Radicalizing Populism and the Making of an Echo Chamber

The Case of the Italian Anti-Vaccination Movement

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Echo chambers, or environments in which a person's beliefs are constantly affirmed, are widely believed to be breeding grounds for extremism and polarization (Jamieson and Capella 2008; Sunstein 2009a). Yet some scholars have concluded these dangers are overstated when looking at data about media use (Dubois and Blank 2018; Zuiderveen Borgesius et al. 2016). The question of how widespread and dangerous echo chambers really are has recently divided media scholarship. Perhaps, though, their disagreement is due to a difference in the central definition of echo chambers. This is argued by philosopher Thi Nguyen (2018), who shows that empirical studies downplaying the prevalence and danger of echo chambers actually conflate them with the related phenomenon of filter bubbles. Whereas the latter are characterized by a lack of exposure to diverging opinions, the former actively exclude and discredit dissenting voices. On Nguyen's definition, echo chambers are established by creating a trust asymmetry between members and non-members which insulates insider beliefs from rebuttal.

Building upon Nguyen's account, I will examine the dynamics of echo chambers looking at a striking real-life example: the Italian anti-vaccination movement. A recent study dealing with Western European countries suggests a connection between vaccine skepticism and support for populist parties (Kennedy 2019). Of all countries in the study, Italy scored highest on both counts, with 44% of the electorate voting for populists in 2014 and 14% of the population not deeming vaccinations important. The study concludes that both phenomena have a common root in the distrust of elite and experts. While that seems plausible, this paper establishes that it there is much more to be said about the relation between populism and the anti-vaccination movement. Using the case study of the Italian anti-vaxxers, I will spell out how populists have reinforced an echo chamber in an effort to mobilize it. I will argue that besides the common root cause, in this instance there is also indication of a causal relation between populism and anti-vaccination. Moreover, I will show that populism and echo chambers in general are conceptually linked through their dichotomous division of society and rejection of legitimate opposition.

In order to clarify this relation, I will first present the epistemological background of echo chambers and conspiracy theories. I will then describe the development of the Italian anti-vax movement from a diverse and fragmented group into a much more unified movement, with a stronger identity and shared reasons to distrust outsiders. I argue that the movement changed

from something that could hardly be considered an echo chamber into a full-fledged one. In the third section I will examine populist rhetoric in general, and the way it was used by representatives of Lega Nord and the Five Star Movement to explicitly appeal to the anti-vaxxers. Finally, I will argue that the chosen rhetoric not only rendered vaccine-hesitant opinions more socially acceptable, but also privileged a subspecies of anti-vaxxer. In the process, an echo chamber was created or at least fortified, thus setting in motion a mutually reinforcing dynamic between populism's and echo chambers' shared features. One of this paper's upshots is that it illustrates and substantiates Nguyen's point that echo chambers can be caused by trust manipulations like political rhetoric. It also emphasizes the dangers that echo chambers pose in an academic context where these have been repeatedly dismissed. But its main aim is to shed light on the interplay between populism and echo chambers, and the pernicious effects this has. In the process of courting the anti-vax vote, the Italian populists have fed into conspiracy theories and post-truth narratives. By deliberately increasing the trust disparity between insiders and outsiders, they have directly contributed to social polarization and the breakdown of political deliberation.

1. What is an echo chamber?

Physical echo chambers are hollow, closed spaces that reflect sound. Music studios use them to add a natural reverberation to recordings. A metaphorical echo chamber is its socio-epistemic equivalent, but there is no definite consensus on the exact features it entails. The Cambridge Dictionary (2019) defines an echo chamber as "a situation in which people only hear opinions of one type, or opinions that are similar to their own." Most definitions point toward the constant reaffirmation of existing views, and some to the amplifying effects this has. Sunstein (2009) and Sageman (2008) see it as part of the echo chamber phenomenon that beliefs will tend to extremism, though this has been contested by others (Grönlund, Herne, and Setälä 2015). Jamieson and Capella (2008, 76) reserve the term "echo chamber" for a "bounded, enclosed media space that has the potential to both magnify the messages delivered within it and insulate them from rebuttal." Zuiderveen Borgesius et al. (2016) measure echo chambers by lack of variety in media consumption, while Dubois and Blank (2018) add lack of exposure to contrary opinions as an indicator. The latter two sets of authors conclude that the supposed threat of echo chambers is overstated, either in scope or in severity. There is significant overlap in the phenomena these authors describe. The echo chamber is a closed epistemic space, in which insiders' opinions mainly or exclusively receive affirmation. But, as follows from the above,

opinions clearly differ on how echo chambers come about, what their necessary components are, and how dangerous they are.

In a recent article (2018), Thi Nguyen traces these disagreements back to a conflation of echo chambers with epistemic bubbles. As Nguyen observes, many theorists use both terms interchangeably, while the phenomena they refer to should be distinguished on a conceptual level. Although both are problematically closed epistemic structures, they differ in how they are closed. Epistemic bubbles, which may be caused by personalization algorithms as well as by social selection, suffer from a lack of exposure to relevant alternative views. Other voices have been left out, sometimes through no ill will. Echo chambers, on the other hand, actively exclude and discredit other relevant voices. According to Nguyen, they arise through manipulations of trust, creating a disparity between insiders and outsiders. Membership centers on agreement with a core set of beliefs, including beliefs that support the trust disparity. Lack of exposure isn't the problem here — systematic distrust of outsiders is. The trust asymmetry even makes it the case that contrary evidence, sufficient to shatter an epistemic bubble, often actually reinforces an echo chamber. This, Nguyen notes, makes echo chambers particularly difficult to escape.

All of this is not to say that in practice, a given community may not simultaneously be an echo chamber and an epistemic bubble, subject to both lack of exposure and disparity of trust. Nguyen concedes this, but he does not discuss the possibility that an epistemic bubble could give rise to an echo chamber or vice versa. It does seem plausible that the distrust of echo chamber members towards outsiders could motivate them to avoid alternative views. Conversely, many authors hold the view that absence of dissent often leads to inflated self-confidence, which in turn contributes to a trust disparity (Sunstein 2009b; Stroud 2010; cf. Grönlund, Herne, and Setälä 2015). Although Nguyen stipulates that echo chambers are caused by trust manipulations, all the other features he attributes to them are perfectly compatible with echo chambers arising in different, more autonomous ways.

The distinction between echo chambers and epistemic bubbles that Nguyen draws helps disentangle some of the tensions present in the literature on echo chambers. Built upon Jamieson and Capella's empirical analysis and drawing from Sunstein, it lends support to concerns about extremism and polarization, while at the same time explaining the apparent lack of empirical evidence for the existence of echo chambers. Nguyen makes clear that authors who conclude echo chambers are overstated are really talking about epistemic bubbles. They measure only exposure to, rather than serious engagement with, contrary views. Echo chamber members may very well hear voices of dissent, but ignore or oppose them because they distrust the speaker. They may even consider themselves epistemic vigilantes, actively searching online for views they

disagree with, just to discredit them. Social isolation, whether online or offline, is thus neither necessary nor sufficient for an echo chamber. Taken together, the outcomes of empirical research and Nguyen's distinction indicate that while filter bubbles may be rare, echo chambers certainly do give us cause for worry, not least because of their much higher resistance to counterevidence.

This feature of the echo chamber, its insulation against rebuttal, connects it to conspiracy thinking. Although we can imagine an echo chamber that distrusts outsiders because it holds them to be uninformed or implicitly biased, more often than not the reasons for distrust involve malignance and conspiracy. Whereas echo chambers are undertheorized, conspiracy theories have received more attention. As early as the 1960s, historian Richard Hofstadter described the recurrence of the "paranoid style" in politics: a way of thinking and speaking that exhibits "qualities of heated exaggeration, suspiciousness, and conspirational fantasy" (1996, 3). The perceived conspiracy is vast, involving a conflict between good and evil, and thus the paranoid believes that what is required is not "the usual methods of political give-and-take, but an all-out crusade" (29). Hofstadter's analysis is acute in its detection of this absolutism, and his recognition of the social dimension of conspiracy theories. He identifies fear, hate and feelings of dispossession among the paranoid, noting that social conflicts involving ultimate schemes of values mobilize them into political action.

Many of these insights are still present in more recent thinking about conspiracy theories. In his book on the topic (2019), Quassim Cassam argues that conspiracy theories have a political dimension, in that they are often connected to a certain political ideology, especially extremist ones, and thrive in contexts of political marginalization. Cassam also emphasizes that conspiracy theorists do not suffer from a lack of information. Instead, the problem is that they have developed their own - unreliable - trusted sources, epistemic authorities, and information. This phenomenon is also referred to as the manifestation of ideological or "tribal" epistemologies (Rini 2017; Alfano and Sullivan forthcoming). Just as in Nguyen's account, this is what makes conspiracy theories what Cassam (following Sunstein) calls self-sealing: they are difficult to challenge, because contrary evidence "is dismissed either as 'fake news' or as part of the conspiracy" (2019, 96). Reasonable disagreement is impossible from the perspective of the conspiracy theorist. Part of the issue is that conspiracy thinking is riddled with epistemic vices like intellectual arrogance, closed-mindedness, and at the same time gullibility towards fellow conspiracy theorists, because they are the only ones deemed trustworthy. Yet ironically, they regard themselves as intellectually virtuous critical thinkers. A more fundamental problem is that, as Cassam explains, conspiracy theorists are deeply and personally committed, since the conspiracy theory is a direct expression of their overall world view. This makes the membership

to the tribe, and the accompanying us-them divide even more significant. In all of these ways, then, conspiracy theorists are seasoned echo chamber members.

In the remainder of this paper, I will be adopting Nguyen's account of echo chambers. It is the most substantial philosophical analysis of the phenomenon so far, and its distinction between epistemic bubbles and echo chambers is crucial. It is thereby able to capture echo chambers' epistemologically most distinctive and interesting features, which are connected to those of conspiracy theories. Although his definition is stipulative, empirical research into real-life echo chambers, whether in the form of cults or Facebook groups, confirms that the phenomenon Nguyen speaks about is both real and epistemically harmful (Quattrociocchi, Scala, and Sunstein 2016; Singer 1979). Echo chambers are defined by a trust disparity so great that it renders insiders impervious to new evidence. Any dissent must be caused by either ignorance or malevolence. Trust manipulations, including disinformation and discrediting, can play an important role in the development of such suspicions. In the next section I will attempt to apply these insights by looking at a paradigm case of an echo chamber: the Italian anti-vaccination movement.

2. A short history of the Italian anti-vaccination movement

The anti-vaccination movement is as old as vaccination itself. From the start of the practice, people were afraid of harmful side effects and doubtful about its necessity and effectiveness. During most of the 20th century, the diverse group known as the anti-vaxxers has consisted mainly of conscientious objectors. These included religious people feeling vaccinations intervened with a divine will and libertarians opposing the government's interference in what they considered personal health care matters. To a lesser extent, the movement was made up of people worrying about vaccines' safety and those with anthroposophical and other holistic beliefs regarding health (Wolfe and Sharp 2002). A notorious key moment for the worldwide anti-vaccination movement was the 1998 publication of Andrew Wakefield et al.'s paper linking the MMR vaccine to autism and the media controversy it caused. Many subsequent studies did not find any such causal relation and the article's findings were discredited. In 2010, The Lancet officially retracted the article, but this did not prevent a surge in anti-vaccination activity and vaccine misinformation. Even after its retraction, the widespread reporting about the Wakefield article left many citizens, especially young parents, confused. It likely contributed to a rise in vaccine hesitancy by the end of the 20th century, and to a relative increase in the proportion of vaccine hesitant citizens whose primary concern was the safety of the vaccines (Dubé et al. 2013; Williams 2014).

The history of the Italian anti-vaccination movement runs roughly parallel to its global exponent. One important difference is that in Italy, unlike in many other countries, vaccines are mandatory by law and have been since the 1930s. Nevertheless, Italy has one of the lowest inoculation rates in Europe, due to an ineffective sanctioning system and high regional autonomy on health care matters (Crenna, Osculati, and Visonà 2018; Napolitano, D'Alessandro, and Angelillo 2018). Another more recent cause may be that the aftermath of the autism controversy was substantial in Italy. In 2012, a Rimini court ruled that a specific case of autism in a young boy was caused by the MMR vaccine he had received. The ruling was based on the Lancet article that had been retracted two years earlier, and a film about the dangers of vaccination that Andrew Wakefield had been invited to present there (Aquino et al. 2017; Cliffe 2019). Two years later still, a Milan court awarded compensation to a child for what it ruled was, again, vaccine-induced autism. Both events likely contributed to a large increase in vaccine hesitancy among Italians. This trend is evidenced both by the rapid growth of online anti-vaccination content and by the steady decline of the immunization rate in the 2010s (Aquino et al. 2017; Maria Rosaria Gualano et al. 2018).

In recent years, several studies have been conducted investigating the reasons behind antivax views. In one survey, vaccine-hesitant Italian parents reported common motivations for
questioning vaccination, including "the objection to the vaccine administration, concerns about
side effects, fear of the vaccine administration for their children, and the lack of recommendation
by the pediatricians" (Napolitano, D'Alessandro, and Angelillo 2018). In another study, the main
reasons for opposing compulsory vaccination were "because it is in the interest of pharmaceutical
companies", and "because it is against freedom of thought/choice." Lesser cited reasons included
"the absence of pre-vaccination screening", "because they [the vaccines] are too strong for
children", and "because they are harmful as they could contain heavy metals and lead to autism"
(Piepoli 2017; Siani 2019). Many of these reasons are connected to distrust, and even to
conspiracy thinking. This is interesting especially considering that the people questioned were
only those with doubts about vaccination and those opposing the obligation to vaccinate – a
category much broader than those opposing actual vaccination.

The more activistic Italian anti-vaxxers gather regularly at protests, lectures, and meetings. But these events are typically organized online, where the community is most active. Anti-vaccination views are espoused on the website "La Verità Sui Vaccini" (The Truth About Vaccines) as well as on various Facebook pages bearing names like "Vaccini Basta!" (Stop Vaccines!) and "Autismo e Vaccini" (Autism and Vaccines). The largest of these pages have between 20.000 and 30.000 followers.¹ The bulk of their content reflects the main concerns of

the vaccine hesitant regarding vaccine safety, the power of the pharmaceutical industry, and the liberty of choice. It uncritically presents these concerns as fully valid, the dangers as understated, and the surrounding conspiracy theories as highly plausible. The Facebook pages and "La Verità" post scientific articles about harmful side effects of vaccines as well as personal testimonies of parents whose children got sick after being vaccinated. Connections to autism are repeatedly drawn, and the perceived unjust treatment of scientists researching this connection is often addressed. Multiple posts link to content about related and unrelated conspiracy theories, like secret cures for cancer, dangers of GMOs, and the health risks of 5G-networks. Perhaps surprisingly, news articles about measles outbreaks are also regularly shared. Those outbreaks are a consequence of the decreased immunization and actually confirm the need to vaccinate. However, on the anti-vax Facebook pages such news messages are either accompanied by headers pronouncing them fake news, or blamed on a mutation of the virus due to the existing vaccination policies.² Vaccine-skeptical politicians are heralded as "one of ours." Conversely, pro-vaccinators are compared to tyrants and Nazis, for wanting to obligate parents to vaccinate, excluding nonvaccinated children from schools and daycares, and, such is the implicit suggestion, for medically experimenting vulnerable people. Under the hashtags #Vaccinazismo on #NonRipetiamoGliOrrori ("Let's not repeat the horrors") these messages are spread online and on physical billboards.4

Having established this background, to what extent is the Italian anti-vaccination movement an echo chamber? Though not as rare as it used to be, the anti-vax stance is still a minority standpoint, and a socially scattered one at that. Most members of the movement are regularly confronted with contrary evidence and even openly try to dispute it. So it cannot be a lack of exposure to counterarguments that renders the anti-vax movement epistemically problematic - most members are not caught in an information bubble. However, it is key to examine the way this counterevidence is dealt with. Statistics about the safety of vaccines are for example explained away as either irrelevant or fabricated. Some members are skeptical of the importance of statistics when it comes to dangers to children's health. Yet the vocal majority online actually seems to deeply distrust scientists for being biased, or worse, for being part of a conspiracy led by Big Pharma.⁵ These beliefs about the untrustworthiness of outsiders are an effective way to insulate insiders' views from rebuttal. No matter how salient the evidence that vaccines have no causal relation to autism, for the hardcore anti-vaxxer these results are the outcome of ideologically or financially motivated research and as such fundamentally unreliable. At the same time, insider opinions are shared and liked rather uncritically. For instance, videos and messages featuring two Italian doctors who have spoken out against vaccines are constantly

referenced across platforms. It appears these are the echo chamber's preferred experts. And it is not just cherry-picked scientific articles and personal testimonies that are gullibly spread. The sheer amount of casual posts about far-reaching conspiracy theories seems to confirm that echo chambers amplify the views of their members, potentially leading to radicalization. The asymmetrical trust relationship between fellow insiders and outsiders suggests the Italian anti-vaccination movement, while not an epistemic bubble, is a paradigm instance of an echo chamber. At the core of the anti-vax stance are reasons to distrust pro-vaxxers. Opponents are immediately discredited, thus protecting the insider view.

There is one attribute of anti-vaxxers which seems to disqualify them from being regarded as echo chamber members. This is that, at least historically, their ideologies and exact reasons for opposing vaccination were very diverse. Such pluralism is quite atypical for echo chambers. However, it appears that the historical diversity of the anti-vaccination movement does not subsist in the content of the social media sites where they are now most vocal. This may be partly due to the tendency of social media to favor the extreme. But, recalling Nguyen's characterization of echo chambers, it may also be related to conscious manipulations of trust. In the next two sections, I will outline why there is indeed reason to believe that the more unitary character of the current Italian anti-vaccination movement is in large part the consequence of a specific kind of populist political rhetoric.

3. Anti-vaccination in populist politics

For the longest time, anti-vaccination sentiments have occupied a marginal position in public debates. Until the 2010s, Italy had only four mandatory vaccines, which were relatively easy to avoid. Vaccination was not a subject of much serious political attention or debate. As a marginal and scattered movement without political representative, anti-vaccination itself was a mostly apolitical or at least nonpolitical position. Only fringe figures, notably including comedian Beppe Grillo, were openly skeptical about the effectiveness and safety of vaccines. However, during the same years that the immunization rate was dropping and the Lancet article was causing controversy, Grillo was making his debut in the political arena. In 2009, he joined forces with tech entrepreneur Gianroberto Casaleggio to found the Five Star Movement (Movimento 5 Stelle or M5S) in 2009. Before, Grillo had mostly mocked vaccinations and the power of the pharmaceutical industry as part of his stand-up routine. Now, he was writing blog posts entitled "Vaccines can kill" in which he blamed a child's death on economic incentives in the health care system (Grillo 2010). In a different piece he suggested that vaccines "bring a risk associated with

side effects that are usually temporary and surmountable ... but in very rare cases, can be as severe as getting the same disease you are trying to get immune to" (Giuffrida 2017). In 2013, the M5S first entered parliament with a whopping 25% of votes. Its even more overwhelming electoral success in 2018 finally led to the formation of the first fully populist government of Western Europe.

Populism is a contested term, due in part to its frequent use as *Kampfbegriff*. It has mainly been defined either as a communication style (Jagers and Walgrave 2007), or as a "thin" ideology which attaches itself to a more substantial ideology like socialism or nationalism (Mudde 2004). Following Engesser, Fawzi and Larsson (2017), I believe these two definitions merely represent different elements of populism. Centrally, populism divides society into two homogenous groups, the "corrupt" elite and the "pure" people, and argues that sovereignty of the people should be restored. Populist communication is often aimed at glorifying the people, praising their virtue and emphasizing their unity and uniformity, while detaching them from an elite which it blames and discredits. Populist politicians attempt to demonstrate that they are the people's legitimate representative by showing off their closeness to the common man. Thus, a large part of populist rhetoric is aimed at connecting and dividing, constructing and reconstructing identities using symbolic, emotional and colloquial language (Ernst et al. 2019; Block and Negrine 2017). Finally, because they present the people's will as unitary and themselves as its embodiment, populists preclude the possibility of legitimate opposition. The true solution to political problems is believed to be "manifest and indisputable" (Caramani 2017, 60).

The Five Star Movement is not a classical populist party, but it does exhibit all the key traits listed above. From the start, it identified as anti-establishment, with Grillo himself even explicitly calling the movement "populists, speaking to the belly of the people" (Castigliani 2013). They consistently challenged the political establishment, which they also referred to as a "caste", a "rehabilitation center" and "a can of tuna fish" they would break open (Gerbaudo and Screti 2017; D'Alimonte 2019). The political elite was accused of corruption, hating the people and being disconnected from reality. The perceived gap between elite and the people is illustrated in speeches using imagery of politicians retreating to their fortified palaces while the citizens are protesting in the squares. One of the movement's central messages was "Let's Take Back Sovereignty", which it promised in the form of more direct democracy through an internet platform (D'Alimonte 2019, 119–21). The platform would allow them to bypass mainstream media, whom they dismissed as biased against them, and to remain "anti-political" and "post-ideological". To avoid associations with traditional party politics and hierarchy, M5S emphasized its being a movement as opposed to a party, transcending the left-right paradigm (Gerbaudo and

Screti 2017). This has not prevented the party from being associated with the right wing and even being considered part of the New Right (Shiratori 2017, 48). Still, the movement is eclectic in its combination of progressive economic and environmental policies with a conservative stance on immigration. The latter, complete with symbolic use of the national flag and xenophobic languages, combined with the refusal to take an explicit ideological stance, was likely meant to unify a fragmented political landscape while strengthening a sense of national identity. In distinctly populistic fashion, M5S managed to mobilize a thus far marginalized group.

That group consisted at least partly of the vaccine hesitant. Anti-vax views were embedded in the M5S's anti-establishment stance from an early stage. In 2015, when M5S was still an opposition party, the movement had proposed a law against vaccinations, citing "the link between illnesses such as leukaemia, specific poisoning, immunodepression, inheritable genetic mutations, cancer, autism and allergies" (Giuffrida 2017). Furthermore, the party had not shied away from campaigning on explicit anti-vaccination platforms. Officials downplayed the increasing number of measles cases, arguing they were a part of the illness' natural three-year epidemic cycle (Balmer 2017). Some, like regional M5S official Andrea Liberati, blamed the rise in measles cases on contradictory information sent out by the government, thus synthesizing populist and anti-vax rhetoric (Giuffrida 2017). Then in 2017, in order to try and mitigate the increase in disease outbreaks, the center-left government introduced the controversial Lorenzin decree, introducing six additional mandatory vaccines and sanctioning parents refusing to vaccinate their child. Although the decree was publically endorsed by former prime ministers Berlusconi and Renzi, it met with fierce backlash among vaccine-hesitant Italians. With general elections coming up the next year, M5S politicians heavily criticized the decree and vowed to undo it if elected to office. Andrea Liberati even hinted at some conspirational aspect to the law: "There is obviously [also] a commercial element to this, and need for big pharma companies to make money" (Giuffrida 2017). Their popularity grew exponentially and in 2018 a coalition was formed with fellow populist party Lega.

Founded as a regionalist party in 1991, Lega grew nationalistic and increasingly right-wing during the early 2010s under the leadership of Matteo Salvini. As its character transformed, so did the culprit of its anti-establishment rhetoric, with a shift from "Rome" to "Brussels" as the primary locus of the corrupt elite. Lega's telling 2018 campaign slogan was "Italians first". The supposed outsiders threatening the unity of the people changed from southerners to immigrants. Lega, too, branded the political establishment as the enemy while using anti-immigration rhetoric to reinforce a national identity. But Lega's populism is more traditional, consistently right-wing and conservative. It promises to restore sovereignty through strong leadership embodying the

popular will (D'Alimonte 2019, 121-24). This focus is reflected in the relative popularity of Salvini's personal Facebook page in comparison to the Lega's official page, not only in terms of followers but also in its use as a means for campaigning and communication. On the page, Salvini presents himself as a man of the people, posting photos of himself eating Nutella and drinking Italian beer, alternated with messages about heated political issues like immigration and vaccination.

Lega's relation to anti-vax appears to be more opportunistic: a useful attention-generating tool during campaign times and a mark of goodwill towards the M5S during their coalition. But with its insistence on freedom from government intervention, liberty of choice, and distrust in the authorities promoting vaccines, Salvini's anti-vax statements were not out of place among Lega's general populist tendencies. In the run-up to the 2018 election, possibly taking a hint from the M5S's success, Salvini started to court the anti-vax vote and would continue to do so while in office. He repeatedly expressed the view that vaccinations should be optional. Another Lega official branded the government behind the Lorenzin decree "Stalinist" and "dictatorial" (Barnes 2019). Throughout, Salvini emphasized that he had vaccinated his own children, and that the issue for Lega was about freedom of choice and liberty of care. This standpoint was condensed in the phrase "Vaccines yes, obligation no." But some of Salvini's statements went far beyond the condemning the obligation to vaccinate. In one April 2017 Facebook post, Salvini wrote: "The first Italian doctor to say no to vaccines was disbarred. What do you think?", actively inviting his followers to speculate. In other message dated July 2017, he challenged the Lorenzin law, asserting parents should be informed rather than forced. He added that "the health of children ... comes before the interest of some pharmaceutical company," ending on the somewhat puzzling "P.S. Who vaccinates clandestine immigrants?" Even after Lega entered government, Salvini, then interior minister, called vaccines "useless and in many cases dangerous, if not harmful," hinting at alleged links to autism (ANSA 2018).

Gradually, both parties' stance on vaccination somewhat softened. Their government did initially reverse part of the Lorenzin decree, but this was later overturned. M5S appointed a new leader and Grillo's blog, a former campaigning tool, was separated from the movement. At the time of writing, the first populist government of Western Europe has fallen. The health minister has fully reinstated the Lorenzin decree. Lega is not in government anymore, but has considerably grown in popularity, polling around 34% against M5S's 20%. Though somewhat less popular than before, M5S is still in power. Both parties' use of anti-vax rhetoric seems to have spurred on their success. On the other side of the equation, the anti-vaccination movement grew both in numbers and in intensity.

4. Populist rhetoric and the reinforcement of the echo chamber

To say that the populists of the Lega and M5S exploited an echo chamber for their own political gain would be too simple. Although this is part of what happened, the dynamics between their rhetoric and the anti-vaccination movement are more complex. To begin with, their repeated questioning of the necessity and safety of vaccines contributed to the rise of an echo chamber where arguably, there was not one before. Until a couple of years ago, the group of Italian citizens who were vaccine-hesitant was pluralistic. Their background beliefs and reasons for doubting the necessity and desirability of vaccines were diverse. But the group was also small, ideologically scattered, socially marginalized, and nonpolitical. M5S and later Lega seized the opportunity to politically mobilize the vaccine-hesitant by speaking directly to their concerns. One obvious effect was that, by addressing these doubts publicly and explicitly, M5S and Lega legitimized anti-vax views. Paying it lip service and rendering it socially acceptable most likely contributed to a further increase in vaccine hesitancy. This suggests that in the Italian case, the correlation between vaccine hesitancy and support for populism (Kennedy 2019), is at least in part a causal relation. Furthermore, the populist' rhetoric did not only boost the anti-vaccination movement, but also played an important role in its establishment as an echo chamber.

Lega and M5S politicians channeled the anti-vaxxers' distrust by incorporating it into their own anti-establishment narrative. Moreover, they did so in a way that privileged the most extreme subspecies of anti-vaxxer: the conspiracy theorist. Foregoing any attempt to reconcile distrust, these parties largely bypassed the silent majority of the only mildly vaccine-skeptical whose hesitancy stems from misinformation or from one of the ideological concerns mentioned above. The rhetoric of Salvini and some Five Star prominents did not seek to actually resolve any of their worries. Instead, they kindled fears around the dangers of vaccines, of which most (like allergic reactions) are consistently overstated and others (like autism) have long been debunked. At best, these politicians were quasi-skeptically stating there is no definitive proof vaccines are safe. At worst, like Beppe Grillo, they claimed the dangers of vaccines trump the dangers of the diseases they were designed to prevent. Merely voicing the worry that vaccines are potentially harmful suffices to fortify the vaccine conspiracy theorist's beliefs. After all, if vaccines are unsafe, then politicians, doctors, and scientists must collaborating against our interests. But Five Star and Lega politicians have at times even explicitly hinted at conspiracies, insinuating it was mainly Big Pharma benefiting from the Lorenzin decree, and inviting speculation about the disbarring of an anti-vax medic. In making such suggestions, politicians show little serious engagement with

background concerns that drive vaccine hesitancy. They only set themselves up as mouthpieces for conspiracy thinking.

Raising doubts about the safety of vaccines and branding the government as tyrants and Stalinists is exactly the kind of trust manipulation that can give rise to an echo chamber. Feeding into the narrative of a possible conspiracy is an effective way to discredit and exclude alternative voices. Because a conspiracy theory provides a coherent set of reasons to distrust outsiders, Nguyen acknowledges they can "function to reinforce the boundaries of echo chambers" (2018, 8). In this case, politicians repeated and legitimized some far-reaching conspiracy theories, unifying the anti-vaxxers through shared reasons for distrust and intensifying the trust disparity. The ubiquity of "us versus them" language on online anti-vaccination platforms, their dismissive response to contrary evidence and their deference to their own experts confirm the movement is an echo chamber. The increase in vaccine hesitancy and the distrust-related reasons for it indicate the echo chamber has grown and become more unified and thus stronger. Other factors may have contributed to the rise of an echo chamber where there was none, or only a very weak one, before. Of course the Wakefield controversy and the subsequent court rulings played a role in spreading fear about vaccines. There is also some support for the idea that enclave deliberation promotes extremism and polarization, and certainly the psychology of platforms like Facebook stimulate outrageous and shocking posts because they get more clicks. Still, by campaigning on these pages, by speaking directly to these people's concerns, and by publicly repeating some of their most alarming theories, populist politicians have almost undoubtedly further reinforced the anti-vax echo chamber. In giving credence to conspiracy theories, they have contributed to increased distrust in everyone who is not vehemently opposed to vaccination. Since that includes not only pro-vaxxers, but also the moderately vaccine hesitant, the latter were driven to choose sides. The trust disparity between insiders and outsiders expanded.

Conversely, the engagement with anti-vax views left its mark on the political image of the populist parties, who were now implicating new groups in their anti-establishment rhetoric. By openly questioning not just government interference but also the safety of vaccines, leaders like Salvini and Grillo lumped in health care providers and experts with the untrustworthy elite. Speculating about the health risks involved in vaccination automatically undermined the epistemic authority of medical professionals and researchers. Such trust corrosion trickles down to other sciences and academic practices in general. The antagonistic attitude toward traditional epistemic authorities which came with the anti-vaccination standpoints radicalized the populism of the Italian New Right and gave it a distinct post-truth flavor.

At this point one might ask whether any of this could have been avoided. Even if we take it as a given that Salvini and Grillo sought to cash in on the growing group of anti-vaxxers, it seems that things could still have gone another way. Salvini could have prioritized the conscientious objectors and pointed to the freedom of consciousness. This could have appealed to Lega's conservative electorate. The Five Star Movement could have responded to the concerns about the power of pharmaceutical companies and financial elites by calling for legislation limiting their influence. Such a move would fit well with the socialist sympathies of many M5S voters. Even worries about academic integrity and perceived scientific malpractice could have been addressed differently. Increasing transparency, accessibility and diversity in academia could perhaps redeem some of the trust in experts and be a start in bridging the gap between people and epistemic elite. All of these suggestions are possible and more constructive ways to engage with the interests and concerns behind vaccine hesitancy. Instead of further feeding and exacerbating their worries, thus hollowing out knowledge and expertise, these policies actually address them. They give people tools to better monitor and control the supposed elites, thus alleviating power imbalances. However, the fact that they are also ultimately aimed at reconciliation is what makes them problematic for the hardcore populist. Although these strategies are populist in giving expression to worries about corrupt political, economic and epistemic elites, they are populist in a merely instrumental and self-destructive sense. In the end, populism cannot subsist without the division between elite and people. If the opposition is resolved, so is the basis for populism. This brings me to my final point, suggesting a deeper link between populism and echo chambers.

I believe that the reinforcement of an echo chamber by the Italian populists was not so coincidental after all. Beyond there being a shared root cause and a probable causal relationship between populism and anti-vaccination, there is also a fundamental conceptual connection between populism and echo chambers in general. Both populism and echo chambers rely on a dichotomy between insiders and outsiders. There is a strong group identity among the "us", while the "them" are seen at best as incompetent and ignorant, but more often as corrupt and malignant. Insiders are pure and virtuous, while outsiders are to be completely distrusted. Crucially, this means that neither echo chambers nor populism allow for pluralism or compromise. If there is no place for reasonable disagreement, if all dissent is distrusted and all opposition deemed illegitimate, there can be no democratic deliberation. In practice, these shared features make it the case that populism and echo chambers are mutually reinforcing, ever widening the gap between insiders and outsiders, and ever further preventing the possibility of deliberation and reconciliation.

This is what is most problematic about Lega's and the M5S's engagement with anti-vax rhetoric. Yes, they gained voters. But, by embedding these views in their own populist narrative, they created or at least strengthened an echo chamber, thus starting a continuing, mutually reinforcing dynamic between the two. Instead of responding to the concerns behind vaccine hesitancy by offering solutions to bridge the gap, they took distrust as their starting point and fostered it. Through undermining political and traditional epistemic authorities they fortified the walls of the echo chamber, ensuring that any dissent on both political and scientific matters would appear illegitimate. Due in part to their rhetoric, the gap between the anti-vax echo chamber and the outside widened, the ideas radicalized, and deep disagreement was allowed to escalate into further polarization. One M5S official tried to justify the movement's anti-expertise rhetoric with the phrase: "Politics comes before science" (Horowitz 2018). To properly reflect the anti-political and anti-pluralist tendencies of populism, honesty would require the addition "... and power comes before politics."

Conclusion

During the rise of two New Right populist parties, Italy saw a strong surge in vaccine hesitancy. Theorists have suggested that anti-vaccination views and support for populism have a common root in the distrust of elites. Drawing from the literature on echo chambers and populism, I have demonstrated that this story is incomplete. Firstly, there is also good reason to think a causal relation between populism and anti-vax stances exists. Using anti-expertise populist rhetoric, Lega and the Five Star Movement have directly influenced the anti-vaccination movement. It used to be a fringe movement: pluralistic, even scattered, in the social margins and largely nonpolitical. To the extent that it was an echo chamber at all, it was small and weak, with only some trustrelated beliefs shared among a subset of its members. Since the overwhelming political success of the M5S and Lega of the past years, skepticism about the safety of vaccines and the medicalscientific practice guaranteeing that safety has become more socially acceptable. The antivaccination movement has also become more unified and more radical, to the point of now being a full-fledged echo chamber. Contributing factors include court rulings following the Wakefield controversy, the introduction of the unpopular Lorenzin decree, and the amplifying effects of social media. But none of these factors can be considered completely detached from the increased political discussion around vaccination instigated by the populists. In their successful political mobilization of the anti-vax echo chamber, The Five Star Movement and Lega have reinforced it, in turn steering their own parties in a distinctly anti-scientific, post-truth direction.

As the echo chamber radicalized, so did their populism, expanding from anti-status quo rhetoric to the explicit distrust of epistemic authorities.

Secondly, I have drawn out a more fundamental conceptual connection between populism and echo chambers. Both center on a dichotomous division between virtuous insiders and corrupt outsiders. This division suggests that any disagreement with insiders should be dismissed as either ignorant or malevolent. Because of these shared features, populism and echo chambers can mutually reinforce one another, entrenching people further in their distrust and breaking down the possibility of compromise, reconciliation, and political deliberation.

This study of the Italian anti-vaccination movement illuminates the notion of the echo chamber and the role trust manipulations can play in its formation. It also lends support to the view that echo chambers tend to be epistemically and politically divisive. Its main upshot, however, is that it brings attention to the interplay between populism and echo chambers and its harmful consequences. This process of reinforcement is hard to stop once it has started. But what can be done? To prevent individuals from becoming echo chambers in the first place, we might take Cassam's (2019) advice to keep rebutting conspiracies, educate people to become better persons and thinkers, and to inform them about the harmful dynamics of echo chambers. For those who are already caught in echo chambers, these strategies might backfire and the only solution, proposed by Nguyen, is the rebuilding of personal trust relationships. The close connection between populism and echo chambers established here suggests that for both groups, a political version of Nguyen's solution could prove helpful. Creating societal conditions that prevent political marginalization, feelings of dispossession and alienation would be the ideal solution. In the meantime, politicians and citizens should attempt to find alternative and creative ways to bridge the gap and rebuild trust between the people and epistemic and political authorities.

Notes

- The specific webpages referred to in this paper are La Verità Sui Vaccini
 (http://www.laveritasuivaccini.it/), SìAmo
 (https://www.facebook.com/SiAmoUnMovimento/), Vaccini Basta
 (https://www.facebook.com/vaccinibasta/), Autismo e Vaccini
 (https://www.facebook.com/autismovaccini/) and Libertà di Scelta Vaccinale Italia
 (https://www.facebook.com/Libert%C3%A0-di-scelta-Vaccinale-Italia-1203413723121751).
- 2. Examples include "Fake News di Stato" (SìAmo April 15, 2019) and "Aggiornamento dell'ultima ora" (SìAmo March 25, 2019).

- 3. See for instance "Chi davvero lotta per la libertà," (SìAmo April 17, 2019).
- 4. See "La storia si ripete" (Vaccini Basta February 18, 2019).
- 5. For the treatment of statistics, see "Negli ultimi giorni" (Vaccini Basta May 1, 2020) and "Problema di statistica" (Vaccini Basta April 24). For the Big Pharma conspiracy see, e.g. "Oggi comincia" (Autismo e Vaccini April 26, 2015).
- **6.** Repeated references are made to these doctors on all pages mentioned in note 1.
- 7. There is no data proving this connection, but vaccine hesitancy has been linked to political factors like influential leaders (Dubé et al. 2014). In the Italian case, the notable drop in immunization between 2010 and 2015 and the resulting measles outbreaks have been blamed on the populists (Giuffrida 2017).

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