The Anti-Vaccine Movement in 2020

The popular depiction of antivaxxers as "earthy-crunchy" doesn't tell the whole story. Anti-vaccine sentiment is strongly associated with conspiracy thinking and protection of individual freedoms, traits that are finding a home among far-right groups.

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What does an antivaxxer and a far-right activist have in common? If the thought of someone who opposes vaccines brings to mind tie-dye shirts and tree hugging, your answer may be "nothing." But clearly, some do have a commonality: protesting the COVID-19 lockdowns. Coverage from these protests (https://pressprogress.ca/canadas-anti-lockdown-protests-are-a-ragtag-coalition-of-anti-vaccine-activists-conspiracy-theorists-and-the-far-right/?fbclid=IwAR32gNQLi1xsexFvdHu-1nG4OmW-3FXtTgwHDVRSzkCC9X1Wa91NoL--0Aw) often show people holding signs slapped with antivaccine rhetoric next to pro-militia activists and white supremacists. This phenomenon can also be seen among homeschoolers according to Anne Borden, a pro-vaccine homeschooler

who fights against phony autism cures. “The first antivaxxers I ever met were left-leaning unschoolers when I was an unschooled teenager. They were very much a part of the early efforts to ‘stop the Food and Drug Administration’ from regulating alternative medicine. What has happened in recent years is that this demographic of homeschooling is being now recruited by the radical right on social media, and some are turning right. And this is very concerning.”

This may leave you wondering just what is happening to the anti-vaccine movement in 2020.

The central dogma of the anti-vaccine ideology is that vaccines cause autism and other bad health effects, and that governments and the pharmaceutical industry knowingly suppress this information. This tenet, we easily imagine, is tightly wedded to the political left. It’s a hippy-dippy attitude, we often think, borne out of an irrational fear of chemicals, and there are indeed prominent spokespeople for the movement who fit this sketch. Joe Mercola made his fortune selling natural health products and has contributed more than $2.9 million to the National Vaccine Information Center (https://www.washingtonpost.com/investigations/2019/10/15/fdc01078-c29c-11e9-b5e4-54aa56d5b7ce_story.html) in the U.S., an anti-vaccine advocacy group. There is Robert F. Kennedy, Jr., a Democrat and environmentalist, who is a major public figure on the anti-vaccination scene as the chairman of the Children’s Health Defense. This branch of the movement shows a distrust of pharmaceutical companies and a pursuit of purity (https://horizon-magazine.eu/article/rise-vaccine-hesitancy-related-pursuit-purity-prof-heidi-larson.html). Their wrongful idea that nature is inherently good ends up framing their thinking, which is why in the age of COVID we read about their “natural immunity theory”: that barriers to germs, like physical distancing and masks, weaken our immune system. Vaccines are just one more synthetic loaded gun aimed at our immune system, they say. The embedding of antivaxx sentiment within this nature worship is familiar to many of us. But there is a segment of the anti-vaccination movement on the far right, drawn to its libertarian streak of distrusting the government, and there exists at least one prominent bridge between leftist antivaxxers and the political right in the United States: Donald Trump.

Before associating with the Republicans and as far back as 2007 (https://www.insider.com/how-donald-trump-became-an-anti-vaccinationist-2019-9?amp), Trump had publicly expressed the erroneous belief that vaccines cause autism. He has helped raise money over the years for his friend Bob Wright, who founded the charity Autism Speaks whose stance on vaccines has been deemed “controversial.” And Trump himself invited Robert F. Kennedy, Jr., to chair a commission on vaccine safety (which ended up dying on the vine). Trump, it should be pointed out, is the first American president to be on the record as having anti-vaccine views, an influence that cannot be ignored. A survey (https://linkinghub.elsevier.com/retrieve/pii/S0022103119302628) involving Americans who voted in the 2016 presidential election revealed that Trump voters expressed more vaccine concern (specifically about the MMR vaccine, wrongly linked to autism) than non-Trump voters, a result which the authors conclude was explained by their conspiracist ideation. This association between the current right-wing of American politics and questioning the value and safety of vaccines can also be seen in Gallup polls (https://news.gallup.com/poll/276929/fewer-continue-vaccines-important.aspx). For the years 2001, 2015 and 2019, the percentage of Democrats who say it is either extremely or very important for parents to vaccinate their children has moved from 97% to 88% to 92%. For the same time points, Republicans went from 93% to 82% to 79%.

Beyond political affiliation, researchers can shed some additional light on who an antivaxxer tends to be and how they think. Interviews with Australian parents who reject vaccines revealed they see themselves as virtuous but oppressed, and vaccinators are perceived as an "Unhealthy Other" (https://www.sciencedirect.com/science/article/pii/S0264410X1830149X). Those who reject vaccines may have a skewed perception of the risks posed by them and the diseases they prevent, with some evidence (http://publichealth.jmir.org/2018/1/e7/) showing that Internet searches may increase the perception that childhood vaccines are risky. And a large investigation (https://psycnet.apa.org/doiLanding?doi=10.1037%2Fhea0000586) into the anti-vaccination phenomenon, conducted in 24 countries by a team at the University of Queensland, revealed a strong pattern: people who reported more conspiratorial beliefs tended to be more anti-vaccine. This association was particularly strong in Western nations, like Canada and the U.S. Next in line was the link between anti-vaccination attitudes and the resistance to having their freedom taken away from them. The authors report that "more conservative participants also had stronger antivaccination attitudes." What was not linked to antivaxx beliefs was education.

The prototypical antivaxxer described above, though, does not exist in a vacuum. The people who espouse these views can find each other quite easily because of the existence of an important conduit that allows their claims, anxieties and incitements to spread: social media. Even though social media giants have said they would crack down on vaccine misinformation, anti-vaccine communities quickly adapt to the new rules, like a guided virus mutating with a purpose. For example, the word "vaccine" disappears in the name of their group, replaced by "medical freedom." And according to a recent massive analysis of 100 million Facebook users worldwide (http://www.nature.com/articles/s41586-020-2281-1), online supporters of anti-vaccine views have been more successful by some measures than those of us publicly supporting vaccines. They are smaller numerically but occupy a more central position in the network; they are heavily involved with clusters of Facebook users who haven't made up their mind about vaccines; and they offer a wide variety of "potentially attractive" stories (about safety concerns, about government conspiracies, about natural immunity) that can attract a greater diversity of people compared to pro-vaccine messaging which tends to be one-note. This diversity is also encouraged by social media companies. Platforms like Facebook and YouTube want to hold onto your eyeballs so they recommend other content. Renee DiResta, a security researcher, told BuzzFeed News that as she joined more anti-vaccine parenting groups on Facebook for the purpose of investigating them, the platform recommended more and more conspiracist groups (https://www.buzzfeednews.com/article/craigsilverman/how-facebook-groups-are-being-exploited-to-spread): about chemtrails, about the flat Earth, about the Pizzagate conspiracy theory. She called this phenomenon "radicalization via the recommendation engine." And as Anne Borden was telling me, there is active cross-pollination happening on social media with the far right. "Right-wing movements have deeply infiltrated the social media spaces of the antivaxx and vaccine-hesitant homeschoolers and alt-schoolers. They recruit in antivaxx and Facebook groups related to complementary and alternative medicine."

What these concerns and conspiracy theories may mean for the future

When we pull at this big ball of conspiracy theories and pro-freedom sentiment, we can find some genuine concerns buried inside. Jon Perry, the founder of the Stated Clearly science communication project, pointed

me in the direction of a Facebook meme declaring that its poster would not be "vaccinated (chipped) for the coronavirus." "The meme," he told me, "is a mixed bag of legitimate concerns about tracking devices, a justifiable mistrust of billionaires and large organizations, common knowledge that most large nations dabble (or have dabbled) in bio-weapons research, a far less warranted (but not totally baseless) fear of new vaccines, and many more, all combined with a horrible confusion about medical patents and virus naming structures." A project like ID2020 (https://id2020.org/), aimed at providing everyone with a secure digital identification, can be twisted by a distrustful, pattern-seeking mind into a cover for Bill Gates' nefarious plan to monitor every human being. The fact that multiple coronavirus vaccines use the virus' RNA can be misinterpreted into the fear that vaccines will mutate our own DNA. Justified worries are fed by misunderstandings and further amplified by a conspiracist mindset in online communities cross-pollinated by radical political actors, leading to progressive vaccine-hesitant parents holding hands with the anti-lockdown movement. Like a big ball of colourful rubber bands, these disparate-looking actors share an underlying property and end up sticking together.

While this big wobbly ball looks overwhelming, there are discreet actions pro-vaccine people and organizations can take to minimize the damage caused by anti-vaccine attitudes, and because these attitudes tend to be tied to the belief in a grand conspiracy, the recent publication of the Conspiracy Theory Handbook (https://www.climatechangecommunication.org/wp-content/uploads/2020/03/ConspiracyTheoryHandbook.pdf) can be of help. When addressing members of the public unlikely to endorse conspiracy theories, the Handbook recommends empowering people with facts, uncovering the bad logic in the initial argument, linking to fact-checking websites, and exposing the lack of credibility of the sources of these theories. Trying to reach extremists, on the other hand, is usually a fool's errand; personally, I'd rather address the people on the fence and we have preliminary evidence (https://mcgill.ca/oss/article/health/motivating-parents-vaccinate-quebec-initiative) that empathy and really listening to the concerns of vaccine-hesitant parents can improve their attitudes toward vaccines.

If safe and effective vaccines against the new coronavirus end up being approved (which is not a guarantee, though over 90 experimental vaccines are at various testing stages), I wonder how much public confidence will have been eroded by this reenergized anti-vaccine movement and their radical allies. In the past decade, the United States has seen a 10% overall decline (https://news.gallup.com/poll/276929/fewer-continue-vaccines-important.aspx) in the number of parents who feel it's extremely or very important to vaccinate their children (from 94% in 2001 to 84% in 2019), with 11% saying they think vaccines are more dangerous than the disease they are meant to prevent. Meanwhile, in 2015, almost two in five respondents to a Canadian survey (http://www.cbc.ca/news/health/vaccines-widely-accepted-by-canadians-as-effective-poll-suggests-1.2955047) agreed that the science on vaccinations isn't quite clear. What these numbers capture is not just antivaxxers, however. Their movement is a small and vocal minority, but its fear-based messaging reaches a larger segment of the population: the vaccine hesitant. And people on the fence about vaccines are now being served an incredible buffet of prickly anxieties: from genuine concerns that a coronavirus vaccine may be rushed to the loud cries of "my body, my temple", all the way to stories of Bill Gates' evil plan to depopulate the world, with the occasional viral video like *Plandemic* fuelling this unease with a veneer of respectability. How much damage this ever-growing ball will cause on its way down the slope is anyone's guess, but we have genuine reason to be worried.

If you have concerns about vaccines based on specific allegations that you have heard, check out the website "AntiAntiVax" (https://antiantivax.flurf.net/) which addresses many of these claims.

Take-home message:
- Even though well-known parts of the anti-vaccine movement are on the political left, anti-vaccine sentiment is more pronounced on the right
- There is a strong association between anti-vaccination and belief in conspiracy theories and a significant link between anti-vaccination and the resistance to having your freedom taken away from you
- Anti-vaccine Facebook users, although relatively small in numbers, have been very successful at spreading their message on the platform, which has facilitated their fraternization with other conspiracy theorists.

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vaccine hesitancy (/oss/category/tags/vaccine-hesitancy)
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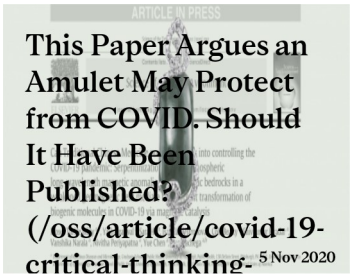

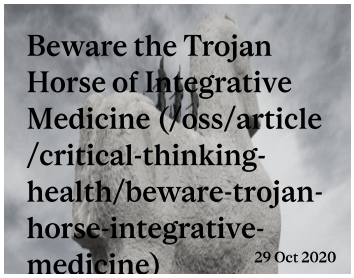

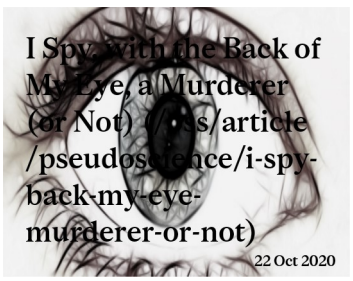

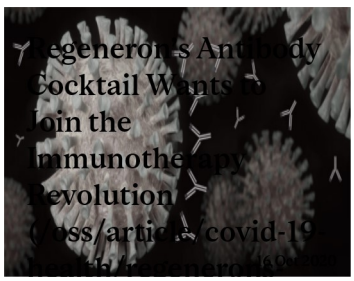

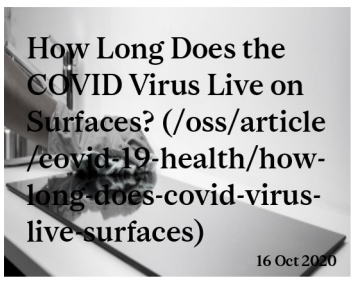

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