

STRIVING FOR HERD IMMUNITY

ANDREW JANET*

This Comment argues in favor of large-scale reform that would make it much more difficult to avoid immunizing children. Part I provides background on the sources of this problem and contends that there is an extremely strong state interest in eradicating diseases to which the countervailing individual interest in pursuing an adherence to junk science should pale in comparison. Part II argues that the state exemptions for religious and personal beliefs are both unnecessary and, again, misguided given the strong state interest in eradicating diseases. Part III explores the possibility of universal state-level or federal-level mandates for vaccination. The country has allowed the destructive impact of Jenny-McCarthyism to run rampant for far too long.

INTRODUCTION.....	1
I. <i>THE PEOPLE’S INTEREST IN JUNK SCIENCE VERSUS THE STATE INTEREST IN UNIVERSAL VACCINATION</i>	3
A. <i>Andrew Wakefield’s Fraudulent Study</i>	3
B. <i>The Continued Influence of Retracted Research</i>	4
C. <i>The State Interest in Widespread Vaccinations</i>	6
II. <i>THE NEEDLESSNESS OF RELIGIOUS AND PHILOSOPHICAL OBJECTIONS</i>	7
A. <i>Philosophical Objections</i>	8
B. <i>Religious Objections</i>	9
C. <i>A Military Analogy</i>	11
III. <i>THE LEGITIMACY OF A UNIVERSAL MANDATE</i>	11
A. <i>State-Level Mandates</i>	12
B. <i>Federal-Level Mandates Under the Commerce Clause</i>	13
C. <i>Federal-Level Mandates Under the Taxing Power</i>	15
CONCLUSION	15

INTRODUCTION

Few Playboy centerfolds have had so bizarre a legacy as Jenny

* Copyright © 2014 by Andrew Janet, J.D., 2014, New York University School of Law; B.S., 2008, University of Pennsylvania. I am thrilled to be the first person to publish a student Note as New York University Law Review online-only content and am grateful that the Law Review is leading the charge into an era where shorter, more informal, and more topical student writing thrives on the Internet. I also want to express my deepest gratitude to Professor Sylvia Law, whose wisdom inspired this paper and who strongly encouraged its publication; to Adrienne Lee Benson and Mikayla Consalvo for making the magic happen; to Shayon Ghosh for his invaluable feedback and for tolerating me once again; to Sarah Molinoff for her hard work refining the Note in its later stages; to all other editors who contributed to the Note’s progress; and to my incredible family for loving me, supporting me, and vaccinating me.

McCarthy. Likely no other Playmates have been called a “menace to public health.”¹ After her son Evan was vaccinated, McCarthy insisted that she could see “the soul was gone from his eyes” in one fell swoop.² McCarthy then subjected her son to every possible treatment for autism. Today, Evan no longer seems developmentally challenged, so McCarthy is convinced she healed her child.³ Along the way, McCarthy became one of the most famous and outspoken antivaccination advocates in mainstream America, particularly targeting the measles, mumps, and rubella (MMR) vaccine. I will refer to this misguided belief that vaccines are more dangerous than the alternatives as “Jenny-McCarthyism” throughout the paper.

Regrettably, many politicians have taken up the antivaccine cause as well, notably Michele Bachmann, who at one point made the novel claim that the HPV vaccine caused “mental retardation.”⁴ Pediatricians were quick to reassure parents that there was “absolutely no scientific validity” to her assertion,⁵ but how many more people heard Bachmann through the national news media than read the statement by the American Academy of Pediatrics? Statements like Bachmann’s can have powerful impacts even when the details are easily refuted.

The alleged link between the MMR vaccine and autism was first scientifically demonstrated by Andrew Wakefield.⁶ Although the study was later discredited as fraudulent and was retracted,⁷ the misconception lingers. This study and the resulting press coverage have contributed to the growing trend of parents deciding not to vaccinate their children, a movement that has been increasing at alarming rates.⁸ The result has been predictable: Diseases that are preventable are becoming less rare. America has seen outbreaks of measles, whooping cough, and other often-fatal

¹ Karl Taro Greenfeld, *Who’s Afraid of Jenny McCarthy?*, TIME (Feb. 25, 2010), <http://content.time.com/time/magazine/article/0,9171,1968100,00.html>.

² *Id.*

³ *Id.* In fact, Evan may have been misdiagnosed; a rarer disease called Landau-Kleffner syndrome is also consistent with his symptoms. *Id.*

⁴ Scott Hensley, *Pediatricians Fact-Check Bachmann’s Bashing of HPV Vaccine*, NPR (Sept. 13, 2011, 5:54 PM), <http://www.npr.org/blogs/health/2011/09/13/140445104/pediatricians-fact-check-bachmanns-bashing-of-hpv-vaccine>.

⁵ *Id.*

⁶ A.J. Wakefield et al., *Ileal-Lymphoid-Nodular Hyperplasia, Non-Specific Colitis, and Pervasive Developmental Disorder in Children*, LANCET, Feb. 28, 1998, at 637, available at [http://www.thelancet.com/pdfs/journals/lanet/PIIS0140-6736\(97\)11096-0.pdf](http://www.thelancet.com/pdfs/journals/lanet/PIIS0140-6736(97)11096-0.pdf).

⁷ Editorial, *Wakefield’s Article Linking MMR Vaccine and Autism Was Fraudulent*, BMJ (Jan. 6, 2011) [hereinafter *BMJ Editorial*], <http://www.bmj.com/content/342/bmj.c7452>.

⁸ See EMILY OSHIMA LEE ET AL., CTR. FOR AM. PROGRESS, THE EFFECT OF CHILDHOOD VACCINE EXEMPTIONS ON DISEASE OUTBREAKS 2 (2013), available at <http://www.americanprogress.org/issues/healthcare/report/2013/11/14/76471/the-effect-of-childhood-vaccine-exemptions-on-disease-outbreaks/> (“Although all states have vaccination mandates for schoolchildren, in recent years they have granted a growing number of nonmedical exemptions.”).

diseases among children in recent years.⁹

This paper argues in favor of large-scale reform that would make it much more difficult to avoid immunizing children. Part I provides background on the sources of this problem and contends that there is an extremely strong state interest in eradicating childhood diseases, to which the countervailing individual interest in pursuing an adherence to junk science should pale in comparison. Part II argues that the state exemptions for religious and personal beliefs are both unnecessary and, again, misguided given the strong state interest in eradicating diseases. Part III explores the possibility of universal state-level or federal-level mandates for vaccination. The country has allowed the destructive impact of Jenny-McCarthyism to run rampant for far too long.

I

THE PEOPLE'S INTEREST IN JUNK SCIENCE VERSUS THE STATE INTEREST IN UNIVERSAL VACCINATION

Jenny-McCarthyism stems entirely from a single discredited, retracted study that has lingered in the minds of Americans for decades. This Part explores the history of Andrew Wakefield's improprieties, questions why his conclusion has had so much staying power, and maintains that the state interest in widespread immunization should overwhelmingly outweigh some Americans' persistent desire to believe in fake science.

A. *Andrew Wakefield's Fraudulent Study*

The link between the MMR vaccine and autism was first "discovered" by Andrew Wakefield in 1998.¹⁰ The trial did not attempt to find any experimental statistical significance of the link; rather, it merely examined twelve autistic children as a case study.¹¹ Though the study's conclusion itself was measured, Wakefield's comments at a subsequent press conference were far more inflammatory and sparked widespread fear: Referring to it as a "moral issue," Wakefield called for an immediate discontinuation of the MMR vaccine until more research could be conducted.¹² In the United Kingdom, "rates of inoculation fell from 92% to below 80%" after the study was released.¹³

The study's results have been called into question since its

⁹ *Id.* at 4.

¹⁰ Wakefield et al., *supra* note 6.

¹¹ *See id.* at 637 (describing the study's methodology).

¹² Nick Triggle, *Wakefield and Autism: The Story That Will Not Go Away*, BBC NEWS, <http://news.bbc.co.uk/2/hi/health/8481583.stm> (last updated Jan. 28, 2010).

¹³ Brian Deer, *MMR Doctor Andrew Wakefield Fixed Data on Autism*, SUNDAY TIMES (Feb. 8, 2009), <http://www.thesundaytimes.co.uk/sto/public/news/article148992.ece>.

publication. In a 2004 *Sunday Times* article, Brian Deer revealed that Wakefield had been paid 55,000 pounds by lawyers hoping to bring suit against vaccine manufacturers on behalf of parents of autistic children.¹⁴ Shortly thereafter, Deer released a patent application that Wakefield had filed in 1998 for a measles-only vaccine, which states, “the MMR vaccine . . . results in ileal lymphoid nodular hyperplasia, chronic colitis and pervasive developmental disorder including autism (RBD), in some infants.”¹⁵ Wakefield had never disclosed these conflicts of interest before Deer uncovered them. As the controversy grew in 2004, Wakefield left his practice in England and moved to Texas to study childhood developmental disorders, even though he was not licensed to practice in Texas.¹⁶

In 2010, the United Kingdom’s General Medical Council conducted a lengthy hearing and held that not only was he guilty of these aforementioned claims of fraud, but also that Wakefield had engaged in a host of other unethical behaviors, some quite bizarre.¹⁷ For example, the Council found that Wakefield unethically subjected the trial’s autistic children to unnecessary invasive procedures such as lumbar punctures and colonoscopies.¹⁸ As a result of these findings, the GMC permanently banned Wakefield from practicing medicine in Britain.¹⁹ A *British Medical Journal* article, explicitly saying that Wakefield was an unprincipled fraudster who falsified data and was the only coauthor of the study who had not retracted it,²⁰ should have put the final nail in the coffin. And yet, the influence of Wakefield’s work remains to this day.

B. *The Continued Influence of Retracted Research*

There are a number of reasons why the discredited junk science has persisted. Some parents believe that the stakes of failing to vaccinate are fairly low, largely due to the rarity of outbreaks of preventable diseases. As a *Center for American Progress* article has put it, “vaccines are victims of their own success; they have reduced the incidence of vaccine-preventable diseases so much that a growing number of people are less concerned about

¹⁴ Brian Deer, *Revealed: MMR Research Scandal*, SUNDAY TIMES (Feb. 22, 2004), <http://briandeer.com/mmr/lancet-deer-1.htm>.

¹⁵ U.K. Patent Application No. GB 2,325,856 A (filed June 4, 1998), at 1–2, available at <http://briandeer.com/mmr/1998-vaccine-patent.pdf>.

¹⁶ John F. Burns, *British Medical Council Bars Doctor Who Linked Vaccine with Autism*, N.Y. TIMES (May 24, 2010), <http://www.nytimes.com/2010/05/25/health/policy/25autism.html>.

¹⁷ Sarah Boseley, *Andrew Wakefield Found ‘Irresponsible’ by GMC over MMR Vaccine Scare*, GUARDIAN WEEKLY (Jan. 28, 2010), <http://www.theguardian.com/society/2010/jan/28/andrew-wakefield-mmr-vaccine>.

¹⁸ *Id.*

¹⁹ Burns, *supra* note 16.

²⁰ *BMJ Editorial*, *supra* note 7.

contracting them.”²¹

Cognitive biases can also help explain why these beliefs persist. For example, one powerful cognitive bias is the illusion of control. Psychologist Ellen Langer has observed a “psychological tendency of an individual to expect a level of personal success that is inappropriately higher than objective probability would warrant.”²² For example, people who choose their own lottery ticket numbers value the ticket much more highly than people who are assigned lottery numbers randomly.²³ Psychologist Stuart Vyse has discussed “the pervasive human desire for control” and “a sense of control over the uncontrollable” as primary motivators for superstitions.²⁴ In similar fashion, humans want to feel that they have some control over the possibility that their child develops autism. The notion that developmental disorders are caused not by a complex series of genetic factors but by environmental influences that can be avoided is appealing, even if it is wholly incorrect. One can also observe this cognitive bias in relation to other diseases with complex causes, such as cancer, which is why the media is so keen on publishing lists of dozens of simple behavioral methods to reduce one’s risk of cancer, from eating sauerkraut to keeping one’s bedroom dark.²⁵ Nonetheless, while there is no detriment to society from increased sauerkraut usage, refusing vaccinations causes severe harms.

Another cognitive bias which contributes to the pervasiveness of Jenny-McCarthyism has been referred to as the “illusory-truth effect.”²⁶ Hasher, Goldstein, and Toppino coined the term in 1977 after they observed that subjects were more likely to believe incorrect statements they had heard before than incorrect statements they were hearing for the first time.²⁷ The belief that repeated exposure increases truthfulness persists long after subjects could remember the original source of the statement. If people have heard Andrew Wakefield, Jenny McCarthy, and Michele Bachmann talk about links between vaccines and developmental disorders on separate occasions, they may believe the notion is credible even if they

²¹ LEE ET AL., *supra* note 8, at 3.

²² Justin D. Levinson & Kaiping Peng, *Different Torts for Different Cohorts: A Cultural Psychological Critique of Tort Law’s Actual Cause and Foreseeability Inquiries*, 13 S. CAL. INTERDISC. L.J. 195, 220 (2004) (citing Ellen J. Langer, *The Illusion of Control*, 32 J. PERSONALITY & SOC. PSYCHOL. 311 (1975)).

²³ *Id.*

²⁴ STUART A. VYSE, *BELIEVING IN MAGIC: THE PSYCHOLOGY OF SUPERSTITION* 132 (1997).

²⁵ See, e.g., Katie Askew, *30 Simple Ways You Can Prevent Cancer*, READER’S DIGEST, <http://www.rd.com/slideshows/how-to-prevent-cancer/> (last visited Jan. 26, 2015) (listing thirty behavioral changes to reduce the risk of cancer).

²⁶ Danielle C. Polage, *Making Up History: False Memories of Fake News Stories*, 8 EUR. J. PSYCHOL. 245, 245 (2012), available at <http://ejop.psychopen.eu/article/viewFile/456/343>.

²⁷ *Id.*

do not think that those three sources are reliable.

A final factor that contributes to Jenny-McCarthyism is America's general distrust of science. This trend was best articulated by Isaac Asimov, who described American anti-intellectualism as "nurtured by the false notion that democracy means that 'my ignorance is just as good as your knowledge.'"²⁸ This trend is constantly observable in the United States in any political rhetoric that is even remotely related to science, on both sides of the ideological spectrum: the opposition to stem cell research, the disbelief in evolution, the refusal to accept manmade global warming, the anti-nuclear energy movement, the anti-GMO movement, etc.²⁹ Like the other aforementioned factors contributing to the antivaccination movement, it is an unfortunate trend, but one that affects many Americans.

C. *The State Interest in Widespread Vaccinations*

Decisions to not vaccinate children have an impact on society that reaches far beyond the individual family. Epidemiologists recognize the concept of "herd immunity," meaning the point when a communicable disease can no longer erupt in a major outbreak in a community because a certain critical mass of its members are vaccinated.³⁰ "If a large enough proportion of individuals in a community is immunized, this proportion serves as a protective barrier against transmission of the disease in the community, thus indirectly protecting those who are not immunized for whatever reason as well as those few who received vaccine but are not protected (vaccine failures)."³¹ Therefore, it is in the public interest to ensure that everyone who is capable of receiving a vaccination is vaccinated, in order to increase the likelihood of a critical mass.

The CDC recommends that individuals with certain conditions (severe allergies to components of the vaccination, autoimmune diseases, pregnancy, etc.) should not receive some vaccines, but aside from the conditions spelled out on their web site,³² there is no medical reason to avoid vaccinations. If a child is unvaccinated for nonmedical reasons, this decision compromises not only that child's health, but also all the other

²⁸ Isaac Asimov, *A Cult of Ignorance*, NEWSWEEK, Jan. 21, 1980, at 19, available at http://media.aphelis.net/wp-content/uploads/2012/04/ASIMOV_1980_Cult_of_Ignorance.pdf.

²⁹ Michael Shermer, *The Liberals' War on Science*, SCI. AM. (Jan. 15, 2013), <http://www.scientificamerican.com/article.cfm?id=the-liberals-war-on-science>.

³⁰ Anthony Ciolli, *Religious & Philosophical Exemptions to Mandatory School Vaccinations: Who Should Bear the Costs to Society?*, 74 MO. L. REV. 287, 288 (2009).

³¹ Alan R. Hinman et al., *Childhood Immunization: Laws That Work*, 30 J.L. MED. & ETHICS 122, 125 (2002).

³² See *Who Should NOT Get Vaccinated With These Vaccines?*, CTRS. FOR DISEASE CONTROL & PREVENTION, <http://www.cdc.gov/vaccines/vpd-vac/should-not-vacc.htm> (last visited Jan. 24, 2015) (listing various factors to explain what sort of individuals should avoid getting each type of vaccine).

unvaccinated children who interact with that child, including ones who are unable to obtain vaccinations. Some children have severe allergies to eggs or latex; some children are immunocompromised due to a preexisting condition or to cancer treatments; some children may not be able to afford all the available vaccines. All children are unfairly punished when their parents decide to expose them to the unnecessary risk of potentially fatal diseases, but the children who cannot be vaccinated are punished particularly unfairly. The outbreaks created by Jenny-McCarthyism have created huge social costs; a great deal of money has been spent on treatment, and lives have even been lost, as each day newspapers report on outbreaks of completely preventable diseases.³³ Part of the reason why these epidemics can happen is that America's vaccination requirements are not robust enough. Part II will explore this problem in more detail.

II

THE NEEDLESSNESS OF RELIGIOUS AND PHILOSOPHICAL OBJECTIONS

Recognizing the importance of vaccinations, all states require children to receive the major vaccinations before they attend public school;³⁴ however, many states also provide plenty of opportunities to obtain nonmedical exemptions. Religious or philosophical objections are not built into other public health-based legislation; one cannot claim a legislative philosophical or religious exemption to a seatbelt law, a helmet law, a restriction on smoking in public places, a ban on unpasteurized milk, or a ban on Kinder Eggs. And given that the refusal to vaccinate can affect other members of society much more significantly than the refusal to wear a seatbelt, the public interest in eradicating fatal diseases should be viewed as far more important than the interest in allowing individuals to pursue a devotion to discredited junk science.

³³ See, e.g., Michelle Healy, *Ohio Mumps Outbreak Grows*, USA TODAY (Apr. 16, 2014), <http://www.usatoday.com/story/news/nation/2014/04/16/mumps-ohio-outbreak/7746049/> (discussing a mumps outbreak in Ohio which had grown to 225 cases); Ryan Jaslow, *Measles Outbreaks in NYC, Orange County Spotlight Risks Even for Vaccinated*, CBS NEWS (Apr. 1, 2014), <http://www.cbsnews.com/news/measles-outbreaks-new-york-orange-county-spotlight-risks-even-for-vaccinated/> (describing measles outbreaks at opposite sides of the country); Bob McClay, *Whooping Cough Outbreak Concerns Arizona Health Officers*, KTAR (Nov. 14, 2013), <http://ktar.com/22/1677183/Whooping-cough-outbreak-concerns-Arizona-health-officers> (claiming there were a whopping 12,000 cases of whooping cough in Arizona in late 2013); see also Council on Foreign Relations, *Vaccine-Preventable Outbreaks*, CFR.ORG, http://www.cfr.org/interactives/GH_Vaccine_Map/#map (last visited Jan. 24, 2015) (showcasing an interactive map of outbreaks of vaccine-preventable diseases).

³⁴ *State Vaccination Requirements*, CTRS. FOR DISEASE CONTROL & PREVENTION, <http://www.cdc.gov/vaccines/vac-gen/laws/state-reqs.htm> (last visited Jan. 24, 2015).

A. *Philosophical Objections*

Currently forty-eight states permit vaccination exemptions based on religious beliefs, and nineteen states permit exemptions based on philosophical objections.³⁵ The philosophical objection comes in various forms in different states, although it is not clear if the variations in wording arise from actual distinctions in meaning. Maine permits an exemption if there is “opposition to the immunization for philosophical reasons”;³⁶ Pennsylvania requires a “strong moral or ethical conviction similar to a religious belief”;³⁷ Arizona seems more lenient, permitting an exemption “due to personal beliefs”;³⁸ and California appears to be the most lenient, allowing exemptions for a parent “on the basis that [vaccines] are contrary to his or her beliefs.”³⁹ Although the strictness of the language differs, there appears to be no clear difference between a personal belief, a philosophical belief, and a moral conviction. The key point is that if parents prefer not to vaccinate their children, they can tailor their objections to the specific wording of the state in which they reside.

Still, some states have fewer hurdles than others to officially register the objection to vaccination. For example, while some states require a notarized letter explaining the reasons for the objection, others simply require a parent to check a box on a form.⁴⁰ Disturbingly, a recent study found that states with easier exemption procedures have higher rates of exemptions,⁴¹ suggesting that parents are less likely to preserve their personal objections to vaccination if the procedure to do so is more onerous. As a result of such observations, many have argued that certain states essentially permit “exemptions of convenience”—parents filing for exemptions because it is easier than vaccinating their children.⁴² Hence, because checking a box is easier than taking one’s child to the doctor, states are implicitly condoning a public health crisis brought on by apathetic parents.

³⁵ National Conference of State Legislatures, *States with Religious and Philosophical Exemptions from School Immunization Requirements*, NCSL.ORG (Dec. 2012), <http://www.ncsl.org/research/health/school-immunization-exemption-state-laws.aspx>.

³⁶ ME. REV. STAT. ANN. tit. 20-A, § 6355 (2008).

³⁷ 28 PA. CODE § 23-84 (2014).

³⁸ ARIZ. REV. STAT. ANN. § 15-873 (2014).

³⁹ CAL. HEALTH & SAFETY CODE § 120365 (West 2014).

⁴⁰ Carina Storrs, *More Kids Opting out of School-Required Vaccinations: Study*, HEALTHDAY (Sept. 19, 2012), <http://consumer.healthday.com/infectious-disease-information-21/chickenpox-news-123/more-kids-opting-out-of-school-required-vaccinations-study-668808.html>.

⁴¹ *Id.*

⁴² LEE ET AL., *supra* note 8, at 6 (“[B]ecause many exemptions are exemptions of convenience, even minimal administrative requirements have significant impacts on exemption rates.”).

B. Religious Objections

Surely, even if we removed the philosophical objection exemption, wouldn't we still need a religious exemption? After all, the free exercise of religion is protected by the Constitution: "Congress shall make no law respecting an establishment of religion, or prohibiting the free exercise thereof"⁴³ Nonetheless, the Supreme Court has drawn a distinction between religious beliefs and religious practices for well over a century. In 1878, the Court upheld a bigamy conviction for a Mormon defendant despite the defendant's protests that he believed it was his religious duty to marry multiple wives.⁴⁴ The Court stated: "Laws are made for the government of actions, and while they cannot interfere with mere religious belief and opinions, they may with practices."⁴⁵

The precise doctrine behind the enforcement of the Free Exercise Clause has oscillated in the last fifty years. In 1963's *Sherbert v. Verner*, the Court found that laws which burden religious practice must be justified by a "compelling state interest."⁴⁶ In 1990's *Smith* case, however, the Court refused to apply the *Sherbert* test to a "generally applicable prohibition[] of socially harmful conduct."⁴⁷ Congress responded to *Smith* by passing the Religious Freedom Restoration Act (RFRA), which reformulated the free exercise test as: "Government may substantially burden a person's exercise of religion only if it demonstrates that application of the burden to the person (1) is in furtherance of a compelling governmental interest; and (2) is the least restrictive means of furthering that compelling governmental interest."⁴⁸ The Supreme Court then struck down RFRA with regard to state laws as outside the bounds of Congress's enforcement power under the Fourteenth Amendment.⁴⁹ Nonetheless, the Court held in 2006 that RFRA still applied to federal laws.⁵⁰ *Smith* remains controlling as to the states' ability to pass "neutral, generally applicable laws . . . even when not supported by a compelling governmental interest,"⁵¹ but the federal government must abide by the RFRA rule stated above.

State requirements for vaccinations should easily pass the *Smith* test. The mandate that public school enrollees be vaccinated is applicable to all schoolchildren and does not target or burden a specific religion. It is a

⁴³ U.S. CONST. amend. I.

⁴⁴ *Reynolds v. United States*, 98 U.S. 145, 161 (1878).

⁴⁵ *Id.* at 166.

⁴⁶ 374 U.S. 398, 406 (1963).

⁴⁷ *Employment Div., Dep't of Human Res. of Or. v. Smith*, 494 U.S. 872, 885 (1990).

⁴⁸ 42 U.S.C. § 2000bb-1(b) (2012).

⁴⁹ *City of Boerne v. Flores*, 521 U.S. 507, 536 (1997).

⁵⁰ *See Gonzales v. O Centro Espirita Beneficente Uniao do Vegetal*, 546 U.S. 418, 423 (2006) (enjoining the federal government from enforcing a federal statute that violated RFRA).

⁵¹ *City of Boerne*, 521 U.S. at 514.

neutral, practical law that should not speak to one's choice of who or what to worship. This fact is particularly illuminated when one compares this mandate to a law that *was* found to target a specific religion, such as the animal sacrifice regulations in *Church of the Lukumi Babalu Aye v. City of Hialeah*.⁵² That case finds animus in the concerns raised at city council meetings regarding the ritualistic practices of the Santeria faith, indicating base moral disapproval that led to the adoption of the ordinances.⁵³ These rules, which were not found to have general applicability, were invalidated.⁵⁴

Furthermore, a vaccination mandate should also pass the federal rule because it is the least restrictive means of achieving the compelling interest in herd immunity. Eradicating potentially fatal diseases is a public interest that seems just as important, if not far more important, than some that the Supreme Court and Circuit Courts have found to be compelling. For example, the protection of bald and golden eagles was found sufficiently compelling to prevent Native Americans from utilizing their feathers for religious reasons without a permit;⁵⁵ the need to keep a consistent record of prisoners' names was found compelling enough to prevent one prisoner from using his new, post-Islamic conversion name on correspondence;⁵⁶ and the interest in regulating military uniforms was found adequately compelling to forbid an Orthodox Jewish Air Force member from wearing a yarmulke.⁵⁷ All of these bans were also found to be the least restrictive means of achieving their respective interests. As for vaccinations specifically, the Supreme Court has never explicitly said whether religious exemptions to mandatory vaccination laws are valid, but it has suggested its disapproval towards such provisions. In a recent notable RFRA case, the Court overturned a federal requirement of employer-supplied contraception on religious freedom grounds, but the majority went out of its way to note that the dissent's fears about the ruling's applicability to vaccinations were unfounded, thereby suggesting the seriousness of its belief in the importance of widespread vaccinations.⁵⁸ Therefore, neither federal laws nor state laws mandating vaccinations should need to include religious exemptions.

⁵² 508 U.S. 520 (1993).

⁵³ *Id.* at 526–28, 534–38.

⁵⁴ *Id.* at 547.

⁵⁵ *United States v. Wilgus*, 638 F.3d 1274, 1285, 1295 (10th Cir. 2011).

⁵⁶ *Fawaad v. Jones*, 81 F.3d 1084, 1087 (11th Cir. 1996).

⁵⁷ *Goldman v. Weinberger*, 475 U.S. 503, 509–10 (1986).

⁵⁸ *Burwell v. Hobby Lobby Stores, Inc.*, 134 S. Ct. 2751, 2783 (2014).

C. A Military Analogy

One can also draw an analogy to the United States' current rules on conscientious objection to military service. The longstanding statutory scheme provides that the military draft laws do not "require any person to be subject to combatant training and service in the armed forces of the United States who, by reason of religious training and belief, is conscientiously opposed to participation in war in any form."⁵⁹ The leading case on this subject decided that the exception did not apply to those who objected to the Vietnam War as unjust; rather, it only applied to those who objected to all forms of war indiscriminately.⁶⁰ The Court stated that as long as there were neutral reasons justifying the regulation, the regulation was constitutionally sound under the First Amendment.⁶¹ It then mentioned the neutral reasons behind the statute, including "the hopelessness of converting a sincere conscientious objector into an effective fighting man."⁶²

Perhaps, if a religious exemption to vaccination should exist, it should follow an analogous scheme to conscientious objection. That is, one may object to vaccination only if one objects to all medical care on religious grounds. That would include some Christian scientists and Amish—people who truly commit to shunning modern society—but would exclude those who are simply lazy⁶³ or lying.⁶⁴ After all, there is no religious significance to the difference between preventative care and reactive care. Some parents simply fail to understand that a vaccine is a crucial, inexpensive precaution which prevents deadly risks down the road. There is no religion that values shortsightedness.

III

THE LEGITIMACY OF A UNIVERSAL MANDATE

As previously mentioned, the vaccination requirement is currently tied into school attendance. As for the many schoolchildren who attend private schools, most state laws treat them similarly to public schoolchildren in

⁵⁹ 50 U.S.C. app. § 456(j) (2012). This section also clarifies that "religious training and belief" does not include essentially political, sociological, or philosophical views, or a merely personal moral code." *Id.*

⁶⁰ *Gillette v. United States*, 401 U.S. 437, 443 (1971).

⁶¹ *Id.* at 451.

⁶² *Id.* at 452–53.

⁶³ *See supra* note 42 and accompanying text (discussing exemptions of convenience).

⁶⁴ Indeed, there is plenty of anecdotal evidence of parents simply fabricating religious beliefs in order to avoid vaccinating their children. Steve Leblanc, *Parents Use Religion to Avoid Vaccines*, USA TODAY (Oct. 18, 2007, 4:22 AM), http://usatoday30.usatoday.com/news/nation/2007-10-17-19819928_x.htm.

terms of vaccination requirements.⁶⁵ Nonetheless, failure to vaccinate is often a larger problem at private schools than at public schools,⁶⁶ perhaps due to cultural factors that make private school parents more likely to opt out.⁶⁷ In addition, 3% of the school-age population is homeschooled⁶⁸—over a million students whose vaccination status may be completely unmonitored, although the laws vary widely by state.⁶⁹ In this Part, I will discuss the possible legitimacy of a clear, universal mandate that everyone must receive all available vaccinations, unless they are contraindicated due to a preexisting medical condition.

A. *State-Level Mandates*

A chorus that has echoed throughout American history is the importance of personal liberties and individual autonomy. Hence, tying the vaccination requirement with education is palatable because it provides at least a limited alternative: One could argue that if one really does not want to vaccinate one's progeny, one can always homeschool. Nonetheless, virtually all Americans indulge in some public good on a regular basis. They go to public parks and buildings; they drive on public streets; they spend currency that is both printed and stabilized by the government; they breathe in air and drink water that is cleaned by the government. What does vaccination have anything to do with education? Would it not be equally logical to say that children must be vaccinated if they intend to use public streets?

⁶⁵ See Donya Khalili & Arthur Caplan, *Off the Grid: Vaccinations Among Homeschooled Children*, 35 J.L. MED. & ETHICS 471, 472 (2007) ("State laws treat private schools, including charter and parochial schools, largely the same way as public schools for the purposes of vaccination.").

⁶⁶ See Hannah Dreier, *Private School Vaccine Opt-Outs Rise*, USA TODAY (Sept. 9, 2012, 9:36 PM), <http://usatoday30.usatoday.com/news/story/2012/09/09/private-school-vaccine-opt-outs-rise/57720458/1> ("Parents who send their children to private schools in California are much more likely to opt out of immunizations than their public school counterparts . . ."); Clint Rainey, *Immune to Logic: Some New York City Private Schools Have Dismal Vaccination Rates*, N.Y. MAG. (Mar. 30, 2014, 9:07 PM), <http://nymag.com/daily/intelligencer/2014/03/some-nyc-schools-show-dismal-vaccination-rates.html> (mentioning a Silicon Valley school where only 23% of tech employees' children were vaccinated, and discussing the many New York City private schools with alarmingly low vaccination numbers).

⁶⁷ See Khalili & Caplan, *supra* note 65, at 472 ("It is . . . possible that some private schools, in distributing immunization forms that list exemption information, pressure parents to pursue these exemptions for religious or other reasons.").

⁶⁸ AMBER NOEL ET AL., NAT'L CTR. FOR EDUC. STATISTICS, U.S. DEP'T OF EDUC., PARENT AND FAMILY INVOLVEMENT IN EDUCATION, FROM THE NATIONAL HOUSEHOLD EDUCATION SURVEYS PROGRAM OF 2012, at 17 tbl.7 (2013), available at <http://nces.ed.gov/pubs2013/2013028.pdf>.

⁶⁹ See Khalili & Caplan, *supra* note 65, at 473 (explaining that homeschooling is virtually unregulated in states like Texas and Mississippi, whereas in North Carolina, all school-age children must be vaccinated regardless of educational method).

To a large degree, the personal liberties mantra can be an empty refrain. Over one hundred years ago, the Supreme Court articulated something that we all intuitively understand:

[T]he liberty secured by the Constitution of the United States to every person within its jurisdiction does not import an absolute right in each person to be, at all times and in all circumstances, wholly freed from restraint. There are manifold restraints to which every person is necessarily subject for the common good.⁷⁰

This quotation came from *Jacobson v. Massachusetts*, a case where the Supreme Court upheld a universal smallpox vaccination mandate for the state of Massachusetts under the Constitution and the state's police power.⁷¹ The Court also endorsed education-tied vaccination requirements in *Zucht v. King*,⁷² and states have generally adopted the latter strategy, perhaps because it felt more palatable politically than the *Jacobson* framework. But any state could implement a universal mandate at any time; the policy has already been officially condoned by the Supreme Court since *Jacobson*, over one hundred years ago.

B. Federal-Level Mandates Under the Commerce Clause

For Congress to impose a universal vaccination requirement on the entire country would be more difficult, but the Supreme Court's Obamacare decision essentially mapped out the method. Unlike the individual states, Congress lacks general police power to regulate matters of public safety and welfare.⁷³ When confronted with the individual mandate imposed by the Affordable Care Act (ACA), the Supreme Court held that the Act was not permissible under the Commerce Clause, but it was legitimate under the Taxing and Spending Clause.⁷⁴

A universal vaccination mandate would likely run into similar hurdles as the ACA's health insurance mandate. Chief Justice Roberts's majority opinion in *Sebelius* states that the Commerce Clause, which allows Congress to regulate interstate commerce, "presupposes the existence of commercial activity to be regulated."⁷⁵ Hence, since the ACA regulates people for *not* engaging in the commercial activity of purchasing health insurance, the statute could not be upheld under the Commerce Clause.⁷⁶

⁷⁰ *Jacobson v. Massachusetts*, 197 U.S. 11, 26 (1905).

⁷¹ *Id.* at 38.

⁷² 260 U.S. 174, 177 (1922).

⁷³ See *United States v. Lopez*, 514 U.S. 549, 566 (1995) ("The Constitution . . . withhold[s] from Congress a plenary police power that would authorize enactment of every type of legislation.").

⁷⁴ *Nat'l Fed'n of Indep. Bus. v. Sebelius*, 132 S. Ct. 2566, 2593, 2600 (2012).

⁷⁵ *Id.* at 2586.

⁷⁶ *Id.* at 2587.

Similarly, a vaccination mandate would involve people who are choosing *not* to purchase vaccinations, regulation of whom would run counter to Chief Justice Roberts's desire to protect Americans' right to do nothing.⁷⁷

Nonetheless, under the Commerce Clause, Congress could constitutionally tie a universal federal vaccination mandate to education. Such a mandate could apply to all children regardless of whether they attend public school, private school, or home school. In *Sebelius*, Justice Ginsburg's partial dissent held that the ACA was valid under the Commerce Clause because "the market for medical care is one in which all individuals inevitably participate."⁷⁸ However, she could not convince the majority that the relevant regulation involved the decision to buy medical care; rather, the majority spoke only of the market for *insurance* because that was the market specifically regulated by the law. An education-centric law would be less attenuated. Currently, decisions regarding whether or not to vaccinate may affect education decisions as well, and school attendance affects federal funding for public schools. Education is a multibillion-dollar industry whose funds are used to pay millions of people and obtain countless school supplies; if differences in vaccination policies are affecting schooling decisions, that would have a substantial effect on interstate commerce. Additionally, vaccinations themselves are often articles in interstate commerce, so this form of interstate economic activity would further strengthen a mandate's legitimacy under the Commerce Clause.

United States v. Lopez, in which the Court struck down an education-related law as exceeding congressional Commerce Clause powers,⁷⁹ does not prevent such a proposal. That case did not hold that education cannot relate to interstate commerce. Instead, the Court's main objection to the Gun-Free School Zones Act was that "[t]he possession of a gun in a local school zone is in no sense an economic activity that might, through repetition elsewhere, substantially affect any sort of interstate commerce."⁸⁰ Conversely, the purchase of vaccinations is indeed an economic activity, and we have seen that repulsion for vaccination is a deeply ingrained belief, so it may indeed substantially affect educational decisions in the absence of a national mandate. An additional objection could be that homeschooled students are refusing to participate in the education market and therefore cannot be regulated, due to Chief Justice Roberts's desire to protect our

⁷⁷ See *id.* ("Construing the Commerce Clause to permit Congress to regulate individuals precisely *because* they are doing nothing would open a new and potentially vast domain to congressional authority.")

⁷⁸ *Id.* at 2610 (Ginsburg, J., concurring in part, concurring in the judgment in part, and dissenting in part).

⁷⁹ 514 U.S. 549, 551 (1995).

⁸⁰ *Id.* at 567.

right to do nothing. But this argument fails under *Wickard v. Filburn*, in which the Court upheld Congress's ability to regulate Filburn's act of growing wheat for his own personal consumption, because it meant he was not participating in the wheat market.⁸¹ If one accepts that interstate commerce includes education, homeschooled students must be included under *Wickard*.

C. Federal-Level Mandates Under the Taxing Power

It is worth briefly mentioning an analogy to the tax-based holding of *Sebelius*. In that case, Chief Justice Roberts did uphold the ACA under Congress's taxing power.⁸² He also noted some restrictions, pointing out that some laws have been invalidated when "the so-called tax . . . loses its character as such and becomes a mere penalty, with the characteristics of regulation and punishment," such as the Child Labor Tax Law.⁸³ Nonetheless, as an earlier case had commented, "[i]t is axiomatic that the power of Congress to tax is extensive As is well known, the constitutional restraints on taxing are few."⁸⁴

Similarly, regardless of Commerce Clause applicability, Congress could implement a hefty tax on anyone who does not vaccinate their children. It might be invalidated if it was so overwhelming as to definitely constitute a penalty (thereby taking it outside the scope of the taxing power), but Congress could probably devise an amount or a percentage of income which would encourage all but the most devout Jenny-McCarthyists to vaccinate. Indeed, Australia conditions its Family Tax Benefit on the full immunization of young children.⁸⁵ The United States' vaccination compliance numbers could benefit from this type of common-sense approach.

CONCLUSION

The antivaccination movement is a major public health problem, and it is worsening every year. America's federal and state governments need to start taking this problem more seriously. We should spend time crafting sensible reforms, not placating people who spew fake science that has taken hold in the minds of many Americans due to cognitive biases. Most parents who refuse to vaccinate are doing so due to some combination of

⁸¹ 317 U.S. 111, 128–29 (1942).

⁸² *Sebelius*, 132 S. Ct. at 2600.

⁸³ Child Labor Tax Case, 259 U.S. 20, 38 (1922), cited in *Sebelius*, 132 S. Ct. at 2594–95.

⁸⁴ United States v. Kahriger, 345 U.S. 22, 28 (1953).

⁸⁵ *Family Tax Benefit*, AUSTL. GOV'T DEP'T OF SOC. SERVS., <https://www.dss.gov.au/our-responsibilities/families-and-children/benefits-payments/family-tax-benefit> (last updated Nov. 27, 2014, 9:46 AM).

misinformation and laziness. It is time for a more robust regulatory framework to ensure herd immunity. The followers of Jenny-McCarthyism have done enough. At long last, have they left no sense of decency?