

**MORALITY, EPISTEMOLOGY, AND ACTIVISM: HOW ANTI-
VACCINATION ADVOCATES ON TWITTER CONSTRUCT A
RHETORIC OF ALTERNATIVE IMMUNITY**

by
Mattie Bruton

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THE PURDUE UNIVERSITY GRADUATE SCHOOL
STATEMENT OF COMMITTEE APPROVAL

Dr. Thomas Rickert, Chair

Department of English

Dr. Patricia Sullivan

Department of English

Dr. Michael Salvo

Department of Communication

Dr. Jennifer Bay

Department of English

Approved by:

Dr. Thomas Rickert

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ABSTRACT

Though it is a centuries old practice, anti-vaccination has become a growing trend since the rise of the internet. Anti-vaccination rhetoric complicates neoliberal beliefs about public health and systems of medical knowledge-making. This study follows 100 Twitter accounts which advance anti-vaccination beliefs. Studying these accounts reveals that anti-vaccination is part of a larger moral and epistemological universe of belief. Anti-vaccination advocates on Twitter use a digital activist identity to create affective networks which draw from epistemologies of conspiracy theory and connect to current political events. Anti-vaccination advocates on Twitter are not uninformed. Rather, they ascribe to their own process of information legitimization. Anti-vaccination advocates on Twitter draw from their complex epistemologies and affective networks to build an alternative immunology which focuses on maintaining the purity of the individual body as a metaphor for protection of the state and of humanity.

PREFACE

When I type the phrase “vaccine injury,” “anti-vaccination,” or even just “vaccine” into the search bar on Twitter, I receive a message which reads: “Know the facts. To make sure you get the best information on vaccinations, resources are available from the U.S. Department of Health and Human Services.” The message is followed by a link to the USHHS website, allowing a Twitter user to access this information

This caveat is part of a recent effort to combat the spread of misinformation on Twitter, specifically information related to vaccination and immunology in a time of pandemic. The warning appears when any tweet displayed has been flagged as containing misinformation.

Twitter’s recent efforts to cut down on misinformation demonstrate a fundamental issue in digital information legitimization; people have very different opinions about what constitutes the truth. U.S. President Donald Trump, for instance, had several of his Tweets flagged by this system in May of 2020, but President Trump continues to assert that the information he delivers is actually true. Trump is just one of many who believe that Twitter is censoring expressions of truth to advance an agenda of oppression. Another group which shares this belief is anti-vaccination advocates.

Anti-vaccination has been a rising public health issue and topic of trendy debate throughout the 2000s and 2010s. However, in the brave new world of the 2020s, the issue takes on a troubling immediacy.

Discourses over vaccination and anti-vaccination revolve around one of the most challenging and fraught questions of digital information literacy in the age of COVID-19: Who do you trust for accurate information about your health and safety? When scientific authority, tech leaders, and heads of state all provide us with different interpretations of the “facts” how do we make educated medical decisions during a pandemic?

Strategies to deal with the spread of misinformation and the fragmentation of “Truth” on social media have usually taken a similar shape to Twitter’s tactics: flagging or eliminating misinformation while attempting to redirect users to legitimated sources of knowledge. Unfortunately, as President Trump’s burgeoning feud with Twitter demonstrates, these strategies have not worked and will continue to not work. Anti-vaccination practices are not a problem of misinformation. Rather, anti-vaccination is just one practice in an increasingly organized and self-historicizing school of thought and way of being.

Anti-vaccination advocates do not recognize the CDC, the WHO, or the U.S. Department of Health and Human Services as legitimate authorities on health and medicine. They will continue to encourage others to mistrust these organizations. In the extended moral epistemology of the anti-vaccination advocate, extant centralized systems of medical and scientific knowledge-making are perpetuating an agenda of evil and subterfuge. In such a worldview, the efforts of social media platforms like Twitter to combat anti-vaccination misinformation actually *affirm* rather than challenge the anti-vaccination advocate’s worldview. Censorship only further entrenches the anti-vaccination advocate’s sense of paranoia and martyrdom. They view themselves as noble freedom fighters who dare to speak the truth despite constant oppressive efforts to silence this truth.

Legitimated medical and scientific epistemologies rely upon a centralization of knowledge making and verification that is becoming harder and harder to maintain in a digital world. Certainly, mistrust of doctors and scientists is nothing new; however, in pre-digital days, a mistrust of doctors was often more or less a personal experience. As social media technology allowed for the sharing of personal experience and sentiment instantly and over vast distances, the personal became increasingly politicized. Sharing testimonies of medical mistrust allows people from across the world to form activist affiliations and construct epistemologies based on commonality of experience.

We are experiencing a fundamental shift in communication and media, a change of such profundity that has not been seen since the emergence of the printed word. The printed word afforded the possibility for preservation of institutional knowledge, for record keeping and for

verification through recorded study. The printed word afforded the possibility for the creation of libraries, academia, and institutionalized science and medicine. The printed word afforded the creation of the values of rationality, consensus, and Truth which ascribed an ideological coherence to both neoliberal medicine and neoliberal democracy.

Digital communication affords something very different. Digital communication is characterized by urgency, emotion, networking, and personal validation. Digitally born epistemologies prioritize these values. Twitter is characterized by performances of the personal which become politicized. Activisms and political positions are constructed on Twitter largely through the sharing of sentiments and in-group references. This new networked communication does not only impact politics; it impacts public health and public perception of scientific knowledge. Social media platforms like Twitter allow for the creation of alternate worldviews which self-construct scientific and medical knowledge making practices. In this new networked literacy, new authorities on public-health emerge outside of traditional medical and scientific epistemologies. For instance, within certain networked epistemologies, President Trump's tweets about self-medicating against COVID-19 with hydroxychloroquine are a more legitimate and authoritative source of information than peer-reviewed scientific trials.

In digital space, epistemologies which have previously been viewed as conspiratorial or "fringe" are just as easy, even easier, to access and understand than traditional epistemologies. They are also a lot more fun. Participation in systems of neoliberal knowledge making requires money, applications, homework, etc. The gatekeeping of alternative medical epistemologies is far laxer. Alternative epistemologies offer very appealing positions of "woke" activist subjecthood.

History shows us that structures of belief and knowledge making change. Specifically, they change when mass communication technologies change. There is no reason at all that these changes must march dutifully in the direction of neoliberal enlightenment. In fact, when digital communication technologies operate so drastically differently from the printed word, we ought to anticipate that the institutions which once defined truth and public health will not hold together in the way they once did. We are in the midst of a massive restructuring of biopower.

Anti-vaccination is not just a wacky fringe belief for bored suburban moms. It is part of a larger structure of belief about the body, about morality, about political authority, and about scientific knowledge. There is a great deal of money and influence structuring this epistemology. Anti-vaccination is connected to a rhetoric of alternative medical practices which manifests at the highest levels of political power. As the 2020s unfold, this new epistemology of medicine and immunology will continue to influence information legitimization and perceptions of public health as pandemic reshapes our bio-subjectivities.

INTRODUCTION: COMPLICATING “POST-TRUTH”

In 2019, the World Health Organization listed “vaccine hesitancy” as among the top-ten global health threats of the year. The WHO argued that parents hesitant to vaccinate their children were partially responsible for a recent uptick in diseases thought to be all-but-eradicated by vaccination, for instance, a 30% increase in cases of measles (World Health Organization). In September of 2019, responding to recent measles outbreaks, New York State passed a law that required all students attending public school to be vaccinated, with no exemption for “religious” or other beliefs. The WHO’s declaration marked a growing concern about the mainstreaming of anti-vaccination facilitated by its prevalence on social media websites such as Facebook and Twitter.

As medical, scientific, and political institutions grappled with strategies for addressing the public health concerns raised by this growing trend, anti-vaccination itself was often described in the language of epidemic and immunology. A 2019 Science Daily article, for instance, described efforts to reduce the circulation of anti-vaccination information on Facebook as “inoculating against the spread of viral misinformation” (University of Maryland). Increasingly, throughout the late 2010s, anti-vaccination was depicted as a new challenge to public health, a pandemic of misinformation.

Anxieties about anti-vaccination are just one example of anxieties surrounding “fake news” and its more well-read cousin “post truth,” buzzwords which have characterized American popular and political discourse at least as early as 2016. In their critique of the term “post-truth,” Johan Farkas and Jannick Schou refer to a litany of recently published books which contribute to the “expanding market” of “post-truth” crisis writing: *Post-Truth: How Bullshit Conquered the World* (Ball, 2017), *Post-Truth: Why We Have Reached Peak Bullshit and What We Can Do About It* (Davis, 2017), *Post-Truth: The New War on Truth and How to Fight Back* (d’Ancona, 2017), and *The Death of Truth: Notes on Falsehood in the Age of Trump* (Kakutani, 2018). A June 2019 *Axios* poll found that 68% of Americans perceived “fake news” to be a greater national threat than terrorism, immigration, racism, or climate change. Anxieties about “post-truth” and “fake news” reach across the aisle: many U.S. Democrats believe that “fake news” is

spread by Russian bots and was responsible for President Donald Trump's election; President Donald Trump himself frequently accuses any negative press of being "fake news." "Fake news" and "post-truth" anxieties represent fears about the destabilization of information consensus; they represent fears about a world in which "Truth" will no longer hold any meaning.

The link between anti-vaccination and post-truth has been noted specifically by Anna Kata, who asserts that anti-vaccination advocates "make postmodern arguments" through, for instance, their emphasis on conspiracy theory and their appeals to emotion (1709). Kata's 2010 article seems to predict the impending "post-truth" culture wars of the 2016 election and beyond, noting a fundamental connection between post-modern argumentation and anti-vaccination. It is no wonder that anti-vaccination has received so much attention. To many, anti-vaxxers seem to flatly reject scientific facts in a way that could potentially jeopardize their health, the health of those around them, and the collective wellness of community and country. But this perception is reductive, inaccurate, and ultimately unhelpful. Anti-vaccination advocates do not reject *all* science; in fact, they view themselves as quite scientifically literate. They do not view themselves as postmodern. They do not view themselves as out of touch with "reality." Furthermore, the anti-vaccination advocate's praxis is not postmodern either. The fundamental disempowerment and disconnect which characterizes postmodernity is difficult to apply to immunological practices, in which belief-motivated decisions about vaccination impact not only individual health but also public health. Anti-vaccination is a material practice with embodied impact. The anti-vaccination movement represents an alternative biopolitics which operates upon digitally facilitated and mobilized epistemologies of beliefs about power and medicine.

Therefore, Kata's ideas only take us so far, as do most discourses which label anti-vaccination out-of-hand as just one of the quirkier manifestations of the "post-truth" era. Johan Farkas and Jannick Schou point out some of the issues with "post-truth" as a blanket term for emergent departures from pre-digital epistemologies. They argue that anxieties about political "post-truth" are not really anxieties about "truth" so much as they are concerns about the effectiveness and future of neoliberal democracy. This argument could be extended to neoliberal biopolitics as well. Anxious narratives which frame anti-vaccination as an issue of "fake news" represent concerns about the effectiveness and future of both medical consensus and immunological

protection within and of democratic society. Social media technology has destabilized traditional information verification processes and methods of medical knowledge construction. Considering the democratized distribution of such technology, it is easy to see why many feel “truth” itself is under siege as traditional biopolitical epistemologies are destabilized; however, the idea of “post-truth” or postmodern anti-vaccination rhetoric does not accurately or fully position us to study the future of digital medical epistemologies and immunological practices in the 2020s.

In his book *A Body Worth Defending: Immunity, Biopolitics, and the Apotheosis of the Modern Body*, Ed Cohen points out that immunology and democracy are fundamentally intertwined. Immunology raises questions about democracy’s ability to collectively protect citizens while still guaranteeing individual rights. The debates over anti-vaccination and mandatory vaccination which raged across the internet and the “real world” alike in the late 2000s and 2010s addressed these issues, raising questions like: How should a liberal democracy practice immunology in the information age? What should be the relationship between the individual subject’s body, the state, and institutionalized medicine?

These questions, perhaps once a fringe concern for most Americans, became the material of mainstream debate, amplified and unignorable, after the emergence and spread of the novel coronavirus COVID-19 in the winter and spring of 2020. Suddenly, the relationship between individual and state immunological practices was on everybody’s mind as governments and individual citizens alike debated how best to handle the unprecedented viral pandemic.

Some speculated that the imminent threat of novel pandemic would give the anti-vaccination movement pause. This was not the case. Many anti-vaccination advocates viewed the pandemic as a hoax, a globalist bioweapon, or the result of 5G cell phone towers. Many refused to abide by social distancing recommendations and regulations. Many refused to wear masks to curb the spread of the disease. Surveys by *Yahoo News* and *Morning Consult* have found that between 14% and 19% of Americans reported that they would refuse to receive a COVID-19 vaccine were one developed (Romano) (“64% of Americans”).

The COVID-19 pandemic revealed an American immunological culture-war fueled by fundamentally different beliefs about information veracity and democratic social responsibility. Though at the time of this writing the full implications of digital discourses and pandemic have yet to be realized, looking to the digital rhetoric of anti-vaccination advocates in the months before and immediately after COVID-19 reached pandemic status can illuminate these fraught nuances of immunology as pre-digital medical standards for consensus are troubled by the shifting boundaries of networked social media communities.

Anti-vaccination rhetoric relies upon complex epistemologies of moral beliefs which are democratized and expedited by digital technologies. However, these moral beliefs and epistemologies are not entirely digital or new; they have complex histories which will be explored further in this paper. Anti-vaccination as a practice, though often represented as a symptom of post-truth, is not new either. Vaccination has always been a controversial issue which represents conflicts and paradoxes within the emergence and maintenance of neoliberal biopower.

To understand how the modern digital anti-vaccination movement was formed, it is helpful to trace the history of anti-vaccination. In fact, anti-vaccination has been around for as long as the practice of vaccination itself. Ever since Great Britain instituted a compulsory smallpox vaccination in 1853s, there has been pushback against mandatory vaccination; throughout the mid to late 19th century, anti-vaccination organizations and publications sprang up across Britain (Grignolio, 27).

The reasons for British resistance to compulsory vaccination through the 1850s-1880s was in many ways like the reasons we see today. Though digital dissemination of the anti-vaccination message is new, the message itself has remained relatively consistent for centuries. Vaccines, like most other medicines, can cause very rare, but occasionally very severe, allergic reactions and complications. This dissuaded some from receiving the vaccination and caused many to blame a wide array of other ailments on vaccination (Porter and Porter, 238).

Another similarity between Victorian anti-vaccination rhetoric and modern anti-vaccination rhetoric is a concern with purity and a belief in “natural” medicine. Anti-vaccination in Victorian Britain advanced alongside Victorian Spiritualism and a growth of alternative healing practices; many believed that smallpox could be prevented by lifestyle choices rather than vaccination. Dorothy and Roy Porter write that many Victorian spiritualists believed, “vaccination was a foul poisoning of the blood with contaminated material, which could provide no protection from a disease caused by effluvia arising from decaying organic matter” (Porter and Porter, 237). As I will explore further in Chapter 1, the view that vaccination is “contaminating” continues to be one of the most powerful rhetorical components of the movement.

Other British anti-vaccination advocates of the 1840s opposed the smallpox vaccine on religious grounds, arguing that the vaccine was impure and immoral because it was made from animal products, bringing the human and the animal into an unholy embodied proximity (Grignolio, 27). Again, we still see a strong connection between religious beliefs, concerns with bodily purity, and anti-vaccination. Both modern and Victorian anti-vaccination rhetoric had secular components as well, in the form of a concern over the violation of individual bodily autonomy. Victorian anti-vaccination writer F. W. Newman, for instance, argued that “Sanitarianism” and public health policies were part of a larger, insidiously paternalist, state agenda to take control over a person’s individual choices (Porter and Porter, 240). Today, anti-vaccination rhetoric, supported by epistemologies of conspiracy theory, often frames vaccination as part of a larger agenda to strip people of life and liberty.

Andrea Grignolio traces the popularizing of anti-vaccination in America to 1870, when prominent British anti-vaccination advocate William Tebb visited New York. Isolated groups had existed in response to state smallpox vaccination policies in the US for some time, but in the years after Tebb’s visit these groups became more coherent and mobilized in their ideologies, which were similar to the anti-vaccination ideologies of British groups. The Anti-Vaccination Society of America was founded in 1879, the New England Anti-Compulsory Vaccination League in 1881, and the Anti-Vaccination League of New York City in 1885 (Grignolio, 29). Like their counterparts across the Atlantic, these organizations were often affiliated with other alternative health practices or social justice causes, from temperance to phrenology. They viewed

vaccination a that the diseases prevented by vaccination could just as effectively be warded off by homeopathy and healthy living (Grignolio, 30).

Though its roots go all the way back to the 19th century, today's digital anti-vaccination movement was largely shaped by the infamous Andrew Wakefield, who in 1998 suggested a link between the Measles, Mumps, and Rubella (MMR) vaccine series and the development of autism in children. Media outlets were quick to sensationalize Wakefield's study and thus the stubborn and pervasive belief that vaccinations cause autism was born. Wakefield's work has been discredited by a great many subsequent studies and his beliefs have been denounced by the publishers of his initial claims (Dyer). However, his authority among anti-vaccination advocates remains unshaken; to his believers, Wakefield represents the original martyred whistleblower who dared to expose big #pHARMA at the expense of his own career. The Wakefield controversy further solidified the agonistic distrust between anti-vaccination advocates and the medical establishment. Wakefield's heyday also, not coincidentally, corresponded to the birth and growth of the internet; digital technologies allowed more people to encounter his beliefs and share his studies with others. Digital anti-vaccination communities began to form; subsequently, the rise of social media caused the growth of these communities to explode.

Digital anti-vaccination communities are often portrayed as part of a larger problem with public discourse as internet communities become increasingly insular. In 2004, well before the rise of social media as we know it today, Cass Sunstein introduced the now-mainstream concept of the online "echo chamber." Sunstein cautioned that individualized filtering of content would stop people from seeing any messages they disagree with. In "Filtering and Democracy" Sunstein writes "The implication is that groups of people, especially if they are like-minded, will end up thinking the same thing they thought before—but in more extreme form, and sometimes in a much more extreme form" (58). This viewpoint was further popularized by Eli Praiser's 2011 book *The Filter Bubble: How the New Personalized Web Is Changing What We Read and How We Think*. Praiser points out how the algorithmically personalized curation of digital space isolates people from viewpoints and beliefs which differ from their own, creating feedback loops and echo chambers which isolate communities and deter the possibility for consensus and understanding.

Certainly, the internet facilitates the creation of extremely specified and self-reinforcing communities of belief; however, as digital discourse evolves in complexity and writes its own history, it becomes clear that insularity and filtering are not the only factors which allow alternative rhetorics like anti-vaccination advocacy to thrive. Rune Karlson et al., for instance, take issue with the metaphor of online “echo chambers.” In a 2017 study of 5000 internet users, they found that most respondents *did* routinely engage with opposing ideas, but that exposure to “both confirming and contradicting arguments have the same effect on reinforcement” of the respondents previously held belief (268). Karlson et al. therefore propose the alternative metaphor of “trench warfare,” “in which opinions are reinforced through contradiction as well as confirmation” (257). In this metaphor, knowing the “other side” of an argument is not necessarily enough to pop the filter bubble; rather, an increased familiarity with differing beliefs can create an even more deeply entrenched sense of “us vs. them” group identity. Anti-vaccination communities are well-suited to Karlson et al.’s metaphor; anti-vaccination advocates routinely engage in debate with those they disagree with and constantly view information which does not support their beliefs. However, exposure to these opposing ideas does not result in the anti-vaccination advocate developing a different opinion.

Digital anti-vaccination communities, therefore, are part of a growing phenomenon of digital communities which view dominant media, scientific, or political institutions as untruthful antagonists. In his study of anti-vaccination websites, Mark Davis uses the term “anti-public” to describe communities which actively exclude and distrust dominant public and institutionalized information sources (Davis 358). Though Davis’ reading of the relationship between anti-vaccination communities and traditional systems of truth-making is accurate, I propose that the term “anti-public” does a disservice to the study of these discourses, as do similar shorthands like “fringe beliefs.”

One problem is that the term “anti-public” implies that anti-vaccination advocates turn away entirely from public discourse. This is not the case. Anti-vaccination advocates on Twitter frequently participates in debates with and evangelizing of other Twitter users who do not share their beliefs. They do not turn away from the “public”; engagement with those who disagree with

them and engagement with traditional scientific epistemologies is crucial to their cause. They frequently share and criticize publications from mainstream news or academically legitimized scientific sources.

Furthermore, medical scientific discourse could barely be called a “public” discourse. As any academic knows, the practice of professionalized knowledge making can be rather insular itself; the bulk of medical discourse, even if publicly accessible, is not necessarily public facing. In fact, an anti-vaccination advocate probably spends more time reckoning with traditional medical epistemologies than your average person, if not for any other reason than to investigate and dispute these epistemologies.

Most importantly, “anti-public” is a problematic term because it takes for granted the existence of a “public” or a “public discourse” while failing to answer or even ask the question: What is “the public” in digital space? As scholars like Sunstein and Praiser have pointed out, algorithms and preferences curate each individual’s online experience. The days of centralized mass-media are gone. A person’s perception of the world- of politics, of current events, of science, of ethics, of controversy- is shaped by the news outlets and social media presences that specific person chooses to pay attention to. There is no dominant ideology on the internet, or, I would argue, in contemporary American society at all. Rather, the internet is constituted of so many “affective publics” to borrow a term from Zizi Papacharissi. This multiplicity of publics, based on identity, beliefs, and practices, interact and intersect in online space. Anti-vaccination advocates do not resist some unified public opinion. Rather, they construct their own public, which interacts with other, equally public, communities of online identity.

So far, most studies of anti-vaccination communities online have taken a sociological approach. Examples of sociological studies of anti-vaccination’s online presence include Naomi Smith and Tim Graham’s “Mapping the Anti-Vaccination Movement on Facebook,” Theodore Tomeny, Christopher Vargo, and Sherine El-Toukhy’s “[Geographic and Demographic Correlates of Autism-related Anti-vaccine Beliefs on Twitter, 2009-15](#),” and Keith Gunaratne et al.’s “Temporal Trends in Anti-Vaccine Discourse on Twitter.” Such studies seek to understand the demographic and psychological components which contribute to an individual’s involvement

with an anti-vaccination movement online. Many of these studies attribute anti-vaccination rhetoric to ignorance or lack of education. The assumption that anti-vaccination stems from a lack of knowledge has resulted in responses aimed to educate the public, represented by information campaigns of the CDC and WHO, as well as books like Andrea Grignolio's *Vaccines: Are they Worth a Shot?* Books and campaigns like this are aimed at a popular audience of potential vaccine-skeptics and strive to promote public health through misinformation correction. Certainly, scientific literacy in the digital age is vital, but scientific literacy in the digital age means something more than just an awareness of institutionally advised medical practice. Scientific literacy in the digital age is less about awareness, and more about selection. Many, if not most, "medical freedom" advocates are aware of what institutionalized science says about vaccination- they just do not trust that information. In fact, many prominent anti-vaccination advocates on Twitter, are, or have been, medical doctors or nurses. Anti-vaccination is not an issue of ignorance; it is an issue of conflicting epistemologies.

Brett Jacobs Bricker, in his study of climate change denial online, describes some of the shortcomings of applying social science approaches to the study of anti-science, writing, "it is difficult with a purely social scientific approach to look at the underlying characteristics that link symbols and audience in a pragmatic fashion. In the case of conspiracy theory, where there is no recurrent situation, scholars must look at the complex relationship between audiences, symbols, and environments" (223). This holds true for anti-vaccination communities as well. To fully understand these communities, engagement with their rhetorical strategies, symbols, affective narratives, and knowledge- making practices is required.

Mark Davis argues that "to fully understand online anti-vaccination discourse... it is necessary to locate it among other forms of anti-public online discourse such as anti-climate science discourse, white supremacist discourse, 'men's rights' discourse, alt-right discourse and conspiratorial political discourse" (358). Davis is astute in pointing out the overlap between anti-vaccination communities and these other groups. Though certainly anti-vaccination is a single-issue cause for some Twitter advocates, there is noticeable overlap with this community and other forms of "conspiracist" rhetoric. Social media sites like Twitter allow for groups with similar rhetorically paranoid characteristics to join narrative forces and construct elaborate

epistemologies of belief. Awareness of institutionalized science exerts little rhetorical sway within these belief systems.

In her analysis of online discourse surrounding 2009's "Climategate" controversy, Meritxell Ramirez-i-Olle considers the implications of digital "openness" in public-facing scientific epistemology. During the Climategate controversy, online groups claimed that leaked emails from scientists demonstrated that global warming was actually a conspiratorial fabrication, one of the earliest examples of a social media anti-science conspiracy. Ramirez-i-Olle writes that in their response to Climategate "scientists presented the development of the internet and the emergence of new spaces of scientific debate such as the blogosphere as the cause of the increased demand for access to scientific data by outsiders" (399). She writes also that "scientists portrayed climate science as asocial—that is, as ideally detached from the social factors affecting its development—with the aim of protecting their autonomy based on the assumption that social factors are *only* ever a source of false scientific beliefs and error rather than a normal constituent of all beliefs" (394). This belief that science is something "asocial" and separate from emotion, that science will "speak for itself" and appeal neutrally to human rationality is an argument often advanced against the spread of anti-vaccination discourse. However, even after "awareness" campaigns which focus on "the facts" of immunology, anti-vaccination rhetoric persists.

In another article on the rhetoric of Climategate, Brett Jacobs Bricker supports Ramirez-i-Olle's findings, further describing some of the issues with an asocial, access-based model of scientific literacy in digital spaces. He argues that scientists must rethink their responses to anti-intellectualism and conspiracy theory and "must be willing to not just let the facts stand for themselves" (235). He points out that in the information economy, these facts may be incorporated misleadingly into any number of delegitimated alternative narratives. The same may be argued of anti-vaccination rhetoric. Counting on the science to "stand for itself" has proven insufficient. A neutral, asocial scientific epistemology has so far been ineffective in combating the spread of conspiracy theories about vaccination.

In her work on the relationship between the expansion of social media and increasing radicalization of white masculinity, specifically in the wake of the 2016 election, Jessica Johnson gives us the term “self-radicalization” to describe the process by which a subject becomes more and more deeply entrenched within radical or counter-factual online belief communities, clicking themselves further and further “down the rabbit hole.” Johnson writes that “paranoia is animated in the networking processes of social media” because social media users facilitate the socially networked creation of their own paranoid worldviews by “engaging with an ever-narrowing array of sources” (102). She places affect as central to the process of “self-radicalization,” describing the development of a paranoid worldview similarly to Tero Karppi’s description of Facebook use, in which internet users experience an “affective pleasure of connectivity” which is “addictive, whether or not the information they share is factual” (110). Studying the anti-vaccination community on Twitter demonstrates how a process of affective “self-radicalization” can also co-opt aspects of more progressive discourses like the #MeToo movement to ultimately create communities which complicate previous expectations of morality, belief, and political affiliation. Like “anti-public,” “self-radicalization” is a term that ascribes a problematic degree of uniqueness to communities of alternative belief. The process of “self-radicalization” is really just the process of standard belief-making in digital space; every social media user participates in the construction of affective and algorithmically individualized epistemologies. This shapes each one of our worldviews and certainly will continue to guide emergent knowledge and belief-making in the decades to come.

To investigate the extended moral and political worldview of the digital anti-vaccination advocate, I studied 100 anti-vaccination Twitter accounts over a nine-month period; more information about my methods can be found in the Appendix. Studying these accounts demonstrates that anti-vaccination communities on Twitter advance a digitally facilitated rhetoric of alternative immunity which is based on emotional moral beliefs, conspiratorial epistemologies, and narratives of activism. Each of these three dimensions of alternative immunity is addressed in a chapter of this study.

Chapter 1 deals with the affective bodily and emotional rhetorics which influence the moralities of anti-vaccination. In this chapter, I start with examining the affective response to transgression

of body boundaries; I then connect this response to the role of emotion in a moral worldview which prioritizes purity and the compassionate protection of purity. Chapter 2 situates anti-vaccination in a broader history of conspiracy theory, Manicheanism, and anti-science, connecting anti-vaccination to other beliefs which exemplify anxieties around boundaries and power, like narratives of alien abduction. In this chapter, I assert that anti-vaccination advocates are unresponsive to being told the “facts” because they operate based on a fundamentally different epistemology and subscribe to a worldview which is necessarily suspect of all institutionalized forms of medical and scientific power. Chapter 3 explores digital activist identity and the way this identity is constructed in anti-vaccination Twitter communities; I demonstrate that the anti-vaccination or #MedicalFreedom movement borrows from the lexicon and strategies of other online activism movements, specifically #MeToo feminism, enacting a form of truth-making and belief-making which prioritizes narrative, empathy, and connection.

Considered together, these chapters depict an alternative immunology which operates based on a rhetoric of boundary creation and boundary maintenance. Anti-vaccination advocates on Twitter espouse a worldview in which the safety and sanctity of humanity is under constant threat from outside forces which seek to infiltrate biology itself; vaccination is represented as a man-made threat of greater danger than any potential organic contagion. Neoliberal immunology seeks to protect the state and collective health from outside biological contagion by fortifying the individual body with protective abilities, using legitimated medical sciences like vaccination. Anti-vaccination’s alternative immunology depicts institutionalized medicine as itself a contagion against which people must take individual and reactive responsibility. Anti-vaccination advocates are not ignorant of traditional epistemologies and medical knowledge-making. Rather, they view their own complex epistemologies as providing both a more accurate and more righteous view of science, medicine, and immunity. In this reading of immunity, bolstered by the paranoid of epistemologies of conspiracy theory, anti-vaccination is an activist cause, a noble message in urgent need of spreading across the internet through affective networks of narrativized awareness-raising. Especially in an era of pandemic, this emergent alternative theory of immunity creates a new contingency of networked biopower which challenges neoliberal narratives of public health in democratic society.

CHAPTER 1: AFFECT, BODY BOUNDARIES, AND EMOTIONAL MORALITIES

Throughout digital discourses of vaccination and anti-vaccination, metaphors of spiritual, biological, and cultural contamination overlap with and reinforce one-another. Anti-vaccination advocates demonstrate a form of bio-subjectivity in which maintenance of an individual body's purity is essential for the spiritual and moral purity of the state. This belief is part of a larger moralized universe of alternative medical epistemologies and activist practices which position biomedical institutions as more contaminating and dangerous than disease itself. It is important to note that moralities of anti-vaccination are not simply a digitally generated aberration. Discourses over vaccination speak to politically charged metaphors of purity and protection that can be traced back in time for centuries.

Consider, for instance, Cicero's 57 BC oration *De Domo Sua*. In this speech, Cicero argues, successfully, that he should have the grounds of his property fully returned to him after his enemy, P. Clodius Pulcher, dedicated a part of this property to the gods. Though it might initially seem that a property dispute would have nothing to do with purity rhetoric, Jack Lennon points out that purity is actually a central rhetorical component to this speech. Lennon argues that Cicero "deliberately constructed Clodius' behavior, associates and property as entirely impure" (427).

Lennon describes how Cicero used metaphors which evoked and intertwined biological and spiritual impurity throughout his career. For instance, in the Catiline orations, Cicero repeatedly returns to the metaphor of *pestis* or "plague" to condemn the actions of Catiline. Lennon writes that Cicero refers to Catiline's "actions as a 'plague' (*pestis*) on several occasions during the first Catilinarian oration." He notes that "such language marked Catiline out as dangerous, and the increasing support for his cause as the spreading of a disease within the Roman state" (428). In *De Domo Sua* Cicero refers to P. Clodius as "*rei publicae pestis*" or "the plague of the republic." He claims that P. Clodius is guilty of sacrilege and contamination of the sacred. He condemns Clodius as *istius, qui non solum aspectu, sed etiam incesto flagitio et stupro caerimonias pol luit*:

“that man, who polluted sacred rites not only by viewing them, but also by twisted depravity and lust” (434). Here, Cicero uses the metaphor of “plague” to create an enemy of threatening contamination and moral degradation that the republic must defend against.

Lennon writes that Cicero invokes “the implied element of *contagio*” throughout this speech. Though Cicero never uses the word *contagio* specifically, his numerous references to *pestis* (plague or illness) and *scelus* (wickedness and corruption) imply to his audience that not only is P. Clodius’ use of Cicero’s estate lawfully erroneous, it is an offense against religious, moral, and civic purity. His presence there is an intrusion, a contamination. The *scelus* that ought to be kept outside the state has breached not only the boundary of state but the boundary of the home, the individual, and the health of the body (440). Thus, Cicero uses metaphors of illness and plague in a rhetoric of both individual and state morality and defense, creating an early concept of biopolitical subjecthood.

Anti-vaccination advocates are concerned with protecting the purity of the home, the body, the soul, and the state. Anti-vaccination rhetoric uses the affect-driven emotions of disgust and compassion to transform fear of biological contamination into a system of moralized political and spiritual beliefs. Thus emerges a worldview in which the anti-vaccination advocate must not only protect the body and home from the impurity of biological contamination, but the state and the populace from the contamination of evil.

To understand anti-vaccination rhetoric on Twitter, we must start with the body. The internet is often portrayed as a disembodied space, where the complicated enmeshments of the flesh may be shed for a sleek, flattened post-human identity. However, phenomena like online anti-vaccination communities demonstrate that this is not the case. The internet does not transcend the body and its complexities, paradoxes, and related emotional moralities. There can be no anti-vaccination without the body or without a rhetorical relationship to the boundaries of the body. Central to the rhetoric of the body and body boundaries is affect; digital anti-vaccination communities use affective bodily responses to underpin their moral rhetoric of boundary defense.

Before examining the specific embodied moralities which construct the rhetoric of anti-vaccination on Twitter, it is necessary to understand the role that the body has taken in contemporary rhetorical study. Scholars such as Deborah Hawhee have proven that embodied practices have been central to rhetoric since the days of Aristotle and Isocrates, though the body became less prioritized in rhetorical study during the heyday of modernity and print-media. However, throughout the late 20th century, humanities scholarship demonstrated a reinvigorated interest in the body. Though not explicitly rhetorical, Elaine Scarry's 1980 book *The Body in Pain*, for instance, was essential for establishing the connection between embodied experience and meaning-making and helped to inspire an interest in exploring both the role of the body in rhetoric and the body as a site of rhetorical influence. In his introduction to the 1999 collection *Rhetorical Bodies*, Jack Selzer called for bodies to "come under rhetorical scrutiny" (10). Many scholars responded to Selzer's call, resulting in a great deal of research on the rhetorical role of the body in the classroom, in sports, in media, and in medicine. However, little work has been done on the embodied rhetoric of vaccination, or on the role of the body anti-vaccination movements specifically.

The embodied rhetoric of anti-vaccination is connected specifically to body boundaries. The maintenance of a boundaried, singular body is essential subjecthood and identity. Body boundaries largely define how we view our place in the world, how we move through it, who we interact with, and who we impact. Body boundaries are not inherent; they are constructed. As Gilles Deleuze and Felix Guattari point out, each human body is an assemblage, composed of molecular units which could just as easily be composed into some other form according to some other boundary (149). Therefore, in order to function in any sort of ordered society, humans *must* become preoccupied with the boundaries of the body, constituting and reevaluating boundaries in order to shape a place in the world and understand ourselves as thinking and communicating agents.

To understand the bodily rhetoric of anti-vaccination, we need to keep in mind three key concepts: affect, emotion, and morality. The entanglements of these three phenomena are complex, but for simplicity's sake, their relationship can basically be read as sequential or developmental. Affect becomes emotion; emotion becomes morality. Using the work of Sarah

Ahmed and Jonathon Haidt as a guide, I will demonstrate how affective responses appeal to previously held moralities, propel anti-vaccination messages across the internet, and create entrenched moral belief systems about the human body.

Thus, let us start with affect. Affect can be understood as a visceral, intuitive, pre-emotional response that propels the body into action. When we have an affective response, our heart rate might increase or we might feel an unidentifiable pre-emotional need to *do* something like scratch an itch or click a “like” button. According to Sarah Ahmed, body boundaries play an important role in the production of affect, especially a “negative” affective response, because the transgression of body boundaries causes us to pre-emotionally recoil or pull away. Later, after the experience of affect, we may name this recoiling with emotion; this emotional nomenclature varies depending on the kind of boundary transgressed, the nature and intensity of the affective response, and the social and cultural context of the transgression. Ahmed writes specifically of the role of affect in the production of disgust, an emotion central to the construction of anti-vaccination’s moralized universe.

According to Ahmed, disgust is an emotion produced from the affective response to body boundary transgression. She explains that we become disgusted when what ought to be inside the body is outside of it or vice versa. Therefore, we are disgusted by vomit and other bodily fluids, and we establish cultural customs which distance the disgust response from, for example, the act of eating (Ahmed 81-83). Within this reading, it is easy to see how receiving a vaccine could cause a disgust response. We tend to recoil from needles, pulling away from the transgression of the body boundary. Certainly, anti-vaccination is motivated at some level by this essential affective repulsion, but the rhetorical operations of disgust go further than that in anti-vaccination discourses, constructing not only disgust and aversion but moralities of purity and protection.

Vaccination can be read as disgusting in the same way as eating is disgusting; it is the taking into the body that which is usually outside, for the ultimate benefit of the health. However, vaccination is rendered even more disgusting by an increased degree of outwardness. Eating is at least a generally independent act; the choice of what to eat, why, and how, is more or less

personal. In the case of vaccination, however, the elements beyond the body boundary are assembled for injection by a nebulous system of institutional power and administered into the body by some stranger in a white coat. Through this intensification of outwardness and unfamiliarity, the affective response which begets disgust also informs the individual subject's perception of their own biopolitical morality.

In *The Righteous Mind*, Jonathon Haidt also connects disgust to food, pointing out that humans evolved the capacity for disgust as a way to discern what is and not safe to eat. He writes that “being an omnivore has the enormous advantage of flexibility: You can wander into a new continent and be quite confident that you’ll find something to eat. But it also has the disadvantage that new foods can be toxic, infected with microbes, or riddled with parasitic worms” (123). Today, we are more omnivorous than ever, faced with an extensive variety of choices about what we do and do not put into our body, both as food and medicine. Therefore, biopolitics is connected to the rhetorics of disgust and to the moralities which emerge from anxieties about what should and should not be taken into the body.

Conveniently for our metaphors of consumption and body boundaries, Haidt compares morality to a tongue with six taste receptors (95). He describes these six categories of moral belief development as “foundations” of morality which are based on a binary of what is evolutionarily desirable and undesirable. Haidt’s six foundations are: Care/Harm, Fairness/Cheating, Loyalty/Betrayal, Authority/Subversion, Sanctity/Degradation, and Liberty/Oppression, each of which correspond to a specific “moral emotion.” He argues that the moral emotion of “disgust” is connected to the moral foundation of Sanctity/Degradation (104).

Though Haidt asserts that disgust evolved as a response to protect us from what could make us ill, he demonstrates that “the current triggers of the Sanctity foundation, however, are extraordinarily variable and expandable across cultures and eras” representing a wide array of anxieties about and reverences of the body and its boundaries (125). Furthermore, as the biological protection of the body is bound by both metaphor and practicality to the protection of the state, the Sanctity foundation often relates the preservation of the body to the preservation of the state. Haidt identifies concerns about “purity” as a key indicator of moral principles derived

from the Sanctity foundation and maps the roles this foundation play in informing left and right belief tendencies in contemporary American politics. Anti-vaccination discourses on Twitter demonstrate an emergent morality of purity which challenge many of Haidt's conclusions about these political expressions of emotional morality.

At its most embodied and affective level, to value purity is to value the uncontaminated body, the body which keeps what ought to be outside on the outside, preferably a far distance. Haidt points out that "you can see the foundation's original impurity-avoidance function in New Age grocery stores, where you'll find a variety of products that promise to cleanse you of 'toxins'" (125).

Anti-vaccination, as well, is concerned with the potential ingestions of "contaminants" "chemicals" and "toxins." This concern is part of a larger worldview in which the ingestion of only "pure" or "natural" elements is morally prioritized. Out of the 100 accounts I followed, six contained a reference to "nature" or "natural medicine." Two referred to "holistic" medicine. Three referenced veganism and two contained the word "toxic." Together, thirteen of the 100 accounts referenced this concern with "natural" or pure ingestion in their biographical descriptions.

In the moralized universe of anti-vaccination discourse, the world rewards purity with good health. Many anti-vaccination advocates believe that diseases typically treated with vaccination are actually *caused* by the ingestion of the impure, whether that is in the form of GMOs, 5G radiation, or vaccination itself. For instance, consider Figure 1, which was originally created by the dietary supplement company HolisticThingz, and shared in February of 2013 by anti-vaccination doctor Dr. Jim Meehan on his Twitter account @DocMeehan, advocating a form of "natural" consumption that includes a denial of any contaminating "chemical" in food or medicine, encouraging followers to consume organic foods and to renounce vaccination in favor of holistic medicine.



Figure 1. Image equating healthy eating to medicine, shared by Jim Meehan, MD @DocMeehan, 24 Feb. 2013

The image juxtaposes some appealingly healthy-looking leafy greens against an unappealing heap of fried food and melting cheese, clearly meant to look more “disgusting” than the vegetation on the right. The image demonstrates a great concern with the maintenance of bodily purity through consumption, implying that consuming “pure” and “natural” foods is medicinal but consuming “unnatural” foods is “poison.”

Certainly, traditional scientific epistemologies would also tell you a head of broccoli is healthier than a cheeseburger. However, coupled with the other rhetorical claims of anti-vaccination, images like this construct the belief that good health, even total immunology from diseases like

chicken pox and polio, can be achieved through dietary habits. Anti-vaccination advocates believe vaccines to be unhealthy for partially the same reason many of them believe processed foods to be unhealthy, the inclusion of man-made unnatural chemicals that corrupt the purity of the body. In the rhetoric of anti-vaccination on Twitter, “natural” dietary practices and anti-vaccination practices have a similar affective root- the rejection of that which the subject feels should not be in the body. The rhetorical force of affect propels thought and action from the pre-emotional into the realm of the moral, the social, the political and the spiritual. Thus, anti-vaccination becomes a morally motivated practice of belief connected to other morally motivated practices of belief.

Haidt argues that disgust-driven concerns with food purity are more typically associated with the political left, thus the “New Age grocery store” example (125). In contrast, he proposes that the political right is more concerned with sexual and reproductive purity. However, contemporary discourses of anti-vaccination complicate this reading. Many anti-vaccination Twitter users demonstrate at once a filiation for the political right *and* a typically left concern with food purity.

For instance, consider the Twitter account Be Pure@HerbalGoddess. Clearly, this Twitter user demonstrates purity as a key moral value. Haidt would likely read the title and hashtag of this account as related to a left interpretation of purity, connected to a New Age spiritualization of “herbal” ingestion and “natural” food; the first sentence of account’s biography supports this reading, encouraging followers to “Live One with Nature.” However, the biography also contains the sentence “I Love My President.” This fealty to Republican President Donald Trump confounds Haidt’s theory that valuing “natural” food purity must be indicative of a left-wing morality. This is not the only way that the Twitter accounts I followed challenged Haidt’s interpretation of political moralities.

In addition to a moralization of ingestion, anti-vaccination advocates on Twitter also demonstrate a concern with sexual purity. Anti-vaccination communities on Twitter bring into accord left-wing purities of consumption with evangelical Christian pro-life rhetoric. Out of the accounts I followed, six specifically identified themselves as Christian or included Bible verses in their biographies; no other organized religions aside from Christianity were mentioned in any

biographical descriptions. But even Twitter accounts that did not identify as Christian sometimes indicated pro-life beliefs. For instance, consider the account of Holistic Honey

♡@modestmarina, followed by 1804 people. Holistic Honey @modestmarina's Twitter biography reads: "NASM certified personal trainer. Functional Nutritional Therapy Student. Holistic Wellness. Minimalist. Pro-life. Pro Medical Freedom. Happy Wife. Wanderlust" thus combining pro-life beliefs and beliefs of "natural" bodily purity through both holistic medicine and "Medical Freedom," or, anti-vaccination. Though Holistic Honey@modestmarina does not specifically identify a religious belief, the account demonstrates a hybridity of Haidt's left and right interpretations of purity morals.

What accounts for this hybrid morality of left and right interpretations of sanctity and purity? One significant contributing factor is the prevalent belief that vaccines contain aborted fetal tissue. This belief is used rhetorically by both anti-vaccination and anti-abortion activists to elicit disgust and create a moral emotional worldview. Consider Figure 2, posted by LotusOak@LotusOak2 on March 23, 2020 LotusOak@LotusOak2 is one the most prolific and popular anti-vaccination accounts on Twitter, posting nearly hourly to an audience 36.8K followers. Out of the 100 accounts I followed, 64 of these accounts follow LotusOak@LotusOak2.



LotusOak @LotusOak2 · Mar 23

#STUDY: "**#Vaccines** manufactured in human **fetal** cell lines contain unacceptably high levels of **fetal #DNA** fragment contaminants. The human genome contains regions that are susceptible to double strand break formation & DNA insertional mutagenesis."

ncbi.nlm.nih.gov/pubmed/2610370...

#WakeUp



Figure 2. Image linking to a study by Theresa Deisher, shared by LotusOak@LotusOak2, 23 Mar. 2020

The image of ghastly fetuses floating in jars accompanied by words like “contamination” speaks to beliefs of both spiritual and biological purity. This image promotes a worldview in which vaccination violates the body boundary through DNA contamination and also violates Christian morality of fetal life sanctity. Clicking the link on this image takes you to an article originally published in the *Journal of Law and Medicine* by Dr. Theresa Deisher, a prominent anti-vaccination and pro-life scientist. Deisher received her PhD in molecular and cellular physiology from Stanford University and now heads the Sound Choice Pharmaceutical Institute, a nonprofit dedicated to the cessation of vaccines derived from fetal stem cell lines.

Deisher’s thesis, essentially, is that DNA from aborted fetuses in the MMR vaccine recombines with the DNA of living human children to cause a genetic malformation which leads to autism. This theory combines the right-wing Sanctity rhetorics which fuel the pro-life movement and the concerns about contamination and autism infamously espoused by anti-vaccination advocates

dating back to Wakefield. Within the rhetoric of this theory, sexual purity and ingestion purity become one and the same. By supporting one you facilitate the other.

Thus, the belief that vaccines contain harmful fetal tissue interacts with the affective body-boundary response and the disgust response on a number of levels. To the Christian pro-life anti-vaccination advocate, the practice of abortion already disgustingly violates the sanctity of the life and the boundary of the body. Vaccines derived from stem-cell lines, therefore, represent a pestilence composed of death itself which corrupts and violates the pure body of the living child. To the Christian pro-life anti-vaccination advocate, it is impossible to be morally opposed to abortion and morally in favor of vaccination, because the two practices depend on each other to such a degree that they are essentially the same thing. Vaccination, in this religious worldview, is not only dangerous to children, it is also complacency in the murder of infants and an affront to God himself. To the left-wing or non-Christian anti-vaccination advocate, a concern with keeping autism-causing fetal DNA out of vaccines could enforce, or even create, a pro-life affiliation.

Though Desisher's research has been criticized as unsound due to a questionable methodology of cherrypicked data, and though her theory has not been replicated in any studies published in medical journals, Deisher has been published in the *Journal of Law and Medicine* several times as well as in the specifically anti-vaccination journal *Vaccine Impact*. Therefore, to say that anti-vaccination advocates are simply ignorant is not a valid criticism; highly educated individuals like Deisher advocate for these beliefs and fight for their justification within the framework of legitimate scientific and academic epistemologies. Anti-vaccination Twitter discourses are related to a larger moral and political belief system which relies on images of disgust to enforce its biopolitical values and circulate its epistemological practices.

It is illuminating to note that Deisher's non-profit, The Sound Choice Pharmaceutical Institute, is also connected by funding and by advising to The Center for Medical Progress (Andrews). In 2016, the Center for Medical Progress published an undercover video that appeared to depict Planned Parenthood employees negotiating the sale of late-term abortion body parts which the makers of the video claimed to include still-beating hearts and entire in-tact baby heads. In 2017

this sat off a series of state investigations into Planned Parenthood clinics, all of which found no evidence of fetal organ harvesting and resulted in several defamation lawsuits (Kurtzleben). The 2017 video was just one example of the decades-old anti-abortion activist tradition of using images of bloody fetuses and stories of medicalized brutality to elicit moral emotions from their audience.

Reacting with disgust to these images allows anti-abortion or anti-vaccination advocates to enforce the moral boundaries which define their community bonds. Ritualized disgust enforces an idea of a spiritual and moral enemy and strengthens group cohesion in a way that is consistent with what Harvey Whitehouse terms the “imagistic mode of religiosity.” Instead of focusing on religious doctrine, Whitehouse writes that this form of religiosity involves intense, even traumatic, ritualized experiences which create “intense solidarity arising from group action” (125). The pro-life movement has long used images of gore and stories of human degradation to ritualize the moral emotion of disgust into a community of belief. Anti-vaccination borrows from and reinforces this moral tradition, taking its place in an extended biomedical moral universe that prioritizes retaining the purity of the body and the purity of human life through the maintenance of body boundaries.

Disgust is not the only one of Haidt’s “moral emotions” which is key to the anti-vaccination advocate’s moral worldview. Another crucial moral emotion is compassion. Haidt writes that compassion is a moral emotion derived from the “Care/Harm” moral foundation (104). According to Haidt, the Care foundation is related to parental, specifically maternal, instincts (110). He writes that maternal instincts are an emotional evolutionary advantage developed over time to create children with longer and healthier lives, thus effectively perpetuating the human species (110). In Haidt’s reading, compassion, like disgust, first evolved as a protective instinct before transforming into a nuanced morality through the development of cultural expectations and practices.

Motherhood certainly takes a central role in anti-vaccination discourses on Twitter. Out of the 100 accounts I followed, fifteen identified themselves as mothers and four more made some reference to parenthood in their biographies or Twitter handles. Many accounts are run by the

mothers of autistic children, disabled children, or children that have died of SIDS, all of which are attributed in this world view to “vaccine injury.” Graphic images of suffering children are circulated throughout the community to create a morality of child protection through bodily purity.

To anti-vaccination advocates, the unvaccinated child is the ultimate symbol of purity, and must be protected from contamination at all costs. The connection between disgust, purity, and the protection of children is evident throughout anti-vaccination rhetoric on Twitter. We can see it demonstrated, for instance, in an April 2017 Tweet from the account Real Organic Truth@RealorganicT, followed by 22 of the other accounts in this study, which describes members of the CDC as “disgusting creatures who prey on our babies,” and, going one body-boundary further, poses the question, “Do they eat them, too?” This Tweet compares the medical establishment to a predator which victimizes the defenseless, evoking Haidt’s care foundation by impelling viewers to protect children from predation while also nodding to the Sanctity foundation in the use of the word “disgusting” and the reference cannibalism. According to Haidt, cannibalism is morally taboo not for any utilitarian reason, but because of the disgust response triggered by violations of bodily sanctity (123). As I will demonstrate in Chapter 2, rumors of ungodly child-cannibalism play a key role in some of the darker conspiracy epistemologies upon which anti-vaccination advocacy is constructed. In this worldview, protecting children necessitates enforcing purity through the resistance of institutionalized biomedical power.

According to Haidt, compassion is the signature moral emotion which inspires left-wing ideologies. Haidt writes that “the moral matrix of liberals, in America and elsewhere, rests more heavily on the Care foundation than do the matrices of conservatives” (111). Again, anti-vaccination discourses on Twitter challenge many of Haidt’s ideas about how moral foundations interact with political beliefs. Out of the 100 accounts I followed, seven identified themselves as fans of President Donald Trump and one account identified as Republican without explicitly expressing support for the president. None of the 100 accounts I followed specifically expressed a left-leaning ideology and none identified support for any political candidate besides Donald Trump. Only one account identified an affiliation with the American Democratic party, and

begrudgingly: FedUpDemocrat@DemocratFed describes themselves in their Twitter biography as a “Registered Democrat who can't stand Dems attack on religious & health freedoms.” Another account, NO!SB276@NSb276, identified themselves as a “recovering democrat.”

And yet, despite the conservative leanings of the accounts I followed, compassion is one of the most important moral emotions to this community’s worldview. This conservative compassion is tied deeply to the sanctity foundation as well. In this merging of the rhetorics of disgust and compassion, children must be protected from impurities above all else. The protection of children is prioritized in both anti-vaccination and pro-life rhetoric and brings the two beliefs together into a cohesive morality. If a person believes an aborted fetus is a child, then protecting these fetuses is a form of compassion *and* a preservation of bodily sanctity; furthermore, preventing the use of fetal stem cells in vaccinations protects already-born children by defending the sanctity of their bodies as well. In the anti-vaccination moral universe, purity and compassion are inseparably linked.

Again, images play an essential role in constructing the anti-vaccination community’s relationship to compassion. Again, the images which elicit this compassion almost always also involve disgust. If we take Haidt’s evolutionary reading as accurate, this makes sense; to an evolving primate, the maternal or child-protective instinct would have been fairly straightforward- feed it, prevent its pain. Disgust would be a handy tool in the protection of children; you would not want to feed them something icky or let them come into contact with something that would make them sick. However, the emergence of organized society certainly complicated this emotional duty. Today, it is hard to know exactly what is best for a given child or children at large. Thus, the pathos of infantile helplessness can be manipulated for the rhetorical advancement of all manner of messages. This is especially true on the imagistic internet, where messages are propelled by affective responses of clicks and shares. If we accept Haidt’s reading of the Care/Harm foundation, then we find at the heart of anti-vaccination discourse one of the most powerful moralizing forces in all of human emotional evolution: the image of the suffering child (110).

In a study of anti-vaccination Facebook groups, Jinxuan Ma and Lynn Stahl found that images of suffering children are some of the most commonly shared and reposted images in the community (307-308). The internet facilitates people with similar moral practices connecting with each other, swapping expressions of disgust and images that elicit disgust. The constant engagement with and rejection of the disgusting entrenches and intensifies the moral beliefs of these communities. The image of the suffering child both elicits a disgust response and a compassion response in viewers.

Consider Figure 3, an image of Ian Gramowski, which went viral in 2017 and continues to be one of the most commonly circulated pictures within anti-vaccination communities as an example of “vaccine injury.” On November 7, 2019 the Twitter account You Don’t FQQL Me @Wiggley_Dale circulated the version of the image presented in Figure 3 to their 1659 followers; the image was then reposted verbatim on the same day by John Skorie@Iconoclasttt to his 1,536 followers. The picture shows an infant in the ICU with a hugely swollen abdomen, red rashes obscuring his face, and purple bruised hands. Images like this are what propel anti-vaccination discourses across the internet. They are a large part of why this rhetoric spreads so quickly and why it so rapidly establishes itself as moral belief. That arresting question “HARD TO LOOK AT?” illustrates perfectly the rhetorical power of disgust. It implies that which is hard to look at is also *important* to look at; looking at the disgusting allows the viewer to become aware of potential violations and contagions, thus strengthening their own bodily boundaries against such violation.



Figure 3. Image depicting the “vaccine injured” child Ian Gramowski, shared by You Don’t FQQL Me @Wiggley_Dale, 7 Nov. 2019

Disgust is both literally and figuratively a mobilizing emotion. Sarah Ahmed delineates the paradoxical “push” and “pull” of disgust. At one affective level, we recoil from that which we find disgusting; we jerk away from it in an attempt to preserve our own body from potential violation or contamination. However, that which is disgusting also exerts a morbid affective “pull.” We see something disgusting and *first* we look away, alarmed and repulsed (Ahmed 86). However, once we have looked away, we might also be tempted to look back, to stare at the disgusting object even though we find it repulsive. What is disgusting is also fascinating. Disgusting images are what Ahmed describes as “sticky;” they prompt an affective fixation which pull the viewer forward; in the online economy of attention, clicks, and affect (89), this

“stickiness” renders disgusting images particularly engaging. Anti-vaccination imagery exploits this double bind of affective response. Images which depict vaccination as repulsive at once revolt and fascinate the viewer, propelling affective networks of clicks, likes, and shares into action.

The image of Ian Gramowski in Figure 3 elicits both disgust and compassion. Images of child-suffering trigger both disgust and a compassionate protective instinct. Viewers want to stop this same “torture” from befalling their own children, the children of those they love, and the children of their society. Therefore, people feel compelled to share these images in order to create a networked morality which prioritizing protecting the pure child’s body from disgusting impurity.

The affective pull of repulsion does not operate in only in one ideological or political direction. It is not only affirmative expressions of disgust from anti-vaccination advocates that propel this rhetoric across the web. Expressions of disgust and compassion from those who *support* vaccination also drive the anti-vaccination community’s ability to generate viral buzz. Consider Figure 4, originally created and posted to Facebook by the Australian Vaccination Skeptics Network in April of 2015 and shared on Twitter by numerous anti-vaccination advocates, including, in 2019, the incredibly influential Dr. Sherri Tenpenny@BusyDrT. Dr. Tenpenny’s Twitter account is followed by 41.9 K other Twitter accounts, 77 of which were among the 100 accounts I followed for this project. Figure 4 elicits a disgust response which once again is tied to the transgression of the body boundary, this time the violation is depicted by equating vaccination to sexual assault. This creates an intense disgust that has given this image and its message immense rhetorical sway and staying power within the anti-vaccination community.

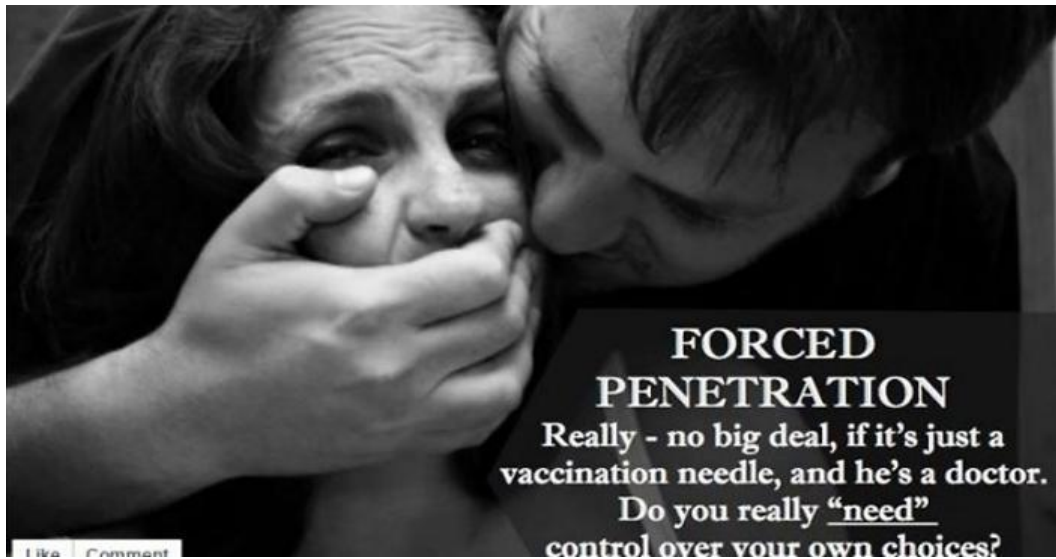


Figure 4. Image comparing vaccination to rape, originally posted by the Australian Vaccination Skeptics Network Facebook Page in April 2015 and later circulated on Twitter.

Figure 4 inspired multiple think-pieces and shares from people who *disagreed* with its message as well. Again, disgust propels this circulation of disagreement. Viewers of the image who supported vaccination were disgusted that vaccination would be compared to rape. Australian health minister Susan Ley, for instance, called the image, "repulsive" (Davey). Anti-vaccination rhetoric is "sticky" even for those who do not believe it. Vaccination supporters are disgusted by anti-vaccination rhetoric; they are disgusted that people would ever be so cavalier about illness and public health; this disgust represents a pro-vaccination interpretation of the Sanctity Foundation in which immunological purity must be maintained through defense against contaminating misinformation. Again, this disgust is intertwined with a moral rhetoric of compassion. Both those who oppose and agree with vaccination are concerned with the protection of children and the preservation of societal health through the prevention of contamination. They disagree, however, about *what* it is that is contaminating. This exposes a fundamental rift in contemporary moralities of biopolitics.

Haidt points out that disgust is a moral emotion closely connected with issues of bioethics and medicine, connecting the Sanctity Foundation to issues of abortion, euthanasia, cloning, and stem cell research. Anti-vaccination is connected to these same questions of bodily sanctity and

biological protection. Combined with pro-life beliefs and an emphasis on the suffering of children, anti-vaccination represents an alternative “behavioral immune system” which, instead of trusting neoliberal scientific values and medical institutions to protect the body against contamination, instead views these institutions as morally, spiritually, and politically impure (127). It is the duty of the anti-vaccination advocate to not only guard their individual body and family from impure chemicals, but also to guard society from impure and corrupting influences. John Skorie@Iconoclastttt, an anti-vaccination advocate followed by 1536 other accounts, includes the following sentence in his Twitter biography: “Science is a method not a religion: Ethics is most important.” In the anti-vaccination worldview, science is not itself a value, but rather a tool that should only be used responsibly to uphold an ethics of body purity and sociocultural sanctity. This view is not only advanced ignorant laypeople; scientists like Teresa Deisher, in her efforts to publish specifically anti-abortion and anti-vaccination studies, demonstrate that there is extended moral and political apparatus and epistemology which influences the anti-vaccination movement as it manifests on Twitter. In this belief system, the body boundary becomes the original site of morality and the preservation/transgression of the individual body boundary constitutes a moral and spiritual praxis which preserves the integrity of society.

On the other hand, vaccination supporters see anti-vaccination as an impure and dangerous threat to national health. They view vaccination as a fortification of the body boundary *against* contaminating influence, and the choice not to vaccinate as a jeopardization of society’s herd immunity against dangerous diseases, therefore violating a morality of compassionate protection by leaving people, especially children, vulnerable to disease. Jenny Rice examines the role of disgust and affect in reaction and response to anti-vaccination messages, specifically looking at the role disgust plays in media discourses surrounding anti-vaccination. She describes anti-vaccination as a “bullshit discourse” characterized by performative sentiment rather than legitimate epistemological practices. She notes that “disgust as rhetorical tactic is one possible response to the anti-rhetorical discourses of anti-vaccination movements, for example, which blocks attempts to hear what Wayne Booth once called good reasons” (471). Rice argues that since anti-vaccination rhetorics are “largely aesthetic” and not reliant on traditional methods of scientific evidence-gathering, the only appropriate rhetorical response to such sentimental

rhetorics ought to be emotional as well (471). She writes that, “by responding with tactics that are largely aesthetic (revulsion, disgust, gagging), we also work to expose ways in which bullshit discourse is itself rooted in a sentimental aesthetics” (471). Those who support vaccination attempt to keep the child-endangering impurity of anti-vaccination at bay by framing it as a disgusting and contaminating practice.

Rice’s pro-vaccination rhetorical disgust responses support a worldview which, like an anti-vaccination worldview, invests itself with boundary making and boundary maintenance. This pro-vaccination rhetoric of disgust is used as a tool to maintain the defense of the boundary of the body against disease, but also to maintain an epistemological boundary which preserves the purity of information and protects the sanctity of scientific consensus. By performing disgust, a “sentimental” response to anti-science epistemologies, pro-vaccination rhetors attempt to defend a protective barrier around scientific and medical epistemologies. However, as I will prove in my next chapter, drawing a boundary around traditional medical epistemologies to keep out anti-vaccination advocates is not terribly useful- because they do not want in. Anti-vaccination operates based upon an alternative epistemology of conspiracy and moral beliefs. Understanding this alternative epistemology is crucial to understand the alternative immunology of the anti-vaccination advocate.

CHAPTER 2: EPISTEMOLOGIES OF CONSPIRACY

Anti-vaccination can be a tricky phenomenon to describe because it is a practice embraced across such a diverse range of spiritual and political beliefs. As I have demonstrated, anti-vaccination beliefs often challenged pre-conceived or pre-digital notions of “Left” and “Right” beliefs. However, the diverse belief systems of anti-vaccination advocates are connected by similar paranoid epistemologies. Within these epistemologies, individual rhetors depict anti-vaccination as essential to protecting both the individual body and society at large from sinister and conspiratorial powers which govern the biomedical establishment. These paranoid epistemologies engage anti-vaccination advocates as the heroes in a spiritualized moral universe which calls them to advocate for the defense the body, the soul, and the state through a biopolitical praxis of alternative immunology.

Though religion and spiritual belief strongly influence anti-vaccination rhetoric, the strongest force of belief in these communities is a belief in conspiracy theory. Out of the Twitter accounts I followed, five self-identified as Christian or included Bible verses in their bibliographies. One identified as “spiritual” and one made a non-specified allusion to “God.” Though there was variety in the religious expression of the 100 accounts I followed, these diverse beliefs all interacted with complex epistemological systems based on narratives of conspiracy. These beliefs combine with morality, religion, and politics to create an entire alternative cosmology of warring good and evil powers. While these alternative epistemologies were given new life by the internet, they have their own extensive pre-digital histories. To understand anti-vaccination rhetoric on Twitter, we must turn to the rhetorical position of conspiracy theory in contemporary society.

Conspiracy theory epistemologies are important not only for understanding anti-vaccination rhetoric on Twitter, but also for understating contemporary American political discourse and increasingly mainstream belief systems. In their analysis of political conspiracy theory beliefs, J. Eric Oliver and Thomas J. Wood posit that conspiracy theory narratives are not terribly different from more “public” discourses and political filiation, writing “conspiracism is much like traditional forms of public opinion in that it is motivated by specific political messages and

individual predispositions” (954). They claim that “what differentiates conspiracism is the content of its motivating narratives and the types of predispositions it evokes” (954). They argue that conspiracism is “less motivated by paranoia and political mistrust” and rather more closely related to belief, specifically, belief in the supernatural or a “Manichean worldview” which interprets earthly reality as representative of a battle between good and evil cosmic forces (954). They point out that conspiracism has saturated contemporary American political discourse. Regardless of an individual’s beliefs, “most Americans” are “familiar with a wide array of conspiracy narratives” and “roughly half” believe “at least one” (958). Conspiracy theories inform the political landscape even for people who do not believe them; jokes about “reptilians” the “illuminati” and the earth being flat are commonly circulated and understood ironically on the internet, for example. Therefore, conspiracy theories which inform opinions on vaccination have a complex relationship to politics, mass media, and power. Oliver and Wood point out that “Most people will only express conspiracist beliefs after they encounter a conspiratorial narrative that gives ‘voice’ to their underlying predispositions” (955). Taking this into consideration, we can pose the question: What “underlying presuppositions” about medicine, doctors, disease, and politics leads people to buy into conspiratorial narratives of anti-vaccination rhetoric?

Ed Cohen writes that the history of immunology is inextricably connected to politics. He breaks down the word “epidemic” to its Greek translation: “among the people.” In this reading, an epidemic is a threat to a specific group of people joined together in the politics of the *demos*, and epidemiology is study of those diseases which threatens the *demos* and how best to protect against them. Cohen writes that “a disease’s ‘epidemic’ quality inheres in its political import” (207). Just as medicine defends the individual body from disease, it may also defend a people from an epidemic. Cohen writes that the immunity of the individual body therefore becomes politicized; individual defense is necessary for collective and political defense against contagion.

Considering Cohen's reading, it is easy to see how a conspiratorial Manichean worldview might destabilize neoliberal notions of immunity and defense. To “buy in” to the collective immunity, individuals must feel invested in the preservation of collective health. Conspiracy theorists who view their community suspiciously may not feel a drive to protect it. In this view, the *demos* is no longer something one defends with one's body. Rather it is something one must defend the

body *from*. To fully understand the paranoid relationship of the anti-vaccination advocate to neoliberal notions of collective immunity, it is necessary to trace the history of conspiracy theory and its influence on contemporary political discourse.

In his book *Culture of Conspiracy: Apocalyptic Visions in Contemporary America*, Michael Barkun follows the history of modern American conspiracy theory culture, publication, and epistemologies. He identifies specifically the importance of Manicheanism and New World Order beliefs in American conspiracy theory. New World Order conspiracy theories “claim that both past and present events must be understood as the outcome of efforts by an immensely powerful but secret group to seize control of the world” (43). Barkun notes a proliferation and intensification of New World Order conspiracy theory beliefs in America throughout the 1980s and 1990s; he identifies a close relationship between these beliefs and an evangelical Christian worldview. This worldview framed America, Christianity, and Western culture writ large as engaged in a conflict with evil forces at the highest level of power, leading to the emergence of “Illuminati” conspiracy theories popular on today’s internet. These theories postulate that a masonically-originated group of elites, who are often described as participating in Satanic child-sacrifice or cannibalism rituals, hold a historical and continuing control over world power.

Barkun goes on to describe the integration of New World Order conspiracy theories with UFO lore. Though UFOlogy had become popular in the 1970s, theories about UFOs did not initially implicate a larger political or spiritual system. However, Barkun writes that “by the end of the 1980s virtually all of the radical right’s ideas about the New World Order had found their way into UFO literature” (83). Barkun writes that “the first full published statement of such a theory appeared in 1986, in George C. Andrews’ book *Extraterrestrials Among Us*” which warns readers of “a race of evil extraterrestrials” which “is using a ‘privileged elite caste’ of humans to manipulate and control the masses” through influencing the CIA as well as corporate leadership (88). Barkun then traces the expansion of alien New World Order conspiracy theories into all-encompassing and ultra-complex “super conspiracies” popularized further by Jim Keith, and, most notoriously, David Icke. In his bestselling book *The Biggest Secret*, Icke claims that the Illuminati is actually composed of evil reptilian aliens from the constellation Draco, who control all levels of global power. He claims that evidence of these aliens can be identified across

various religious mythologies, for instance, as demons in The Bible. Therefore, this conspiracy theory fits together neatly with pre-existing Christian religious beliefs and is perhaps one of the most popular in our contemporary world. Icke's work is tremendously influential the epistemology of conspiracy theory which informs anti-vaccination practices; his books have become authoritative texts within this worldview. Icke is incredibly active and influential active on Twitter as well, where he advances his ideas to a massive audience of 324.3K followers.

Notably, David Icke himself frequently denounces vaccination on Twitter and advances anti-vaccination opinions. For instance, In May of 2019 he tweeted [#Measles "#vaccines](#) kill more children than the measles... and it's not even close." Icke therefore explicitly aligns his particular brand of Manichean UFOlogy with anti-vaccination, often implicating Bill Gates and the WHO as evil agents who use vaccines to exert control over the world population. David Icke is very popular within the anti-vaccination community on Twitter. Though none of the 100 accounts I followed specifically expressed a belief in a reptilian New World Order conspiracy theory in their biographical descriptions, thirty-one of them follow David Icke's twitter account.

In Figure 5, we see interest in reptilian aliens expressed directly in a post by the Twitter account Deep State Exposed@DeepStateExpose. This account is followed by an impressive 337.3K other Twitter accounts, 24 of which overlapped with the anti-vaccination accounts I followed. In this post Deep State Exposed@DeepStateExpose engages in the popular conspiracy-theorist pastime of searching for "glitches" which indicate a given member of the "global elite" is actually a reptilian shapeshifter caught in the act. DeepStateExposed@DeepStateExpose's Twitter bio also indicates a belief in New World Order narratives, Qanon conspiracy theories, and, of course, anti-vaccination. Deep State Exposed@DeepStateExpose represents one of the most extreme iterations of an anti-vaccination advocate's moral universe in which aliens, demons, and the deep state are all together involved in the systematic oppression and violation of the American people and humanity at large.



Deep State Exposed® @DeepStateExpose · Nov 22, 2019

Crazy Nancy glitch or proof of **reptilian** blood?!?!



From **Kab**



486



1.4K



2.8K



Figure 5. Image claiming to depict Nancy Pelosi potentially shapeshifting into her true reptilian alien form, shared by Deep State Exposed@DeepStateExpose, 22 Nov. 2019

All of this extraterrestrial speculation may initially seem quite “out there” both in terms of extremity of belief and in level of abstraction from anti-vaccination. However, though far-fetched and largely concerned with the far-away, alien New World Order narratives also necessarily involve a similar affective and embodied rhetoric to anti-vaccination beliefs. Vaccination is often depicted in this worldview as one of many ways that aliens violate the bodies of unwitting humans. Just like anti-vaccination rhetoric, the rhetoric of an alien New World Order narrative is preoccupied with bodily violation and moral emotions related to disgust and contagion. Barkun writes that “nearly half of (alien) abduction tales ... featured invasive, often painful physical examinations. A number of accounts included examinations of reproductive organs, and about half a dozen individuals reported sexual intercourse with alien beings” (Barkun 86). These stories of sexual violation by aliens support the New World Order

theory that the Illuminati or global elites seek to end the human species; one strategy for this species extermination is creating a race of alien “hybrids.” In this worldview, reptilian aliens have all sorts of strategies for terminating the human race, from putting sterilizing a in the water we drink, to spraying us with poisoned chemtrails, to supporting abortion. In this worldview, all of these world-domination strategies involve violation and the corruption of human bodily sanctity.

A belief in New World Order alien conspiracies intensifies fears of impurity in vaccinations. Not only is vaccination unnatural because it involves the injection of synthetic chemicals into the pure body, it is also unnatural because it involves the injection of evil and alien chemicals into the pure body. If an anti-vaccination advocate believes in the existence of a reptilian Illuminati, then they may view vaccination as a violation by an entity interested in either killing or literally “dehumanizing” the sacred human body. In this extreme belief framework, to receive a vaccination is to take the impurities of a nonhuman monster into the body; denying vaccination maintains the body's boundary against a force which threatens one's very humanity.

It is crucial to note here that not all anti-vaccination advocates believe in reptilian demons who slaughter infants for medicinal purposes. However, even those who have a completely alien-free outlook on anti-vaccination do so through a lens which creates a similar moral universe of jeopardized purity. An anti-vaccination advocate may not literally believe that a doctor is a lizard with a cosmic mission to harm children, but they still ascribe to doctors a similar, cabalistic ill-intent. Consider, for instance, consider Figure 6 in which Kristen H@kristenhinkson kindly helps me with my research by conducting an interesting survey of 25 Twitter users. The survey finds that most respondents out of Kristen h’s followers do believe in reptilian shapeshifters and locate their presence within a Christian cosmology. 28% of her respondents, however, call Reptilians a “CIA psyop.” In this view, while lizard-people might not be real, the CIA is *really* creating fake lizard people in order to achieve their own suspicious deep-state ends. The depravity and secrecy that the figure of the reptilian stands for is a potent force in the anti-vaccination moral universe whether or not a specific anti-vaccination advocate does or does not believe in aliens.

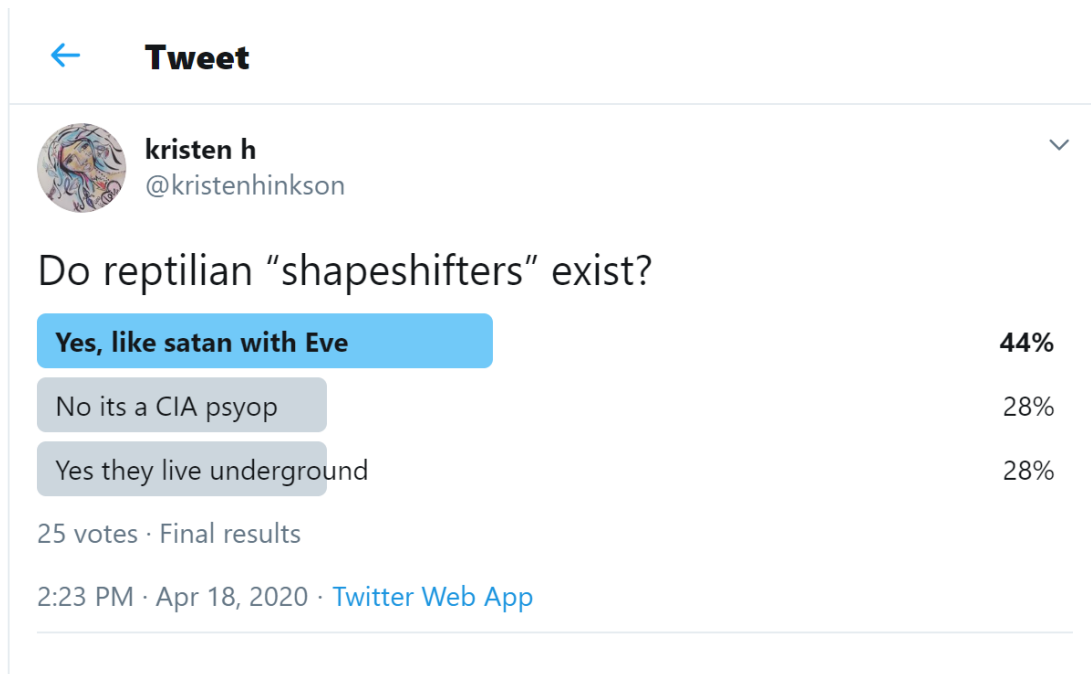


Figure 6. Image depicting a Twitter poll about reptilian conspiracy theory beliefs shared by Kristen h@kristenhinkson, 18 Apr. 2020

Many contemporary conspiracy theorists do not, in fact, express a specific belief that aliens are behind the wheel of current events. Much more common are examples of a Christian religious, right-wing, representation of a Manichean worldview. In this worldview, the ruling elites which secretly pull the strings of power are fully human, but deeply and diabolically evil. A common word for this group of ruling elites is “Globalists,” a term coined by the incredibly influential right-wing conspiracy theorist Alex Jones. A Twitter search for “vaccine reptilian” yields almost no results that are not parody, and “vaccine illuminati” just a few serious results. Searching for “vaccine elites” or “vaccine globalists,” however, invites a near-endless flood of results. This worldview often joins with a theme of Christian Manicheanism in which Globalists are accused of not only greed and secrecy but also of participating in a Satan-worshipping, child-eating death cult.

This viewpoint is expressed across a number of Twitter accounts, but one of the most dominant figures in the New World Order epistemology of Twitter is the 134.4K follower account Esoteric Exposal@EsotericExposal. According to the account’s bio, Esoteric Exposal is dedicated to

“Exposing the Occult & Satanic influence over our reality.” The bio also cautions that “the truth is worse than imagined.” If one buys what Esoteric Exposal@EsotericExposal is selling, then the truth is indeed grim; the account paints a picture of contemporary life infiltrated at every level by corrupt Satanist forces who communicate their intentions through coded symbols, gestures, double-speak, and architecture. Esoteric Exposal@EsotericExposal focuses on all manner of conspiracist topics, from Nostradamus to Pizzagate, framing them all as connected by the same “occult” agenda; vaccines, of course, are part of this agenda.

On April 25, 2020, Esoteric Exposal@EsotericExposal tweeted the following: “Vaccines are full of toxins and carcinogens, including fetal tissue. Members of the elite have admitted that vaccines are being used for depopulation.” In a New World Order framework, vaccines are seen as deadly “population control” used to intentionally weaken the bodies and minds of people, making them easier to manipulate and expediting a larger goal of global depopulation. The CDC, in this worldview, is engaged with the agenda of the “elites” and promotes vaccination specifically to do harm. The CDC and WHO, in a New World Order framework, are not merely ignorant to the dangers of vaccines; they are nefariously advancing an intentionally harmful practice and cloaking it as health. This tweet demonstrates the connections between the anti-vaccination paranoid epistemological universe and the affective moralities outlined in Chapter 1. In this worldview, the practices of abortion and vaccination are part of the same agenda of organized violation, death, illness, and weakness caused by corrupt exertions of biopower. This basic New World Order conspiratorial worldview is remarkably flexible. It may be totally secular. It may be joined with Christian Manicheanism or a belief in aliens. It may involve a little of both. Though an aversion to vaccination may begin with a simple affective embodied response, these responses swiftly become integrated into a spiritualized moral universe, in which not only must the body boundary be defended against the disgusting and the violating, but the human race as a whole must be defended against the disgusting and the violating.

Many anti-vaccination advocates combine their spiritual and conspiratorial beliefs with their politics. Specifically, many ascribe to a conservative Christianity which supports President Donald Trump. Remember, out of the 100 accounts sampled, seven expressed support for Trump, the only politician mentioned by name in any of the 100 Twitter biographies. Many

Trump supporters who are anti-vaxxers combine their enthusiasm for the president with a belief in the Qanon conspiracy theory. Qanon conspiracy hashtags, buzzwords, and beliefs are so unignorably prevalent in late 2010s and early 2020s anti-vaccination rhetoric that it is worth examining this conspiracy in greater detail.

Though anti-vaccination in general predates the Donald Trump presidency by centuries, contemporary anti-vaccination advocacy on Twitter is distinctly shaped by the Qanon conspiracy theory. Qanon is a conspiracy theory related to the “Pizza Gate” and “crisis actor” conspiracy theories popularized by figures like Alex Jones. In October of 2017, an internet user identified only as “Q” posted on the anonymous message board 4chan claiming to have insider information about the Trump White House and American “deep-state.” Throughout Trump’s first four years in office, Q posted their own version of “information” about news events as they unfolded, providing an alternative media narrative of the presidency. Qanon as a movement, however, quickly spiraled beyond the control of the original poster. Forum users adapted Q’s cryptic dispatches known as “Qdrops” as clues to extrapolate a larger narrative of belief about national politics. When Q stopped posting for a period of time in June of 2018, another user, “R” appeared who claimed to speak for Q and who insinuated that he was John F. Kennedy Jr: alive, hiding from the Deep State, living in New Jersey, and a huge fan of Donald Trump. This lead many Qanon believers to theorize that the original Q was, in fact, John F. Kennedy Jr.

There is no way of knowing whether Q or R were the same person, or if Q was ever a single person. There is also no way of knowing if Q intended to instigate a global conspiracy theory or was simply “trolling.” Many have speculated that the original posts were intended to be satire. However, whatever Q’s genesis, much of Qanon lore has been user generated, and the Qanon moral universe has expanded far beyond 4chan and 8chan to more mainstream social media, inspiring Facebook groups and Twitter threads. On Twitter, Qanon believers signal to each other using slogans and hashtags, most frequently #WWG1WGA, referencing Q’s oft-invoked motivational catchphrase “Where We Go One, We Go All.”

The epistemology of the Qanon conspiracy is sprawling and has extensive variations. Because Q himself only communicates in very brief and heavily coded dispatches, and has not posted at all

since early 2019, Qanon followers for the most part develop for themselves personalized or networked interpretations of the Qdrops and fill in the many gaps and obscurities with their own speculations and beliefs. Essentially, though, Qanon believers think that there exists within the American government a “deep state” battle which is invisible to most common people. This battle has heroes and villains.

On the side of the villains we have, among others, basically everyone in Hollywood, George Soros, Bill Gates, Mark Zuckerberg, Marina Abramovic, Hillary Clinton, Barrack Obama, and congressional democrats. Qanon believers think that this group is involved with elaborate organized child trafficking. Some also believe these pedophiles to also be involved with Satanic or cannibalistic rituals. This belief is connected to the pre-Qanon “Pizza Gate” conspiracy, which proposes that these child trafficking Satanist rings operate through a network of underground tunnels connected by Washington D.C. pizza restaurants.

On the side of the heroes we have Donald Trump, congressional Republicans, and, amazingly, Robert Mueller. Considering that Mueller lead a special council investigation into Donald Trump’s potential connections to Russian interference in the 2016 presidential election and was instrumental in the president’s subsequent impeachment, it is initially befuddling that Mueller would be on the side of the do-gooders in this moral universe. However, during the 2017 special council investigation, “Q” hinted that Mueller was *actually* working *for* Trump in investigating elite Globalist pedophiles. Q implied that the impeachment proceedings were actually nothing but a carefully calculated media ruse to obscure the reality of the deep-state drama.

Qanon conspiracy theorists believe that when “The Storm” or “The Great Awakening” occurs, Donald Trump, Robert Mueller, and perhaps also the actually-alive John F. Kennedy Jr will overthrow the evil deep state, putting Hilary Clinton, George Soros, and most of the population of California in jail for their crimes against the children, instituting a new regime of American politics. The good guys will need help with their noble coup; anticipating this event many Qanon believers are personally weaponized in readiness or have formed local militias.

After 8chan was shut down following the 2019 mosque shootings in Christchurch, New Zealand, Q and R both stopped posting. The Christchurch shooter published his manifesto to 8chan and included many references to both neo-Nazi white genocide conspiracy theories and some references to Qanon, specifically praising Donald Trump for fighting deep-state Globalists. This led to the website being removed from the internet. However, though 8chan itself is no more, Qanon supporters still congregate on the other anonymous message boards which swiftly rose up to replace it, namely 8kun and Endchan. In lieu of dispatches from Q himself, they look for hints of the impending Great Awakening in news and rumors, applying their conspiratorial narrative to current events and trusting nothing that the “mainstream media” tells them. For instance, in the early days of the COVID-19 pandemic, many Qanon conspiracy theorists proposed that reported COVID-19 deaths were actually secret deep-state arrests of huge numbers of pedophiles.

Understanding Qanon is important to understanding anti-vaccination rhetoric in 2020 because it explains how so many anti-vaccination advocates can fervently support President Donald Trump and believe in narratives of deep state conspiracy at the same time. One might expect a conspiracist worldview to lead to distrust of presidential authority, but this is clearly not the case for many anti-vaccination advocates on Twitter. Anti-vaccination advocates who also believe in Qanon think that Donald Trump and his cabinet actually represent a revolutionary challenge to evil conspiratorial forces. Though Qanon does not explicitly involve anti-vaccination, it leaves plenty of room for it. Many who believe in Qanon ascribe various insidious motivations to the liberal deep-state, including depopulation of America and chemical brainwashing techniques. To many Qanon believers, encouragement of vaccination is just another way that deep-state elites advance their agenda of creating a supplicant and sick American populace. Furthermore, the focus on childhood vaccination can be read as connected to the Globalist elite’s specific sadistic animosity towards children. Qanon offers its believers a chance to cast themselves in a uniquely heroic role; they are among a select few Americans who have the ability to protect the nation’s pure and sanctified children from unspeakable evils that insidiously permeate both culture and the body, contaminating everything from entertainment and popular culture to food and medicine.

Out of the 100 anti-vaccination accounts I followed on Twitter, only six used some form of hashtag associated with Qanon conspiracy theories in their biographies. However, many of these accounts were also followed by a large number of the other 100 accounts in the study, proving a general acceptance of and familiarity with Qanon in anti-vaccination Twitter communities. The following twitter-biographies of prominent anti-vaccination social media users, for example, demonstrate a clear affinity for Qanon:

Christina Schmidt@mission2heal: Followed by 4376 accounts, 61 of which I followed for this study.

Bio: TXmom2#vaxxed injured child/Diagnosed;StaticEncephalopathyManifestedByAutistic-LikeBehaviors.VaxCanCauseAutism! #Trump #DrainTheSwamp #PharmaOwnsCongress #MAGA.”

ETweetz@eTweetz: Followed by 4769 accounts, 60 of which I followed for this study.

Bio: “Devoted wife/MomX3 #Patriot #TRUMP2020 #ExVaxxer #TheGreatAwakening #VaccineRiskAware #Vaxxed #WWG1WGA #MAGA #Qanon #1A #2A vactivists.org.”

Candyce @ceestave: Followed by 8561, 56 of which I followed for this study.

Bio: “Activist for children, Mom of vaccine injured child. #Patriot. Standing 4 #FREEDOM #Trump2020 #CDCwhistleblower VaxTruth.org #MAGA #WWG1GA #QANON

All of these bios imply that there is an essential connection between the Qanon conspiracy theory and anti-vaccination beliefs. Specifically interesting is the hashtag #PharmaOwnsCongress. Qanon believers think that the evil faction of the global deep-state includes both pharmaceutical and tech executives *and* congressional democrats. Therefore, conspiracy theories about government plots can neatly combine with theories about vaccination contamination; believers can invest in narratives of deep-state child-poisoning evils while still fervently supporting Donald Trump. Some conspiracy theories encourage a distrust of all government power. Qanon

is fascinating, troubling, and frustrating because it at once rejects government authority while embracing specifically one demagogic authority figure.

Qanon plays well with many other conspiratorial worldviews; some devotees tend to believe more strongly that there are occult or Satanic forces at work while others take a more secular view of the situation. But certainly not all anti-vaccination advocates also believe in Qanon. Other anti-vaccination advocates, on the contrary, demonstrate little religious affiliation or interest in conservative politics. Rather, they oppose and mistrust any sort of government or medical power. This can be read as a less conservative and more libertarian politics of anti-vaccination.

Some, like Twitter user Kateri@Kateri60270481 label themselves specifically as libertarian in their biographies. Kateri@Kateri60270481 is followed by a total of 2770 other accounts, 44 of which are among the 100 I followed for this study. Kateri@Kateri60270481's Twitter biography reads: "Mom. Naturalist. Activist. Holistic health care. Never mandated medicine. Libertarian. Kratom. Cannabis. All of my freedoms all of the time." Others do not specifically use the word "Libertarian" but invoke similar ideologies of minimized government influence and an emphasis on personal responsibility for health and knowledge. For instance, consider the Twitter account 2ndfor1st@2ndfor1st, followed by 5892 total accounts, 63 of which I followed for in this study. 2ndfor1st@2ndfor1st's biography reads: "Defender of individual liberty and free markets, opposed to crony capitalism and legal plunder, advocate of non-violence. Not always PC." This secular-libertarian anti-vaccination worldview, stripped of some of the more fabulous trappings of Biblical aliens or child-eating congressmen, is helpful for understanding the basic framework underlying the narratives and beliefs which inform the conspiratorial epistemologies of anti-vaccination rhetoric.

For instance, consider Figure 7, a political cartoon drawn by self-described "libertarian" political cartoonist Ben Garrison. His work, popularized digitally by the alt-right, has known moments of occasional mainstream viral recognition both sincere and ironic. The above cartoon had its 15 minutes of fame in March of 2016 when it was tweeted by reality television personality and social media influencer Kylie Jenner, apparently seriously. The cartoon illustrates some of the

broader structures of a general anti-vaccination worldview, in which some sinister power controls the government, world economies, and media. This shady power works to integrate obscure but creepy ingredients in to processed foods and also makes sure to put hazardous formaldehyde, mercury, and aborted fetal matter in vaccinations.

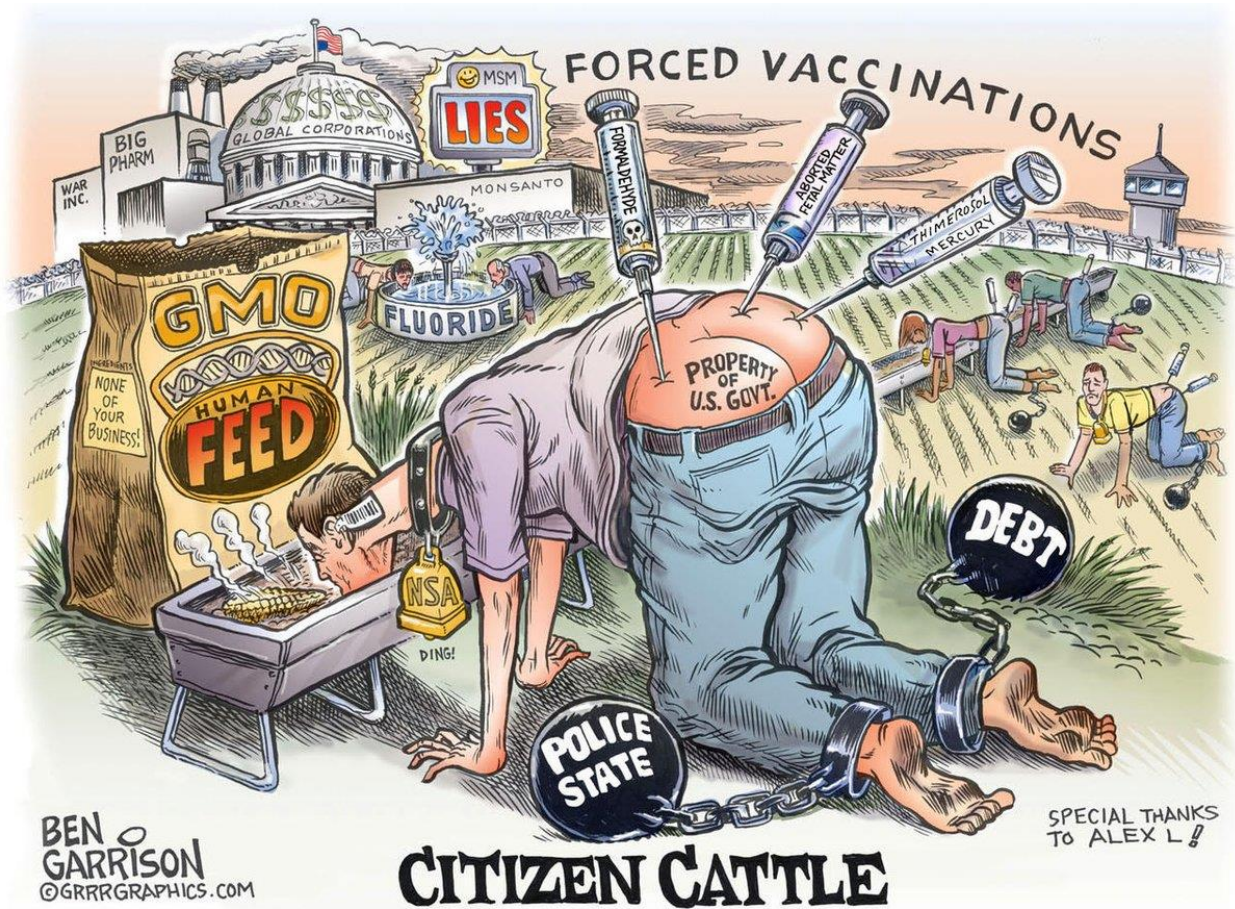


Figure 7. Ben Garrison's undated political cartoon "Citizen Cattle." The cartoon can be accessed on Garrison's website as of 28 May 2020: <https://grrrgraphics.com/citizen-cattle-owned-by-big-government>

This cartoon is useful for demonstrating the flexible narrative epistemology of anti-vaccination and how the practice of anti-vaccination can be adapted into so many different frameworks of religious, conspiratorial, and political belief. In this cartoon, vague entities like “Big Pharm.” “Global Corporations,” and “War Inc” are represented as involved with national political power. While these powers are represented as collectively involved, the precise force that joins them is obscured. The general framework of the Manichean and conspiratorial worldview is represented in a way that allows the individual viewer of the cartoon to plug in whatever specific conspiracy theory narrative most appeals to their own individual political, spiritual, or paranormal inclinations. No matter who it is exactly pulling the strings, it is clear these forces are involved with each other and conspiring towards a common goal which involves chemically poisoning the American body through a dual effort of GMOs and vaccination. The necessary obscurity of power in conspiratorial narratives, this emphasis on secret-keeping and political slight-of-hand, is part of what lends these narratives such flexibility. The above cartoon could easily be adapted to fit any number of conspiratorial narratives which are concerned with protection of the individual body boundary from contamination.

These conspiracy theories rely upon digitally facilitated webs of meaning making, authority, and verification. In these narratives, traditional systems which create “credible” information are actually controlled by some of the vilest people/creatures imaginable. Therefore, it is necessary for individual anti-vaccination advocates to create their own strategies of truth-making and epistemological authority. Out of the 100 anti-vaccination Twitter account biographies I studied, three included the word “facts,” 11 included the word “truth,” 11 included the word “Informed” and four made a reference to “research.” Anti-vaccination is not a denial that science and truth have value. It is a belief that traditional neoliberal medical and scientific institutions are influenced by evil and misleading forces. Many anti-vaccination advocates on Twitter, while still maintaining an essentially paranoid epistemology and worldview, espouse values of science, veracity, and critical thinking.

For instance, Plum Remson @Plumremson, a prolific anti-vaccination Twitter account with 2631 followers, describes themselves in their biography like this:

“I’m pro-science. I’m pro-government transparency & corporate accountability. I am pro-informed consent. I’m anti-ideology & pro knowledge development process.” Though Plum Remson claims to be “pro-science’ it is clear that they do not mean the sort of science that says vaccines are helpful and beneficial. Rather, that sort of “science” would fall under the classification of “ideology,” a force used to blind people to the sinister machinations of exploitive shadow government forces. It is clear here that what Plum Remson means by “science” and “ideology” is different than what a CDC employee would consider “science” and “ideology.” Certainly, antivaccination advocates believed that *they* are the ones with the correct information and superior epistemological reasoning skills.

Consider, for instance, Figure 8, a meme posted by Anti-vaccination advocate and speaker Lachlan Morgan on his oft-retweet account @FreedomHealth. Here we see some of the most frequent buzzwords of information literacy discourse. This meme demonstrates a couple of things. First, it points out that anti-vaccination advocates know that they are often called “conspiracy theorists;” they are aware that there exists a mainstream epistemology which their views are outside of. Calling anti-vaccination advocates conspiracy theorists does not serve to delegitimize them or unpopularize their views. They view term “conspiracy theorists” as a misguided label used by people that either do not have the facts or choose to ignore the facts. Of course, many people would consider anti-vaccination itself to originate from a similar lack of information. On both sides of the conversation, people get accused of being uninformed. This exposes that anti-vaccination is at its core an epistemological problem.

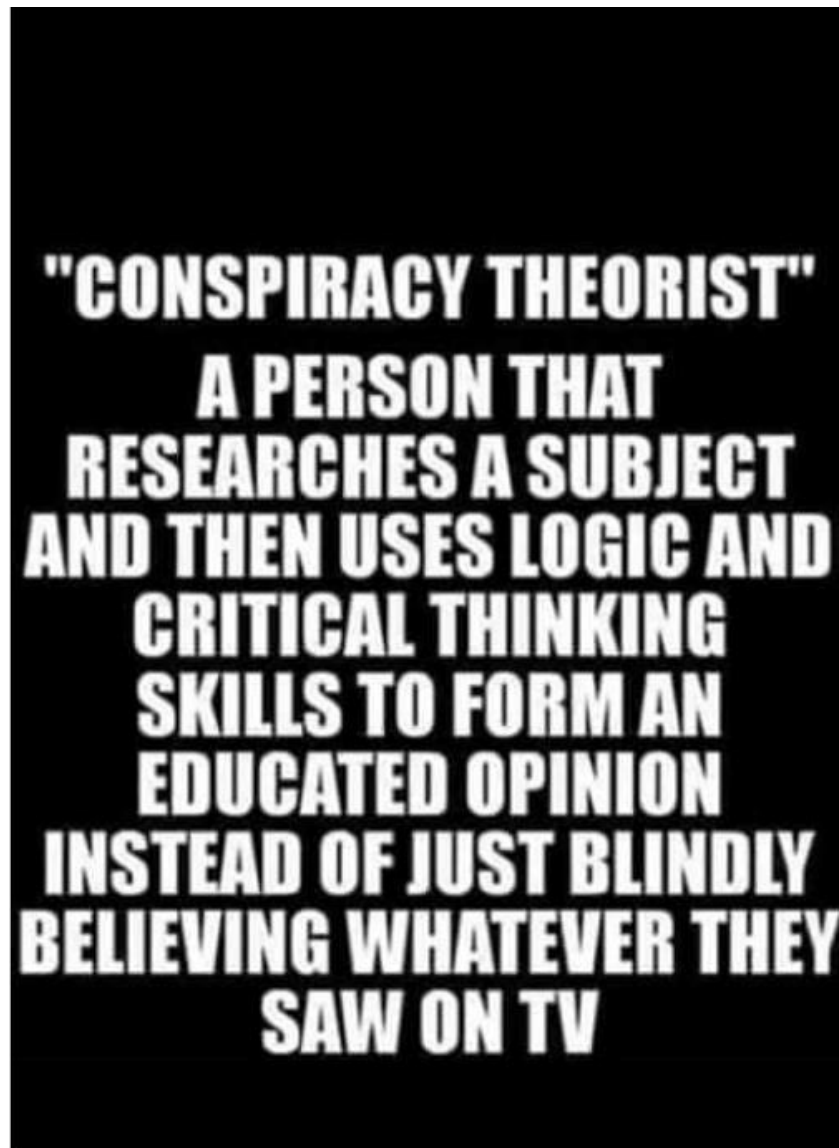


Figure 8. Meme offering a tongue-in-cheek definition of a ‘conspiracy theorist,’ shared by FreedomHealth@LaughlandMorgan, 6 Feb. 2020

Figure 8 demonstrates that anti-vaccination advocates do not view themselves as without “critical thinking” skills. Therefore, the argument that anti-vaccination advocates lack awareness of “critical thinking” or certain basic literacy skills is often incorrect. Anti-vaccination advocates do not view themselves as information illiterate. Rather, they see themselves as *more* logical, educated, and information literate than other people. They conduct “research” which includes reading anti-vaccination books, studies, and articles, of which there are many. Lots of the most

prominent anti-vaccination advocates are authors themselves, who sell or make available for free their “studies” online. Many have worked in the medical profession. Anti-vaccination advocates value the same basic knowledge making *skills* of research and critical thinking, but they apply these skills to their own epistemologies of conspiracy and alternative biopolitics. Anti-vaccination is not a problem of mere ignorance. It is a problem of newly forming alternative epistemologies facilitated by digital information technologies.

This calls into question the notion that “post-truth” ideologies could be combatted by teaching people “critical thinking.” It calls into question the notion that there is a method of reasoning that could be learned which would guide any person using it to trust traditional medical epistemologies. Anti-vaccination advocates do not view themselves as illogical or blinded by faith. They believe everyone else is illogical and blinded by faith and that, equipped with the correct “critical thinking” skills, with the right information about globalist plots, fetal cells, or alien influences, other people would come around to their side as well. To those who subscribe to epistemologies of conspiracy, theirs is the legitimate “research;” theirs is the thinking that is “critical.” The internet allows for the rapid spread and enforcement of such epistemologies. So where does that leave science and medicine? To understand this epistemological fracturing of belief, it is helpful to turn to Michel Foucault, whose work on the relationship between power, technology, and medicine may provide insight into this emerging biopolitical situation.

In *The Birth of the Clinic*, Michel Foucault traces the development of the professional medical institution to argue that the formalization of medicine also indicated a major epistemic shift as it developed in late 18th century Europe. He analyzes the epistemologies of the modern medical establishment and its connections with political and scientific institutions. It is helpful to turn to *The Birth of the Clinic* when engaging with the rhetoric of anti-science and anti-medicine, because practices like anti-vaccination represent a challenge to the epistemologies of medical and scientific power that Foucault describes. To understand the epistemological intricacies of anti-vaccination rhetoric, it is important to understand the institutionalized epistemologies which this worldview challenges and departs from.

In their analysis of and dispute with the anxieties surrounding “post-truth,” Farkas and Schou provide an alternate term, working from the writings of Ernesto Laclau and Chantal Mouffe: “Post-foundationalism” (21). They write:

This post-foundationalist approach...places contingency at the core of social reality and our experience of it. It does so to suggest that there is no ultimate or final ground from which the world can be deduced or instituted: there is no principle that determines how and in what ways relations and the worlds we inhabit take form. Post-foundationalism thus offers an alternative between the false choice of either foundationalism (the reduction of all relations to singular principles) or anti-foundationalism (the claim that no such principles can be established at all).

Post-foundationalism centers discourse as it constructs human experience and asserts that institutions and systems which come to be perceived as “foundations” of meta-narratives like truth or justice are the product of negotiations and agreements. In a post-foundationalist reading, then, what anti-vaccination represents is the breaking apart of foundational systems of scientific knowledge as an inevitable response to shifts in discourse systems. More optimistically, it implies the possibility for the reconstruction of new foundations and consensus.

Farkas and Schou describe how post-truth is often portrayed as a threat to democracy. Though they do not specifically engage with the medical institution, the same anxieties exist in relation to post-truth and science. Farkas and Schou write of neoliberal democracy, “far from being a grand and calibrated machinery that reorganizes society in a linear and calculated way, the on-going turn towards neoliberal policies has been marked by deep contradictions, failures, experiments and local dependencies” (155). The same could be said of the neoliberal medical institution. It is important to note that medical power has not been a spotlessly benevolent force throughout Western history; suspicions of doctors and medicine existed well before the internet, often due to real historical events related to exploitive or misguided implementations of medical power.

Foucault writes that “the hospital” acts as “an indispensable measure of protection” (42). This includes “protection of the healthy against disease” as well as “protection of the sick against the nostrums of the ignorant” and “protection of the sick from one another” (42). Today’s medical

establishment seeks similar goals, but such protection is becoming harder to create as trust of scientific medicine is jeopardized by the chaotic burgeoning epistemologies of the internet. Conspiratorial belief systems disturb the “political and scientific unity of the medical institution” by constructing an alternative “political and scientific unity” (Foucault 43).

Anti-vaccination advocates construct a digitally-facilitated alternative epistemology of medicine. If, as Foucault writes, the medical institution is also a political institution, then alternative political narratives, specifically New World Order narratives, collapse easily into alternative concepts of medicine. Foucault writes that “a medicine of epidemics could only exist if supplemented by a police” (25). The efforts of the CDC and WHO to curb the spread of anti-vaccination misinformation represent an attempt at “policing” the “epidemic” of anti-vaccination. These public health efforts strive to maintain the boundaries around traditional medical epistemologies. However, such traditional methods of protecting and immunizing people from illness require people’s trust in these institutions. Those who believe in an alternate medical epistemology cannot be engaged in this form of trust.

Anti-vaccination advocates who believe in conspiracy theories believe themselves besieged by evil and violating powers. In such a worldview, boundaries of bodily purity must be constantly monitored and enforced through guarding activities such as refusing to vaccinate or consume certain “chemicals.” These epistemologies of conspiracy inspire a new form of biopolitical self-identity. Anti-vaccination advocates are intensely aware of themselves as biopolitical entities; they realize their bodies are mediated by institutional influence and they believe these institutions to be deeply malevolent. In opposition to these forces, they position themselves as heroically resisting through the maintenance of bodily autonomy. Using digitally facilitated epistemologies of conspiracy theory, they create networks of digital knowledge making which frame anti-vaccination as not only a belief, but a cause to evangelize. Anti-vaccination advocates often view the world as imperiled, on the brink of total destruction or degeneration. They see themselves as the only people who know and advocate on behalf of a world-saving truth. Anti-vaccination offers people the opportunity to participate, through asserting biopolitical autonomy, in an activist cause of grave importance. As recent years have demonstrated, social

media platforms, Twitter specifically, lend themselves excellently to the circulation of activist messages and popularized activist identities.

CHAPTER 2: NETWORKED NARRATIVES AND ACTIVIST IDENTITY

In the moral and epistemological universe of the anti-vaccination advocate, the stakes are high. Innocent people, specifically children, are being poisoned by forces of pure evil which operate within the medical institution and the institution of democratic government. Someone has to do something; we all have to do something.

The twitter bio of Dr. Jim Meehan@DocMeehan sums up this worldview well: “A battle for your body, mind, and spirit is being waged. The way of the liars is easy but it leads to doom. Find the truth before it is too late.” Dr. Jim Meehan@DocMeehan is followed by 72 of the other 100 accounts I followed, out of his total 6659 followers.

Out of the accounts I followed, five self-identified as “activists” or expressed a filiation with “activism” in their Twitter biographies. In this extended moral, spiritual, and epistemological worldview, vaccination is one of the most egregious civil rights violations in human history, a crisis of public health as well as a crisis of liberty. Therefore, anti-vaccination is not only a belief but a *cause*. It is a message to be spread; as the last few decades have proven, the internet is great for spreading messages and for creating activist identities. In the moral universe of anti-vaccination advocates, they are heroes protesting a major human rights crisis. They create digital networks of belief propelled by performances of victimhood and outrage that allow for not only the advancement of their message but the participation in a moral crusade for truth and protection of the vulnerable.

Stylistically, anti-vaccination tweets create a tone of perpetual emergency. Anti-vaccination tweets have stylistic elements which communicate a sense of urgency or even desperation; capitalization abounds, and exclamation points appear liberally. Consider the following March 29 2020 Tweet by 2524 follower account [J.Cherry@JCherryWESU](#) “The WHO is actually THE GATES! The WHO is Bill Gates right hand and he heavily funds it. Proceed with CAUTION anything that comes out of WHO should be heavily QUESTIONED!!” The anti-vaccination activist lives in a world of ongoing crisis. Each proposed mandatory vaccination bill is an impending human rights disaster; each new piece of (mis)information about the dangers of

vaccines is breaking and urgent news. Consider following tweet, published by the official Twitter account of the anti-vaccination organization the National Vaccine Information Center, Barb Loe, NVIC@NVICLoeDown. This tweet exemplifies these stylistics of emergency: “COLORADO: URGENT ACTION ALERT! OPPOSE SB 156 Terminating Parental Rights to Refuse Vaccines for STDs. Take Action NOW!” The Tweet goes on to encourage viewers to “Login to NVIC Advocacy(dot)org” to sign a petition in opposing a bill which would allow teenagers to receive the HPV vaccine without parental consent. Tweets like these urge readers into action and activist engagement.

Concerns over the effect of digital technologies on information literacy often caution that objective, empirical, peer reviewed truths fall by the wayside in favor of clickable catchphrases and sponsored content online. The “attention economy” has become a popular buzzword among academics and journalists alike when discussing the contemporary digital environment. The idea of an “attention economy” only gets us so far, though; we must also account for what exactly “attention” is on social media. It is not about paying attention so much as it is about getting attention, even if that attention lasts only for an instant, only as long as it takes to click a “like” or “share” button.

Again, we have to turn to affect. In Chapter 1, we explored the role affect plays in shaping emotion and emotional moral beliefs. Now, we need to think about how affect influences social media rhetorics to create activist messages and group identity. Though digital rhetorics and affect studies are an emergent and ever-developing fields, scholars such Lisa Blackman, Zizi Papacharissi, and Taro Karppi have all contributed to the growing body of work which examines the role of affect in digital public rhetoric.

Tero Karppi brings us much of our present understanding of social media and affect. In his excellent book *Disconnect: Facebook's Affective Bonds* he explains that “on social media, it is affect that sets things into motion” (400). Affect is, for instance, the unplaceable draw that pulls us away from a project we need to be working on and towards a social media post. Affect involves the promise of participation as well as attention. Karppi reminds us that on Facebook “enjoyment and purpose are not individual feelings that come from our participation;

rather, they are collective feelings produced by Facebook as a platform” (935). He points out that Web 2.0, with its reliance on “buttons” and generating clicks, prioritizes the affective response (1063). Therefore, affect is writ into the very fabric of the internet itself, and internet discourses are often driven by affective propulsions. In digital spaces, affect is not only about clicking on the colorful buttons; it is also about the human need to participate in groups, experience emotional validation, and feel as though one is making a change in the world.

Thus, social media facilitates the creation of affective communities, groups of people banded together by the exchange of affectively clickable information. In Chapter 1, for instance, we considered how the affective, pre-emotional recoiling which leads to disgust spreads images of suffering and violation in anti-vaccination communities. As affect is translated into emotion and emotion is translated into morality and activism, Twitter and other social media platforms afford the possibility for new forms of collective experience, collective pain, collective fear, collective outrage, and collective action.

Social media therefore creates new possibilities and complications for what Lisa Blackman identifies as the rhetorical struggles of crowd psychology and influence of “the masses” According to Blackman, fear of mass rhetoric has been a social anxiety dating back to at least the 1800s (44). Blackman takes a look at the theoretical history of the “crowd,” describing how the concept of “swarms” or “mobs” has long been a topic of fascination for psychological and social scholars. She writes, “crowd behavior was seen to reveal the subject’s openness to the other, human and non-human, and the cultural fears, fantasies and desires which regulated this openness” (45). Today, this anxiety is represented in contemporary digital buzzwords like “hivemind” and “brigading” which imply a relinquishing of autonomy in the face of the affective allure of collective experience. In digital space, where physical boundaries collapse and humans come together on a disembodied platform, social media communities emerge as people attempt to “regulate” the disembodied openness of digital space by drawing and maintaining boundaries of community and belief. On Twitter specifically, these communities of belief are often propelled by an activist impetus.

In her book *Affective Publics: Sentiment, Technology, and Politics*, Zizi Papacharissi tackles these rhetorics of collective digital experience as they operate in activist circles on Twitter. Twitter has played a major role in shaping the politics of the 2010s. Papacharissi describes how this unique digital platform creates new possibilities for narratives of activism, and for a connection of activism with identity and personal narrative, writing specifically about the role Twitter played in the Occupy movement and Arab Spring activism. During these movements, activists used Twitter to spread messages that would not have been facilitated by traditional or “mainstream” media, thus creating a group solidarity strong enough to target systems of organized power in a way that would not have been possible before the internet. New communications technologies allow for alternative narrative networks to emerge which challenge traditional structures of power, public media, or epistemology. Anti-vaccination engages this same spirit of activism, aiming at liberation from what its advocates view as an oppressive biopower. Anti-vaccination advocates on Twitter view themselves as engaged in a battle not only for the purity of the body, but for freedom of information and freedom of choice.

Out of the 100 Twitter accounts I followed, eleven included the word “freedom” in their biographies, four included the word “rights” and five included the word “liberty.” Even the preferred term of anti-vaccination advocates for their own cause, “medical freedom” is a phrase that evokes a sense of individualistic values and speaks to a liberating activist spirit. This discourse of “freedom” and “rights” appeals to causes on both the political left and the political right, borrowing from activist discourses related to everything from the #MeToo movement to Donald Trump’s 2016 #MAGA campaign.

In the paranoid worldviews of anti-vaccination advocates, the biopolitical establishment, along with its associated pharmaceutical executives, cannibals, and lizards, wants to systematically strip all people of human rights and freedoms through biological influence over the body. Therefore, the anti-vaccination advocate must prioritize above all else the sanctity and freedom of the body, remaining constantly vigilant for anything that might infiltrate the body. Anti-vaccination advocates view themselves as bodily oppressed by forces of inhumanity and corruption. Their bodies, and the bodies of countless others, are the sites of biomedical civil rights injustice. Since the traditional medical and scientific establishment, in this worldview, is

interested in obscuring truth, it is up to anti-vaccination advocates to expose the truth through the sharing of their personal stories, creating activists networks of narrative exchange in which personal experiences are prioritized in truth-making.

According to Papacharissi, the primary way Twitter has changed civil rights activism is by creating a space where the personal and the political are joined. On Twitter, the self is understood through activist identity. Reactions and opinions about current events create communities of identity. Papacharissi writes that "tweets present socially informed reactions to news and current events, but they are also part of the everyday context of presenting the self" (96). In the context of anti-vaccination discourses, tweets reacting to news events are used to create an identity of alternative biopolitical subjecthood enacted through both everyday lifestyle choices and activist social media expressions

Papacharissi argues that performance and narrative are essential in the new personal publics of digital space, writing "Twitter affords a platform for potentially rich and variable public or private performances of the self through condensed statements that frequently manifest a converged response to sociocultural, economic, and political issues" (94). Tweets allow people to perform selfhood and identity through reaction to current events; networks and communities arise surrounding these identities. Anti-vaccination advocates use Twitter to create an identity of imperiled and violated victimhood; through the practice of anti-vaccination, they propose an alternative bio-subjectivity which returns power, freedom, and safety to the victimized individual. This personal identity is politicized through previously discussed moral emotions related to sanctity and the protection of children; anti-vaccination advocates on Twitter view themselves as champions against biopolitical injustice who, through digital activist empowerment, are engaged in a battle to protect the boundaries and purity not only of the human body, but of society as a whole. Therefore, they have an interest in making their content as affectively stimulating and viral as possible, through both the disgusting images discussed in Chapter 1 earlier and through narratives of pain and victimhood.

Narratives of pain are central to anti-vaccination activist identity. Papacharissi writes that activism on Twitter is characterized by "autobiographical performances, in particular, aimed at

sustaining self-storytelling reflexively employ performativity to traverse from private to public and back (98).” As Ma and Stahl found in their analysis of anti-vaccination Facebook groups, anti-vaccination communities tend to rely on shocking narratives of personal tragedy to spread their message (307). These stories elicit intense affect, which is then translated into powerful emotions like empathy and outrage, creating networks of activist filiation and propelling messages across the internet.

This foregrounding of narratives of pain is evident when looking at anti-vaccination discourses on Twitter. Take, for instance, perhaps the most popular anti-vaccination Twitter account LotusOak@LotusOak2, whose prevalent influence within the community has been recognized by other researchers as well, such as Fillippo Menczer and Pik-Mai Hui of Indiana University, who, writing for *The Conversation*, note that Twitter suspended the account in late 2018 only for it to re-emerge under a slightly revised name. LotusOak@LotusOak2 posts relentlessly, multiple times an hour, leading some to suspect the account is at least partially automated (Menczer and Hui). Frequently, these posts are links to videos or blogs which tell stories of children who have suffered “vaccine injuries.” These posts have headlines such as “13 Year Old Boy Got Paralyzed From Neck Down After [#Gardasil](#) " [#HPV](#) [#Vaccine](#),” “[#Wisconsin](#) Mother demands answers after her fit & healthy 12-yo daughter died hours after having the [# HPVvaccine](#),” and “A Premie Died After Receiving 8 [#Vaccine](#) Doses.” These narrative snapshots are accompanied respectively by affectively evocative images of an unconscious teenager in a hospital bed, a mother gazing at a portrait of a deceased daughter, and a grieving father kneeling before a tiny casket.

Sometimes, these posts link to local news stories or legitimate news websites. Just as frequently, these posts link back to specifically anti-vaccination blogs and websites. One website these Tweets frequently link back to is called “Stop Mandatory Vaccination” and has a tab at the top of its page labeled simply “stories.” By clicking on this tab, visitors to the website can scroll through a grueling litany of individual narratives of personal suffering, and also submit their own story of “Vaccine injury” to be featured on the blog. Soliciting stories from the audience is a common tactic of anti-vaccination rhetoric, as is exemplified by Figure 9, a call for personal narratives shared on Twitter by the California-based anti-vaccination group Circle of Mamas.

CALIFORNIA VIDEO PROJECT:

can you email me:

1. a one-sentence vaccine injury
summary of your child
2. a photo (that says a thousand words)

circleofmamas@gmail.com

circleofmamas.com

Figure 9. Image soliciting personal “vaccine injury” stories, posted by Circle of Mamas@circleofmamas, 30 May 2019

When it comes to parents who have lost children or seen their children grow ill, anti-vaccination practices can be read as a way to narrativize their grief, to ascribe purpose to their immense suffering by preventing the suffering of others. Initially, according to Sarah Ahmed, our reactions to pain are affective; we recoil, and we orient our bodies in such a way as to avoid the pain. Ahmed writes, “the recognition of a sensation as painful (from ‘it hurts’ to ‘it is bad’ to ‘move away’) also involves the reconstitution of bodily space, as the reorientation of the bodily relation to that which gets attributed as the cause of the pain” (24). But it is often not as simple as that; pain is complicated, especially emotional pain, especially a wound as deep as the loss of a child. With complex pain, bodily affective response is not enough to defend or avoid the pain

and the affect instead becomes emotion, morality, or belief. As we saw in Chapter 1, anti-vaccination activists on Twitter view the transgression of bodily purity as the source of their pain; anti-vaccination is an attempt to orient their bodies, and the bodies of other defenseless children, away from pain, defending the boundaries of the body against contamination and injury.

However, not all anti-vaccination advocates have lost children. For these anti-vaccination advocates, the pain of others becomes empathetically integrated into their worldview. Validating the pain of others becomes an essential component in deciding what is and is not true. Pain-sharing and subsequent empathetic gestures create community, truth, and a sense of purpose in anti-vaccination communities. Narratives of pain are rhetorically potent because the human affective response to such narrative creates connection and group bonds. Sarah Ahmed considers specifically the role of narrative in the affective response to pain. She considers both how we relate to our own narrativized memories pain and how we interact with narratives of others' pain. Ahmed writes, "While the experience of pain may be solitary, it is never private" (29). Anti-vaccination advocates make personal narratives of pain public and political, thus creating a networked experience of collective suffering and injustice which integrates into their larger political and moral narrative of victimhood.

Vulnerability is a key component of performing a personally-political activist self on Twitter. On Twitter, disclosing personal experiences of pain or oppression is often read as a display of strength which is then rewarded with validation within the activist community. The performed validation of pain narratives enforces the idea that telling stories of pain is empowering, especially if it means that sharing one's personal story could prevent others from suffering a similar pain in the future. Engagement with these narratives of pain brings anti-vaccination advocates together in a collective defensive cause.

We can see the performed validation of pain narratives frequently in the social dynamics of anti-vaccination activist communities. For instance, On January 26, 2020, Twitter user Cheyenne @wokemama publicly shares "Colson's Vaccine Injury Story" under the hashtag #believewomen. The story of her infant son's gastrointestinal illness after receiving the MMR

vaccine receives responses from other Twitter users which connect based on their own stories, and which praise Cheyenne@wokemama for sharing the story. For instance, Juliana Mango @mangojuliana writes, “Thank you for sharing your story and being honest about how you were provaxx. People need to hear your story! My baby was injured by Rotavirus vaccine as well. I’m glad he is on the road to healing!” In anti-vaccination communities, narratives of pain are praised because they expose the “truth” of vaccine injury which the medical and scientific establishment tries to hide. Validating these narratives of pain becomes a component of truth-making.

Sarah Ahmed writes that in spaces of activism, narratives of pain often serve not only to facilitate and validate the narrator’s visibility but also to rhetorically engage the reader or viewer, writing that in these kinds of narratives “what is promised is not so much the overcoming of the pain of others, but the empowerment of the reader” (21). In the example of the interaction between Cheyenne@wokemama and Juliana Mango@mangojuliana, the sharing of a narrative of pain is hailed as brave because it draws attention to their activist cause. Individual pain becomes “empowering” in its performance, a part of a larger moral crusade. Performing empathy towards the pain of others becomes “empowering” as well, offering those who are empathetic to the pain narrative an opportunity to feel like they are involved with something important, with something that will prevent suffering and make the world a better place. In the case of anti-vaccination advocates, making the world a better place necessitates defending the boundaries of the body from impurity and exposing the evil forces at work in the biomedical institution.

One interesting aspect of Cheyenne@wokemama’s January 26 post about her son’s MMR injury is the use of the hashtag #BelieveWomen. This hashtag is worth further examination because it originated not in anti-vaccination circles, but with the #MeToo movement. When the #MeToo movement went viral in 2018, women used hashtags like the #MeToo and #BelieveWomen to share narratives of sexual assault and harassment. #BelieveWomen was originally used to argue that women’s stories of sexual assault should be believed.

The hashtag #BelieveWomen is just one way that anti-vaccination advocates connect to contemporary digital feminist activism. Consider again Figure 3, for instance, which equated vaccination to rape as early as 2015. Anti-vaccination advocates borrow terms from both anti-

sexual assault and pro-choice feminist activism, focusing on consent or “informed consent” and “bodily autonomy.” Given the generally right-wing political affiliations of anti-vaccination Twitter, this might seem initially confusing. However, once again, we see anti-vaccination discourse on Twitter challenging our traditional concepts of left and right discourse values, combining a typically right-leaning or libertarian value of individual liberty with typically left values of women’s liberty specifically. Consider Figure 10, posted by the massively popular account VaccineTruths@Rectitude20, followed by 33.6K accounts, 63 of which were accounts I also followed for this study. In this tweet, VaccineTruths@Rectitude20 strategically lists some of the most popular hashtags in feminist Twitter discourses surrounding both sexual assault and abortion. VaccineTruths@Rectitude20 implies here that if one truly believes in bodily choice, then all vaccination should be a choice as well. In this Tweet, feminist rhetorics are used as a sort of rhetorical “gotcha” accusing left-leaning pro-vaccination Tweeters of hypocritically betraying the feminist values they claim to support. This argument creates a politically hybrid rhetoric of bio-subjecthood in which feminist biopolitical issues are framed as hypocritical distractions from a much larger civil rights violation. Anti-vaccination is fascinating in its ability to repurpose both typically left and typically right agendas and rhetorics to build a worldview that revolves around protection of the pure body.

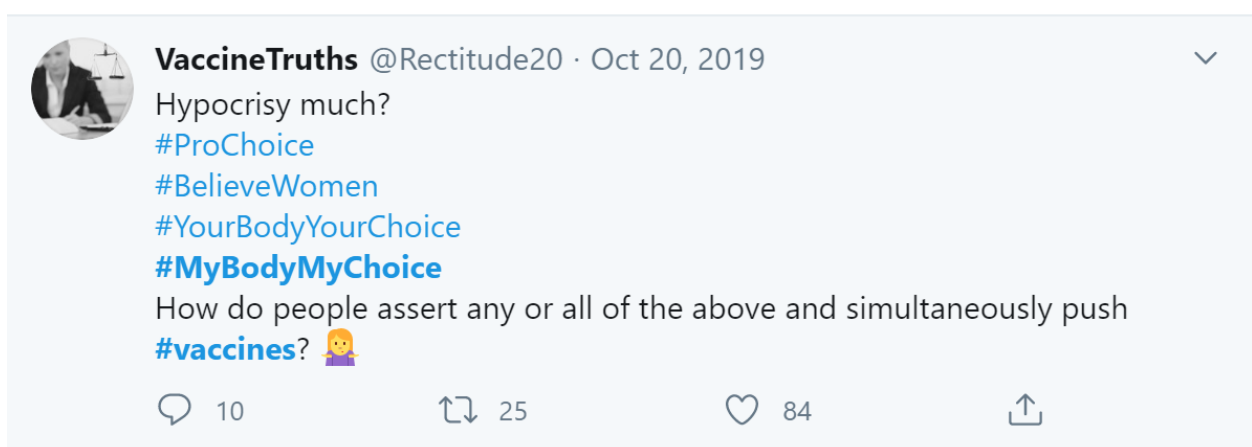


Figure 10. Image of a tweet comparing anti-vaccination beliefs to pro-choice beliefs, posted by VaccineTruths@Rectitude20, 20 Oct. 2019

Using the #MeToo associated hashtag #BelieveWomen both practically means that Tweets with these hashtags will be seen by more people who track #MeToo related hashtags, and rhetorically implies a filiation with anti-vaccination and feminism. By including hashtags like these, anti-vaccination advocates once again equate vaccination with sexual trauma, and anti-vaccination with a protection of women's bodily boundaries. This is related to anti-vaccination's overall focus on the sanctity of the female body and motherhood, which must be protected from forces of both biological and sexual impurity. In the moral universe of the anti-vaccination advocate, if one truly did believe all women, then the *real* threat to women's bodily rights would be revealed to be vaccination and the biomedical establishment. These hashtags elicit an emotional response of outrage at institutionalized medical powers that are framed as exploitive and violating. Sarah Ahmed writes, "the cultural politics of emotion is deeply bound up with gendered histories of imperialism and capitalism, in which violence against the bodies of subaltern women is both granted and taken for granted in the making of worlds" (170). The 2010s generated an entire Twitter discourse community around digital feminist activism which interrogated these gendered histories of embodied oppression, using the rhetorical forms of personalized narratives to encourage the destabilization of traditional power structures. By using #MeToo hashtags like #BelieveWomen, anti-vaccination advocates advance the argument that, like the institutionalized acceptance of sexual violence, vaccination is a practice of violating and exploiting women for the convenience and profit of oppressors in the political and medical institution.

Hashtags are one of the most powerful rhetorical tools on Twitter; they collect similarities of opinion and experience to create self-cataloguing epistemologies built of individual narratives. Jiyoun Suk et. al study the way that hashtag activism operates, finding that "the use of hashtags to show support for a cause on social media platforms—and other forms of collective online expression, can offer a public acknowledgment of trauma that provides a forum for open attention to claims, gestures toward common experiences, and affirms a belief in survivors" (5). By using #MeToo hashtags, anti-vaccination advocates engage their activist cause with the institutionalized trauma of women. Clark-Parsons points out that hashtags are essential for narrative collection and the creation of ideologies from these collected narratives. She writes, "A hashtag's aggregation of individual expressions under a collectively shared framework parallels the feminist practice of making the personal political" (8). By using hashtags associated with

#MeToo, the anti-vaccination movement frames stories of “vaccine injury” as part of women’s lived oppression, an alternative and suppressed worldview which becomes visible when one pays attention to personal testimonies and the similarities between them. Anti-vaccination advocates use hashtags to gather narratives and to present these narratives as examples of systematic violation.

For instance, consider the tweet represented in Figure 11, again posted by the ever-prolific LotusOak@LotusOak2. Here, we see a similar narrative-gathering to that exemplified by Figure 10. This time, the use of the #BelieveWomen hashtag targets women’s and mothers’ narratives specifically, rhetorically evoking Haidt’s maternal Care foundation and framing vaccine injury as a women’s issue which, like sexual assault, needs to be brought to unignorable public attention through the sharing of pain narratives. In a worldview in which global elites seek to silence the violating experiences of vaccination victims, personal narratives like these are crucial for revealing the “truth” of vaccination. This use of personal narrative to create truths about injustice and violation is also central to the #MeToo movement; by using the phrase #BelieveWomen, anti-vaccination tweets like this similarly prioritize personal “coming forward” in revealing the suppressed and oppressed truths of injustice and violation.



Figure 11. Image of the “Vaxxed Bus” soliciting “vaccine injury” stories, shared by LotusOak@LotusOak2, 11 May 2020

Like anti-vaccination activism, #MeToo feminism prioritizes the sharing of individual narratives and the formation of collective activist identity based around those narratives. Tarana Burke, the founder of #MeToo, has described the movement as “empowerment through empathy” (JustBe Inc). In their analysis of sharing and circulation of #Me too Tweets, Suk et al. identify empathy as an important component of hashtag activism as well, and write that hashtags can engender “the creation of connection through mutual sharing of trauma,” arguing empathetic reaction to narratives of pain propel hashtags into becoming movements (2). Clark-Parsons identifies this growth of networked empathetic narrative activism as part of “the politics of visibility,” which is “a form of activism focused on shifting how we represent, interpret, and respond to social injustices through public performances” (3). Clark-Parsons argues that by speaking out about

personal stories, women use social media to create a larger collective narrative with political sway. In the feminism of the #MeToo movement, a belief in personal testimony is prioritized above all else. Empathetically taking seriously narratives of personal pain is made into a political cause.

By repurposing #MeToo hashtags, anti-vaccination advocates equate disbelief in a “vaccine injury” narrative to disbelief of a sexual assault victim. They portray a worldview in which institutionalized evil seeks to silence the testimonies of traumatized and violated mothers. In this worldview, belief and empathetic connection is necessary to propel an activist movement which protects the body boundary from violation and institutionalized injustice. By repurposing the rhetoric of #MeToo feminism, anti-vaccination advocates reinforce their moral universe in which the truth is being obscured by shady powers, and the most accurate form of information actually comes from the experience of “victims” or “survivors.”

Suk et al. point out that “One of the characteristics of affective publics is that they lead to connective action but not necessarily to collective action” (5). Creating a viral message through networked stories is easy; affecting change to oppressive structures of power is much more difficult. Many perceive the problem with hashtag activism to be bridging the gap between the personal and the political. Critics worry that this sort of “activism,” called “slacktivism” by its most adamant detractors, has no practical application to changing violent or exploitive power structures. A lot of criticism of the #MeToo movement specifically revolves around questions like: Does performative visibility and narrative awareness raising actually have any chance of fostering practical political change? Does sharing narratives on Twitter have the potential to impact the power structures which perpetuate sexual violence?

However, anti-vaccination hashtag activism does not need to confront these doubts and questions, and perhaps therein lies some of its appeal. There is certainly an element of political activism involved in these campaigns- calling for an end to mandatory school vaccinations, for instance, and jabs at “Big Pharma.” However, ultimately, the control over whether or not to someone vaccinates is in the hands of the individual or the family. Anti-vaccination rhetoric depicts a world in which institutionalized medicine need not be relied upon to protect one’s

family; rather, the power of protection, of boundary maintenance and defense, is in the hands of the individual. In this worldview, to renounce vaccination is the ultimate empowerment, giving violated victims autonomy over their own bodies and ownership over their own perception of truth.

The relationship between paranoid conspiracy theory epistemologies and mediated identities of victimhood predates the internet. To fully understand how the figure of “the victim” fits into the anti-vaccination worldview, it is useful, once again, to turn to aliens.

Though it is important to note that aliens do not technically figure into each and every conspiratorial or Manichean worldview held by anti-vaccination advocates, the influence of alien narratives on the epistemologies of conspiracy theories is undeniable. As Jodi Dean points out, the figure of the alien may stand in for conspiratorial thinking and postmodern discourses of information legitimacy writ large (51). The question of whether or not an audience believes the abductee’s lived experience poses challenges to traditional forms of information verification and invites readers into a system of belief and knowledge making based on personal testimonies. Many, if not most, anti-vaccination advocates believe in a worldview which exhibits the same anxieties about science, power, secrets, and biological violation. Specifically relevant to activist identities of anti-vaccination is the phenomenon of alien-abductee narratives and the rhetorically constructed identity of the alien abductee. Like the “vaccine injured” victim, the alien abductee experiences violation of the body by scary and obscure biopolitical powers.

In tracing the history of alien abduction narratives in America, Dean identifies the growth of television and mass media as a significant factor in the development of the familiar elements of alien abduction narratives. She writes that alien abduction victims perform “a televisual identity” “sustained by its relationship to a television-viewing audience” (103). The audience’s ability to empathize with and believe the victim begins to constitute beliefs about truth and authority of information. The figure of the “vaccine injured” person, or the parent to a vaccine injured child, resembles this “televised” identity. Indeed, the first wave of contemporary anti-vaccination anxiety was spread largely by televised news media and talk show appearances by anti-vaccination celebrities like Jenni McCarthy. These televised performances, like performances of alien abduction narratives, or for that matter #MeToo performances of sexual

assault narratives, used narratives of pain to rhetorically invite audiences to reconsider previously held beliefs about truth-making, bodily autonomy, and global power structures.

The figure of the televisual victim is similar to the figure of the digital victim. However, the digital victim's relationship to their audience is intensified and individualized through opportunities for networked connection. The televised victim speaks to an anonymous and faceless audience; the digital victim may receive "likes," "shares," or written affirmations from specific, identifiable members of their networked audience. Dean observes that in digital alien abduction communities, "Abduction is interactive, like an oral history of group testimonials continually updated through new posting" (134). This "oral history of group testimony" is similar as well to the ever-updating catalogue of sexual assault narratives gathered by the #MeToo movement. Digital activist communities around vaccination injury are interactive and constantly self-updating as well; anti-vaccination epistemology is constituted of a "history of group testimonial" rather than reliant on information from traditionally verifiable sources of medical knowledge.

Though constructed extremely differently than medical epistemologies, anti-vaccination epistemologies borrow from the vocabulary of legitimate sciences and bodies of knowledge. In her exploration of the language used in alien-abduction groups, Jodi Dean notes the adoption of "therapy language" which ascribes to such discourses an aura of "juridical-political credibility" (57). Dean points out that this language is characterized by a discourse of "recovery" and "performed gestures of group healing" (57). This performativity of pain, recovery, and healing is common, again, to both the #MeToo movement and to anti-vaccination communities on Twitter. By affiliating itself with a more popularly legitimized activism of narrative sharing like #MeToo, anti-vaccination positions itself as a valid form of "recovery" discourse in which victims of extreme violation "heal" through the exchange and validation of their traumatic stories. This narrativized group healing is portrayed as empowering. Anti-vaccination advocates use Twitter to create an empowered activist identity which appealingly positions them as martyred victims to immense injustice in their moral worldviews. Twitter facilitates the ability to share their stories of victimhood that would otherwise be oppressively "silenced" by the evil powers which control both medicine and mainstream media.

Dean writes that “abductees are not passive victims. They are the authors of their stories” (103). The vaccine-injured person, like the abductee, is a victim of body violation by clandestine outer forces, manipulation by sinister powers for incompressible sciences. The vaccine victim, like the alien-abduction victim, feels helpless until a platform of like-minded individuals allows them to share their story. Their experience of powerlessness and violation is transformed into empowerment and activism as the victim is allowed to share their story. Their experience of private pain may become part of a larger rhetorical movement; it may be transfigured into something that could connect them to others, exposing truths through the commonality of their experiences and inspiring a change in the world that would protect other people from suffering the same violations.

This group-bonding and truth-making through the performed sharing of trauma is common to many digital networks and communities. Here, it been demonstrated as shared by specifically the #MeToo movement, the anti-vaccination movement, and alien abduction communities. That such a wide array of movements use such similar language and strategies tells us something about the shifting nature of argument, belief, and epistemology in digital spaces. Networked rhetorics thrive off of the affirmation of group connections through the performance of pain-narratives; these expressions join activists together in group identity and cause. They also join activists together in truth; their personal testimonies coalesce together form an overarching narrative based on experienced realities which challenge the narratives advanced by mainstream medicine.

Anti-vaccination rhetoric on Twitter, then, is propelled by the affirmation of group connections based on pain narratives, narratives of the pain that comes from having the boundaries of body and humanity violated by “outside” forces. These rhetorics are propelled by a sense of Manichean urgency. The boundary of “natural” bodily purity must be guarded against forces of disgusting evil. Again, anti-vaccination rhetoric demonstrates an astounding ability to merge activism traditionally associated with the left and right, combining a typically “right” focus on individual rights and autonomy from large government with a typically “left” focus on the

protection of vulnerable groups, specifically women and children, from exploitive institutional power.

Thus, the internet's capacity for generating challenges to existing epistemologies and power structures knows no inherent political affiliation. Hashtag activism can manifest in the political left, the political right, and new hybrid political affiliations created by emergent digital identities. Certainly, one of the most influential examples of hashtag activism in the 2010s was the #MeToo movement. Another one of the most influential examples of examples of hashtag activism in the 2010s was the election of Donald Trump. Trump was able to propel himself from reality television host to viable presidential candidate largely through the use of his social media presence on Twitter, which gained a cult following throughout his campaign. Trump's supporters cheered the president on with an activist ardency, building affective networks through the use of hashtags like #MAGA and #Patriot. Much like an anti-vaccination advocate, Trump created a narrative of an America under threat of impurity by outside influence, specifically illegal immigration and globalizing forces of international capital. Because his rhetoric spoke to the perceived "truths" of his audience's worldview, Trump was able to bypass many traditional forms of political legitimization and professionalism, disrupting pre-digital ideas about who could and could not become President of the United States.

Anti-vaccination advocates use the rhetoric of narrativized activism to build a "truth" out of gathered personal testimonies. In the Manichean worldview, in which sinister forces conspire to conceal their agendas behind a mask of academic epistemologies and institutionalized medicine, the only way to truth is through the individual experiences of victims. The relationship between activist rhetoric and anti-science or conspiracy theory rhetoric did not start with the internet, but the internet did allow for these rhetorics to combine their epistemological underpinnings in novel and potent ways. The fundamental distrust of institutionalized power inherit to the rhetoric of conspiracy theory is further intensified when combined with the potential for community building around activist identities and the validation of narrative performance. The internet broadens the possibility for new configurations of meaning-making, creating the potential for the formation of groups like anti-vaccination advocates who borrow from the digital rhetoric of other activist causes to create communities which suspend themselves in perpetual outrage.

In the moral and epistemological universe of the anti-vaccination advocate, horrifying threats surround them on all sides. However, through the digital ability to share and affirm narratives, they become empowered. They become champions of both truth and justice joined in a moral cause to protect the most vulnerable members of society from violation and contamination. They become voices of freedom, protection, and compassion. Their individual story of fear, pain, and powerlessness becomes validated by belief and representative of an urgent civil rights issue. Anti-vaccination has tremendous rhetorical potency not only because it is convincing and plays upon moral emotions and paranoid epistemologies, but because it offers people the opportunity to embody a role of empowered activism, to transcend helpless victimhood and instead evangelize a message of urgent importance, to inhabit an biopolitical identity which defends humanity through the defense of the body, to advance truth in a deceived world.

CONCLUSION: ALTERNATIVE IMMUNITY IN AN ERA OF PANDEMIC

“It’s sad,” Tweeted the now-suspended Twitter user Educating Liberals@Education4libs, to their audience of 496.1K followers on April 15, 2020. “The people who are worried about their children dying from the Coronavirus are the same ones who are happy injecting their kids & tiny infants with mercury, formaldehyde, MSG, ABORTED FETAL CELLS, animal DNA, glyphosate, & a bunch of other toxic shit. Wake up.”

At the time of this research’s composition, the COVID-19 virus is redefining international biopolitics. The still-developing COVID-19 crisis has enveloped social media discussion. Questions of immunity, scientific literacy, and defense against both biological threats and misinformation have taken on a somber urgency.

Anti-vaccination advocates on Twitter demonstrate a wide array of reactions, theories, and opinions about the virus COVID-19, its seriousness, and its implications. One commonly advanced opinion is that the seasonal flu vaccine makes people less resilient to the coronavirus, with some arguing that most human immune systems would have been able to fight off the virus entirely if not for the flu vaccine. By May of 2020, conspiracy theories surrounding the pandemic became common and popularized by mass media, for instance, the believe that 5G is actually to be blamed for the symptoms attributed to the novel coronavirus, or that the virus is a manmade “plandemic” created in a lab in Wuhan by the global elites. Some believe Bill Gates to be specifically involved in this process, creating and circulating the vaccine in order to control the populace and use the subsequent vaccination as a way to microchip people, infect people, or fill his Globalist mass-death depopulation quotas. Many deny that the effects of COVID-19 are as serious as “the media” portrays, for instance the account VaccineTruths@Rectitude20 Tweeted on March 27, 2020: “How do we know if what we’re being told about hospitals being overrun in New York due to the coronavirus is true? Is there anyone near the hospitals that Governor Cuomo is talking about who can investigate?”

The complicated relationships between science, medicine, and politics, often operating in the background, are now unignorable. We are all called to confront the challenges to medical epistemologies posed by digital technologies and to try to conceptualize a new idea of immunity in a world that will not be quite the same after this. Though science denialism is often presented as a problem with ignorance of the masses, the COVID-19 crisis illustrates that this is not the case. Denial of scientific predictions and warnings have occurred at the highest levels of power. Perhaps most notably by US President Donald Trump.

On March 28, 2014, Donald J. Trump@RealDonaldTrump Tweeted, “Healthy young child goes to doctors, gets pumped with massive shot of many vaccines, doesn’t feel good and changes- AUTISM. Many such cases!” This tweet gained him the support of several anti-vaccination advocates during his 2016 presidential run, as well as his appearance on conspiracy theorist Alex Jones’ talk show. Though as president he officially endorsed MMR vaccines after measles outbreaks in 2019, lots of anti-vaccination advocates still see President Trump as their ally, especially as he underplays the seriousness of the COVID-19 crisis and gives formalized attention to the claims of pseudoscience. Trump called COVID-19 a liberal hoax at his campaign rallies as late as February of 2020 (Cook and Choi). As I demonstrated in Chapter 2, Anti-vaccination rhetoric has always been popular among Qanon conspiracy theorists who believe in shadowy deep-state forces plotting to defeat and impeach the president. The beginnings of the COVID-19 crisis allowed for certain members of these groups to neatly fold the narrative of anti-vaccination into a narrative of Qanon flavored conspiracy. Many currently believe that the novel coronavirus was a hoax, created to mar Trump's otherwise laudable record of Presidential deeds right before election time. Others currently believe that deaths attributed to COVID-19 are actually evidence that massive swaths of the population are being secretly arrested for their compliance in Globalist pedophile trafficking and child-sacrifice rituals

With paranoid epistemologies so thoroughly entrenched at all levels of global power, with moral and scientific consensus so thoroughly destabilized, it is clear that anti-vaccination advocates are *not* an example of an “anti-public.” In fact, it is clear that there is not, and *cannot be*, any such thing as an “anti-public discourse” under current digital media conditions.

Anti-vaccination advocates engage importantly with public discourse. They appeal to commonly held moralities related to purity, sanctity, and compassion. They integrate alternative scientific epistemologies into formalized medical discourse, creating their own digitally facilitated practices of knowledge making. Anti-vaccination discourse does not represent a passing “post-truth” fad or a fringe belief. It represents an emergent practice of bio-subjectivity in an era of destabilized consensus, destabilized power, and reconfiguring scientific and political epistemologies. Anti-vaccination is not going away. As pandemic conditions intensify public awareness of bio-subjectivity and create an overall climate of biological, political, and economic precarity, anti-vaccination and its universe of moral and scientific belief offer people an empowered activist subjectivity in which they may feel in control of their own biological destinies.

Ed Cohen writes that “modern presumptions about personhood and collectivity saturate both immunity and defense. Each offers a different strategy for accommodating the frictions and tensions (if not outright contradictions) between the singular and the multiple, the one and the many, that characterize modern political formations” (3). The internet destabilizes pre-digital notions of “personhood and collectivity” and gives rise, therefore, to changing notions of immunology and defense. Foucault writes that “it is understandable...that medicine should have had such importance in the constitution the sciences of man - an importance that is not only methodological, but ontological, in that it concerns man’s being as an object of positive knowledge” (197). Foucault also writes that “the Formation of clinical medicine is merely one of the more visible witnesses to these changes in the fundamental structures of experience (199).” As the internet engenders a reformed “fundamental structure of experience,” the methodological and ontological institutions implicit in the study and institution of medicine are confused and more easily questioned. The internet will forever change the relationship of political power to medical epistemologies and immunological practices. Digital bio-subjectivity is informed by not only traditional institutions of medical power but emerging and as yet undetermined epistemologies of conspiracy theory and narrativized activism.

Farkas and Schou write about a hypothetical “fake news vaccine” (167). They point out the panicked discourses surrounding “fake news” or “post-truth” issues often borrowed from the

language of immunology, framing the issue of informational consensus with terms like “survival, crisis, antidotes, disease, cures and poison” (167). Farkas and Schou write that this “highly medicalized vocabulary” is used to describe “post-truth” in terms of “its supposedly viral nature and ability to spread or infect.” (151) That is, post-truth anxieties are framed as anxieties about boundary transgression, in which epistemological boundaries around what constitutes legitimacy are compared to the body boundary through the metaphor of infection, rendering post-truth as a “biological threat” (68). Farkas and Schou connect the medicalized language of a “fake news crisis” to the language of supposed solutions for that crisis, which they relate to discourses of pandemic containment or inoculation through a “fake news vaccine” which equips people with the information literacy skills necessary to rely on verifiable epistemologies.

The relationship between the language of immunology and the language of “fake news” anxieties is complicated even further when we consider “fake-news” *about* immunology. In Farkas and Schou’s reading of “post-truth” anxieties, anti-vaccination is clearly exemplary of a digitally facilitated “fake news” based post-truth community. In anxieties reacting to anti-vaccination, the metaphor of misinformation as a biological threat is literalized. The protective boundary surrounding medical epistemologies *becomes* the body boundary which protects the body and the state from outside contamination via immunization. However, attempts to defend traditional medical epistemologies from anti-science appear to be thus far immunologically unsuccessful. Accuracy of information is not enough; a concern with the protection of society from illness is not enough. Anti-vaccination advocates believe that their epistemologies *are* accurate and legitimate. Anti-vaccination advocates believe that *they* are successfully protecting society from impurity and contamination.

COVID-19 even further intensifies these conflicts of immunology and democracy. As scientists work to create a vaccine for the illness, they must also worry about what will happen if a large percentage of the population refuses to take it.

Choosing to vaccinate one's individual body for the collective good implies a political affinity for others. So does staying inside to prevent the spread of a rapidly communicable deadly virus. Mark Davis, Paul Flowers, and Davina Lohm call these collectively minded public-health

behaviors “networked immunity” components of a practice which “ emphasizes mutually beneficial coexistence where the idea of not-self, and its more pejorative association ‘foreign’, becomes less tenable” (135). However, Davis et. al argue that contemporary American immunological ideology is straying dangerously from the frame of networked immunity. In their analysis of public health rhetoric of influenza outbreaks, they that argue that immunological rhetoric in the contemporary United States is beginning to shift from a notion of collective responsibility to personal responsibility. They write that “discourse on immunity exercises a notional ‘choice’, that is, immunity as an arena of personalized action, with troubling implications for the ‘public’ of public health” (133). Davis et. al discuss how the rhetoric of influenza outbreak place “blame” for contagion on personal attributes and choices, such as hand washing and drinking vitamin C. In anti-vaccination rhetoric, there is an eerie similarity to this immunology of individual choice. Anti-vaccination, with its emphasis on healthy eating and “natural” supplements mirrors what Davis et. all call a “do-it-yourself immunity-boosting” coupled with an “apparent moral judgement...on those who failed to adequately care for their immunity” (140). In the digital media discourses which characterize the COVID-19 outbreak, we see similar conflicts between networked immunity and individualized immunity play out. Some argue for an extended lockdown until a vaccine or cure is found coupled with government economic programs responses to create stability while the disease is treated. These approaches recall a networked immunity in that they ask people to prioritize the defense of collective well-being. However, others argue that individual freedoms of travel and decision-making are more important to ensure than the protection of the vulnerable. The contradictions at the heart of neoliberal democratic values are realized as immunological consensus breaks down.

It is undeniable that Americans, and people around the world, have differing views of the reality of the COVID-19 crisis as of the spring of 2020. At all levels of class, education, and power, some prioritize social distancing and relief efforts to stop the spread of the virus. Others advocate a “herd immunity” which views infection as inevitable, even necessary, and efforts at containment through social distancing to be an infringement upon individual rights. The alternative immunity of anti-vaccination advocates, which places responsibility to protect the purity of the body on the individual, is complicated by the presence of this deadly disease which can be transmitted by asymptomatic carriers. In a world with such a diversity of beliefs about

science, morality, medicine, and power, will democracies be able to create any consensus about effective strategies for COVID-19 defense? What might these strategies of immunological defense look like in the midst of the breakdown of pre-digital methods of information legitimization and consensus-making?

Ed Cohen writes that “the ‘immune’ organism becomes a biopolitical life-form through and through” (25). Anti-vaccination advocates are acutely aware of their subjectivity as a “biopolitical lifeform” under the powers of democratic immunology. They view this biopolitical subjectivity as contaminated, violating, factually wrong, and morally bankrupt. Therefore, they construct an alternative immunity bolstered by an entire moral, spiritual, and epistemological universe. Anti-vaccination advocates destabilize traditional methods of immunization and scientific truth-making in democratic society; they are just one example of the breakdown of traditional neoliberal epistemologies and politics in the age of digital revolution. By opting out of medical immunological practices, anti-vaccination destabilizes the collective immunological defense upon which democracy has traditionally relied. The spiritualized moral universe of Twitter anti-vaccination discourses creates an alternative biopower complete with its own epistemologies and legitimizations of truth-making. As COVID-19 makes us *all* more aware of our bio-subjectivities, digital anti-vaccination rhetoric points to emergent new biopolitical practices, challenges, and potentials in a world characterized by both the transformations of digital communications technologies and the urgency of pandemic.

APPENDIX: METHODOLOGY

I made an entirely new Twitter account for the purposes of this research. I have never been particularly active on Twitter, but I did not want any algorithmic leftovers from my occasional Twitter usage of the past to impact what I saw as I explored the world of anti-vaccination.

I followed 100 anti-vaccination Twitter accounts between September of 2019 and April of 2020. Initially, I searched for terms like “vaccination” “anti-vaccination” or “anti-vaxx.” After studying the community for a period of time, however, I began to pick up on their commonly used hashtags and self-identifiers and could more specifically identify anti-vaccination accounts. I looked specifically for the presence of the hashtags: #MedicalFreedom, #BodilyAutonomy, #InformedConsent #Vaxxed #CDCWhistleBlower #VaccineChoice and #NoMandates.

I also looked for accounts with a high follower-count and which posted frequently. Anti-vaccination twitter is expansive. I wanted to make sure I was looking at influential and popular accounts. I did not follow any accounts with less than 1000 followers.

I also made sure to follow, and prioritize evidence from, the *most* influential contributors to the community. I consider these contributors to be anti-vaccination Twitter accounts with upwards of 10,000 followers. Many of these accounts were connected to official anti-vaccination organizations or anti-vaccination authors. Out of the 100 accounts I followed, below are the accounts with over 10,000 followers:

Inside Vaccines@InsideVaccines,
Lotus Oak@LotusOak2,
Dru@Drutangathome
David Icke@davidicke
Children’s Health Defense@ChildrensHD
The HighWire@HighWireTalk
Dr.SherryTenpenny@BusyDr.T
Dr. Rick Kirschner@Dr.KND

Barb Loe NVIC@NVIC Loe Down
PhysiciansForInfo@picphysicians
Toby Rogers PhD,MPP@Utobian
James Lyons-Weiler@lifebiomedguru
tonibark@doctorsensation
VaccineTruths@Rectitude20
VaxxedIIThePeople'sTruth@vaxxed2
Jordan Sather@Jordan_Sather
Greenbot@gr33nbot
Deep State Exposed@DeepStateExpose
Esoteric Exposal@EsotericExposal

From the accounts I followed, I sometimes ran searches. Twitter allows users to search for terms which appear specifically in the accounts they follow. To search for indications of disgust, for example, I ran a search for terms like “disgust” and “disgusting” out of the accounts I followed for more information about anti-vaccination’s relationship to disgust. In my evidence gathering, I tried to prioritize images. Many scholars have noted that the anti-vaccination community is highly image motivated, and I agree. I prioritized images which had evidence of high circulation or which were posted by accounts with some of the highest follower counts.

Originally, I hoped to survey anti-vaccination Twitter users as well. The purpose of this survey was mainly to provide information about the beliefs of anti-vaccination advocates on Twitter. It asked questions about religious and spiritual beliefs, beliefs in aliens, political beliefs, and beliefs in conspiracy theories. I did publish a survey, on March 10 2020. The same day, massive closures and regulations swept the country as the COVID-19 outbreak began in earnest. The next day it officially reached pandemic status. In the ensuing chaos and social media frenzy, no one replied to my survey.

In lieu of this survey, I drew as much evidence about beliefs as I could through self-description in user biographies. Many anti-vaccination advocates on Twitter identify religious, political, or conspiracy theory beliefs in their biographies and I have drawn extensively from these signals of

self-identification to represent prevalent beliefs in the anti-vaccination Twitter communities. Again, I have used images to enhance the evidence I found by looking at self-identification.

I gathered evidence in the form of images and Tweets originally posted from 2013-2020. This time frame demonstrates that digital anti-vaccination advocacy networks on twitter have perpetuated a self-maintaining consistency for nearly a decade. These networks are organized and they have staying power.

Digital rhetoric is often perceived as ephemeral, and in some ways it certainly is. The ability of digital space to erase information is astounding and it *does* make digital epistemologies more difficult to trace than traditional epistemologies. I encountered this phenomenon many times during this research. In attempting to revisit a previously cited tweet, image, or even entire Twitter account, I would often find that the artifact seemed to have vanished. However, some of the “stickiest” images or Tweets on the internet can perpetuate themselves for years. The internet remembers as much as it forgets. While massive amounts of information are forgotten by algorithms and eventually subsumed by new information, other information sticks around for a long time, even information that people have intentionally tried to get rid of.

For instance, consider Figure 3, one of my oldest originally published in 2015. This image was so controversial that it prompted the government of Australia to change policies about medical misinformation and force the original organization that posted the image to change its name from the Australian Vaccination Network to the Australian Vaccination Skeptics Network. Today, the image no longer exists on the Australian Vaccination Skeptics Network’s official website or Facebook page. However, it is still all over the internet. I saw it reposted on multiple accounts and it has inspired an incredibly common line of anti-vaccination argument which compares vaccination to rape. Though not incredibly recent, it has become a touchstone of anti-vaccination’s image-driven and emotional epistemology.

Using this combination of older and more recent evidence, I identified consistencies and commonalities in the networked ideologies that inform contemporary anti-vaccination rhetoric on Twitter.

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