From Smallpox to Covid-19: Social and Legal Responses to Vaccinations and Vaccine Mandates

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Articles

FROM SMALLPOX TO COVID-19: SOCIAL AND LEGAL RESPONSES TO VACCINATIONS AND VACCINE MANDATES

Janet L. Dolgin*

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Vaccine hesitancy and rejection have shaped the debate about COVID-19 vaccinations.¹ That debate has revealed sharp disagreements between people ready to accept the new vaccines and those who oppose vaccination against COVID-19. The public has also responded to other vaccines, developed against other diseases in earlier times, with hesitation and rejection.² Rarely, however, has the debate about vaccinations in the United States been as politicized and divisive as the debate about COVID-19 vaccines in the 2020s.³

¹ See discussions infra Sections II.C, IV.B.
³ The following publications suggest the intensity of anti-vaccination responses to COVID-19 vaccines: Devora Newman et al., Believing in Nothing and Believing in Everything: The Underlying Cognitive Paradox of Anti-COVID-19 Vaccine Attitudes, 189 PERSONALITY & INDIV. DIFFS., Apr. 2022, at 2 (study broadly concluding that individuals who are distrustful of the COVID-19 vaccine tend not to believe mainstream facts as often as those who did support the vaccine); Richard J. Baron & Yul D. Ejnes, Physicians Spreading Misinformation on Social Media—Do Right and Wrong Answers Still Exist in Medicine, 387 N. ENG. J. MED. 1, 2 (2022) (describing potential disciplinary actions for doctors who disseminate misinformation); and
Commentators have offered explanations for vaccine hesitancy and rejection. These include concern about the safety of vaccines, distrust of physicians, a penchant for alternative medicine with a focus on "natural" responses to illness, and distress that state policies about vaccination interfere with civil rights. Each explanation carries weight. None, alone, can explain the intense politicization of vaccine hesitancy about and rejection of COVID-19 vaccinations.

This Article offers another explanation. As is true of those noted above, it is partial. But it is worth exploring in the effort to comprehend the vaccine debate and, more generally, the sociocultural divide that seems, increasingly, to separate people in the United States into ideological camps that communicate poorly with each other. The explanation offered here focuses on a correlation between sociocultural shifts and public responses to vaccination. It offers insight into the politicization and anger that have characterized debate about public health measures aimed at controlling COVID-19, including social distancing, mask-wearing, and vaccination.

This Article focuses on sociocultural shifts from the mid-twentieth century through the present. These shifts offer a lens through which to examine underlying forces that have encouraged many people, most recently in response to COVID-19 vaccines, to adamantly reject vaccinations for themselves and their children. That response has seemed incomprehensible to other people, who view COVID-19 vaccinations as offering a choice between health and illness, sometimes even between life and death. The gap frames the politicization of vaccine responses in the contemporary United States.

Kristina Fiore, Misinformation Docs See Also Their Political Stars Rise, MEDPAGE TODAY (May 19, 2022), https://www.medpagetoday.com/special-reports/exclusives/98810 (describing the mission and genesis of groups of doctors opposing mandates).

4 Reiss & Weithorn, supra note 2, at 937.
5 See infra Sections II.C and IV.B.
7 Again, it is essential to stress that any illumination that this Article offers regarding vaccine hesitancy and resistance needs to be supplemented by a variety of alternative explanations.
8 Such gaps can also be found in other nations. See, e.g., Talha Burki, COVID-19 Vaccine Mandates in Europe, 22 LANCET INFECT. DIS. 27, 27–28 (2022) (describing the status of and debate over vaccine mandates in Europe); John Ruwitch, Why Vaccine Hesitancy Persists in China – And What They’re Doing About It, NPR (Dec. 9, 2022, 8:25 AM),
Part II of this Article surveys public responses to vaccination during the last century and a half. Part III then reviews relevant sociocultural shifts during the twentieth century and correlates those shifts with changing attitudes toward vaccinations. Part IV examines a second set of sociocultural shifts brought about with the advent of the Digital Age that have appeared during the first decades of the twenty-first century. The Part then reviews a connection between those changes and the politicization of COVID-19 and of COVID-19 vaccinations. This Article concludes that vaccine acceptance is more likely during periods of comparative stability and less likely during times of uncertainty and rapid sociocultural change. Moreover, shifts in respect for authority over time correlate with shifts in public responses to vaccination. More specifically, vaccine hesitancy and rejection increase as respect for experts and for traditional moral authorities diminishes.

II. PUBLIC RESPONSES TO VACCINATIONS OVER TIME

This Part reviews vaccine development and public responses to vaccines, including vaccine mandates, in the United States since the late nineteenth century. Vaccine rejection occurred initially in response to the development of a vaccine against smallpox. Section A focuses on responses to that vaccine in the early twentieth century. Then, Section B considers a set of legal cases, mostly decided in the twentieth century,10 that found parents neglectful for failing to vaccinate school children as mandated by state laws. It further reviews courts' responses to the elimination of religious exemptions to vaccines required for school attendance. Finally, Section C summarizes public attitudes and legal responses to COVID-19 vaccines.


9 The smallpox vaccine was developed almost two and a half centuries ago. Elena Conis, Vaccination Resistance in Historical Perspective, ORG. OF AM. HISTORIANS, https://www.oah.org/tah/issues/2015/august/vaccination-resistance/ (last visited Apr. 13, 2023).

10 A couple of the cases in this set were decided in the current century. See infra Section II.B.
A. Smallpox Vaccinations: Challenging Vaccine Mandates

Edward Jenner, a British doctor, developed the vaccine against smallpox. Jenner conducted his work on the smallpox vaccine during the late eighteenth century. He grounded some of that work on well-known presumptions. For instance, physicians at the time knew that those who milked cows often developed cowpox but, in subsequent years, did not develop smallpox. In short, people widely presumed that infection with cowpox, a far milder condition than smallpox, protected those infected from smallpox. Nevertheless, many credit Jenner for his unrelenting work on developing a smallpox vaccine and for his commitment to the success of that work. One medical scholar described Jenner’s efforts as the first “scientific attempt to control an infectious disease by the deliberate use of vaccination.”

This Section describes two legal cases occasioned by smallpox vaccine mandates in the United States; each of which proved foundational to later challenges to vaccine mandates. The U.S. Supreme Court decided the first, Jacobson v. Massachusetts, in 1905 and the second, Zucht v. King, in 1922.

Jacobson involved a challenge to a smallpox-vaccine mandate in Cambridge, Massachusetts. At the time, vaccination against smallpox had been available for over a century. The Cambridge Board of Health,

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11 See Stefan Riedel, Edward Jenner and the History of Smallpox and Vaccination, 18 BAYLOR U. MED. CTR. PROC. 21, 24 (2005). Before Jenner’s work developing a vaccine against smallpox, people in Africa, China, and India relied on inoculations—a process which involved the introduction into the body of matter from a ripe smallpox pustule—to limit the risk of getting smallpox. Id. at 22.
12 Jenner’s interest in developing the vaccine began during his apprenticeship with surgeon George Harwicke and the beginning of his independent work in 1796. See id. at 23–24.
13 Id. at 24–25.
14 Id. at 21.
15 See Riedel, supra note 11, at 24 (“[Jenner] received worldwide recognition and many honors . . . ”). The ethics of Jenner’s experiments, however, are questionable. He experimented on an eight-year-old boy, the son of his gardener. This approach is considered unethical by today’s research ethics. See id.
16 Id. at 25.
17 197 U.S. 11 (1905).
acting pursuant to state authorization, mandated smallpox vaccination for residents twenty-one and older. The state law read:

The Revised Laws of that Commonwealth . . . provide that "the board of health of a city or town, if, in its opinion, it is necessary for the public health or safety shall require and enforce the vaccination and revaccination of all the inhabitants thereof and shall provide them with the means of free vaccination. Whoever, being over twenty-one years of age and not under guardianship, refuses or neglects to comply with such requirement shall forfeit five dollars."22

Henning Jacobson, a Lutheran minister originally from Sweden, challenged the law.23 He had refused to be vaccinated against smallpox, despite the town's mandate.24 After Jacobson refused to be vaccinated, the city issued a criminal complaint against him for his defiance of the mandate.25 A state criminal court found him guilty and ordered him to pay five dollars,26 the statutory fine.27 Instead, Jacobson brought a civil case, contending that the law allowing the city to require smallpox vaccination was

21 Jacobson, 197 U.S. at 12.
22 Id. The statute provided an exception for "children who present a certificate, signed by a registered physician that they are unfit subjects for vaccination." Id.
24 Jacobson, 197 U.S. at 13. The Cambridge, Massachusetts, Board of Health, acting pursuant to the state law, provided in its regulation adopted in February 1902 that, Whereas, smallpox has been prevalent to some extent in the city of Cambridge and still continues to increase; and whereas, it is necessary for the speedy extermination of the disease, that all persons not protected by vaccination should be vaccinated; and whereas, in the opinion of the board, the public health and safety require the vaccination or revaccination of all the inhabitants of Cambridge; be it ordered, that all the inhabitants of the city who have not been successfully vaccinated since March 1, 1897, be vaccinated or revaccinated.
Id. at 12–13.
25 Id. at 13.
26 The purchasing power of five dollars in 1905 is equivalent to $170.93 in 2023. Value of $5 from 1905 to 2023, INFLATION CALC., https://www.in2013dollars.com/us/inflation/1905?amount=5 (last visited Apr. 2, 2023) (input "5" in the "Amount" field; then input "1905" in the "Start year" field; and input "2023" in the "End year" field; then select "Calculate").
27 The state’s highest court affirmed the trial court decision. Jacobson, 197 U.S. at 14.
an unconstitutional infringement of his Fourteenth Amendment rights.\textsuperscript{28} He argued that the vaccine mandate "invaded" his liberty by "subject[ing] him to [a] fine or imprisonment for neglecting or refusing to submit to vaccination . . . ."\textsuperscript{29} Jacobson asserted that the law was "hostile to the inherent right of every freeman to care for his own body and health in such way as to him seems best" and that the state vaccine mandate was "nothing short of an assault upon his person."\textsuperscript{30}

Responding to claims offered by Jacobson that the vaccine mandate was harmful and unreasonable, the Court looked to "common belief . . . and high medical authority," concluding that the state legislature was cognizant of vaccine resistance and had reasonably selected among conflicting perspectives.\textsuperscript{31} Holding against Jacobson, the Court declared:

We are unwilling to hold it to be an element in the liberty secured by the Constitution of the United States that one person, or a minority of persons, residing in any community and enjoying the benefits of its local government, should have the power thus to dominate the majority when supported in their action by the authority of the State. While this court should guard with firmness every right appertaining to life, liberty or property as secured to the individual by the Supreme Law of the Land, it is of the last importance that it should not invade the domain of local authority except when it is plainly necessary to do so in order to enforce that law. The safety and the health of the people of Massachusetts are, in the first instance, for that Commonwealth to guard and protect.\textsuperscript{32}

The Court decided \textit{Zucht v. King}\textsuperscript{33} seventeen years later. \textit{Zucht} also involved a challenge to a state vaccine mandate.\textsuperscript{34} In \textit{Zucht}, the Court supported the authority of a state to mandate the vaccination of children

\begin{itemize}
\item \textsuperscript{28} See \textit{id.} at 13–14 ("[E]specially of the clauses of that amendment providing that no State shall make or enforce any law abridging the privileges or immunities of citizens of the United States, nor deprive any person of life, liberty or property without due process of law, nor deny to any person within its jurisdiction the equal protection of the laws.").
\item \textsuperscript{29} \textit{id.} at 26.
\item \textsuperscript{30} \textit{id.}
\item \textsuperscript{31} \textit{Jacobson}, 197 U.S. at 26, 30. From a contemporary perspective, the Court’s readiness to ground its decision on faith in the state legislature and the people’s common sense is one of the most remarkable dimensions of the \textit{Jacobson} Court’s deliberations.
\item \textsuperscript{32} \textit{id.} at 38.
\item \textsuperscript{33} 260 U.S. 174 (1922).
\item \textsuperscript{34} \textit{id.} at 175.
\end{itemize}
entering school. A schoolchild, Rosalyn Zucht (through her next of friend), brought the case. Public and private schools in San Antonio, Texas, had excluded Rosalyn because she refused to be vaccinated despite a city ordinance requiring vaccination. In a three-paragraph opinion, Justice Brandeis, writing for the Court, noted that the police power granted states the authority to mandate vaccination. The Court explained:

[A] State may, consistently with the Federal Constitution, delegate to a municipality authority to determine under what conditions health regulations shall become operative. . . . And still others had settled that the municipality may vest in its officials broad discretion in matters affecting the application and enforcement of a health law. . . . A long line of decisions by this Court had also settled that in the exercise of the police power reasonable classification may be freely applied and that regulation is not violative of the equal protection clause merely because it is not all-embracing.

The Court opined that a state may delegate to a municipality the authority to mandate vaccination and may give the municipality authority to ascertain the conditions that provided for mandated vaccinations. Moreover, the Court explained that in exercising the police power, states may rely on "reasonable classification" without violating the Equal Protection Clause of the Fourteenth Amendment. The Court expressly referred to Jacobson to support its conclusions in Zucht.

Lower courts in the United States, entertaining subsequent cases about mandatory vaccination laws for school children, have often relied on Jacobson and Zucht. Whether that pattern will continue is unclear.

35 See id. at 176 (providing that the issue was settled law under Jacobson and other cases).
36 Id. at 174–75.
37 Zucht, 260 U.S. at 175.
38 Id. at 176.
39 Id. at 176–77 (citing Laurel Hill Cemetery v. San Francisco, 216 U.S. 358 (1910); Lieberman v. Van De Carr, 199 U.S. 552 (1905)).
40 Id. at 176.
41 Zucht, 260 U.S. at 176–77 (citing Adams v. Milwaukee, 228 U.S. 573 (1913); Miller v. Wilson, 236 U.S. 373, 384 (1915)).
42 Id. at 176.
43 See, e.g., Whitlow v. California, 203 F. Supp. 3d 1079, 1083–84 (S.D. Cal. 2016) ("For more than 100 years, the United States Supreme Court has upheld the right of the States to enact and enforce laws requiring citizens to be vaccinated."). Courts have also invoked Prince v. Massachusetts, a 1944 case in which the U.S. Supreme Court found religious beliefs did not
The Supreme Court has not overruled either case, but there are hints that, in some future case, it may question aspects of the decision in *Jacobson*.44

**B. School Vaccine Mandates and “Neglect”**

This Section focuses on cases involving state laws that require vaccinations for children. In 1855, Massachusetts became the first state to issue a vaccine mandate for children entering schools.45 In the nineteenth century, there was some opposition to mandatory vaccination laws, but most people accepted a requirement to be vaccinated against smallpox without challenge, especially in the face of smallpox flare-ups within the community.46

That pattern continued through the first half of the twentieth century. Section II.B.1 focuses on cases involving challenges to laws mandating vaccinations for school children.47 Then, Section II.B.2 reviews legal responses to challenges brought against the repeal of religious exemptions to vaccine mandates for school children. In the face of the re-appearance of diseases against which vaccines had proven effective, courts concluded that constitutional law did not require religious exemptions.48

In the decades following *Zucht*, citizens challenged state laws mandating that children be vaccinated, and states brought neglect petitions against parents who failed to have their children vaccinated.49 In 2017,
researchers Efthimios Parasidis and Douglas Opel identified nine cases of this sort. The cases raise a variety of complicated questions.

First, many of the cases conflated school-attendance laws with vaccine mandates to hold the parents neglectful for failure to ensure that their children attended school. Yet, the parents in these cases were often ready and willing to have their children attend school but not to have them vaccinated. Thus, in effect, courts found parents neglectful for failing to vaccinate their children, though, technically, the law found them neglectful (sometimes resulting in loss of custody or even loss of parental rights) because their children’s vaccination status prohibited them from attending school.

Second, in some of the cases, the courts referred to “medical neglect.” That categorization raises questions in these cases insofar as medical neglect relates to the condition of a particular child, while...
vaccine mandates focus on communal protection, even as they preclude or limit disease for individuals.\textsuperscript{58}

Third, the cases suggest that the socio-economic status of the parents may be relevant to the law’s readiness to bring neglect petitions against them.\textsuperscript{59} This Section focuses on one of the cases involving neglect petitions against parents of unvaccinated children and then examines a couple of cases that challenge the repeal of religious exemptions to mandatory vaccination laws.

1. Neglect Petitions and Refusal to Vaccinate Children

In the first set of cases involving neglect petitions, most of the parents wanted their children to attend school but did not want them to be vaccinated—a requirement for school attendance.\textsuperscript{60} A 1940 Pennsylvania case involving a nine-year-old boy illustrates this set of cases.\textsuperscript{61} The parents of Eugene Marsh did not want their child vaccinated against smallpox despite a mandatory vaccination law for school children.\textsuperscript{62} As a result, the school district “attendance officer” denied the boy admission to public school.\textsuperscript{63} During the fall of 1938, Eugene Marsh “presented himself almost daily for admission [to school], but each time he was rejected and sent home” because he could not offer proof of vaccination or of having had smallpox.\textsuperscript{64} At a subsequent hearing, Eugene’s father acknowledged that his son had neither enrolled in a private school nor did he have a parental act of omission—it is not clear whether it is salient to [Child Protective Services] or meets the legal threshold for neglect.”).

\textsuperscript{58} See, e.g., Cultural Perspectives on Vaccination, \textsc{Hist. of Vaccines}, \url{https://historyofvaccines.org/vaccines-101/ethical-issues-and-vaccines/cultural-perspectives-vaccination/#Source-1} (last visited Apr. 4, 2023) (discussing the tension between individual liberties and public health).

\textsuperscript{59} E.g., \textit{In re Ang.P}, 71 A.3d 713, 716 (D.C. 2013) (describing the neglect statute in this case as providing an exception to the definition of neglect). Exploration of this issue is beyond the scope of the present article. It will, however, be the subject of future research.

\textsuperscript{60} E.g., Cude v. State, 377 S.W.2d 816, 821 (Ark. 1964) (affirming authority of state probate court to find the Cude children neglected because their parents had not had them vaccinated, thus precluding their attendance at school); \textit{In re Christine M.}, 595 N.Y.S.2d 606, 618 (1992) (finding a father neglectful for failing to have young child vaccinated during measles outbreak, but, because the court found that the outbreak had receded, the court decided not to mandate that the girl be vaccinated).


\textsuperscript{62} \textit{Id.} See also Parasidis & Opel, supra note 49, at 69 (summarizing the facts of the case, in particular, that Marsh’s parent refused to vaccinate him).

\textsuperscript{63} In October 1938, the school district’s “attendance officer” filed a petition citing John Marsh, Eugene’s father, for failure to send his son to school. \textit{In re Marsh}, 14 A.2d at 369.

\textsuperscript{64} \textit{Id.}
"properly qualified private tutor."\textsuperscript{65} Those options would have required significant financial resources—resources unavailable to most families.\textsuperscript{66}

Remarkably, in light of the potentially dire consequences for the child and his family, the court asserted that the issue before it was "a narrow one."\textsuperscript{67} The question, the court explained, was "simply whether John Marsh's son, Eugene, [was] a 'delinquent' and a 'neglected' child" pursuant to state law\textsuperscript{68}—not because the father had failed to have the boy vaccinated but because the boy's unvaccinated status precluded his attending school.\textsuperscript{69} Despite that narrowed focus, the court's analysis revolved around the child's vaccination status rather than his failure to attend school.\textsuperscript{70}

That said, the court did not hone in on any potential harm to Eugene Marsh himself that might have resulted from his unvaccinated status.\textsuperscript{71} The \textit{Marsh} court invoked \textit{Jacobson v. Massachusetts} to support its conclusion that the vaccine against smallpox was not harmful.\textsuperscript{72} That conclusion conflicted with the conclusion that had been reached by Eugene Marsh's father.\textsuperscript{73} The court explained that, in \textit{Jacobson}, "those of the medical profession who attach little or no value to vaccination as a means of

\textsuperscript{65} A "properly qualified tutor" was one example of an alternative for adequate and systematic instruction acceptable to the court. \textit{Id.} at 371.

\textsuperscript{66} The case does not provide information about the family's socio-economic status. Other documents suggest that the family was financially stable until John Marsh was imprisoned for failing to have his son vaccinated and the boy's mother lost her job when her place of employment closed; at that time, the family apparently sought financial relief from the county. CHIROPRAXTORS' CONSTITUTIONAL RIGHTS COMMITTEE, THE HORRORS OF VACCINATION AND INOCULATION AT WORK 136-38 (1941). The Chiropractors' Constitutional Rights Committee authored this book to support and increase the level of opposition to vaccination. \textit{Id.} at 1. The accuracy of its account of the Marsh family is unclear.

\textsuperscript{67} In re \textit{Marsh}, 14 A.2d at 370. The court below found Eugene to be a "neglected child." \textit{Id.} at 369. He was placed under the "care and custody" of the county's child welfare service and was to be assigned a supervisory probation officer. \textit{Id.} The court asked, as well, whether the boy was 'delinquent' and concluded that he was not since the decision that he not receive the smallpox vaccine was his father's, not his. \textit{Id.} at 370.

\textsuperscript{68} \textit{Id.}

\textsuperscript{69} See \textit{id.} (distinguishing the absent delinquent child from the absent neglected child).

\textsuperscript{70} In \textit{re Marsh}, 14 A.2d at 370. This focus notwithstanding, the Marsh court asserted that the issue in the case was one of compulsory education. \textit{Id.} at 371.

\textsuperscript{71} See \textit{id.} at 370 (describing Marsh's father calling expert witnesses to speak to the potential effects harmful to Eugene, which the court dismissed sharply).

\textsuperscript{72} \textit{Id.} In \textit{Jacobson}, the Court concluded that experts testifying that the smallpox vaccine was of little importance or actually harmful were outweighed by "[w]hat everybody knows" and what, therefore, the courts knew as well—that the vaccine was, in fact, useful and not harmful. \textit{Jacobson v. Massachusetts}, 197 U.S. 11, 30 (1905).

\textsuperscript{73} In \textit{re Marsh}, 14 A.2d at 370 ("[John Marsh] admits his opposition to the vaccination of his child, but seeks to justify his unwillingness on the ground that the practice of vaccination is harmful and injurious.").
preventing the spread of smallpox, or who think that vaccination causes other diseases of the body” err. Finally, the Marsh court found that John “must be deemed to have neglected or refused to provide proper or necessary education for his son.” The court thus ordered John Marsh to hand the boy over to “the care and custody” of the county’s welfare services.

In New York, where a few of the cases in the sample were decided in family courts, a statute provided for religious exemptions to mandatory vaccination laws. In those cases, the courts generally did not find parents explaining their refusal to vaccinate their children through reference to such exemptions as neglectful, so long as the parents’ religious beliefs earnestly forbade vaccination. If their religious beliefs did not honestly prohibit vaccination, the courts did not accept their pleas for the religious exemption.

2. Challenges to Repeal of Religious Exemptions

A couple of more recent cases—one in California and one in New York—challenged the elimination of a religious exemption to vaccine mandates for children in each state. Repeal of the religious exemption in both states was a response to outbreaks of measles. California eliminated the exemption (along with its “personal belief exemption”) in 2016. New York did so in 2019.

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74 Id. (citing Jacobson, 197 U.S. at 30).
75 Id. at 371.
76 Id. (affirming the Juvenile Court in its conclusion and order).
77 See Parasidis & Opel, supra note 49, at 68–70; N.Y. FAM. CT. § 1012 (McKinney 2022).
78 E.g., In re Maria R., 366 N.Y.S.2d 309, 311 (1975) (“Since the [members of the] R. family hold bona fide religious beliefs prohibiting vaccination and immunization the children should not be required to be vaccinated or immunized and this neglect petition is dismissed.”).
79 E.g., In re Christine M., 595 N.Y.S.2d 606, 616 (1992) (finding that the parents’ objection here was not rooted in their religious beliefs, but rather their medical concerns, and finding that they were neglectful within the statutory definition).
In 2016, plaintiffs in \textit{Whitlow v. California}, including a group of parents, sought a preliminary injunction to preclude enforcement of the elimination of the religious and personal belief exemptions in California.\footnote{Whitlow, 203 F. Supp. at 1082.} A federal district court concluded that the plaintiffs' challenge to the state's elimination of these exemptions did not survive constitutional analysis, writing, "[I]t is clear that the Constitution does not require the provision of a religious exemption to vaccination requirements, much less a PBE [personal belief exemption]."\footnote{Id. at 1084, 1092. The court similarly rejected the plaintiffs' free exercise, equal protection, and due process constitutional claims. \textit{Id.} at 1087-89.}

In \textit{F.F. v. State}, parents challenged the repeal of the religious exemption in New York.\footnote{F.F. v. State, 143 N.Y.S.3d at 738. \textit{See also F.F. v. State}, 37 N.Y.3d 1040 (dismissing appeal because "no substantial constitutional question is directly involved").} The parents contended that the challenged "repeal was motivated by active hostility towards religion and thus violated the Free Exercise Clause."\footnote{F.F. v. State, 143 N.Y.S.3d at 739, 741-42. The court's assertion that the repeal did not reflect "a political or ideological motivation" would seem to be an effort to satisfy the terms of \textit{Roman Catholic Diocese of Brooklyn v. Cuomo}, 141 S. Ct. 63, 66 (2020) (per curiam).} The court concluded in this case that the repeal did not reflect a "political or ideological motivation" but rather was based on a "prescient public health concern"—the diagnosis of measles cases in the state.\footnote{F.F. v. State, 143 N.Y.S.3d at 739-40. \textit{Id.} at 740.} Given that, the court found no constitutional objection to the state legislature's repeal of the religious exemption.\footnote{By mid-March, 2020, Italy closed businesses (except for pharmacies and groceries), Holly Ellyatt, \textit{Italy Closes Bars, Restaurants and Most Shops}, CNBC (Mar. 12, 2020, 3:26 AM), https://www.cnbc.com/2020/03/12/italy-shops-bars-and-restaurants-ordered-to-close.html.}

In sum, the largest part of the public has accepted vaccine mandates for adults and for their children. Where people have challenged such mandates, courts have usually sided with the state against those refusing mandated vaccinations. The next Section of this Part reviews responses to COVID-19 vaccines, some of which contrast with earlier responses to mandated vaccinations.

\textbf{C. COVID-19 Vaccines: Public Attitudes and Legal Responses}

Most recently, the COVID-19 pandemic has upended assumptions about many domains of everyday life.\footnote{Nat'l Conf. of St. Legislatures (May 2, 2022), https://www.ncsl.org/research/health/school-immunization-exemption-state-laws.aspx.} In early 2020, the World Health
Organization (WHO) announced the appearance of a “pneumonia-like” disease in Wuhan, China, later attributed to Sars-CoV-2.\textsuperscript{91} The first reported case in the United States—by then confirmed to be caused by a novel coronavirus—appeared in Washington state in late January 2020.\textsuperscript{92} At the end of the month, with almost 10,000 reported cases in the world and more than 200 reported deaths from the illness, WHO declared a global public health emergency.\textsuperscript{93} Three days later, the United States declared a public health emergency.\textsuperscript{94}

Then, in March 2020, WHO declared that the spread of coronavirus disease had developed into a pandemic.\textsuperscript{95} By the end of the year, there had been more than 20 million cases of COVID-19 in the United States and more than 83 million cases in the world.\textsuperscript{96} At that time, almost two million reported deaths were attributed to COVID-19 globally.\textsuperscript{97} By the spring of 2023, WHO confirmed more than 761,000,000 cases of COVID-19 in the world and more than 6,887,000 deaths from the disease.\textsuperscript{98}

Operation Warp Speed (OWS), a joint endeavor of the United States Department of Health and Human Services and the Department of
Defense, aimed to expedite the development and distribution of a vaccine for COVID-19 and to support rapid development, manufacture, and distribution of therapeutic agents for patients with COVID-19, as well as diagnostic tests.\textsuperscript{99} OWS involved partnerships between federal agencies and private companies.\textsuperscript{100} Congress authorized funding for OWS\textsuperscript{101} and dedicated almost ten billion dollars to the effort.\textsuperscript{102}

After the announcement of OWS in 2020, many companies began work to develop vaccines against COVID-19.\textsuperscript{103} Some took OWS funding.\textsuperscript{104} Others did not.\textsuperscript{105} In December 2020, the U.S. Food and Drug Administration granted emergency-use authorization to two COVID-19 vaccines, one developed by Pfizer-BioNTech and one by Moderna.\textsuperscript{106} In the United States, most vaccine-eligible persons received at least one dose by early 2021.\textsuperscript{107} Those who refused vaccination did so for a variety of reasons, including concern about side effects, distrust of the vaccines, distrust of the government, and belief that the vaccine was unnecessary, among other explanations.\textsuperscript{108}

Despite financial support for vaccine development in the United States, uptake among those eligible to receive the vaccines has not been universal, and the United States has a high number of COVID-19 cases

\textsuperscript{100} Id.
\textsuperscript{101} Id. at 5.
\textsuperscript{102} More than $6.5 billion of the total amount was initially dedicated to development of a countermeasure, while $3 billion was dedicated to research efforts. Id.
\textsuperscript{104} Moderna, for example, developed its COVID-19 vaccine with the help of $1.5 billion in OWS funds. Grace Panetta, Moderna's Promising Coronavirus Vaccine Is a Major Beneficiary of the Trump Administration's Operation Warp Speech, INSIDER (Nov. 16, 2020, 11:32 AM), https://www.businessinsider.com/moderna-vaccine-trial-was-part-of-trump-operation-warp-speed-2020-11.
\textsuperscript{105} While Pfizer did not develop its COVID-19 vaccine with OWS funds, it did participate in OWS when it agreed to sell 100 million vaccine doses to the government. Facts First: Was Pfizer's Work on a Coronavirus Vaccine Aided Through Operation Warp Speed, CNN, https://www.cnn.com/factsfirst/politics/factcheck_565aa63a-4e46-4eca-9586-093233d1bdf3 (last visited Apr. 17, 2023).
\textsuperscript{106} COVID-19 and Related Vaccine Development and Research, supra note 103.
\textsuperscript{108} Id.
and deaths compared to many other nations.\textsuperscript{109} As of late October 2022, the United States had reported nearly 100 million COVID-19 cases and over a million deaths from the disease.\textsuperscript{110} At that time, the death rate per million people in the U.S. population was 3,264.\textsuperscript{111} During the same period, China reported 257,362 cases and 5,226 deaths, with a death rate of four per million people.\textsuperscript{112} In some part, the high number of cases and death rates in the United States reflect the country’s low COVID-19 vaccination rates.\textsuperscript{113}

While most people in the U.S. over sixty-five have received the vaccination,\textsuperscript{114} the percentage is not as high for other age groups. For instance, a smaller percentage of people between ages twenty-five and forty-nine have received the vaccination, and among those ages eighteen to twenty-four, the percentage is even lower.\textsuperscript{115} Moreover, the readiness of people—even those over sixty-five—to receive recommended COVID-19 booster vaccinations has diminished over time.\textsuperscript{116} In September 2022, Kaiser’s vaccine monitor survey revealed that less than 10% of seniors in


\textsuperscript{110} Graph of Total U.S. Coronavirus Cases, WORLDOMETER [hereinafter National Coronavirus Rates], https://www.worldometers.info/coronavirus/country/us/ (last visited Apr. 17, 2023) (to see October 2022 data points, scroll down to the chart titled “Total Cases”; then hover over the linear graphic titled “Cases”; then scroll down to the chart titled “Total Deaths”).

\textsuperscript{111} Id.

\textsuperscript{112} Global Coronavirus Rates, supra note 109 (select “China” hyperlink). Worldometer presents data from 230 countries. Id. Among those 230 countries, the U.S. death rate per million people was among the worst ten in the world. See id. Of course, the accuracy of data analysis depends on the accuracy of reporting from nations listed.


\textsuperscript{114} In November 2022, epidemiologist Katelyn Jetelina reported that the fall booster rate at that time was “7.3% (20% for those aged 65+).” Katelyn Jetelina, Thinking Through the Holidays This Year, YOUR LOC. EPIDEMIOLOGIST (Nov. 3, 2022), https://yourlocalepidemiologist.substack.com/p/thinking-through-the-holidays-this.

\textsuperscript{115} See What’s the Nation’s Progress on Vaccinations?, USA FACTS (May 10, 2023), https://usafacts.org/visualizations/covid-vaccine-tracker-states (displaying statistics regarding vaccine status for age groups in the United States).

\textsuperscript{116} Paula Span, Among Seniors, a Declining Interest in Boosters, N.Y. TIMES (Oct. 25, 2022), https://www.nytimes.com/2022/10/22/health/covid-vaccination-elderly.html?searchResultPosition=1 (reporting that only around 44% of people have received the second COVID-19 booster).
the United States had received the most recent bivalent booster. Yet, vaccination status makes a difference to the risk of dying from the illness. As of August 2022, the risk of dying from COVID-19 was over four times higher among unvaccinated people than among those vaccinated with at least one primary series.

The federal government, along with some state governments, imposed vaccine mandates, many of which were challenged in court. The Supreme Court’s rulings in two cases involved vaccine mandates by federal agencies suggest that such mandates should be upheld if congressional authority exists for an agency to mandate a vaccine. As a general matter, however, the Court may prove reluctant to conclude that such authority exists, as it was in a 2022 case involving a vaccine mandate imposed by the Occupational Safety and Health Administration (OSHA).

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117 Id.
118 Jetelina, supra note 114.
119 COVID Data Tracker: Rates of COVID-19 Cases and Death by Vaccination Status, CTRS. FOR DISEASE CONTROL & PREVENTION, https://covid.cdc.gov/covid-data-tracker/#rates-by-vaccine-status (last visited Apr. 17, 2023). Also, in August 2022, the risk of dying from COVID-19 was nearly eight times higher for unvaccinated individuals than it was for those who were vaccinated with a primary series and at least one booster. Id.
122 Compare Biden, 142 S. Ct at 654–55 (staying two district injunctions of a Health and Human Services vaccine mandate for employees of facilities receiving Medicare and Medicaid funding), with Nat’l Fed’n of Indep. Bus., 142 S. Ct at 666–67 (holding that Secretary of Labor did not have authority under Occupational Safety and Health Act to mandate vaccinations of employees working for employers with more than 100 employees).
The authority of states to mandate vaccinations has been less controversial. Courts generally uphold state vaccine mandates. To some extent, courts have supported state COVID-19 vaccine mandates. For instance, healthcare providers challenged Maine’s vaccine mandate (requiring vaccination against COVID-19, as well as other conditions) for failing to include a religious exemption. The First Circuit affirmed the district court’s denial of an injunction to the plaintiffs, pending appeal. The Supreme Court then denied an emergency appeal to prevent enforcement of the mandate. Similarly, the U.S. Court of Appeals for the Second Circuit, and later the Supreme Court, rejected a challenge to a New York state mandate that healthcare providers receive a COVID-19 vaccination; the mandate did not provide a religious exemption. The pattern of courts refusing to overturn vaccination mandates, however, is in tension with state authority. This pattern now competes with states’ COVID-19 vaccination mandates, negations of prior mandates, and prohibitions of mandates.

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126 Mills, 16 F.4th at 24, 37 (“While we do not diminish the appellants’ liberty of conscience, we cannot find, absent any constitutional or statutory violation, any error in the district court’s conclusion that the rule promotes strong public interests and that an injunction would not serve the public interest.”).
127 Mills, 142 S. Ct. 17 (issuing a sentence-long opinion denying injunctive relief).
128 The federal appellate court rejected appeals in two cases: Dr. A. v. Hochul, 567 F. Supp. 3d 362 (N.D.N.Y. Oct. 12, 2021), and We The Patriots USA, Inc., No. 21-cv-4954, 2021 WL 4048670 (E.D.N.Y. Sept. 12, 2021), which were heard together because the issues and arguments on appeal substantially overlapped. We The Patriots USA, Inc. v. Hochul, 17 F.4th 266, 273, 280 (2d Cir.), opin. clarified, 17 F.4th 368, 370–71 (2d Cir. 2021), cert. denied, 142 S. Ct. 2569 (2022) (denying the emergency applications of the plaintiffs to avoid the mandate’s enforcement).
129 See Hughes, supra note 124. See also State Efforts to Ban or Enforce COVID-19 Vaccine Mandates and Passports, NAT’L ACAD. FOR ST. HEALTH POL’Y (Apr. 5, 2023), https://nashp.org/state-efforts-to-ban-or-enforce-covid-19-vaccine-mandates-and-passports/ (updating and listing the status of each state’s approach to COVID-19 vaccination mandates). For example, some states, like Montana, have enacted a ban against discrimination based on vaccination status by any employer, while other states, like California, mandate vaccination for certain state employees and leave private employer mandates to the discretion of the employer. Id.
In fact, only a few states seriously considered mandating COVID-19 vaccines for schoolchildren, and a much larger number of states’ legislatures have expressly banned such mandates. The details of prohibitions and limitations on vaccine mandates vary from state to state. For instance, in May 2021, Governor Gianforte of Montana signed a bill that would make it illegal to discriminate against people based on their COVID-19 vaccination status. Also, in 2021, Governor Noem of South Dakota signed an Executive Order that banned any state entity (including school districts and institutions of higher education in the state) from receiving state benefits should they require proof of COVID-19 vaccination. Similarly, through an Executive Order, Texas Governor Abbott banned COVID-19 vaccine mandates involving students and by early 2022, Mississippi law prohibited COVID-19 vaccine mandates for students in both public and private schools.

As of the spring of 2023, twenty-one states had banned COVID-19 vaccine mandates. Of the twenty-one states with laws banning school districts from mandating the vaccines for children in their schools, New


131 See States Address School Vaccine Mandates and Mask Mandates, NAT’L ACAD. FOR ST. HEALTH POL’Y (Feb. 6, 2023), https://www.nashp.org/states-enact-policies-to-support-students-transition-back-to-school/. There are twenty-two states with such bans as of April 2023. See also supra note 129 and accompanying text.

132 Id. referring to H.B. 702, 67th Leg., Reg. Sess. (Mont. 2021)).

133 See id. (referring to the governor’s Executive Order).

134 Id. (applying the order to public and private entities).

135 States Address School Vaccine Mandates and Mask Mandates, supra note 131 (referring to H.B. 1509, 2022 Leg., Reg. Sess. (Miss. 2022)).

136 See id.

137 States with vaccine-mandate bans include Alabama, Arizona, Arkansas, Florida, Georgia, Idaho, Indiana, Iowa, Kansas, Michigan, Mississippi, Montana, New Hampshire,
Hampshire is the only state in the Northeast; other states with bans include a group of southern states—Texas, Iowa, and South Dakota—and a line of states in the West running from Montana south to Arizona.\(^\text{138}\)

Part III now considers the topics first introduced at the beginning of this Article; twentieth-century sociocultural shifts, and correlates those shifts with changes in public attitudes toward vaccines. Then, Part IV considers relevant sociocultural shifts during the present century and correlates those shifts, in turn, with changes in public responses to vaccinations, particularly vaccinations against COVID-19, and with the law’s response to challenges to vaccine mandates.

III. SOCIOCULTURAL ASSUMPTIONS IN THE TWENTIETH CENTURY

This Part turns expressly to this Article’s central thesis—that there is a meaningful correlation between sociocultural patterns during the last century and public responses to vaccinations. As such, this Part explores the suggestion that the public is especially likely to challenge vaccination directives during periods of pervasive sociocultural and economic transformation and uncertainty in the larger society. Moreover, far-reaching sociocultural and economic changes can be and, during the last half-century, have been coincident with the diminution of respect for traditional visions of expertise (in science, medicine, technology, and so on) and with decreased respect for traditional authority. Included in this list is decreasing respect for traditional moral arbiters (the “pater familias,” priests,\(^\text{139}\) school principals, and physicians, among others). Such diminution in respect for authority has significantly limited the public’s readiness to follow guidance from the government, scientists, physicians, educators, and others once looked to as experts and moral arbiters.

Sociocultural shifts over the last century have likely contributed to many people—especially in response to the COVID-19 vaccine—

\(^{138}\) Id.

\(^{139}\) One 2020 Pew Research Center study reported that, beginning in the 1990s, many Americans began departing from Christianity and are increasingly identifying as atheist, agnostic, or religious. *Modeling the Future of Religion in America*, PEW RSCH. CTR. (Sept. 13, 2022), https://www.pewresearch.org/religion/2022/09/13/modeling-the-future-of-religion-in-america/. See also *America’s Changing Religious Landscape*, PEW RSCH. CTR. (May 12, 2015), https://www.pewresearch.org/religion/2015/05/12/americas-changing-religious-landscape/ (describing a modest decrease in those belonging to evangelical churches between 2007 and 2015) ("While many U.S. religious groups are aging, the unaffiliated are comparatively young — and getting younger, on average, over time.").
rejecting vaccinations. Alternatively, others who view the choice to vaccinate as one between health and illness view vaccine rejection as incomprehensible. These contrasting views illustrate the politicization of vaccine responses in the contemporary United States.

Section A of this Part considers the contours of a value system formed in the early years of the Industrial Revolution. That system of social values balanced individualism in the marketplace with the presumptions of community in other settings, particularly in the home. Society also viewed domains of life beyond the family in contrast with the marketplace; these domains have included schools, churches, and healthcare settings. Section A focuses on the sociocultural presumptions that supported American social life before the 1960s. Then, Section III.B considers sociocultural changes that rocked American life in the last decades of the twentieth century. Section III.C connects shifting public responses to vaccinations with those broader sociocultural changes.

A. Sociocultural Assumptions Before the 1960s

The period between the start of the Industrial Revolution and, perhaps not coincidentally, the establishment of the United States as a nation and the mid-twentieth century contrasted the individualism prized in the marketplace with a vision of life distinct from the realms of commerce. Stress on a presumption (though far from always a reality) of communal trust and loyalty rather than individualism and negotiated bargain marked these social (as opposed to commercial) domains. This contrast is reflected powerfully in myriad assumptions that defined life at work and life at home in the nineteenth and much of the twentieth century.

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140 West, supra note 6 (reporting on significant increase in state bills limiting state laws requiring childhood vaccinations).
141 See, e.g., Baron & Ejnes, supra note 3, at 3 (describing the disagreement and politicization of COVID-19).
142 See Robert E. Lane, Individualism and the Market Society, in 25 LIBERAL DEMOCRACY 374, 378 (1983) (attributing the origins of individualism to the Industrial Revolution era); David M. Schneider, American Kinship: A Cultural Account 45 (1968) (discussing the differences between work—where relationships are governed by negotiated agreements that can be reshaped and terminated and where the goal is money—and relationships at home, which are grounded in presumptions of love and loyalty).
143 See Schneider, supra note 142, at 45, 48.
144 See id. at 49 (explaining how love, loyalty, and respect are symbolic of the family domain).
The presumptions of community included more than interest in and respect for the welfare of others. Traditional understandings of community included presumptions of trust and loyalty as well as of communal hierarchy. Importantly, society prized hierarchy within families and other domains of life that were understood in contrast to the marketplace. Communal authority flowed from hierarchy—that of the *pater familias*, priest, school principal, and physician—which served as the locus for moral decision-making.

American anthropologist David Schneider described what the American family (or, more accurately, the middle-class American family) looked like in the early 1960s, just before the changes that shook the sociocultural foundations of traditional American life became manifest. Schneider contrasted the world of the family with that of the capitalist marketplace. Schneider wrote:

> The set of features which distinguishes home and work is one expression of the general paradigm for how kinship relations should be conducted and to what end. These features form a closely interconnected cluster.

> The contrast between love and money in American culture summarizes this cluster of distinctive features. Money is material, it is power, it is impersonal and unqualified by considerations of sentiment or morality. Relations of work, centering on money, are of a temporary, transitory sort. They are contingent, depending entirely on the specific goal—money.

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145 Although the words “presumption” and “assumption” sometimes have subtly different meanings, see Candace Osmond, *Assume vs. Presume—Difference, Meaning and Examples*, GRAMMARIST, https://grammarist.com/usage/assume-presume/ (last visited Apr. 12, 2023), this Article uses the words synonymously when considering broad sociocultural patterns.


147 *Id.* (“For everyone in the feudal world, the hierarchical character of social life precluded individuality and the sort of privacy... that was later attached to the individual in the West.”).

148 Feudal society was understood in terms of hierarchy grounded in nature. Society viewed feudal lords, for instance, as inherently higher in the social hierarchy than serfs. Society understood that difference to reflect the nature-of-things, not merit or hard work. *See id.* at 1526–529 (discussing how the feudal system created hierarchical classes). The following discussion focuses on the pattern of sociocultural presumptions that appeared most starkly in the 1950s, a decade deeply committed to the preservation of traditional values.

149 Schneider’s work did not focus on class, racial, and ethnic differences among Americans that made family life significantly more diverse than his analysis might suggest. *See SCHNEIDER, supra* note 142, at 46.
The opposition between money and love is not simply that money is material and love is not. Money is material, but love is *spiritual*. The spiritual quality of love is closely linked with the fact that in love it is personal considerations which are the crucial ones. . . .

In his description of the contrast between a social universe grounded on "status" and one grounded on "contract," the nineteenth-century British anthropologist, Sir Henry Maine, captured the difference Schneider described:

The movement of the progressive societies has been uniform in one respect. Through all its course it has been distinguished by the gradual dissolution of family dependency and the growth of individual obligation in its place. The Individual is steadily substituted for the Family, as the unit of which civil laws take account. . . . Nor is it difficult to see what is the tie between man and man which replaces by degrees those forms of reciprocity in rights and duties which have their origin in the Family. It is Contract. Starting, as from one terminus of history, from a condition of society in which all the relations of Persons are summed up in the relations of Family, we seem to have steadily moved towards a phase of social order in which all of these relations arise from the free agreement of Individuals.

Maine carried out his work a century before Schneider studied the American family and referred to processes that were much older. Still, Maine's distinction captures Schneider's understanding of the differences between home and work in the United States in the mid-twentieth century.

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150 Schneider, *supra* note 142, at 48–49. See also Dolgin, *supra* note 146, at 1523–524 (1994) (discussing Schneider's portrait of the traditional American family and the characteristics—such as solidarity and intimacy—that defined it).

151 Henry Sumner Maine, *Ancient Law: Its Connection with the Early History of Society and Its Relation to Modern Ideas* 168–69 (1861). Parts of Maine's argument, for instance that then-contemporary rights and duties arose from kinship relations, *see generally* id., would seem not to have reflected actual historic processes. But Maine's view of the importance of the increasing focus on individualism in society is significant. See Dolgin, *supra* note 146, at 1525–526 ("The differences Maine described between a universe that predominantly reflects status and one that predominantly reflects contract are represented in the contemporary world in the difference between home and work.").

152 Dolgin, *supra* note 146, at 1523; Maine, *supra* note 151.
The family that Schneider described valued hierarchy and presumed enduring relationships characterized by trust and loyalty. Society assumed that, within a family, roles and statuses were fixed and that relationships were hierarchical; the hierarchy depended largely on differences in gender and age. Society understood the family, at least implicitly, in contrast to the marketplace, which assumed individualism and negotiation. In the marketplace, people, mostly males, did not expect relationships to endure. They assumed that negotiations shaped marketplace relationships and that their conclusions lasted only as long as those involved chose for them to last.

During the 1950s, much of American society, particularly white, middle-class society, prized or at least claimed to prize traditional values and patterns of everyday life. In contrast with subsequent decades, American society of the 1950s expected men to work outside the home while defining women and children in relation to hearth and home. Indeed, the family of the 1950s can be described through examination of the role of wife and mother. Talcott Parsons, a preeminent sociologist of the period, stated apparently without irony: “The woman’s fundamental status

See Schneider, supra note 142, at 52–53.

See Janet L. Dolgin, Defining the Family: Law, Technology, and Reproduction in an Uneasy Age 67–68 (1997) (“In a world based on status, laws are not formulated abstractly for application to putatively equal individuals. Rather, they follow the perceived natural order of things, reflecting the inevitability of status and relationship. In such a world, people are who they are because they were born to be that way and the pretext of abstract equality is absent.”).

See generally Schneider, supra note 142, at 45–49 (1968) (discussing the differences between the contractual, impersonal nature of work life and the sentimental, enduring, and spiritual nature of homelife).

Poor women and even children also populated the nineteenth century marketplace. America at Work, Libr. of Cong., https://www.loc.gov/collections/americat-work-and-leisure-1894-to-1915/articles-and-essays/americat-work/ (last visited Apr. 12, 2023). The negotiations that putatively defined marketplace relationships did not generally protect those without economic status. Id. In Lochner v. New York, for example, which challenged a New York State law protecting bakers from extended working hours, the Court characterized the law to interfere with “the liberty of person” and “the right of free contract.” 198 U.S. 45, 46, 64 (1905). Ironically, the decision was premised on the presumption that “the right of free contract” belonged to the employee quite as much as to the employer. See Dolgin, supra note 146, at 1546–548.

See Dolgin, supra note 154, at 73 (discussing enduring relationships in family based on status versus temporary relationships in the marketplace based on contract).

See id.

See, e.g., George M. Welling, The Culture of the 1950s, Univ. of Groningen (Aug. 12, 2023), http://www.let.rug.nl/usa/outlines/history-1994/postwar-america/the-culture-of-the-1950s.php (discussing the return to traditional gender roles post-WWII, with men as breadwinners and women as homemakers, even as more women remained in the workforce).
is that of her husband’s wife, the mother of his children.” In the 1950s, middle-class women married with an expectation that life after marriage included children, “two cars, and wall-to-wall carpeting.” People expected marriages to endure, and, even if widowed or divorced, a woman, once married, gained a lifetime title—"Mrs."—which, in the words of Marilyn Yalom, “was considered an improvement over ‘Miss.’” In this, Yalom provides a powerful demonstration of the extent to which society assumed that the personhood of a woman was partial.

The story of the everyday life of the “housewife” in the 1950s was an exaggerated romanticization of ideal images that were rarely reflected in the lives of actual people. The media of the day (especially television and advertising) portrayed the housewife as elegantly dressed and consistently joyful. The gap between the ideal and the real was significant. Again, in Marilyn Yalom’s words, “[d]omesticity was back in fashion, and was expected to fulfill a wife’s fundamental needs. If it did not, the assumption was that something was wrong with her.”

The disruption of these images of the ideal family became manifest during the mid-1960s. Yet, positive understandings of life during the 1950s survived for a long time. A news agency poll in the mid-1990s found that the public deemed the 1950s a better decade for children than any other. More broadly, the 1950s was a time of presumed social predictability and moral order against which society continued to assess subsequent decades.

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160 Talcott Parsons, *Age and Sex in the Social Structure of the United States*, 7 AM. SOCIO. REV. 604, 609 (1942) (citation and internal quotation marks omitted) (discussing the family in an urban setting, as opposed to the rural farming setting).


162 Id.

163 Betty Friedan’s well-known volume, *The Feminine Mystique*, debunked these presumptions. See BETTY FRIEDAN, THE FEMININE MYSTIQUE 19 (1963) (discussing the idea that married women in the 1950s frequently felt unfulfilled but believed other women were not experiencing the same feelings). The first sentence of Friedan’s volume referred to the problem she addressed in the book as “buried, unspoken . . . in the minds of American women.” Id. at 15.


165 Id. at 359–61.

166 See discussion infra Section III.B.


168 The families of the 1950s seemingly faced a strong sense of referential conformity upon which to base one’s norms of family life. STEPHANIE COONTZ, THE WAY WE REALLY ARE: COMING TO TERMS WITH AMERICA’S CHANGING FAMILIES 33 (1997).
B. Sociocultural Assumptions About Individuals and Community: The 1960s and Beyond

Assumptions that shaped non-marketplace relationships, including family relationships, in the early twentieth century disappeared with regard to family life and comparable non-marketplace social domains for most of the American public during the last decades of the century. By the late 1960s, the law began to reflect changes that had begun to alter familial and other communal relationships, as this Part will highlight. The open rejection of traditional assumptions about community—and particularly about families—did not go unchallenged, however. Church communities spearheaded and encouraged such challenges. Yet, these challenges did not stop social changes in presumptions about families, and soon the law reflected and supported these changes.

By the late 1960s, family law provided for relationships that followed rules of contract rather than the presumptions of status. For instance, states legalized no-fault divorce, recognized antenuptial agreements in contemplation of divorce, and allowed non-marital domestic partners to enter into contractual arrangements that determined the terms of their separation should their relationships not endure. In 1972, in

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170 See, e.g., Marich, supra note 169 (noting that “religious conservatives seem to have highjacked the phrase ‘traditional family values’”); Banwart, supra note 169, at 133; Browning & Browning, supra note 169 (considering the need for churches to support “the bonded mother-father team in its various forms”).


173 E.g., Marvin v. Marvin, 557 P.2d 106, 110 (Cal. 1976) (“The courts should enforce express contracts between nonmarital partners except to the extent that the contract is explicitly founded on the consideration of meretricious sexual services.”). Between 1960 and 2007, the number of couples in the United States living together without being married increased from
Eisenstadt v. Baird, the Supreme Court found a right to familial privacy in the autonomous family member rather than in the family as a unit.\textsuperscript{174} This contrasted with the Court's opinion seven years earlier in Griswold v. Connecticut,\textsuperscript{175} which created the right to use contraception in the family as a communal unit.\textsuperscript{176} These cases offer a useful contrast because both involved rights relating to the distribution and use of contraceptives.\textsuperscript{177}

Then, in the mid-2010s, the U.S. Supreme Court provided for a constitutional right to same-sex marriage.\textsuperscript{178} By this time, Americans (as well as people in many other nations) understood the family quite differently than they had a half-century earlier.\textsuperscript{179} American society had established a new set of roles that reflected individualism and provided for contractual relationships within familial and other communal settings.\textsuperscript{180}

The world of American healthcare underwent changes parallel to those of the family, though the changes are harder to discern because healthcare has always expressly involved a commercial parameter.\textsuperscript{181} Development of the informed-consent doctrine\textsuperscript{182} was among the most important of these changes. A new presumption regarding a patient's right to autonomous decision-making provided the foundation for the informed-consent doctrine.\textsuperscript{183} This doctrine contrasted with long-standing


\textsuperscript{175} 381 U.S. 479, 484-85 (1965) (finding constitutional right to distribute birth control to married couples).

\textsuperscript{176} Id. at 485.

\textsuperscript{177} See Griswold, 381 U.S. at 486 (establishing that an implied "right of privacy" exists within the Bill of Rights that prohibits a state from preventing married couples from using contraception). See also Eisenstadt, 405 U.S. at 454-55 (establishing the rule that a state may not outlaw distribution of contraception to unmarried persons).


\textsuperscript{179} See generally id. at 657-60 (discussing the centrality of marriage in society and how the institution of marriage has changed and expanded over time).

\textsuperscript{180} Id. at 660, 663, 665 ("A first premise of the Court's relevant precedents is that the right to personal choice regarding marriage is inherent in the concept of individual autonomy.").

\textsuperscript{181} Family life also has depended on commercial relationships. In the United States, however, the commercial component of family relationships has been more tacit than has the commercial component of relationships in the world of healthcare. DOLGIN, supra note 154, at 33-35.

\textsuperscript{182} By way of background, the informed-consent doctrine is the idea that every adult of "sound mind" has the right to decide what happens to his or her body and that a person cannot consent to what happens unless properly informed about every procedure in order to "reach an intelligent decision." Canterbury v. Spence, 464 F.2d 772, 780 (D.C. Cir. 1972).

\textsuperscript{183} Id. at 780-81 (defining patients' right to informed consent before surgical procedure).
understandings of the physician-patient relationship. In short, society had crafted a new set of roles pertaining to families that presumed individualism and contractual relationships rather than lasting community, defined to include trust and loyalty, and crafted comparable role changes in other domains of life once shaped through the presumptions of traditional community.

Several factors that followed from the increasing prominence of individualism at the expense of community in American family life have become important for understanding vaccine hesitancy and refusal. Of great importance from the perspective of this Article’s thesis was the collapse of the nation’s faith in society’s traditional moral arbiters during the 1960s and beyond. As noted, these traditional moral arbiters included, among others, heads of households (in particular, the traditional pater familias), priests, school principals, and physicians.

A second consequential development, coincident with the social transition away from the 1950s value system, shaped efforts to design and implement public health policies. Those policies require a balance between individual rights and communal welfare. In the United States, the public has increasingly focused on safeguarding the rights of the individual rather than on the welfare of larger communities. This has created significant limitations on the nation’s ability to implement public health measures and achieve high immunization rates.

Beyond this, it has become increasingly difficult to disentangle claims of community from individualistic claims. Assertions of communal concern may serve to disguise concern for self qua individual as concern for self as an integrated member of a social whole. Additionally, sometimes the assertion of communal concern reflects an individual’s interest in shaping others’ opinions of self. That sort of assertion differs

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184 Id. at 779 (noting that suits against physicians for not adequately disclosing risks and alternatives were not new but were increasing; further, although patients always had a dependence on physicians in making medical decisions, the scope of that dependence had begun to narrow).
185 See discussion supra Section III.A; supra note 148 and accompanying text.
186 See, e.g., Cultural Perspectives on Vaccination, supra note 58.
187 See, e.g., West, supra note 6 (addressing the momentum in favor of anti-vaccination movements and individual vaccine discretion in the post-COVID-19 world); Ronald Bayer, The Continuing Tensions Between Individual Rights and Public Health, 8 EMBO REPS. 1099, 1099–102 (2007) (“The triumph of individual rights has transformed a public health success story into a public health defeat.”).
188 Eve Dube et al., Vaccine Hesitancy: An Overview, 9 HUM. VACCINES & IMMUNS. 1763, 1764, 1769–770 (2013) (contrasting active vaccine acceptance—vaccinating as part of one’s social responsibility to benefit the broader public—and passive vaccine acceptance—vaccinating to comply with social pressure and avoid stigmatization).
in kind from another that implicates individual behavior in order to protect public welfare.\textsuperscript{189} For instance, one study published in the late 1990s asserted that “people have their children vaccinated because everybody does so” and, more generally, a societal vaccination norm may result in “social pressure” to vaccinate one’s children.\textsuperscript{190} Even parents who favor the development of herd immunity\textsuperscript{191} may base decisions about vaccinating their children on the “perceived benefit to their own child.”\textsuperscript{192}

C. Sociocultural Shifts and Public Responses to Vaccinations in the Twentieth Century

This Section compares public responses to vaccinations, especially for children, in the 1950s and early 1960s with responses during the last three and a half decades of the twentieth century. The Section suggests that more positive responses to vaccine uptake can be correlated with a period of social stability and respect for traditional authority, in contrast with public responses to vaccines during periods of rapid sociocultural transformation that have seen the diminution of respect for traditional authority. Periods marked by this sort of social transformation correlate in time with increased vaccine hesitancy and rejection.

More specifically, this Section examines public responses to the development and distribution of the polio vaccine in the 1950s. Those responses contrast with responses to other vaccinations later in the century. They offer an even more dramatic contrast to recent responses to COVID-19 vaccines for children and for adults.

The 1950s witnessed a widespread and successful effort to vaccinate American children against polio.\textsuperscript{193} In 1954, Jonas Salk commenced a

\textsuperscript{189} Id. at 1770 ("[S]ocial responsibility, or seeing vaccination as a duty of individuals in order to maintain herd immunity, could also be linked with vaccine acceptance.").

\textsuperscript{190} Id. at 1769 (citing and quoting Streefland et al., Patterns of Vaccination Acceptance, 49 SOc. SCI. MED. 1705 (1999); Alison Bish et al., Factors Associated with Uptake of Vaccination Against Pandemic Influenza: A Systematic Review, 29 VACCINE 6472 (2011)).

\textsuperscript{191} Herd immunity involves a significant portion of a population becoming immune to a disease. Herd immunity exists when enough people are immune to limit spread of the disease. For the definition of “herd immunity” and how it relates to the COVID-19 pandemic, see Herd Immunity and COVID-19: What You Need to Know, MAYO CLINIC, https://www.mayoclinic.org/diseases-conditions/coronavirus/in-depth/herd-immunity-and-coronavirus/art-20486808 (last visited Apr. 17, 2023).

\textsuperscript{192} Dube et al., supra note 188, at 1770 (citing and quoting Maheen Quadri-Sheriff et al., The Role of Herd Immunity in Parents’ Decision to Vaccinate Children: A Systematic Review, 130 PEDIATRICS 522 (2012)).

\textsuperscript{193} Siang Yong Tan & Nate Ponstein, Jonas Salk (1914–1995): A Vaccine Against Polio, 60 SING. MED. J. 9, 9 (2019).
national test of a polio vaccine involving thousands of school children.\textsuperscript{194} The next year, Salk announced that the trial had succeeded in showing the vaccine to be safe and efficacious.\textsuperscript{195} The public was appreciative and positive; one commentator described the availability of the polio vaccine in the United States as having inspired "wild enthusiasm."\textsuperscript{196}

In the 1950s, the polio vaccine had public support from surprising corners. Groups of U.S. teenagers successfully promoted the polio vaccine.\textsuperscript{197} Adolescent "vaccine ambassadors" operated a "grassroots" program to convince people to get the polio vaccination.\textsuperscript{198}

Acceptance of the vaccine was widespread even after a pharmaceutical disaster in 1955 raised concerns about the vaccine's safety. That year, one manufacturer produced 100,000 doses of the polio vaccine with improper inactivation of the virus.\textsuperscript{199} As a result, more than 250 children developed paralytic polio, and eleven died.\textsuperscript{200} Cutter and Wyeth Laboratories had produced the vaccine doses at issue.\textsuperscript{201}

Despite the disaster at the Cutter and Wyeth Laboratories, a widely effective effort to immunize children led to a fall in polio cases from 35,000 in 1953 to fewer than 6,000 in 1957\textsuperscript{202} and then fewer than 1,000 in 1962.\textsuperscript{203} Further, distribution of the tainted vaccine manufactured at Cutter and Wyeth (an event that became known as "the Cutter Incident")\textsuperscript{204} resulted in significant oversight of vaccine production and distribution.

\begin{footnotesize}
\begin{itemize}
\item \textsuperscript{194} Id.
\item \textsuperscript{195} Id.
\item \textsuperscript{196} Conis, supra note 9 ("A few voices spoke out against the vaccine, but they got little traction in a nation overwhelmingly desperate to prevent the disease.").
\item \textsuperscript{197} Erin Blakemore, How Vaccination Became 'Hip' in the '50s, Thanks to Teens, NAT'L GEOGRAPHIC (Apr. 27, 2021), https://www.nationalgeographic.com/history/article/how-polio-vaccination-became-hip-50s-thanks-teenagers (describing how teenagers even undertook fundraising campaigns, such as "Lick Polio" and "Shell Out for Polio," for which they sold lollipops and peanuts, respectively).
\item \textsuperscript{198} Id.
\item \textsuperscript{199} JONATHAN M. BERMAN, ANTI-VAXXERS: HOW TO CHALLENGE A MISINFORMED MOVEMENT 52–53 (2020).
\item \textsuperscript{200} Id. at 53 ("The reports were of paralysis only in the limb that had been injected, suggesting strongly that the vaccine had caused the infection."); PERRI KLASS, A GOOD TIME TO BE BORN 212 (2020) (reporting that 260 children developed paralytic polio because of the Cutter incident). The terrible accident at the Cutter and Wyeth Laboratories led to increasing government oversight of vaccine production and use during the following several decades. BERMAN, supra note 199, at 53.
\item \textsuperscript{201} BERMAN, supra note 199, at 53.
\item \textsuperscript{202} Id. at 52.
\item \textsuperscript{203} KLASS, supra note 200, at 212.
\item \textsuperscript{204} Efthinios Parasidis, Recalibrating Vaccination Laws, 97 B.U. L. REV. 2153, 2170 (2017) (citing PAUL A. OFFIT, THE CUTTER INCIDENT: HOW AMERICA'S FIRST POLIO VACCINE LED TO A GROWING VACCINE CRISIS, at xii (2005)).
\end{itemize}
\end{footnotesize}
testing in the United States. It also led to dozens of court cases seeking to hold Cutter responsible for the harm that befell the children given the defective vaccine.

In the first of these cases to reach trial, Gottsdanker v. Cutter Laboratories, a California jury held Cutter and Wyeth Laboratories responsible for having breached warranties of merchantability. A state appellate court upheld the jury’s verdict. The decision offered precedent for holding vaccine manufacturers liable for defective doses that result in damage to recipients. Further, the Cutter incident resulted in greater oversight and government regulation. The Polio Vaccination Assistance Act of 1955 provided funding for states to develop programs to implement immunization and to buy and distribute the polio vaccine.

Yet, remarkably in comparison to contemporary responses to COVID-19 vaccines, the Cutter Incident and other scares connected to the polio vaccines did not dissuade the public from accepting the polio vaccine. There were some pockets of vaccine hesitancy, but that hesitancy evaporated rather quickly.

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205 Id. at 2171–72.
206 Jonathan Carapetis, The Cutter Incident: How America’s First Polio Vaccine Led to the Growing Vaccine Crisis, 332 BMJ 733, 733 (2006) (reviewing OFFIT, supra note 204) (“Sixty lawsuits were subsequently filed.... The jury [in one case] found that Cutter was not negligent in producing the vaccine, but had breached an implied warranty that their product was safe.”).
207 Parasidis, supra note 204, at 2168–169.
209 Id. at 605. Each of the two plaintiffs was awarded over $70,000. Id. at 605, 612.
210 Gottsdanker, 182 Cal. App. 2d at 612.
211 Parasidis, supra note 204, at 2171. Yet, many state courts diverged from California’s holding in Gottsdanker, concluding that vaccine manufacturers could not be held liable because there was no relationship of privity between them and injured vaccine recipients. Id. at 2172 (citing Berry v. Am. Cyanamid Co., 341 F.2d 14, 19 (6th Cir. 1965)).
212 Parasidis, supra note 204, at 2171–172.
213 Id. at 2172 (citing Otis L. Anderson, The Polio Vaccine Assistance Act of 1955, 45 AM. J. PUB. HEALTH 1349, 1349 (1955)).
214 Id. at 2172.
215 In the late 1950s and early 1960s almost 100,000,000 doses of polio vaccine were administered that had possibly been made harmful to recipients due to contamination with a simian virus (SV40), id. at 2172, which had been linked to some cancers. Id. at 2172–173. Also, in the early 1960s, cases of vaccine-induced polio developed from administration of the Sabin vaccine (the oral polio vaccine that included an attenuated form of the virus). Id. at 2179.
216 After the Cutter Incident, there were over ninety-eight million vaccinations administered, and vaccination rates between 1955 and 1963 were high. Parasidis, supra note 204, at 2172–173.
217 Despite the Cutter Incident, vaccination continued, polio cases decreased, and the FDA accepted and allowed production of another, oral vaccine, produced by Albert Sabin. KLASS, supra note 200, at 212. The use of an oral vaccine made a difference to parents. Sabin’s
The story of the polio vaccine is one of great success for public health. Despite the absence of mandates, the vaccine was disseminated to schoolchildren throughout the country in the 1950s. In 1979, there were no “wild” polio cases in the United States. Soon after the vaccine became available, approximately ninety nations had vaccinated vulnerable populations, especially children. Thus, by the end of the twentieth century, polio had not only been effectively eradicated in the United States, but endemic polio had become rare in the world. Widespread uptake of the vaccine was a significant driver in these successes.

Several factors helped render the history of vaccination against polio a success story for public health. Among them was parental fear of polio; parents’ own memories of terror associated with polio informed their readiness to provide their children with the polio vaccine. Further, the somewhat surprising efforts undertaken by American adolescent vaccine “ambassadors” increased popular support for vaccination against polio in the United States.

Beyond these explanations, the temper of the times facilitated the widespread uptake of a vaccine recommended by the government, oral vaccine was first licensed for widespread use in the United States between 1961 and 1963. See Anda Baicus, History of Polio Vaccination, 1 WORLD J. VIROL. 108, 110 (2012).

218 Tan & Ponstein, supra note 193, at 9 (including those who had participated as subjects in Salk’s study).

219 KLASS, supra note 200, at 212. The few cases that appeared were either contracted in other countries and brought back to the United States or resulted from the attenuated vaccine which Klass reports to have resulted in eight to ten cases a year. Id.


221 Id. at 10. See Jetelina, supra note 2 (reporting case of paralytic polio in New York City area in 2022). In 2022, the polio virus was identified in New York City wastewater. Lenny Bernstein & Kristen Hartke, Polio Virus Found in New York City Wastewater, WASH. POST (Aug. 12, 2022), https://www.washingtonpost.com/health/2022/08/12/polio-wastewater-nycc-the-south-brooklyn-orange-county/. Health department officials said this suggested that the virus was circulating locally. Id. The man who developed the reported case of paralytic polio was in the City’s northern suburbs, and it was the first case in about ten years. Id. He was hospitalized and reportedly had difficulty walking. Id.

222 A WHO campaign (begun in 1988) to eradicate polio was highly successful. Diane S. Saint-Victor & Saad B. Omer, Vaccine Refusal and the Endgame: Walking the Last Mile First, PHIL. TRANSACTIONS ROYAL SOC’Y B, Aug. 5, 2013, at 2. By the second decade of the twenty-first century, polio was still endemic in only three countries. Id. The World Health Organization reported that, as of 2022, two of three polio virus strains were eradicated, and the remaining strain (“type 1”) was present in only two countries (Pakistan and Afghanistan) worldwide. Poliomyelitis (Polio), WORLD HEALTH ORG., https://www.who.int/health-topics/poliomyelitis (last visited Apr. 12, 2023).

223 Saint-Victor & Omer, supra note 222, at 1.

224 See Conis, supra note 9.

225 Ambassadors even included pop-culture icons such as Elvis Presley and Debbie Reynolds, which helped change public attitudes toward the vaccine. Blakemore, supra note 197.
physicians, scientists, and school systems. In the 1950s, the significant popular support in the United States for the polio vaccine reflected the era's respect for the authority of experts and government officials who recommended administration of the vaccine. That respect for authority helped convince parents to have their children vaccinated, despite the Cutter incident.

Significantly, as that respect diminished beginning in the late 1960s, strong expressions of parental concern about childhood vaccinations proliferated. In addition to the polio vaccine, the 1960s saw the development of vaccines to prevent more routine childhood illnesses such as measles, mumps, and rubella. Scholars have connected the expansion of vaccine resistance to a growing environmental movement that alerted parents and others to the risks of toxins in the environment. That trend also reflects a widespread decrease in social respect for traditional authorities, including physicians. The temper of the times had changed, and Americans were no longer ready to rely on experts who were respected in an earlier decade. The presumption that those sitting in traditional seats of authority should be trusted had diminished markedly as people considered appropriate responses to new social and medical challenges.

The continuing expectation of health professionals in the late 1960s and early 1970s that parents would respond to new vaccines with the same enthusiasm to which they had responded to the polio vaccine was misplaced. Parental reluctance to have children vaccinated against measles and the other more routine diseases for which vaccinations had become available belied health professionals' expectations. This reluctance resulted in increased reliance on mandatory vaccination rules for children entering school in order to protect public health.

The development of parental vaccine reluctance that appeared in the 1960s found new intensity and new modes of support in the 1970s and

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226 See discussion supra Section III.A.
228 Conis, supra note 9.
229 Id.
230 Id.
231 Id.
232 See Conis, supra note 9 (explaining that families were used to dealing with measles and often disregarded its threat, unless their doctor recommended it for their children).
233 Id.
1980s. Increasingly, parents asked about the safety and efficacy of vaccines, and vaccine skepticism spread. Articles appeared in popular journals that questioned vaccine safety. One author asserted that “what is told about vaccines” differs sharply from “[w]hat is known” about them. A level of disdain for medical authority and government officials unimaginable in the 1950s was transparent in the investigative news report, “DPT: Vaccine Roulette,” aired by an NBC affiliate in 1982. The show focused on risks connected to the DPT (diphtheria, pertussis, tetanus) vaccine’s pertussis component and led to a group of concerned parents founding Dissatisfied Parents Together, an organization that sought greater vaccine safety and compensation for families in which children had suffered harm from vaccinations.

In sum, sociocultural presumptions about authority and trust shifted dramatically between the 1950s and the 1980s. At the same time, not coincidentally, views about vaccination shifted so that the enthusiasm surrounding the polio vaccine in the mid-1950s disappeared in response to subsequent vaccines. This correlation between sociocultural changes and changes in public responses to vaccines falls short of proving causation (as do virtually all correlations) but suggests it, especially in light of statements expressing concern about the trustworthiness of medical and government authorities. The next Part of this Article suggests an even more far-reaching set of sociocultural shifts in the twenty-first century that correlated with the politicization of vaccine responses and of the diseases (especially COVID-19) that vaccines were being developed to prevent or limit.

234 Id.
235 Id.
236 Id. (describing that this occurred often in advice columns and magazines).
237 Id. (citing Carol Horowitz, Immunizations and Informed Consent, MOTHERING, Winter 1983, at 37).
238 Id.
239 Id. (“The broadcast drove home the idea of a paternalistic medical profession and revealed a critical loss of popular faith in authority.”).
240 Again, this should not be taken to gainsay a variety of alternative explanations for the decrease in vaccine uptake beginning in the late 1960s.
241 See Conis, supra note 9 (discussing the reluctant response of parents to vaccines in the early 1980s and beyond, particularly out of fear generated by vaccine critics who alleged connection between vaccinations and intellectual disabilities).
242 Id. (suggesting that the cultural backdrop of the 1970s through the late 1990s fueled skepticism about vaccines)
IV. **SOCIOCULTURAL ASSUMPTIONS IN THE TWENTY-FIRST CENTURY AND THE POLITICIZATION OF DISEASE**

This Part considers dramatic changes in the basic presumptions on which everyday life rests that occurred during the first two decades of the present century. These recent changes in societal presumptions have been more disruptive of traditional assumptions than changes that appeared during the last decades of the twentieth century. Section A of this Part describes the cultural dislocation that society has undergone in the last two decades and continues to undergo. Section B of this Part then links that dislocation to public responses to COVID-19 and to COVID-19 vaccinations.

A. "The Fragmentation of Everything"

During the last decades of the twentieth century, society constructed the foundation on which to rest the far-reaching changes in sociocultural patterns. Those changes became apparent during the first decades of this century. The foundation upon which these changes rests depended upon the displacement of the economic and sociocultural presumptions of the Industrial Revolution by presumptions that developed during the early years of the Digital Age.

In the United States, the advent of the Digital Age may have been particularly jarring because the founding of the nation coincided with the blossoming of the Industrial Revolution. The social and economic presumptions of the Industrial Revolution influenced the nation’s form of government, its legal privileges and protections, and its understanding of personhood. Unlike European nations, which have survived multiple cultural shifts (though perhaps of a lesser magnitude than those connected to the dawn of the Digital Age), the United States had not been similarly

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243 See supra notes 226–239 and accompanying text.
244 See infra text accompanying notes 245–258.
compelled to respond to profound changes in the basic presumptions that make life meaningful.\textsuperscript{247} That is no longer the case.

In brief, by the late twentieth century, new sociocultural presumptions took shape as those that had supported the Industrial Revolution began to wither. Among the most consequential developments of the Digital Revolution has been the ascendancy of social media, along with its uses and misuses.\textsuperscript{248} The ascendancy of social media has had an impact on notions of truth and has provided for the distortion and widespread dissemination of information and misinformation about vaccines and other crucial dimensions of contemporary life.\textsuperscript{249}

Jonathan Haidt, a social psychologist, described this development. In doing so, he offered the following discomfiting metaphor through which he characterized the consequences of internet technology for contemporary society and culture: “The story of Babel [from the biblical Book of Genesis] is the best metaphor I have found for what happened to America in the 2010s, and for the fractured country we now inhabit... We are disoriented, unable to speak the same language or recognize the same truth.”\textsuperscript{250} Haidt also wrote that “red America and blue America are becoming like two different countries claiming the same territory, with two different versions of the Constitution, economics, and American history.”\textsuperscript{251}

\textsuperscript{247} European Society and Culture Since 1914, BRITANNICA, https://www.britannica.com/topic/history-of-Europe/The-reflux-of-empire (last visited Apr. 18, 2023) (describing significant periods of socio-political change in Europe and how these changes affected the philosophical views of the people).


\textsuperscript{249} Ammar Redza Ahmad Rizal et al., How Does Social Media Influence People to Get Vaccinated? The Elaboration Likelihood Model of a Person’s Attitude and Intention to Get COVID-19 Vaccines, INT’L J. ENV’T RSCH. & PUB. HEALTH, Feb. 18, 2022, at 2 (discussing the perceived impact of social media on both perpetuating and discouraging vaccine hesitancy). See also Pringle, supra note 248 (discussing the impact of social media on politics, such as the Brexit vote, the election of Donald J. Trump, and the increased polarization of beliefs).


\textsuperscript{251} Id.
Haidt further explains that the consequence of these circumstances is not tribalism but "the fragmentation of everything." In a social universe experiencing the fragmentation of everything, discourse becomes almost impossible outside of small pockets of people with similar understandings of self and others. Haidt's metaphor tells a tale of shattered truths and of a scattered people—a people who can no longer communicate person-to-person. In that, it serves as a metaphor not only for contemporary political differences. This inability to communicate, Haidt contends, "is happening . . . within universities, companies, professional associations, museums, and even families.

Basic sociocultural presumptions about life, self, personhood, other people, government, expertise, and much more have shattered during the last two decades. Correlatively, popular opinion suggests that many people are now bereft of traditional moral and cultural anchors. Without the anchors that once grounded shared meaning within the social universe, chaos is almost certain to ensue. Chaos has, indeed, emerged and has encouraged and accommodated the misinformation that has spread through social media about COVID-19, COVID-19 vaccines, and many other unrelated matters during the last several years.

Haidt holds social media responsible for a broad loss of trust in "elected leaders, health authorities, the courts, the police, universities, and the integrity of elections." Regardless of whether social media is fully responsible or only in limited part for a loss of trust in experts and authorities, there is no debate that the loss is real. Its consequences are increasingly widespread and disturbing.

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252 Id.
253 See id. (comparing such shattering to the experience of the descendants of Noah, lost in the ruins and unable to communicate, following the fall of the Tower of Babel).
254 Haidt, supra note 250.
255 Steven Mintz, America Has Lost Its Moral Compass, THE ETHICS SAGE (July 12, 2022), https://www.ethicssage.com/2022/07/america-has-lost-its-moral-compass.html (suggesting, based on the results of a June 2022 Gallup poll, that American society has lost its morals and ability to respect others).
256 See Rizal et al., supra note 249, at 2 (discussing how social media has acted as a conduit for the spread of vaccine misinformation, as well as misinformation regarding other diseases, like Zika and Ebola); see also Frank Otto, COVID-19 Misinformation: The Flip Side of 'Knowledge Is Power', UNIV. OF PENN MED. NEWS (Oct. 25, 2022), https://www.pennmedicine.org/news/news-blog/2022/october/covid-misinformation-the-flip-side-of-knowledge-is-power (providing examples of chaos resulting from misinformation regarding COVID-19, including hospitalizations due to purported at-home COVID-19 cures).
257 Haidt, supra note 250.
258 Haidt notes that the Edelman Trust Barometer, which assesses citizens' trust in major social and economic institutions such as government, media, and business, found that the United
Micah Goodman, a social thinker and researcher, has parsed the monumental shifts in peoples’ everyday lives that have resulted from the Digital Revolution. These shifts have involved: the way people think; the way they connect to each other socially; and the way they feel about themselves, other people, and relationships.\(^{259}\) Goodman’s description is powerful:

Because of the digital revolution, our lives are being transformed by three grand bargains. The intellectual bargain: we have more knowledge but less capacity to concentrate and focus. The social bargain: we are much more available but much less attentive. And most importantly, the emotional bargain: we are much more connected, but much less empathetic.\(^{260}\)

Paraphrasing Goodman’s language, one might say that the illusion of knowledge has displaced focus and wisdom; the illusion of social accessibility has displaced actual interactions among people; and the illusion of connection has displaced emotional commitment to other people. The consequences have included increased anxiety and depression among most age groups.\(^{261}\) But the social transformations of the Digital Age have particularly challenged adolescents and children who grew up in its midst.

The changes that Haidt and Goodman describe have resulted in deep polarization, the loss of civil discourse, and the collapse of trust in authorities. To use Haidt’s telling phrase again, we are witnessing “the

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\(^{260}\) Id.

\(^{261}\) See Haidt, *supra* note 250 (“A surge in rates of anxiety, depression, and self-harm among American teens began suddenly in the early 2010s. . . . [T]he timing points to social media as a substantial contributor . . . . Correlational and experimental studies back up the connection to depression and anxiety, as do reports from young people themselves . . . .”). Haidt also reports similar developments among adolescents in Britain and in Canada during the same years. Id. Haidt suggests that children should abandon “screens” (i.e., social media and its correlates) and begin to play with each other outdoors without parental supervision. Id. While he is less clear about how to implement this suggestion, he does suggest that Congress make it illegal for companies to collect information about the lives of children under sixteen without parental consent. Id. He also suggests passing laws that protect parents from child-neglect claims if their young children are seen playing in parks alone. Id.

\(^{262}\) Id. (commenting on harm to Generation Z from a life tied to screens).
The response of the United States to COVID-19—containing it, living with it, and vaccinating to reduce hospitalizations and death resulting from it—has reflected those shifts. The response of the United States to COVID-19—containing it, living with it, and vaccinating to reduce hospitalizations and death resulting from it—has reflected those shifts.

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B. COVID-19, Public Responses to Vaccination, and "the Fragmentation of Everything"

Unlike the nation’s response to the polio vaccine in the 1950s, which reflected a nation united in joy over the vaccine’s development and availability, the American response to the development and availability of COVID-19 vaccines has been halting and sometimes even dismissive or angry. On the whole, people in the United States in the 1950s viewed polio as a shared national tragedy, and they welcomed the vaccine as a shared resource. That response reflected a culture that valued community and that exhibited widespread faith in traditional moral authorities. In contrast, responses to COVID-19 vaccines in the early 2020s further fractured an already divided nation. The politicization of COVID-19 in the early 2020s is unsurprising in that negative, politically-motivated rhetoric about COVID-19 vaccines often overshadowed and displaced expert information on the subject.

This Section considers two aspects of the diminution in social respect for authority as it affected the public’s readiness to be vaccinated against COVID-19. In agreeing with or rejecting medical, scientific, and governmental advice that people should receive COVID-19 vaccinations, the public’s varied responses reflected both individual and social factors. Section IV.B.1 reviews some relevant individual factors. Although, in general, this Article considers responses to COVID-19 vaccines in the United States, the first Subsection reviews data from a longitudinal study carried out in New Zealand. Section IV.B.2 considers shifting sociocultural presumptions during the early twenty-first century. Further, it expressly

263 Id.

264 See discussion infra Section IV.B. for further consideration of correlation between sociocultural changes in the twenty-first century and responses to COVID-19 vaccines.


266 See Conis, supra note 9.

267 That faith may have reflected an ideal as much as the “real.” In either event—whether as myth or fact—the belief that community mattered and that its moral authorities deserved respect shaped responses to vaccines (and to many other matters as well).

RESPONSES TO VACCINATIONS

examines the role of social media in encouraging public reliance on misinformation and disinformation about COVID-19 vaccines. Section IV.B.3 examines some consequences of misinformation and disinformation about COVID-19 vaccines and how the public responded to that. It focuses on increasing suspicion of the polio vaccine. Finally, Section IV.B.4 considers a set of potential legal responses to the spread of misinformation and disinformation on social media.

1. Individual Factors

Some individuals may be quicker than others to reject the counsel of experts and authorities for reasons unique to their characters and personal histories. This Article is more concerned with sociocultural patterns than with individual factors in attempting to explain vaccine hesitancy and rejection. Still, it is important to note that individual, rather than political and communal, differences may explain some part of public hesitancy toward and rejection of vaccinations.

One study, led by Terrie Moffitt, a researcher from Duke University, relied on a database with information about the lives of almost 1,000 people born in one town in New Zealand in 1972 and 1973 (the “Dunedin Study”).\(^\text{269}\) At the time of Moffitt and his co-authors’ study, the research subjects were approximately forty-nine years old.\(^\text{270}\) Moffitt’s team of researchers relied on the data from the Dunedin Study in New Zealand\(^\text{271}\) to propose correlations between aspects of individuals’ psychological histories and their responses to COVID-19 vaccines.

Data from the New Zealand study suggested that some tactics for encouraging vaccination might prove ineffective for people whose vaccine hesitancy or rejection is grounded in deeply embedded emotions.\(^\text{272}\)

\(^{269}\) Moffitt, et al., supra note 268, at 2; id. n.24. See also Karl Leif Bates, Vaccine Resistance Comes from Childhood Legacy of Mistrust, DUKE TODAY (Apr. 4, 2022), https://today.duke.edu/2022/04/vaccine-resistance-comes-childhood-legacy-mistrust (covering the authors’ research and the main takeaways from their results).

\(^{270}\) Moffitt et al., supra note 268, at 2.

\(^{271}\) Id. at 9 (explaining the author’s work in connection with the Dunedin Study) (“[T]he Dunedin Multidisciplinary Health and Development Research Unit at the University of Otago is within the Ngai Tahu tribal area, who we acknowledge as first peoples, tangata whenua (people of this land).”).

\(^{272}\) See id. at 2, 8–9. It cannot be assumed that data from the New Zealand study would be similar to data from the United States, if comparable research were carried out in the United States. Still, the data on which Moffitt and co-authors relied and the conclusions they reached from that data are informative in explaining vaccine hesitancy and rejection in the United States.

\(^{273}\) Id.
They suggest that, for such people, presentation of relevant facts may not be sufficient.274 Quoting biologist and neurology professor Robert Sapolsky, the authors contend, “You can’t reason somebody out of something they were not reasoned into in the first place.”275

Moffitt and co-authors reported that vaccine-hesitant and—even more—vaccine-resistant adults often share a personal history that includes emotional stress and disruption.276 Specifically, they found that

[m]any Vaccine-Resistant and, to a lesser extent, Vaccine-Hesitant adults had childhood histories of adverse experiences in their families, such as abuse, mistreatment, deprivation, and neglect, that can understandably leave survivors with a lifelong legacy of mistrust. Dating back to adolescence, many had experienced chronic mental-health conditions that can foster apathy and avoidance, derail healthy decision-making, and even promote susceptibility to conspiracy theories.277

Further, the authors reported, those who were vaccine-resistant and vaccine-hesitant in 2021 were more likely than others to experience “fear and anger,” to “describe themselves as nonconformists who value personal freedoms over social norms,” and to feel “fatalistic about their health. . . ”278

These differences may or may not hold up across cultures and over longer periods of time.279 Even if they do, they explain only part of the increasing vaccine hesitancy and resistance in response to COVID-19 vaccines. A fuller explanation depends on data supplementing information about individuals’ life experiences with information about sociocultural and economic280 shifts in the research subjects’ communities.281

274 Moffitt et al., supra note 268, at 2, 9.
275 Id. at 2 (internal quotation marks omitted).
276 See id.
277 Id. at 8.
278 Moffitt et al., supra note 268, at 8.
279 Arguably, shifting rates of child abuse and neglect could explain changes in rates of vaccine hesitancy and rejection. That correlation, however, was not presented by the authors of the Moffitt study because of the longitudinal nature of the study. See generally id.
280 This Article has not discussed economic shifts attending sociocultural changes in detail. Two economic transformations of enormous proportion, however, are central to sociocultural changes considered in this Article. The first such transformation was initiated with the Industrial Revolution and the second with the Digital Age. See infra Sections III and IV.
281 Moffitt et al. delineate limitations of their study: First, vaccine intentions were ascertained through self-report; eventual behavior can differ from self-reported intentions. Second, important determinants of vaccine
In a thoughtful review in *Commonweal Magazine*, Ryan Brown came to similar conclusions as Moffitt and co-authors. Brown examined several philosophical and psychological approaches to understanding the popularity of false science and conspiratorial thinking ("a kind of 'epistemic stubbornness'"). He suggested that "the conspiratorial thinker" may be affected by excessive reasoning within a "too-narrowly circumscribed worldview." Even more, Brown contended that psychological and philosophical analyses alone are not sufficient to explain the "'virus' of bad thinking." A robust exploration of the phenomenon requires combining "logic and epistemology" with "history, politics, and economics.

2. Sociocultural Factors and COVID-19 Vaccine Hesitancy and Resistance

In addition to the factors already noted that help explain vaccine hesitancy and rejection, research has revealed gaps in people’s readiness to receive COVID-19 vaccinations based on differences in political affiliation. The data show significant differentiation between Republicans and those residing in rural areas, on the one hand (less likely to have been vaccinated), and Democrats and people over sixty-five, on the other hand.
(more likely to have been vaccinated). Further, a fall 2021 Gallup survey found that 40% of Republicans had no plans to get vaccinated, compared with 3% of Democrats and 26% of Independents.

The Trump administration initiated and supported Operation Warp Speed, which financed the rapid development of several COVID-19 vaccines. Yet, at the same time, Trump and many other Republican leaders facilitated the spread of an "anti-vaccine/anti-masking/anti-social distancing campaign." Among the eighteen states that voted for Donald Trump in 2020, almost all (seventeen of the eighteen) showed the lowest rates of vaccination against COVID-19 in the nation.

Statistics reflect demographic correlates of diverse decisions about COVID-19 vaccinations. Yet, even accurate statistics about matters such as political affiliation can reveal only part of the story of COVID-19 vaccine responses. Another component of public responses to COVID-19 vaccines involves the displacement of evidence-based medicine with disinformation and misinformation. Sometimes, these terms are used interchangeably. However, this Article follows Merriam-Webster in defining "disinformation" as "[f]alse information deliberately and often covertly spread (as by the planting of rumors) in order to influence public opinion or obscure the truth." At present, this is widely accomplished

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288 Id.
290 Id. See infra notes 294–312 and accompanying text for additional review of demographic and social differences between people who tend to accept COVID-19 vaccines and those who do not.
291 See Panetta, supra note 104 (noting that some companies, like Moderna, used OWS funding while others, like Pfizer-BioNTech, did not).
293 Id. Kamarack reported that some Republican leaders had begun to support vaccination against COVID-19 by the fall 2021. Id.
through social media platforms. In earlier decades, the term “disinformation” meant “the dissemination of misleading information” or deceptive propaganda. The Merriam-Webster dictionary defines “misinformation” as “incorrect or misleading information,” thus distinguishing it from disinformation. In popular lingo, both phenomena have been referred to as “fake news.”

Moreover, both terms are used to refer to false information putatively describing the scope and character of COVID-19 or of the COVID-19 vaccines. A report presented by the Center for American Progress in August 2020 begins by addressing the distinction:

Although online disinformation and misinformation about the coronavirus are different the former is the intentional spread of false or misleading information and the latter is the unintentional sharing of the same – both are a serious threat to public health. Social media platforms have facilitated an informational environment that, in combination with other factors, has complicated the public health response, enabled widespread confusion, and contributed to loss of life during the pandemic.

The report refers to the “disintegration of the shared reality of the pandemic” in the United States. While this Article focuses on responses in

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300 Id. See also COVID-19 Disinformation Research and Reporting Act of 2021, S. 913, 117th Cong. § 1 (2021). The bill, introduced by Senator Hirono (D-HI), proposed study of the dissemination of “COVID-19 related disinformation and misinformation on the internet and social media platforms.” Id. The bill was referred to the Committee on Health, Education, Labor, and Pensions. Id.
the United States, the phenomenon has not been limited to the United States.\footnote{\textit{Other nations have experienced a similar spread of disinformation. See Zosia Wanat et al., EU Warns of 'Pro-Kremlin' Disinfo on Coronavirus Pandemic, POLITICO (Mar. 18, 2020), \url{https://www.politico.eu/article/eu-warns-on-pro-kremlin-disinfo-on-coronavirus-pandemic/}. Politico reported that the “EU External Action Service’s East StratCom office said it had collected 80 coronavirus-related disinformation cases on popular medical channels in Europe” between mid-January 2020 and mid-March 2020. \textit{Id}.}}

Segments of the public have deemed inaccurate ("fake") information offered by the government and scientists about COVID-19 and COVID-19 vaccines\footnote{\textit{Id}.} That has been especially evident in responses to vaccine mandates, as well as in responses to government and scientific suggestions that the vaccines limit illness and death from COVID-19.\footnote{\textit{Id}.} Among myths about COVID-19 countering guidance supporting the vaccine’s life-saving capacity are claims that the government has over-represented the number of deaths from COVID-19 (a belief held by 38\% of the public); the COVID-19 vaccine is dangerous for pregnant women (held by 17\% of the public, with an additional 22\% unsure); and that the COVID-19 vaccines result in infertility (31\% of the public).\footnote{\textit{Id}.} Further, in 2021 between twenty and twenty-five percent of the public was reported to believe that COVID-19 vaccines insert a microchip into recipients (24\%) or that the vaccines alter DNA (21\%).\footnote{\textit{Id}.}

One California restaurant owner, angry about COVID-19 vaccine mandates, hung a sign in his restaurant’s window that read: “Proof of Being Unvaccinated Required.”\footnote{\textit{Id}.} The sign seems symbolic rather than directive since it would prove a peculiar challenge to demonstrate that one has not been vaccinated. Yet, the sign’s symbolism was heartfelt. The restaurant owner explained to a news outlet that his restaurant was to be a “constitutional battleground.”\footnote{\textit{Id}.} “Our American way of life is under attack,” he explained.\footnote{\textit{Id}.} This restaurant owner openly protested those responsible for restrictions aimed at limiting the spread of COVID-19 by making statements such as the following:

\begin{itemize}
  \item Segment of Accurate information offered by government and scientists about COVID-19 and COVID-19 vaccines,\footnote{\textit{Id}.} that has been especially evident in responses to vaccine mandates, as well as in responses to government and scientific suggestions that the vaccines limit illness and death from COVID-19.\footnote{\textit{Id}.} Among myths about COVID-19 countering guidance supporting the vaccine’s life-saving capacity are claims that the government has over-represented the number of deaths from COVID-19 (a belief held by 38\% of the public); the COVID-19 vaccine is dangerous for pregnant women (held by 17\% of the public, with an additional 22\% unsure); and that the COVID-19 vaccines result in infertility (31\% of the public).\footnote{\textit{Id}.} Further, in 2021 between twenty and twenty-five percent of the public was reported to believe that COVID-19 vaccines insert a microchip into recipients (24\%) or that the vaccines alter DNA (21\%).\footnote{\textit{Id}.}
  \item One California restaurant owner, angry about COVID-19 vaccine mandates, hung a sign in his restaurant’s window that read: “Proof of Being Unvaccinated Required.”\footnote{\textit{Id}.} The sign seems symbolic rather than directive since it would prove a peculiar challenge to demonstrate that one has not been vaccinated. Yet, the sign’s symbolism was heartfelt. The restaurant owner explained to a news outlet that his restaurant was to be a “constitutional battleground.”\footnote{\textit{Id}.} “Our American way of life is under attack,” he explained.\footnote{\textit{Id}.} This restaurant owner openly protested those responsible for restrictions aimed at limiting the spread of COVID-19 by making statements such as the following:
\end{itemize}
We have never complied with any restrictions since, and when the tiny tyrants go on the attack with new mandates, we fire back launching new missiles of defiance. And with the new and aggressive push for mandatory vax policies, we couldn’t resist, so we are sending a message of our own . . .

One explanation for the correlation between political affiliation and beliefs about COVID-19 and COVID-19 vaccines focuses on the discrepant views of news outlets to which Democrats and Republicans pay attention and find trustworthy. Each set of outlets has presented widely discrepant and often conflicting views of COVID-19 and COVID-19 vaccines from that of the other.

These differences, in turn, suggest a more far-reaching disintegration of shared assumptions about the nation’s sociocultural foundations. This disintegration has affected disparate domains of life. Jonathan Haidt’s Tower of Babel metaphor is evocative and chilling. Sharp differences within the public’s responses to COVID-19 vaccines seem almost inevitable in a society undergoing the “fragmentation of everything.”

3. Consequent Responses to Other Vaccines

While misinformation and disinformation have been disseminated in many contexts regarding diverse issues, the COVID-19 “misinfodemic” has been particularly harmful because people have failed or refused to respond to COVID-19 in a manner that would have protected health and
saved lives.\textsuperscript{315} Even more, the level of vaccine hesitancy and rejection of COVID-19 vaccines in the United States has raised concern about future public responses to other vaccines.\textsuperscript{316} In particular, a case of paralytic polio in the New York City area during the summer of 2022 heightened concern about decreasing rates of polio vaccination.\textsuperscript{317}

Parental reluctance to have children vaccinated against polio contrasts startlingly with responses in the 1950s.\textsuperscript{318} A 1955 survey about public responses to the new polio vaccine, the year in which that vaccine first became available to the public, asked survey respondents about a delay in the distribution of the vaccine and the likelihood that their children would be able to get vaccinated during the year.\textsuperscript{319} The researchers did not assume that parents wanted their children to be vaccinated, but that issue was peripheral to the survey.\textsuperscript{320} When parents who did not expect their children to be vaccinated against polio in 1955 were asked to explain that response, only 1\% said they had “doubts as to the effectiveness of the vaccine.”\textsuperscript{321} Thirteen percent said that they were fearful about the vaccine, but among that group, 5\% thought that the vaccine might “be safe later.”\textsuperscript{322} In fact, millions of children were vaccinated against polio in 1955 and there was “overwhelming public acceptance” of that effort.\textsuperscript{323} Certainly, one explanation depends on a powerful correlation: that time was “a high point of respect for scientific discovery.”\textsuperscript{324}


\textsuperscript{317} Id.

\textsuperscript{318} See Conis, supra note 9 and accompanying text.


\textsuperscript{320} Id. at 23 tbl.11.

\textsuperscript{321} Id. Over one quarter of the respondents said their child was in “the wrong age group” to receive a vaccine in 1955 and 10\% responded that the vaccine was “not available.” Id.

\textsuperscript{322} Id.


\textsuperscript{324} Id. (quoting David M. Oshinsky, a medical historian at New York University).
In contrast, in 2022, only about 60% of children twenty-four months old and younger in Rockland County, New York, received the recommended doses of the polio vaccine.\(^{325}\) In one of the County's ZIP codes, the pediatric vaccination rate was only 37.3%.\(^{326}\) It was in that county that a doctor diagnosed a young, unvaccinated adult with paralytic polio during the summer of 2022.\(^{327}\)

4. Are There Effective Legal, Educational, and Public Health Responses?

This case of paralytic polio affecting an unvaccinated person and the County's low rate of vaccination against polio created concern that the vaccination rate would fall even more precipitously and more widely because of public hesitancy about, and rejection of, COVID-19 vaccines. The politicization of COVID-19, exacerbated by the widespread dissemination on social media of disinformation, makes it difficult for those concerned about the spread of, and belief in, false information to respond effectively. Efforts to spread false information long precede the Digital Age. But reliance on the internet to disseminate messages widely speeds up the process and expands the number of people who believe misinformation and disinformation and who, in turn, further spread those messages.\(^{328}\)

Ideally, people should be able to sift through information and assess its veracity and validity. Politicization has made that less likely than it was once. One response would be to provide more room for governments to oversee social media. However, any effort to have the federal and state government regulate information must be managed with care. Government regulation of information can be perilous in that it can make governments the "arbiters of truth."\(^{329}\)

More generally, the law's capacity to respond effectively to the dissemination of false information is limited, but some reasonable options have emerged. The Human Rights Committee of the United Nations established the International Covenant on Civil and Political Rights

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\(^{325}\) See supra Section III.C; Daniel, supra note 316.

\(^{326}\) See Daniel, supra note 316.

\(^{327}\) Erika Edwards, Polio Vaccination Rate for 2-Year-Olds Is as Low as 37% in Port of N.Y. County Where Paralysis Case was Found, NBC NEWS (Aug. 16, 2022, 4:58 PM), https://www.nbcnews.com/health/health-news/polio-vaccine-coverage-low-37-ny-county-paralysis-case-was-found-rcna43279.

\(^{328}\) Legal Responses to Disinformation, supra note 295, at 3–4.

\(^{329}\) Id. at 6.
giving signatory states authority to limit the dissemination of false information. However, legal responses have not been effective. Among other problems, the concepts of misinformation and disinformation ("fake news") are ambiguous and vague. Criminal laws that attempt to limit disinformation are also vague and can be challenged in the United States for limiting speech unconstitutionally.

These limitations notwithstanding, some existing laws may prove useful in responding to disinformation. Some disinformation may be categorizable as defamation (i.e., libel and slander) or as false advertising. For those situations, existing laws may prove useful. For example, tort law in the United States offers recovery for people subject to the intentional infliction of emotional distress.

One recent example, though not about COVID-19 or vaccines, is worth reviewing. It is about another contemporary public health concern—gun violence. The case against Alex Jones is illustrative of the potential power of defamation suits to respond to harmful disinformation. Jones, the right-wing host of a talk show, conspiracy theorist, and Trump supporter, owned and operated the media outlet Infowars. He contended that the shooting at Sandy Hook Elementary School in Newtown, Connecticut, in December 2012 was a hoax that mainstream media fabricated.

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Legal Responses to Disinformation, supra note 295, at 5–6. See, e.g., id. at 2–3 ("The term 'fake news', although widely used, has no accepted definition. It is rather a catch-all phrase . . . .")).

Id. at 6.

See id. at 7.

Id. at 8–9.

Legal Responses to Disinformation, supra note 295, at 7–8.

Id. at 7.


Dhanrajani et al., supra note 338.
A number of Sandy Hook families filed lawsuits against Jones in Connecticut and in Texas. Two cases were brought in Texas by the parents of a six-year-old child, Jesse, one of the children killed in the Sandy Hook massacre. Jesse’s parents, Scarlett Lewis and Neil Heslin, testified that the uproar created by Jones’s dissemination of disinformation about the Sandy Hook event had created a “living hell” for them. This, they explained, included death threats and harassment.

The trial judge in the “Sandy Hook” Texas cases, Maya Guerra Gamble, found Jones liable to the plaintiffs. Judge Gamble entered default judgments against the defendants, referring to “their ‘flagrant bad faith and callous disregard’ of court orders to turn over documents to the parents’ lawyers.” The defendants were found liable for the infliction of emotional distress to the plaintiffs. The amount of the damage award was left to the jury to determine. The plaintiffs asked the jury to “deter Alex Jones from ever doing this awfulness again” and to deter others who might spread harmful disinformation. The jury awarded the parents

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340 The multiple cases against Alex Jones brought by family members of the Sandy Hook shooting victims against Jones, Infowars, and Prison Planet, were consolidated. Lafferty v. Jones, No. UWY-CV18-6046436-S, 2022 WL 18110184, at *1 (Conn. Super. Ct. Nov. 10, 2022); id. at *1–2 (referencing the court entering default judgment against the defendants and the subsequent verdict reached by the jury); id. at *1 n. 4 (denying the defendants’ motion to strike).


342 Id. A third case was also brought in Texas. It was filed by Leonard Pozner and Veronica De La Rosa, parents of a child (Noah) who was killed at Sandy Hook Elementary School. Id.


345 Id.


348 Darcy, supra note 338.


350 Brian Stelter, A Jury Finds Infowars Conspiracy Theorist Alex Jones Should Pay $45.2 million in Punitive Damages to the Parents of a Sandy Hook Shooting Victim, CNN (Aug.
over forty-five million dollars in punitive damages\(^3\) and over four million dollars for “mental anguish.”\(^2\)

A few months earlier, after a group of Sandy Hook plaintiffs rejected Jones’s settlement offer, *Infowars* had filed for Chapter 11 bankruptcy protection.\(^3\) Jones had offered $120,000 to each of the thirteen plaintiffs.\(^4\) Then, in October of 2022, a Connecticut jury held Jones responsible for $954 million in damages to Sandy Hook families whose children were killed in the massacre.\(^5\) The following month, a Connecticut judge ruled that Jones was obliged to pay an additional $473 million in punitive damages.\(^6\)

The cases against Jones brought by family members of Sandy Hook victims suggest the potential usefulness of traditional tort remedies in responding to disinformation. More, however, is needed. Regulatory approaches might help limit disinformation. These would involve governments working with social media companies to limit the dissemination of information spread with the intent to delude.\(^7\)

Educational efforts that respond to disinformation present an additional avenue for diminishing, if not dispelling, disinformation and can be an important supplement to litigative and regulatory responses. Educating the public about the uses and abuses of social media could become a central component of a broadly successful effort to limit disinformation and the harm that it creates. (Misinformation is less harmful because it is

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\(^3\) Over $954 million in damages.

\(^2\) Over $473 million in punitive damages.

\(^3\) Jones & DeRose, supra, note 349.

\(^4\) Id.

\(^5\) Dhanrajani et al., supra note 338.

\(^6\) Id. Lewis and Heslin’s attorneys worried, with regard to damages, that Jones’ having mentioned his bankruptcy in court might influence the jurors to believe that Jones had less money than he actually had. See Vertuno, supra note 344.


**See Legal Responses to Disinformation, supra note 295, at 4–5.**
grounded in error and can be remedied more easily than can disinformation.)

Social media companies are unlikely to initiate such educative efforts. With that in mind, a Prospectus constructed by the International Center for Not-for-Profit Law suggests that these companies could be taxed, with the resulting funds allocated to an educational fund. 358 Additionally, public pressure and perhaps legal rules (though such rules would be likely to raise significant constitutional concerns) could compel social media companies to engage in fact-checking and include the results of those checks on their sites. 359 An additional suggestion for limiting disinformation and misinformation in general and for limiting all forms of false information about health and health care, in particular, would involve motivating individuals to refrain from sharing information before they attempt to discern its veracity. 360

Each of the suggestions noted, and more, should be seriously considered. Most should be implemented. The panoply of proposed responses may seem fragile in the face of the daunting force of disinformation and misinformation disseminated through social media. Yet, the consequences of failing to respond are more dismal still.

V. CONCLUSION

Vaccines, aimed at limiting severe disease and deaths, provide one of the most important public health measures that science and medicine can offer. Yet, segments of the public have responded to new vaccines with hesitation and rejection. 361 That has been the case since the development of the smallpox vaccine over two centuries ago. 362 But the scope and intensity of anti-vaccination responses have increased, especially in the

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358 Id. at 18.
359 Id. at 18–19.
360 Fraser Hall Libr., Elections and Politics Information: Ways to Avoid the Spread of False Info on Social Media, SUNY GENESEO, https://library.genesco.edu/ElectionsAndPolitics/SocialMediaLies (last visited Apr. 18, 2023). See also Renée DiResta, How to Stop the Spread of Fake News on Social Media, ASPEN IDEAS (June 25, 2018), https://www.aspenideas.org/articles/how-to-stop-the-spread-of-fake-news-on-social-media (suggesting, among other possibilities, that the "average person" can take steps to discern the veracity of social media claims); Darrell M. West, How to Combat Fake News and Disinformation, BROOKINGS (Dec. 18, 2017), https://www.brookings.edu/research/how-to-combat-fake-news-and-disinformation/ (noting the extent of problems created by false information but offering caution about governmental regulation).
361 See supra Part II.
362 Riedel, supra note 11, at 21.
last several decades.\(^{363}\) That quantitative change became a qualitative change in the 2020s.\(^{364}\)

Public health professionals, social scientists, psychologists, doctors, and scientists have struggled to explain public hesitancy and rejection of vaccines. Those considering the matter have offered a diverse set of explanations,\(^{365}\) from concern about vaccine efficacy to worry that vaccinations result in the injection of toxins into the body.\(^{366}\) This Article suggests an explanation that takes shifting sociocultural patterns into account. It does not claim that this explanation is comprehensive, but it does claim that it is too significant to ignore.

In considering the importance of shifting sociocultural patterns in explaining changes in public responses to vaccines, this Article correlates specific kinds of sociocultural changes over time with changes in the public’s readiness to accept new vaccines and vaccine mandates. The strongest correlation involves sociocultural changes that have resulted in altered levels of respect for experts and moral decision-makers.\(^{367}\) Two significant transformations of that sort, each resulting in diminished respect for experts and moral decision-makers, occurred during the last five or six decades. The first of these occurred during the last three or four decades of the twentieth century,\(^{368}\) and the second took place in the early twenty-first century.\(^{369}\)

This Article has described broad sociocultural patterns during specific decades, first within the twentieth century and then within the present century, and correlates shifts in those patterns with changes in public responses to vaccination. More particularly, it has connected public resistance to vaccines over time with specific types of sociocultural

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363 See supra Section III.C.
364 See supra Section IV.B.2.
365 See West, supra note 6 and accompanying text.
366 See e.g., Partly False Claim: Vaccines Contain Toxic Levels of Aluminum, Polysorbate 80, Yeast, and other Substances, REUTERS (May 5, 2020, 3:11 PM), https://www.reuters.com/article/uk-factcheck-vaccines-toxic-substances/partly-false-claim-vaccines-contain-toxic-levels-of-aluminum-polysorbate-80-yeast-and-other-substances-idUSKBN22H2OP (fact-checking a viral image on social media that claims vaccines have toxic levels of various substances and asserting that the levels are not harmful). The article, noting a social media site that lists toxins in vaccines, quoted text accompanying one of the site’s images: “This is disgusting what they put in vaccines and convince you it’s good for you.” Id. The article goes on to review toxins that are, indeed, found in some vaccines, concluding that they are usually not harmful. Some, however, such as yeast in the Hepatitis B vaccine, may be harmful to persons allergic to the substance. See id.
367 Conis, supra note 9.
368 Id.
369 See supra Section IV.A.
changes. In the twentieth century, significant increases in public resistance to vaccines occurred during a time that witnessed diminished respect for traditional expertise and for traditional moral authorities.\(^{370}\) That respect was seriously challenged and began to fade in the last decades of the century\(^{371}\) In those decades, the public became more resistant to the uptake of vaccines, both for adults and for children.\(^{372}\) That vaccine hesitancy and rejection is particularly striking in comparison to the public’s elation at the delivery of the polio vaccine in the 1950s, a period during which society assumed a continuing respect for experts and for traditional moral authority.

Challenges presented in the twenty-first century to vaccine acceptance (in particular, acceptance of vaccines developed to limit the severity and spread of COVID-19) reflect the advent of the Digital Age.\(^{373}\) This century has witnessed a far-reaching, intense politicization of disease and responses to it (including vaccines).\(^{374}\) The depth and intensity of that politicization had no parallel in the previous century. This politicization, which has included rejection of scientific conclusions and government guidance, follows from the diminution of respect for authority that developed during the twentieth century’s last decades.\(^{375}\) But far more important, it reflects the open rejection and dissolution of shared cultural presumptions during the present century. The dissemination of disinformation on social media and the public’s readiness to believe claims grounded on disinformation have supported these responses. The process of politicization includes, but goes far beyond, responses to vaccines. In Jonathan Haidt’s compelling phrase, it reflects “the fragmentation of everything.”\(^{376}\) That description suggests a challenging future. It is incumbent on us to respond as forcefully and speedily as possible.

\(^{370}\) See supra Section III.C.
\(^{371}\) Conis, supra note 9.
\(^{372}\) Id.
\(^{373}\) See supra Section IV.A.
\(^{374}\) See supra Part IV.
\(^{375}\) Id.
\(^{376}\) Haidt, supra note 250.