take the shape of a *contact*, as the etymology of the word⁵ suggests, rather than that of a *contamination*, as the common conception of virality assumes. In this respect, it is interesting to recall Giulia Ceriani's analysis (2004) of *contamination* and *fusion* as inter-object relationships. According to the Italian scholar, these two *modi operandi* relate to the semantic axis “multiplicity” vs. “unity” in opposite ways: contamination favours multiplicity, by making the original objects that are combined together (i.e. “contaminated”) still recognisable in the resulting object; by

³ Step-flow models contrast the idea, claimed by the hypodermic needle theory, that people are directly influenced by mass media. According to the two-step flow model developed by Paul Lazarsfeld, Bernard Berelson, and Hazel Gaudet (1948), for instance, ideas flow from mass media to opinion leaders, and from them to a wider population.

⁴ Drawing on the idea of “biosphere”, intended as the space within which life exists, Lotman defines the semiosphere as the space within which semiosis exists, using such an idea to describe the functioning of culture.

⁵ Deriving from the Latin term *contagionem*, “a touching, contact, contagion”, related to *contingere*, “touch closely” (Online Etymology Dictionary 2019).

contrast, fusion completely denies variety, by creating a new, unique object while annihilating the pre-existing ones. In online communication, neither the original content nor the acts generating viral texts are easily distinguishable; most commonly, a new object is generated, and any trace of the pre-existing texts that gave origin to it is lost. If a contamination takes place, therefore, it merely represents the anticipation of a subsequent process of fusion, which tends to make the former invisible. Any “fused” object, in other terms, seems to follow a “rhizomatic development” (Deleuze and Guattari 1980): it has no roots, nor vertical connections, but spreads horizontally, opposing the organisational structure of the tree-system that charts causality along chronological lines and looks for the origins of things.

8.3.2. Spreadability: reading conspiracy theories through Jenkins, Ford and Green’s approach

An alternative description of the processes through which online contents are able to propagate and reach large amounts of people is provided by Henry Jenkins, Sam Ford and Joshua Green in their book *Spreadable Media. Creating Value and Meaning in a Networked Culture* (2013). Here they contrast the concept of “stickiness” — aggregating attention in centralised places — with that of “spreadability” — dispersing content widely through formal and informal networks. While theories on virality are mainly based on stickiness, the three scholars argue that online contents are not replicated perfectly, but rather “manipulated” by users, who play therefore a key active role in such a process. In this view, the Internet does not merely enhance the replicability of the texts that circulate within it, but rather fosters their personalisation and re-interpretation by means of mechanisms of manipulation that function as a hook to both users’ engagement and agency (Marino 2015). In other words, each appropriation of an online text tends to re-structure it, creating new

forms and leading to its re-interpretation (Dusi and Spaziante 2006). Such mechanisms can be described primarily in terms of:

- *Sampling*: the adoption of a portion or “sample” from a pre-existing text;
- *Remixing*: the structural modification of a text, including the insertion of new elements, which can be intentional but also unintentional;
- *Remaking*: the re-creation of a pre-existing text, which can more or less evidently alter such a text.

Regardless of the specific mechanism in action, it is important to notice that people tend not to simply share online contents as they are, but rather to modify and incessantly reinterpret them (e.g. by adding comments, combining them with other texts, or de- and re-contextualising them). This evidently requires users a specific effort, conferring an active role on them, and thus undermining the simple idea of a passive infection generally associated with the metaphor of virality. In this view, online conspiracy theories are not understood as the passive repetition of the same “infective” content across the Internet, but rather as the active re-interpretation and adaptation of such content by users, who thus confer different meanings on them.

8.3.3. Between abundance and redundancy: the “information overload” and the “echo chambers”

Another crucial characteristic of contemporary communicative systems that can help us understand better conspiracy theories and their propagation in present day’s mediascapes is the so-called “information overload”: while the Internet has expanded the variety and amount of available information, creating a more diverse space for public debate, greater access to information has also made it more challenging for the reader to evaluate the reliability of information. This has lead scholars to denounce a situation of excess of information, which has been alternatively described as “infobesity” (Rogers, Puryear and

Root 2013), “infoxication” (Chamorro-Premuzic 2014), “information anxiety” (Wurman 2012), “explosion” (Buckland 2017) or “overload” (as the most common denomination recites). While indisputably enhancing pluralism, in other words, the abundance of sources, news and opinions available on social media produces an effect of confusion and uncertainty that makes it difficult for users to choose the information to trust and focus their attention on.

Simultaneously, the Web has seen the emergence of the so-called “echo chambers”, that is to say situations in which individuals are exposed only to information from like-minded individuals:

Selective exposure to content is the primary driver of content diffusion and generates the formation of homogeneous clusters, i.e., “echo chambers.” Indeed, homogeneity appears to be the primary driver for the diffusion of contents and each echo chamber has its own cascade dynamics (Del Vicario et al. 2016: 554).

Comparing Facebook pages reporting on scientific and conspiracy content, for instance, Quattrociochi and Vicini (2016) showed that users who are deeply engaged in a community are more likely to become focused on particular topics, thus becoming “isolated” from the neighbouring environment, that is to say, other topics and views. Although there is no direct relation between such a phenomenon and the information overload, it is interesting to note the difference between the emotional effects deriving from them: social media users are likely to find their opinions constantly “echoed” back to them, which develops tunnel vision and reinforces individual belief systems over verified facts — the search for which, on the contrary, seems to suffer from the anxiety deriving from the hardly manageable abundance of information available on the Internet.

This configuration creates barriers to critical discourse on online media: it feeds propaganda and extremism and reduces democracy and critical debate (Sunstein 2017). In

this respect, Cass Sunstein (2001) developed the idea of “information cascade” — i.e., when Internet users start passing on information they assume is true even though they cannot verify it, to denounce that the Internet today creates “cybercascades” of information that develop extremely rapid and are therefore very difficult to control. Hence fake news and even conspiracy theories are more likely to prosper, generating large communities of supporters, as we will see in detail in relation to a specific case study in the following paragraph.

8.4. The spread of anti-vax conspiracy theories: a case study

After describing the major theories and concepts that can help us understand better how conspiracy theories proliferate online and with what effects, I would like to briefly consider a significant case study in order to empirically demonstrate the above explored development and outline their importance in the wide propagation of a specific form of conspiracism, generally known as “anti-vax conspiracy theories”. Hence, the next paragraphs will build on the literature to reconstruct the main phases of the development and spread of such theories. This will allow drawing the concluding remarks presented in the concluding section , where I will also present some suggestions for future research.

8.4.1. The “seed” of anti-vax conspiracy theories: the 1998 article by Andrew Wakefield

Opposition to vaccination is not new at all, but dates back to the introduction of vaccines themselves (Wolfe and Sharp 2002). Figure 1, for instance, shows a print by Charles William published in the early nineteenth century as propaganda against the introduction of vaccination as a preventative measure against smallpox. Some of the opponents of vaccination, such as Dr Benjamin Moseley (physician at the Royal Hospital Chelsea), are named on the obelisk on the right of the print; on the left the vaccinators, wearing bull’s horns

and a tail, feed babies to the “Vaccination monster”, which has the front legs of a lion and the hind legs of a cow (with both a symbolic reference to its brutality and is a literal reference to the animal from which vaccination originated, as the etymology of the word⁶ clarifies).



Figure 1. A monster being fed baskets of infants and excreting them with horns, symbolising vaccination and its effects. Etching by C. Williams, 1802(?).

Credit: Wellcome Collection (<https://wellcomecollection.org/works/vbux8st5>) - CC BY

This image echoes a then common description of such a horrific creature:

⁶ Deriving from the Latin term *vaccinus*, “of” or “from the cow”. The word was introduced by Edward Jenner for the technique he devised of preventing smallpox by injecting people with the cowpox virus (*variolae vaccinae*); Pasteur than extended its use also to the substances inoculated to prevent other diseases (Online Etymology Dictionary 2019).

A mighty and horrible monster, with the horns of a bull, the hind of a horse, the jaws of a krakin, the teeth and claws of a tyger, the tail of a cow, all the evils of Pandora's box in his belly, plague, pestilence, leprosy, purple blotches, foetid ulcers, and filthy running sores covering his body, and an atmosphere of accumulated disease, pain and death around him, has made his appearance in the world, and devores mankind —especially poor helpless infants—not by sores only, or hundreds, or thousands, but by hundreds of thousands (in Wolfe and Sharp 2002: 430).

It must be remembered that the smallpox vaccine encountered in fact a huge opposition in England and the United States in the nineteenth century: while some objected that it was administered by piercing the skin, others disliked that the vaccine came from an animal. Moreover, a number of people had a general distrust of medicine, and many opposed the vaccine because they believed it violated their personal liberty (see Fullerton Lemons 2016).

Controversies then also extended to other substances and acts, from the dispute on the efficacy and safety of the diphtheria, tetanus and pertussis immunization to the still lively debate regarding the use of a mercury-containing preservative called thimerosal, aluminium compounds or other substances considered toxic in vaccines, etc. Among these cases, there is one that, more than any other, has resulted in a number of widespread “anti-vax conspiracy theories”: the measles, mumps and rubella (MMR) vaccine controversy, which is strictly related to the name of the discredited former British gastroenterologist Andrew Wakefield.

It was 1998 when Wakefield (and other scientists who later retracted their names from the study) published an article in *The Lancet* — one of the oldest and most influential medical journals — suggesting a direct relation between the MMR vaccine and the development of autism and some chronic intestinal pathologies. In fact, the link was not explicitly attested in the paper, but research (see in particular Reeves 2005; Fahnstock 2009; Kolodziejcki 2014) has shown how the rhetorical and textual strategies adopted by

Wakefield and his colleagues (e.g. the placement of the claims regarding the possibility of a link between the MMR and autism in the discussion section of the article, together with the huge presence of polysemous hedges⁷ to mark them as speculative rather than declarative, the extended use of passive-voice constructions to minimise personal references and confer a scientific tone even on parents' or other people's statements, and a series of other interesting elements, cf. Kolodziejcki 2014) encouraged such an interpretation⁸, while granting the same writing style of typical research papers. In fact, less than a month after the publication, the journal published seven letters (Beale 1998; Bedford et al. 1998; Black, Prempeh and Baxter 1998; Lee et al. 1998; Lindley and Milla, 1998; O'Brien, Jones and Christie, 1998; Payne and Maxon 1998) that raised concerns about the article, and interpreted it as claiming that there is a link between the MMR immunisation and autism⁹. Later on, in 2004, journalist Brian Deer (2004: cf. Deer 2011a, 2011b, 2011c) published an investigative report denouncing a conflict of interest on Wakefield's part: while conducting the study, the then gastroenterologist received money from lawyers acting against MMR manufacturers for parents of autistic children. Following Deer's report, *The Lancet* officially retracted the article, and in 2010 the General Medical Council declared Wakefield's research and conduct "irresponsible" and "dishonest" (GMC report, quoted in Gorski 2010). As a result, Wakefield was struck off the UK medical register, and the *British Medical Journal* also declared his research "fraudulent" in 2011.

⁷ The word "hedges" is used in linguistics to refer to mitigating words, sounds or constructions used to lessen the impact of an utterance due to constraints on the interaction between the speaker and addressee.

⁸ After conducting a careful study of the argumentative and rhetorical style of the paper, Lauren R. Kolodziejcki states that "although Wakefield may deny proving a relationship between MMR and ASD, his word choice scattered throughout the article subtly implied that a link does, indeed, exist" (2014: 172).

⁹ A number of scientists, scholars, and journalists have then reinforced such an interpretation; see, for instance, Woolcock and Hawkes 2006; Poland and Jacobsen 2011; Rope 2010; Ropeik 2011.

Notwithstanding, this case seems to have caused a considerable drop in vaccination rates not only in the UK: by 2002, immunization rates dropped below 85%, and even 75% in some areas, and fell under the minimum for maintaining “herd immunity” (Fitzpatrick 2004; Mascarelli 2011)), but also globally. Although scientific research has overtly opposed Wakefield’s findings, in fact, anecdotal stories and personal experiences continue to keep the issue alive in the public sphere (cf. McCarthy 2011), and a set of “anti-vax conspiracy theories” have emerged and spread, especially through the new media. As a result, several breakouts of diseases that were considered wiped out thanks to vaccines have been reported in recent years (e.g., the latest data by the World Health Organization (WHO 2019) reported a 30% increase in measles cases globally), leading international bodies (such as the WHO itself) to include “vaccine hesitancy” on the list of the biggest global health threats today. In other words, not only is the MMR case related to viruses from a medical point of view, but it has also become “viral” in terms of communication, affecting current perceptions and behaviours in spite of all official rejection and legal action against its fraudulent promoter. How can this development be understood and, particularly, what is the role of the Internet in this?

8.4.2. Beyond the (retracted) article: the role of the media in the reception of Wakefield’s claims

A considerable part of scientific research does not gain much attention beyond a restricted community of interested scientists. However, as reported above, Wakefield’s article continues to garner attention on a global scale even 20 years after its publication, and despite being repudiated by most of the authors involved in its publication and officially retracted by the journal that initially published it. Various factors should be considered to explain this.

First of all, it should be noted that “much of the relevance of scientific articles is

extratextual, not spelled out in the discourse but supplied by context” (Fahnestock 1986: 278). In this sense, a crucial role was played by the press conference held the day before the official publication of the article in *The Lancet* in which Wakefield communicated his theory about MMR-autism to the general public. Kolodziejcki showed how, given the different interpretive practices employed in the public sphere, this communication created a sort of interpretative “short circuit”:

Whereas a like-minded technical audience well versed in communicating uncertainty should understand the speculative nature of hedged claims and the need for additional research to substantiate them, a public audience less familiar with the discursive norms of scientific rhetoric may interpret such statements as established claims. This “science by press conference” process causes concern because it creates opportunities for researchers to present information that extends beyond what the reviewers thought they were authorizing in approving a piece for publication (2014: 180).

It should also be remembered that Wakefield took part in a series of other speeches and public appearances, recommending single vaccines rather than the combined MMR immunisation, thus evidently influencing the context of reception of his article. As a result, in the media, the link between the MMR immunisation and autism immediately became predominant¹⁰.

What is more, Wakefield himself has continued defending his research and anti-vaccinist theory through various media, including a book (*Callous Disregard: Autism and Vaccines -- The Truth Behind a Tragedy*, 2010) and a movie (*Vaxxed: From Cover-Up to Catastrophe*, 2016). Not only do such works insist on the relation between the MMR

¹⁰ On February 26, 1998, for instance, the Royal Free Hospital School of Medicine distributed a press release titled “New research links autism and bowel disease”, and the day after BBC News included “Child vaccine linked to autism” within its news.

immunisation and autism, but they re-contextualise the retraction of the 1998 paper and its consequences in the frame of a “second level conspiracy theory”. This is manifest in their titles, which insist on ideas such as truth concealment, cruelty, and tragedy (and even a real “catastrophe”!), and finds particular expression in the trailer of the movie, since its very opening. Just after the sponsors’ logos, in fact, the images zoom in on a “warning” in white capital letters on a black background: “THE FILM THEY DON’T WANT YOU TO SEE” (adopting the typical rhetorical style of conspiracy theories, with an undefined subject – “they” – and a direct call to the addressee – “you”). A provocative question therefore appears, while a toxic-looking blue substance invades the screen: “ARE YOUR CHILDREN SAFE?” (with a reiterated call to the addressee). The following scenes then clarify the meaning of such notices: not only does a link between vaccines and autism exist, as Wakefield’s study revealed in 1998, but it has been covered up by the Centers for Disease Control and Prevention (CDC), which allegedly manipulated and destroyed data about the effects of vaccines, as an insider revealed on a phone “confession” to the environmental biologist Brian Hooker. Such arguments are supported by juxtaposing an audiovisual reconstruction of the phone call with short interviews with various kinds of experts (from “medical journalist” Del Bigtree to Doreen Granpeesheh, founder of the Center for Autism and Related Disorders, to “Senior Research Scientist” Stephanie Steneff and Wakefield himself, presented as a “gastroenterologist”, without any mention of his expulsion from the medical register) and parents of children with autism, whose disorders are also insistently shown throughout the trailer.

The film recalls the textual strategies discussed for Wakefield’s article, although with changes in style and tone, as required by this particular medium. These strategies resulted, in fact, in the same interpretative processes underlined in the case of the paper published in *The Lancet*. While first scheduled to premiere at New York’s 2016 Tribeca Film Festival, the movie was withdrawn from the programme at a later stage, after doctors and health

professionals denounced the screening and Festival co-funder Robert De Niro reversed course, saying that the projection would not have contributed to a profitable discussion about medical and public health issues (see Goodman 2016; Ryzik 2016). Moreover, its description has been a matter of discussion, with Wakefield presenting it as a “documentary”, while critics strongly contrasting such a definition (see, for instance, Kohn 2016; June 2006; Vonder Haar 2016) and rather referred to it as a “pseudoscience film”.

8.4.3. Beyond Wakefield’s case: anti-vax conspiracy theories on social media

As illustrated above, the various media initiatives Wakefield organised around his article are essential to understand contemporary anti-vax conspiracy theories, from the claims concerning the correlation between the MMR immunisation and autism to those denouncing the institutional and political interests in covering up scientific research. What is more, the media played a crucial role in making the MMR-autism controversy hold out against the retraction of the paper: not only did Wakefield use them to provide alternative versions of what happened and for what reasons, but his arguments and ideas quickly moved from the mass to the new media, generating a widespread cybercascade. Since the publication of the *Lancet* article, in fact, an increasing number of autism advocacy groups and parents have continued to support Wakefield’s position on blogs (e.g. *Age of Autism*), social networks (primarily on Facebook, where a number of anti-vaccination groups, such as *Stop Mandatory Vaccination* or *Vitamin C Against Vaccine Damage*, have arisen over time), comments to online articles about the retraction, or on websites of groups or organizations founded or sponsored by famous actors and other celebrities (e.g. Jenny McCarthy’s *Generation Rescue*).

Such a phenomenon rapidly extended beyond Wakefield’s case, making social networks become key actors in the rise and spread of forms of antivaccinists conspiracionism online (cf. Wong 2019). Facebook search results for groups and pages

about vaccines, for instance, seem to be dominated by anti-vax propaganda, while YouTube’s recommendation algorithm has been accused of driving users from fact-based medical information directly toward anti-vaccine misinformation. After criticism became manifest, both platforms started to address more efforts to control misinformation. However, their new policies have been primarily targeting fake news and hoaxes around politics (e.g. elections, immigration, racial discord, etc.), leaving anti-vaccination propaganda in the background. While both platforms have assured the public that they are exploring new options for addressing misinformation about vaccines and other health-related issues and hoping to be able to do so soon, right now even a simple search for neutral words such as “vaccine” or “vaccination” still steers users toward anti-vaccine propaganda, redirecting to groups such as *Stop Mandatory Vaccination* or *Vaccination Re-education Discussion Forum*. What is more, Facebook has been accepting advertising from anti-vax groups, such as *Vax Truther*, *Anti-Vaxxer*, *Vaccines Revealed*, the above-mentioned *Stop Mandatory Vaccination*¹¹ and others (Pilkington and Gleza 2019), thus further spreading misinformation. Such mechanisms evidently enhance the “echo chamber” effect we describe above, since users are exposed only to anti-vax-oriented information which reinforces tunnel vision. What is more, they function as a “hook” for external users. Not only are people redirected to the groups by search engines and algorithms, but the groups’ posts tend to originate emotional involvement, leading their members not only to express their ideas by liking or reacting to them through the common tools offered by social media, but also to

¹¹ Whose advertised post “Parents, not only can any vaccine given at any age kill your child, but if this unthinkable tragedy does occur, doctors will dismiss it as ‘sudden infant death syndrome’ (Sids)”, showing a picture of a baby with his eyes closed and stating his name and date of birth and death — “Owen Matthew Stokes (Aug 18, 2017 - Oct 25, 2017) — followed by the text “stopmandatoryvaccination.com - 2-month old Dies 48 hours After 8 Vaccines: Owen’s Mom”, was censored by the UK’s The Advertising Standards Authority (ASA) in November 2018.

share them on their personal profile or within their social circles (Chiou and Tucker 2018). As a result, a number of Internet memes against vaccines, such as ironic drawings denouncing the conflicts of interest behind vaccinations or accusing them of causing illness in perfectly healthy children, have widely spread through social networks. By playing on the emotive dimension and using a certain dose of sarcasm, such messages easily create interest and involvement, favouring the open-ended participation of users who get in touch with them. In fact, humour and parody are among the factors that, according to Jenkins, Ford and Green (2013), make content spread, especially when they are used to criticise specific cultural patterns in contemporary societies. Despite their differences¹², both humour and parody foster spreadability because they represent “a vehicle by which people articulate and validate their relationships with those with whom they share the joke” (Jenkins, Ford and Green 2013: 204). Furthermore, the emphasis these messages generally put on the visual dimension — with drawings, images and captivating and easily readable fonts accompanying them — enhances their visibility and spreadability.

Aware of such mechanisms, scientists and experts have also started to use social media to contrast anti-vaccinist propaganda. In this sense, ironic messages have proved to be particularly effective. For instance, *Ah ma non è Lercio*, an Italian satirical website and Facebook page that features fictional news, whose humorous, comic and grotesque tone makes fun of contemporary sensational journalism, released in 2014 a provocative article entitled “Anziano muore in un incidente stradale, la famiglia: ‘L’ha ucciso il vaccino”

¹² The authors consider humour and parody separately because “while all humor builds on whether an audience ‘gets’ the joke or shares a sensibility, parody combines that aspect of humor with a specific shared reference. This is precisely what makes parody valuable — it can express shared experiences and, especially when it plays on nostalgic references, a shared history” (Jenkins, Ford and Green 2013: 207). However, both “those who are creating humor and parody claim specific common experiences with those who are laughing at the joke” (Jenkins, Ford and Green 2013: 207).

[*Elderly man dies in a car accident; his family: 'A vaccine killed him'*, my translation]. This rapidly reached a thousand shares only on Facebook, and led to a number of ironic and also serious comments (for further details, see Stano 2016). Shares and interactions further increased as *Lercio* became more active on Facebook. Another nonsense ironical article entitled “Troppi metalli nei vaccini: bambino arrugginisce dopo il bagnetto” [*Two many metals in vaccines: kid gets rusty after taking a bath*, our translation], released in 2017 and posted on *Lercio*'s Facebook page in February 2019, obtained more than 22.000 reactions¹³, almost a thousand comments (with a number of reactions each), and more than 5.500 shares.

However, in some cases, this type of communication turned out to have adverse effects. For instance, in 2013, the *Photoshop Phriday* forum on the humour website *Something Awful* (SA) launched a competition requiring applicants to create an ironic image on the correlation between vaccines and the physical or mental diseases generally asserted by anti-vaccinists. One of the examples related vaccines to heroin, ironically depicting a drug addict slumped in a corner with the text: “Their first injection was a vaccination: protect your children from vaccinations”, and slightly above, another satirical note: “Vaccination leaves a lasting psychological belief that injecting is beneficial. Children who are vaccinated are 85% more likely to inject heroin than those who are not”. Although ironically intended, this image rapidly went viral on social networks and found its way on to Sunshine Coast Facebook pages, fomenting the idea that it illustrated a scarily real statistic linking heroin use to childhood vaccinations. The Sunshine Coast Local Medical Association president, Dr Minuskin, then publicly rejected the image, inviting everyone to stop sharing it: “If anyone receives this image via social media I would recommend they

¹³ Reactions are an extension of the “Like button” to give users more ways to share their reaction to a post in a quick and easy way. They include: “Like”, “Love”, “Haha”, “Wow”, “Sad” and “Angry” (<https://en.facebookbrand.com/assets/reactions/>).

swiftly assign it to the trash box where it belongs. Not only is the information outrageously incorrect, it is irresponsible to be creating unwarranted fear about such an important issue” (in Mikkelson 2015). Nonetheless, users continued to comment on and to share the image. Ultimately, it also became appropriated by advocates of antivaccinists’ propaganda, which accused vaccines’ “serv[ing] as a gateway drug to heroin” (*Feminists Against Vaccination* FB page, post left on 26 October 2015; the first post sharing the image appeared on 8 March 2015, as reported in Mikkelson 2015).

This example allows a series of interesting reflections. First of all, it is interesting to note that, unlike Charles William’s “vaccination monster”, which has remained unaltered until now, Internet memes about vaccinations have evidently changed rapidly as a result of the interpretative and communicative acts performed by the people who received, appropriated, and shared it. Here is where, as we have seen, the concept of “spreadability” comes into play, emphasising the audiences’ agency, since “their choices, investments, agendas, and actions determine what gets valued” (Jenkins, Ford and Green 2013: 21).

Furthermore, this case evidently indicates the “fusion processes” and the “rhizomatic development” motivated by online content spreading: an explicitly ironic message was completely misunderstood (and therefore shared as real information) by various users and groups precisely because of the lack of roots indicating its origin and context. There is no identifiable author, nor context, since in most cases the original post was not included, and a new (sampled, and sometimes even remixed) object was generated. This further emphasises the users’ crucial role in online content spreading, since they “pluralize the meanings and pleasures mass culture offers, evade or resist its disciplinary efforts, fracture its homogeneity or coherence, raid or poach upon its terrain” (Fiske 1989: 28). The uncontrollable and unpredictable path of this Internet meme clearly shows how people produce culture precisely by integrating products and texts into their everyday lives, sometimes even implying forms of misunderstanding and aberrant decoding.

8.5. Conclusion

The case of anti-vax conspiracy theories clearly shows how the Internet, and in particular social networks, have proved fundamental for the spread and development of such theories. If mass media undoubtedly played a crucial role in the reception and recognition of Wakefield's arguments and the conspiracies theories originating from them, also including his more recent claims re-interpreting its rejections as part of a broader conspiracy trying to hide the truth, it has been with social media that anti-vax propaganda and conspiracy theories have reached the large spread they have today, in various cases even independently from the British former doctor's arguments. In fact, as we have seen, anti-vax conspiracy theories have had a "horizontal" development, lacking any organisational structure that indicate causality along chronological lines and allow to retrace their origins. On the contrary, they have been continuously sampled, remixed and even remade by online users, sometimes also evidently being resemantised, that is to say, given new meanings. Such a rhizomatic development, in fact, is likely to cause misunderstanding and aberrant decoding, since it leaves no traces of the processes that led to it.

Nonetheless, this does not seem to acquire much importance within social media communications: regardless of the truthfulness of posts and online contents, people have not ceased sharing, reacting to and commenting on them, thus nurturing unpredictable and hardly stoppable cybercascades. In fact, the forms of "online conviviality" (Varis and Blommaert 2014) brought about by the Web 2.0 have made "social trust" emerge and become the base of a number of narratives whose verification transcends any reference to proved facts, and rather relies on other narratives (Perissinotto 2016; cf. Erdmann 2016; Madisson 2016).

From such a perspective, therefore, conspiracy theories can be conceived as a symptom of a larger problem embedded in the infrastructure of current communication systems, that is to say, the so-called "post-truth" era: in contemporary rhetoric, the subjective and passionate component (i.e. appeals to emotion and personal belief) has become evidently more influential than the referential one, to the extent that personal beliefs have replaced verified facts (Lorusso 2018). The considered

case study suggests that the Web 2.0, and especially social media, motivate today's post-truth society: the mechanism of followers and likes on which such media are based does not dismantle falsehoods, but rather reinforces them, making sharing and belonging prevail over reliability and truth. Thus echoes resound louder and louder in the rooms of the Internet, where people, although creatively expressing their agency, are risking to lose the crucial ability for effective communication and discerning reliable and accurate information from falsehood and fake news. In this sense, we would conclude, the rapid spread of conspiracy theories should not be simply dismissed as a symptom of a paranoid or unreasonable society, as it is sometimes claimed. It should rather be conceived and studied as a consequence of the limited access to factual truth and experiences characterising contemporary societies, as well as of the increased difficulty to verify information brought about by the cybercascades of contemporary information systems.

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