Transcending Transgenics: Transcendental Meditation, Natural Law, and the Campaign to Ban Genetically Engineered Food

GREGORY GROHMAN

FROM A DISTANCE, the town of Fairfield looks much like any other in rural Iowa. Surrounded by rolling hills and orderly farm fields, the scene appears as idyllic and innocuous as a Grant Wood painting. But there is more to this countryside than its corn, cattle, soybeans and swine. Passing grain elevators and silos on the quiet road that leads into Fairfield, strangers might overlook the sign that welcomes them, in English and in Sanskrit, to the Global Country of World Peace. But there is no missing the Golden Domes of Pure Knowledge. These twin, 25,000 squarefoot domes serve the thousands of Transcendental Meditators who have made Fairfield, Iowa, their home since 1974.

The same state that bore Norman Borlaug and Henry Wallace is also a global headquarters for the Transcendental Meditation (TM) movement, a guru-centered new movement with millions of followers and billions of dollars in assets.¹ Many people may

The research and writing of this article were supported by a State Historical Society of Iowa Research Grant for Authors.

^{1.} While insiders in the Transcendental Meditation movement are adamant that TM is not a religion, its epistemology, practices, and organization have led some religious scholars to categorize it as such. For more on Transcendental Meditation as religion, see Lola Williamson, *Transcendent in America: Hindu-Inspired Meditation Movements as New Religion* (New York, 2010); Geoff Gilpin, *The*

THE ANNALS OF IOWA 80 (WINTER 2021). © State Historical Society of Iowa, 2021.

2 THE ANNALS OF IOWA

remember Maharishi Mahesh Yogi for his fleeting role as the spiritual advisor to the Beatles. But his legacy extends well beyond John Lennon's "Sexy Sadie."² The trademarked form of silent mantra meditation he introduced in India in the 1950s and then throughout the United States and Europe forms the basis of a worldwide "TM Empire,"³ which operates teaching centers, universities, resorts, media platforms, construction companies, and a health and wellness franchise across six continents as well as a political party that was active in over 80 countries at its peak.⁴

From its base in the heart of the Corn Belt, this "TM Empire" has mobilized its considerable financial, political, and intellectual capital to conduct a sustained campaign against genetic engineering (GE) since 1994. Although the biotechnology began the 1990s as a darling of the plant scientist community, over the course of a few years it moved from relative obscurity to become an object of national anxiety. In books, pamphlets, magazine articles, advertisements, and public lectures, anti-biotech activists in the Transcendental Meditation movement carefully framed genetic engineering as an existential threat to human health and safety. At the ballot box and in the supermarket, this climate of crisis afforded new opportunities for the TM movement to expand its influence.

Maharishi Effect (New York, 2006), x; Patricia Sullivan, "Maharishi Mahesh Yogi; Was Meditation Guru to the Beatles," *Washington Post*, 2/7/2008.

^{2.} Lennon wrote the song as a response to Maharishi Mahesh Yogi's alleged sexual advances on Mia Farrow during their stay in the Yogi's ashram. For more, see Jann Wenner and John Lennon, *Lennon Remembers* (San Francisco, 1971), 27.

^{3.} The term "TM Empire" is used to refer to the TM movement's vast international holdings in a meditator's journal. See "Journal and Contact Book," n.d., Doug Hamilton Transcendental Meditation Collection, University of Iowa Special Collections, Iowa City, Iowa.

^{4.} The Maharishi University of Management Press Style Guide lists 216 service marks, trademarks, or trade names associated with the Transcendental Meditation movement; see "Press Style Guide," the Maharishi School of Management (Fairfield, IA, 2014). For more on this "TM Empire," see also Gilpin, *The Maharishi Effect*, 21, and Williamson, *Transcendent in America*, 82. On the number of active NLP parties, see Judith Crosbie, "Natural Law Party to Fly Past Elections," *Irish Times*, 1/22/2001.

By placing the "TM Empire" at the center of the story of how a generally agnostic American attitude toward genetic engineering in 1996 transformed into a predominantly resistant one by the early 2000s, this essay argues that scholars have misconstrued the history of anti-GMO activism by characterizing the debate over biotechnology as a David and Goliath tale of industry insiders versus activist outsiders.⁵ Rachel Schurman and William Munro argued that the fight for the future of food was a clash between two "lifeworlds" in fundamental opposition. Daniel Charles described it as a debate divided between "two hostile barricades," each possessing its own "particular fortress of ideology, information, and logic."6 Both accounts rooted the controversy over biotechnology in different ways of seeing the world, but in each case only two lenses were offered: that of the multinational corporation and their scientific allies on the one hand, and an amalgamation of activist groups on the other. In this dichotomy, the activist agenda represented a shared commitment to the normative concerns of corporate control, environmental contagion, and neocolonialism. Industry and science were likewise locked into a worldview in which the utility of technology was disassociated from the social context in which it was deployed.

Scholars have taken for granted the institutional and epistemic contexts of the activists who produced critical knowledge about genetic engineering, their influences for doing so, and the networks they built with it. They often acknowledge the activism of the individuals and organizations affiliated with the TM movement but then lump them into a totalizing oppositional narrative.⁷ While the TM movement often mobilized the constituencies of environmental, agricultural, and anti-corporate groups, to assert that TM was just one of any number of organizations that formed

^{5.} Rachel Schurman and William A. Munro, *Fighting for the Future of Food: Activists versus Agribusiness in the Struggle over Biotechnology* (Minneapolis, 2010), 187.

^{6.} Schurman and Munro, *Fighting for the Future of Food*, x, 16; Daniel Charles, *Lords of The Harvest: Biotech, Big Money, and the Future of Food* (New York, 2008), xviii.

^{7.} Ann Elizabeth Reisner, "Social Movement Organizations' Reactions to Genetic Engineering in Agriculture," *The American Behavioral Scientist; Thousand Oaks* 44, no. 8 (April 2001), 1389–1404.

a part of the opposition to genetic engineering in agriculture diminishes their distinctive role in constructing a national coalition against the biotechnology and their particular objectives for doing so. If anti-GE activism originated among concerned scientists who feared corporate control over biotechnology much more than the technology itself, Maharishi's movement cast GE as intrinsically dangerous and categorically untenable. The debate over biotechnology, instigated among scientists who saw its responsible use as a critical step towards achieving a more sustainable agricultural system, was transformed by a movement with a lifeworld all of its own. While the Transcendental Meditation movement was central to the growth of anti-GMO sentiment in the United States and beyond, its activists—and the guru whose teachings inspired them—have been almost entirely excluded from histories of the debate over the biotechnology.

In their own history of anti-GMO activism, Schurman and Munro paid close attention to how activist opposition to genetic engineering engendered social and political change. They contended that the incidental ripples social movements set in motion in pursuit of their objectives mattered just as much as their "success" in achieving them.⁸ While the Transcendental Meditation movement never achieved its hope of inaugurating a world government in total alignment with Natural Law, it did manage to amass considerable discursive power over the national food system and alter the future that the agricultural industry once imagined for the biotechnology.

The imagination of the biotechnology industry had been boundless. Nestled within a thousand-page monograph on alfalfa breeding published by the American Society of Agronomy in 1988, plant scientists G. E. Carlson and A. A. Hanson shared one optimistic vision for genetic engineering and its place in the future of agriculture:

This technology offers the prospect of bypassing the constraints of sexual hybridization and facilitation of genetic exchange among organisms. Thus, the manipulation of recombinant deoxyribonucleic acid (DNA) through genetic engineering has

^{8.} Schurman and Munro, Fighting for the Future of Food, 179.

been suggested as a powerful tool for modifying the alfalfa plant: to isolate resistance to disease and insect pests; to improve the efficiency of water use and drought tolerance; to develop salt or herbicide tolerance; to improve chemical composition; to eliminate natural inhibitors that restrict plant growth; and to reduce energy requirements, thereby increasing forage yield.

For these scientists, the use of new biotechnologies to "manipulate genes and probe biochemical processes in ways that go substantially beyond conventional genetics, physiology, and biochemistry" would in time "become conventional."⁹

Carlson and Hanson were hardly alone. Beginning in the 1970s, the plant science community constructed similar prophecies. From corn and cotton to potatoes, tomatoes, and everything in between, genetic engineering seemed destined to transform agriculture.¹⁰ Through the 1980s, most plant biologists and geneticists understood the application of genetic engineering for plant improvement as an uncontroversial and inevitable extension of traditional plant and animal breeding techniques.¹¹ Plants and animals had always been artificially selected for desirable traits. Genetic engineering simply offered scientists a faster, more accurate alternative to the long and frequently unreliable process of traditional breeding.

While recombinant DNA technologies had weathered criticism since Herbert Boyer and Stanley Cohen first developed a method for splicing genes from one organism into another in 1973, the anti-biotech movement that emerged in the 1990s was something different altogether. From 1970 through the late 1980s, only a handful of organizations opposed genetic engineering. What detractors there were often worked from within the scientific community in order to promote the responsible use of the emerging technology—for instance, helping to organize the National Academy of Science's Committee on Recombinant DNA Molecules in 1974 to further study the safety of genetic engineering. But

^{9.} G. E. Carlson and A. A. Hanson, "Future Trends in North America," in *Alfalfa and Alfalfa Improvement* 29 (Madison, WI, 1988), 1041.

^{10.} Margaret Mellon, Margaret Mellon History Interview, 9/5/2014, AGES Oral History Project.

^{11.} Schurman and Munro, Fighting for the Future of Food, 27.

by 2000, there were dozens of organizations in the United States alone committed to curtailing the growth of agricultural biotechnology. As the U.S. anti-biotech movement grew, its methods changed. If critics of genetic engineering in the 1970s and 1980s primarily worked through established legislative and scientific channels in order to better understand the ramifications of genetic engineering, activists throughout the 1990s sought to restrict and immobilize its practice by directing consumers and retailers against the technology.¹²

Although consumer and environmental regulations governing genetically modified organisms were more stringent in the United States than in Europe from the 1960s through the 1980s, by the mid-1990s public opposition to genetically modified food throughout Western Europe frustrated American efforts to export genetically engineered corn and soybeans there. In the face of increasing U.S. production and exportation of GE crops, the European Union and its member states adopted progressively stringent measures demanding the labelling and regulation of agricultural imports.¹³ In the United States, consumers grew wary of the technology as they became targets of increasingly virulent marketing campaigns orchestrated by activists both for and against genetic engineering. Although a 1995 survey of consumer sentiment found that only 21 percent of Americans considered genetic engineering a "serious health hazard," by 2003, the majority of consumers in the United States opposed the technology.¹⁴

In 1992, the FDA granted approval to the first commercial GMO food for human consumption: the Flavr Savr tomato. The move was met with immediate criticism. As Paul Lewis, a professor of English at Boston College, commented, "if they want to sell us Frankenfood, perhaps it's time to gather the villagers, light

^{12.} Schurman and Munro, Fighting for the Future of Food, 78, 28, xiii.

^{13.} Diahanna Lynch and David Voge, "The Regulation of GMOs in Europe and the United States: A Case-Study of Contemporary European Regulatory Politics," Council on Foreign Relations Workshop on Trans-Atlantic Differences in GMO Regulation, New York, NY, 4/4/2001.

^{14.} Lynch and Vogel, "The Regulation of GMOs," 14; "Broad Opposition to Genetically Modified Foods," U.S. Politics & Policy, Pew Research Center (website), 6/20/2003, https://www.people-press.org/2003/06/20/broad-opposition-to-genetically-modified-foods/.

some torches, and head to the castle."¹⁵ And gather they did. Over the next decade, genetically engineered foods faced myriad criticisms. Some organizations, such as the Pure Food Campaign, Center for Food Safety, and the Organic Consumers Association, railed against the potential health impacts of this Frankenfood. Others, like Friends of the Earth, the Sierra Club, and the National Wildlife Federation, joined the movement out of concern over the impacts of genetic engineering on biodiversity and environmental contagion. For scientists who saw genetic engineering as an invaluable tool to grow more nutritious food on less land and with fewer herbicides, pesticides, and fertilizers, the outrage of environmental groups was particularly disconcerting.

While consumer backlash and regulatory complications did little to stymie the adoption of genetically modified crops among American farmers-between 1996 and 1998 crop acreage sown with GE seed increased fifteen-fold in the United States-it effectively countered the idea that genetic engineering was an unquestionable social good.¹⁶ As Schurman and Munro observed, that the range of commercially available GE crops is primarily limited today to just soybeans, cotton, corn, and canola hardly reflects the optimism plant scientists once harbored for the biotechnology.¹⁷ By 2000, the "Gene Revolution" had yet to arrive. While corporations like Monsanto and DowDuPont had spent over a decade looking for ways to generate revenue from genetic engineering, they had only managed to bring a handful of GMO crops to market and at enormous cost.¹⁸ For Margaret Mellon, who spent much of her career as a policy expert and scientist with the Union of Concerned Scientists, it is unclear whether genetic engineering has had much of an impact at all: "I would say if we hadn't had genetic engineering at all in this country our agriculture would look very much like it is right now. . . . I don't think it has made a difference in the way our agriculture looks

^{15.} Paul Lewis, "Since Mary Shelley," New York Times, 6/16/1992.

^{16.} Lynch and Vogel, "The Regulation of GMOs," 9.

^{17.} Schurman and Munro, Fighting for the Future of Food, xiii.

^{18.} Jack Ralph Kloppenburg, Jr., First the Seed: The Political Economy of Plant Biotechnology, Second Edition (Madison, WI, 2005), 307.

despite what a lot of people expected and certainly hoped."¹⁹ Europe, Mellon observed, has a highly productive, highly subsidized, and pesticide-intensive agricultural system even without the adoption of genetically engineered crops.

Stanford biochemist and Nobel laureate Paul Berg was one of the first to recognize both the perils and possibilities of recombinant DNA technology. In 1974, he worked with the National Academy of Sciences to organize a moratorium on recombinant DNA research. The following year, he brought nearly 150 scientists, lawyers, and physicians together at the Asilomar Conference on Recombinant DNA to identify, evaluate, and mitigate any risks potentially associated with the biotechnology. For Berg and the experts who had gathered with him, genetic research promised extraordinary advances in medicine, agriculture, and industry, but they were also concerned that the powerful technology harbored unforeseen and potentially disastrous consequences. Motivated to protect laboratory personnel, the general public, and the environment from any hazards that might result from experiments with recombinant DNA technologies, the Asilomar Conference yielded an enduring set of strict guidelines and laboratory procedures for research with known or unknown biohazards.²⁰

Reflecting on the recombinant DNA controversy in 1995, on the 20th anniversary of the Asilomar Conference, Berg was unambiguous about the possible effects of recombinant DNA on health and safety: "Literally millions of experiments, many even inconceivable in 1975, have been carried out in the last 20 years without incident. No documented hazard to public health has been attributable to the application of DNA technology." Berg's view reflected the scientific consensus that food produced with genetic engineering posed no more risk to human health than its

^{19.} Mellon, History Interview.

^{20.} Paul Berg, et al., "Potential Biohazards of Recombinant DNA Molecules," *Science* 185, no. 4148 (July 1974), 303; Paul Berg, et al., "Summary Statement of the Asilomar Conference on Recombinant DNA Molecules," *Proceedings of the National Academy of Sciences of the United States of America* 72, no. 6 (June 1975), 1981–84; Paul Berg and Maxine Singer, "The Recombinant DNA Controversy: Twenty Years Later," *Proceedings of the National Academy of Sciences of the United States of America* 92 (September 1995), 9011–13.

conventional counterpart.²¹ Nevertheless, in the decades following Asilomar, public discussion of the implications of recombinant DNA technologies on health and safety seemed only to intensify. Berg opened his reflection with an incident that he must have found particularly striking: "This year alone saw a scientist turn back \$614,000 in research grants, as a measure of what he perceives as the possible misdirections of current molecular genetics."²²

This scientist, Dr. John Fagan, Dean of Graduate Studies and Professor Molecular Biology at Maharishi International University, received national and international attention after he held a press conference in Washington, D.C., on November 17, 1994. At the event, Fagan announced his decision to return \$613,882 in federal grant money to the National Institutes of Health and withdraw grant proposals for \$1.25 million more rather than proceed with "research yielding information that could have been used for potentially dangerous genetic engineering applications."²³ The Washington Post described it as "the first instance of a scientist returning grant money in protest." The journal Science observed that while other researchers and ethicists have expressed concern about genetic engineering in its twenty year history, "few have gone as far as molecular biologist John Fagan."24 More than 30 members of the press attended Fagan's unprecedented news conference, and his call for a 50-year moratorium both on germ-line genetic engineering and on the release of genetically modified organisms into the environment was broadcast across newspapers, television, and radio programs throughout the United States and

^{21.} Statements on the safety of genetic engineering from the American Medical Association, the European Union, and the French Academy of Science along with many other major scientific organizations have been compiled by Charles Mann in "Appendix B," *The Wizard and the Prophet* (New York, 2018).

^{22.} Berg and Singer, "The Recombinant DNA Controversy: Twenty Years Later," 9011.

^{23.} John Fagan, *Genetic Engineering: The Hazards, Vedic Engineering: The Solutions* (Fairfield, IA, 1995), 139. Maharishi International University changed its name to Maharishi University of Management in 1995 and reverted back to its original name in 2019.

^{24.} Rick Weiss, "Genetic Engineering Breeds Costly Protest," *Washington Post*, 11/17/1994; Constance Holden, "Cancer Researcher Returns Grant," *American Association for the Advancement of Science* 266, no. 5189 (November 1994), 1318.

the world, appearing in publications such as *The Boston Globe*, USA Today, *The Chicago Tribune*, BBC Radio, and *The China Post*.²⁵

While Fagan used the news conference to warn the public of the "grave dangers" of genetic research, that was not his only purpose.²⁶ Fagan also announced his pursuit of a "safer, more powerful" research direction which promised to treat a range of disorders "that genetic engineers only aspire to address." Sharing his new research with the national press, Fagan promoted a "Vedic approach" to agriculture:

Applying genetic engineering carries the risk of dangerous side effects because that body of knowledge is incomplete—we know only fragments of the story. On the other hand, the Vedic approach produces no harmful side effects because it is inherently holistic. It deals with the integrating intelligence that underlies all matter, whereas genetic engineering deals with the isolated point values of matter itself.²⁷

Fagan's proposal called for integrating existing methods of organic farming alongside Transcendental Meditation and Yogic Flying, which would be taught to farmers in order to "enhance their ability to organize and implement the complex network of factors influencing agricultural production." Fagan promised that Transcendental Meditation would grant farmers "the ability to make decisions that are spontaneously more in accord with the full range of the laws of nature governing agriculture." Equipped with an expanded consciousness, farmers embracing Maharishi's Vedic approach to agriculture would be ready to "feed the world without genetic engineering or chemical poisons."²⁸

The news conference attracted significant media coverage, yet reporters paid scant attention to Fagan's call for a Vedic approach to agriculture. When *The Scientist*, a magazine for life science professionals, ran an article that highlighted Fagan's rejection of NIH

^{25.} Fagan, Genetic Engineering, 139.

^{26.} Richard Saltus, "Biologist Returns US Grants to Protest Genetic Research," *Boston Globe*, 11/16/1994; "A Scientist's Qualms," *Washington Post*, 11/21/1994; Holden, "Cancer Researcher Returns Grant," 1318.

^{27. &}quot;DNA Researcher Takes Ethical Stand Against Genetic Engineering," News Release, Maharishi International University, 11/17/1994.

^{28.} Fagan, Genetic Engineering, 125-26.

funds but excluded his pronouncement of a new research direction, he wrote to the magazine to provide clarification:

I want to thank *The Scientist* for reporting on my return of a \$613,882 grant to the National Institutes of Health in the Dec. 12, 1994, issue.... However, the story missed the real purpose for my action—to bring attention to the dangers of the environmental release of genetically altered organisms and of germline genetic manipulations in humans. I also announced that I was redirecting my own research to traditional medical systems, particularly Maharishi Ayur-Veda, a prevention-oriented, natural medical system that shows great potential.²⁹

John Fagan almost always followed condemnation of genetic engineering with praise of Maharishi's programs. Nowhere is this more explicit than in his 1995 book, Genetic Engineering: The Hazards, Vedic Engineering: The Solutions. In the introduction, he wrote, "the purpose of this book is not only to warn of the dangers of genetic engineering but also to alert the public and the scientific community to the safer, more promising approach of Maharishi's Vedic Engineering." The contrast between these approaches is drawn in stark terms: where genetic engineering offers "partial, short-term fixes with damaging side effects," Maharishi's Vedic Engineering provides "comprehensive, life-supporting solutions." By teaching farmers the Transcendental Meditation program, Maharishi's Vedic approach to agriculture promised "greater prosperity for our farmers and higher quality, healthier food for everyone" without all of the problems and pollution "that agricultural genetic engineering will exacerbate."30

Despite his promotion of Maharishi's Vedic technologies and his own affiliation with Maharishi International University, Fagan insisted on his independence from Maharishi Mahesh Yogi following his November 17, 1994, news conference. In response to one reporter who questioned the role Maharishi played in Fagan's decision to renounce government grants, Fagan answered unequivocally: "In terms of the decision to stop my DNA research,

^{29.} Fagan, *Genetic Engineering*, 139; John Fagan, "Genetic Engineering Dangers," *The Scientist Magazine* (May 1995).

^{30.} Fagan, Genetic Engineering, ix, cover, 126, 133.

it was completely from my side. . . . In terms of support, no one has promised me support."³¹

That straightforward response was at least disingenuous if not demonstrably false. George A. Ellis, an acquaintance of John Fagan and a teacher of the Transcendental Meditation program, wrote in his tribute to TM that Dr. Fagan "was inspired by Maharishi to investigate the dangers of genetic engineering."³² In the acknowledgements to Genetic Engineering: The Hazards, Vedic Engineering: The Solutions, Fagan himself stated: "In Gratitude to Maharishi Mahesh Yogi whose Vedic Science inspired the inquiry that led to this book, and whose Vedic Technologies expand human progress far beyond dependence on dangerous technologiesbringing life into full accord with natural law." In Maharishi Mahesh Yogi's praise for the book, which appeared alone on the following page, the guru condemned genetic engineering as "the poison to be purified," celebrated Vedic Engineering as "the nectar to revitalize life on earth," and identified Fagan's work as "a textbook for everyone... a book for everyone in the world today."³³

In a 2008 speech commemorating Maharishi Mahesh Yogi, John Fagan thanked the guru for "[giving] us another practical gift of understanding, which was to alert us to one specific hazard—the threat of genetic engineering, and what it poses to the integrity and safety of the world's food supply."³⁴ But Maharishi did more than alert John Fagan to the hazards of genetic engineering—he tasked the scientist "to establish Maharishi Invincibility Laboratories to ensure the purity of the world's food supply." Concluding his speech, Fagan "offered everything [he has] done to Maharishi and Guru Dev."³⁵

^{31.} Fagan, Genetic Engineering, 166.

^{32.} George A. Ellis, A Symphony of Silence: An Enlightened Vision, 2nd Edition (Scotts Valley, CA, 2015), 31.

^{33.} Fagan, Genetic Engineering, acknowledgements.

^{34.} John Fagan, quoted in "Maharishi's Contribution in the Field of Agriculture—Part II," *Global Good News*, 7/27/2008.

^{35. &}quot;Guru Dev" is an honorific used in the TM movement to refer to Brahmananda Saraswati, who was Maharishi Mahesh Yogi's master and teacher. Guru Dev is regularly recognized by the TM movement in ceremonies and rituals; John Fagan, quoted in, "Maharishi's Contribution in the Field of Agriculture— Part IV," *Global Good News*, 7/29/2008.

Reflecting on the history of opposition to biotechnology, Daniel Charles observed that "the motivations of the campaign's core activists differed markedly from their most visible public arguments."³⁶ This is especially true of John Fagan and other activists in the Transcendental Meditation movement. Other organizations, like the Sierra Club or the Center for Food Safety, campaigned on the supposed health risks of genetic engineering in order to sway public attention toward their primary goals of protecting the genetic integrity of natural species and undermining corporate interests. But anti-biotech activists in the Transcendental Meditation movement promulgated the risks of genetic engineering in order to highlight the principles of Natural Law as taught by Maharishi Mahesh Yogi and to promote his Vedic technologies. The scale of the Transcendental Meditation movement's involvement in anti-GMO activism increased drastically in the years following John Fagan's explosive announcement in 1994, and the perception that genetic engineering was a violation of Natural Law continued to motivate their activism-though not always publicly—throughout the next decade.

By presenting Natural Law as a science rather than a philosophy or religion, Maharishi Mahesh Yogi and his followers have rejected attempts to label them as a spiritual movement. Not unlike its appearances in seventeenth- and eighteenth-century political philosophy, Maharishi described Natural Law as the set of objective, scientific laws that administer the universe: Natural Law "fulfills the requirement of night and day, of sun, of moon, of galaxies, of stars, of planets—infinite diversity, kept in perfect order, kept as if unified but still giving freedom for every individual to enjoy in bliss."³⁷ Inaugurating his own "Age of Enlightenment" in 1975, Maharishi advocated for the "[reconstruction of] society on the basis of the profound wisdom we find in the administration of nature, which is absolutely orderly, profound, and just." But where other philosophes of natural law had their origin in the material world, Maharishi's "Total Natural Law"

^{36.} Charles, Lords of the Harvest, 249.

^{37.} Maharishi Mahesh Yogi, "Forward," *Enlightenment: Maharishi Vedic Science and Technology* (June 1998), Doug Hamilton Transcendental Meditation Collection, University of Iowa Special Collections, Iowa City, Iowa.

looked inward: identifying human consciousness with "pure consciousness," that "most basic element of life which we know to be the unified field of all the laws of nature." Maharishi's government would have "its sovereignty in the domain of consciousness and its activity to raise higher consciousness in society and purify world consciousness." To Maharishi and his followers, consciousness represented all of nature at its most basic scale. Through the practice of Transcendental Meditation, these laws of nature could be manipulated to reorder reality itself.³⁸

While teachers of Transcendental Meditation have been remarkably consistent in their public marketing of the practice over the last fifty years—always stressing that TM is an "easy to learn" and "effortless" exercise to promote inner peace that in no way "require[s] the acceptance of any particular philosophical system"—for some of Maharishi's most ardent followers, TM offered other, more astounding benefits.³⁹ With the introduction of the TM-Sidhi program in 1976, advanced meditators could learn to "fly through the air at will." Once their mastery over "the field of pure consciousness" was perfected, these Yogic Flyers "gain[ed] the ability to know anything, do anything, and accomplish anything."⁴⁰ With such power at their disposal, TM-Sidhis have purported to walk through walls, become invisible, and achieve superhuman strength.⁴¹

But the most profound benefits of Transcendental Meditation purportedly belong to those who had never learned the technique. As TM teacher and author Robert Roth later recorded, the "chief purpose" of the TM-Sidhi program "is to produce profoundly

^{38.} Maharishi Mahesh Yogi, Life Supported by Natural Law (Fairfield, IA, 1986), 72.

^{39.} David Orme-Johnson and John Farrow, eds., *Scientific Research on the Transcendental Meditation Program* 1 (1977); see also tm.org.

^{40.} Craig Pearson, "Floating and Flying through History," *Enlightenment: Maharishi Vedic Science and Technology* (March 1999), Doug Hamilton Transcendental Meditation Collection, University of Iowa Special Collections, Iowa City, Iowa.

^{41.} Gilpin describes Yogic Flying as "bouncing up and down" on foam mats while seated in the lotus position. Yogic Flying competitions are held regularly in Fairfield, Iowa, and footage from these events can be found with a quick Internet search; for more, see Gilpin, *The Maharishi Effect*, 2, 21; Williamson, *Transcendent in America*, 97.

positive effects in collective consciousness."⁴² In 1976, Maharishi Mahesh Yogi announced that in cities where at least one percent of the population was practicing the Transcendental Meditation technique, "crime and negativity [were] dramatically decreasing, and peace, harmony, and creative progress [were] increasing."⁴³ Because of their increased control over the field of pure consciousness, this ratio was even lower for Yogic Flyers: the square-root of one percent of the population was sufficient to "have a measurable impact on the quality of life on that population."⁴⁴

Maharishi and his adherents proselytized about the implications of the Maharishi Effect, the principle that a small group of people could substantially influence the entire population through the practice of the Transcendental Meditation technique. Transcendental Meditation offered not only a pathway to personal enrichment but also "a formula for a happy, harmonious society, a society where conflicts would not be witnessed."⁴⁵ TM could fight crime, prevent accidents, thwart terrorism, supercharge the economy, and change the weather.⁴⁶ The Maharishi Effect could solve all "the age-old problems of mankind."⁴⁷

Maharishi imagined these effects as anything but supernatural. He proclaimed his "Vedic technologies" were deeply rational and fully objective, "the ultimate achievement" of "the Age of

^{42. &}quot;Natural Law Party Platform," in Robert Roth, *A Reason to Vote* (New York, 1998), 247.

^{43.} Maharishi Mahesh Yogi, "Forward," in *Scientific Research on the Transcenden*tal Meditation Program.

^{44. &}quot;Maharishi Effect," Research, Maharishi University of Management (website), accessed 10/19/2019, https://research.mum.edu/maharishi-effect/.

^{45.} Mahesh Yogi, Life Supported by Natural Law, 72.

^{46.} For more on the supposed benefits of the Maharishi Effect, see Robert Keith Wallace and Jay B. Marcus, *Victory Before War: Preventing Terrorism Through the Vedic Peace Technologies of His Holiness Maharishi Mahesh Yogi* (Fairfield, IA, 2005); Orme-Johnson and Farrow, *Scientific Research on the Transcendental Meditation Program*; and Pearson, "Floating and Flying through History." While the Maharishi Effect enjoys support amongst researchers affiliated with the Transcendental Medidental Meditation movement, it has sustained profound criticism from external scientists. For a more critical perspective, see Evan Fales and Barry Markovsky, "Evaluating Heterodox Theories," *Social Forces* 76, no. 2 (December 1997), 511–25.

^{47.} Orme-Johnson and Farrow, "World Plan," in Scientific Research on the Transcendental Meditation Program.

Science." In *Scientific Research on the Transcendental Meditation Program*, he positioned Transcendental Meditation alongside "quantum field theory" and "low temperature physics" as a scientific procedure for contacting and controlling the most basic element in nature, the unified field of consciousness. As Maharishi explained in his forward to the collection, "by learning to contact this field of pure intelligence, the home of all the laws of nature within himself, man spontaneously gains the support of all those laws for his own activity."⁴⁸

Following their announcement of the Maharishi Effect in 1974, Maharishi Mahesh Yogi and the Transcendental Meditation movement embraced a new commitment to politics and policy. As Maharishi later reflected, "the need arose in the world for a global organization that would reconstruct society on the basis of the profound wisdom we find in the administration of nature." To that end, Maharishi inaugurated "the World Government of the Age of Enlightenment" in 1975 and appointed close followers to the "World Plan Executive Council," charging them with the task of establishing thousands of TM teaching centers and educational programs across the globe. The need to convert believers was urgent. As Maharishi explained in 1986, "the World Government of the Age of Enlightenment" would only "come into being on the basis of the purification of world consciousness as a result of about two million people throughout the world practicing the Transcendental Meditation technique." Maharishi International University was established in the State of California in 1973 and relocated to Fairfield, Iowa, the following year. It was intended to serve as the nexus of the World Plan-providing a center of communication between the thousands of TM teachers and training centers scattered across the world.49

On April 23, 1992, more than 400 followers of the Transcendental Meditation movement gathered at Maharishi International University to create a new political party "dedicated to

^{48.} Mahesh Yogi, "Forward," in Scientific Research on the Transcendental Meditation Program.

^{49.} Mahesh Yogi, "Forward," in *Scientific Research on the Transcendental Meditation Program*; Mahesh Yogi, *Life Supported by Natural Law*, 72; Orme-Johnson and Farrow, "World Plan."

promoting a crime-free, disease-free, pollution-free, problem-free society based upon the most complete and up-to-date scientific knowledge of Natural Law." Adopting the credo "Bringing the Light of Science Into Politics," the Natural Law Party of the United States of America asserted that the critical problems facing government and society could be solved through "technologies that harness natural law."⁵⁰ While the Party platform declared "violation of natural law" as the "one underlying cause" of all the problems confronting the nation, it promised "to bring every citizen, and the entire nation, into accord with natural law" by promoting "the scientifically proven programs of Maharishi's Transcendental Meditation and TM-Sidhi program."⁵¹

Announcing the formation of the Natural Law Party in a letter distributed to members of Congress in the summer of 1992, Dr. Bevan Morris—the Party Chair and President of International University—grounded the party's political philosophy firmly in the teachings of Maharishi Mahesh Yogi:

The Natural Law Party emerged on the basis of the discovery of the Constitution of the Universe, brought to light by modern science and Vedic Science, as reformulated in this age by Maharishi Mahesh Yogi. The Constitution of the Universe is the most fundamental level of natural law in the universe, the source of all order and harmony displayed throughout creation.

By "adopt[ing] scientific solutions to the nation's problems," Morris vowed to Congress that the Natural Law Party would inaugurate "Heaven on Earth" and promote a nation "of peace and harmony, free from stress and violence." For the government to achieve "all its goals," it would only need to implement the "proven programs of natural law."⁵²

The Natural Law Party moved quickly to gain formal recognition under the Federal Election Action Act of 1971. From its federal

^{50.} Natural Law Party, "Why Natural Law?," Natural Law Party (website), 10/9/1997, https://web.archive.org/web/19971009130422/http:/www.natu-ral-law.org/why_nlp/Why_NLP.html.

^{51.} Natural Law Party Platform, in Roth, A Reason to Vote, 242.

^{52.} Bevan Morris, "Letter Sent to Members of Congress," 6/12/1992, Federal Election Commission (website), https://www.fec.gov/files/legal/aos/1992-30/1083296.pdf.

headquarters in Fairfield, Iowa, the NLP drafted bylaws, coordinated party committees in 20 states as well as the District of Columbia, and nominated 128 candidates in federal, state, and local elections across the country—all within its first year of existence.⁵³ The TM movement never intended the NLP to be a small, local, protest party. Rather, they formed it to challenge the foundation of America's two-party system. The NLP's organizational apparatus soon rivaled that of all other established third parties.⁵⁴

John Hagelin, a Harvard-trained physicist and professor at Maharishi International University, made his first appearance as the presidential nominee of the Natural Law Party in 1992, and he ran again in 1996 and 2000. Soft-spoken and sharply dressed, Hagelin cast himself as a political outsider and a scientist who would "put the most advanced knowledge, and most scientifically proven solutions to work immediately in the field of government."⁵⁵ While Hagelin campaigned for a "prevention-oriented" approach to government and stressed that his program was scientifically backed, he publicly kept his distance from Maharishi Mahesh Yogi and Transcendental Meditation. When a reporter pressed him on the relationship between the Natural Law Party and organizations that teach TM, Hagelin denied the connection.⁵⁶

While Hagelin and the Natural Law Party qualified for the ballot in 32 states in 1992, they drew a paltry 39,163 votes.⁵⁷ Still, by registering tens of thousands of voters and amassing a political war chest in the millions of dollars, the Natural Law Party

^{53.} Bevan Morris, "Letter to the Office of General Counsel," 6/20/1992, Federal Election Commission.

^{54. &}quot;Bylaws of the NLP," 6/17/1992, Federal Elections Commission (website), https://www.fec.gov/files/legal/aos/69522.pdf; "Natural Law Party," in *Encyclopedia of American Political Parties and Elections*, eds. Larry J. Sabato and Howard R. Ernst (New York, 2014), 241.

^{55.} John Haglin, "Natural Law Party Platform," interview by C-SPAN, *Road to the White House*, C-SPAN, 8/26/1992, https://www.c-span.org/video/?31555-1/natural-law-party-platform.

^{56.} Edward Epstein, "Politics and Transcendental Meditation," San Francisco Gate, 12/29/1995.

^{57.} Federal Election Commission, *Federal Elections* 92: *Election Results for the U.S. President, the U.S. Senate and the U.S. House of Representatives* (Washington, D.C., 1993), 9.

established itself as a party with national reach.⁵⁸ With ballot access secured, state parties organized throughout the country, and money to spend, the Natural Law Party set its sights higher for 1996, declaring its intention to run over 700 candidates in 48 states.⁵⁹

As it expanded its reach, the Natural Law Party also sought to expand its platform. Looking to distinguish itself as the champion of "a powerful new idea," the Party turned to John Fagan's *Genetic Engineering: The Hazards, Vedic Engineering: The Solutions*. By 1996, the Natural Law Party had become the nation's first political party to make genetic engineering a significant and highly visible component of its platform, citing opposition to the technology as its main issue in a news conference held on the eve of the second presidential debate.⁶⁰ Robert Roth, then press secretary for the Natural Law Party, underscored the subject in his 1998 tribute to the Party, asserting, "only a third party, in this case the Natural Law Party, has brought this issue [the hazards of genetic engineering] to the American people, not the Democrats or Republicans."⁶¹

John Fagan, who represented the Natural Law Party as its leading authority on genetic engineering, spent much of 1996 touring the United States, Canada, and Europe speaking out about the dangers of the biotechnology. In Canada, journalists widely covered his misleading claim that genetic engineering caused the deaths of 37 people and the permanent disablement of 1,500 more.⁶² In Ireland, his warning that genetic engineering represented "a dangerous global experiment in which we are guinea pigs" appeared in *The Irish Times*; and in England, Fagan's

^{58.} Epstein, "Politics and Transcendental Meditation."

^{59.} Ray Huard, "Natural Law Party Hits Genetic-Altered Food," San Diego Union-Tribune, 10/26/1996.

^{60. &}quot;Natural Law Party Sees Perils in Gene Splicing as Main Issue," *Houston Chronicle*, 10/16/1996.

^{61.} Roth, A Reason to Vote, 20; see also "Genetically Engineered Foods: The Hazards of Tinkering with Natural Law" in A Reason to Vote.

^{62.} Toxins present in a genetically modified food supplement did lead to widespread poisoning, but faults with the purification procedure were identified as the cause of the toxicity. C. Neal Stewart, Jr., ed., *Plant Biotechnology and Genetics: Principles, Techniques, and Applications*, Second Edition (Hoboken, NJ, 2016), 372.

characterization of GE foods as "a significant hazard to public health," along the lines of mad cow disease, appeared in *The Sun- day Times*.⁶³

But Fagan's tour served another purpose; he also used his time abroad to launch the transnational Campaign to Ban Genetically Engineered Food (BanGEF) with the Natural Law Party of both Canada and the United Kingdom. His book served as a manifesto for the new organization.⁶⁴ Distributing what the Natural Law Party in the United Kingdom claimed as "the world's first 'street level' mass produced anti-GM campaign leaflet" in 1996, BanGEF targeted consumers with the message that genetically engineered food represented "a serious health risk."65 After Fagan's UK tour, the local Natural Law Party launched a letter writing campaign targeting some of the largest food retailers in England. The effect was substantial. After Malcolm Walker, chief executive officer of Iceland Foods, received dozens of letters from BanGEF activists in 1996, Britain's second largest frozen food company committed itself to "removing all GM materials" from its over 2,000 frozen food products. Other retailers in England and across Europe soon followed his example.⁶⁶

Struck by the success of the BanGEF letter writing campaign in Europe, Richard Wolfson of the Natural Law Party of Canada implemented his own "supermarket campaign." Wolfson soon announced a Canadian letter-writing effort modeled after the European example. In an email distributed to the BanGEF listserv, he encouraged activists to express their concerns about genetic engineering to, and demand action from, major food retailers. To facilitate the supermarket campaign, Wolfson provided activists with the contact information of executives from leading Canadian

^{63.} Kitty Holland, "US Scientist Says Genetic Engineering of Food Can Be Dangerous," *Irish Times*, 9/2/1996; David Graham, "Altering Food Called 'Dangerous Experiment,'" *Toronto Star*, 11/20/1996; Paul Nuki and Andrew Alderson, "Prince Charles Prepares to Ride Out on Green Crusade," *Sunday Times*, 9/8/1996.

^{64. &}quot;Campaign to Ban Genetically Engineered Food," *Transcendental Meditation News*, (July/August 1996).

^{65.} Campaign to Ban Genetically Engineered Food, *Genetically Engineered Food*— *A Serious Health Risk* (Stroud, UK, 1996).

^{66.} John Vidal, "Ethics Man," The Guardian, 4/1/1998.

food retailers as well as a sample letter outlining the position of BanGEF: that genetic engineering represented a dangerous public experiment, and GE ingredients must be removed from products "or at the very least, that such ingredients [be] clearly labelled."⁶⁷

In the United States, Laura Ticciati, "the Lioness of Natural Law" and Executive Director of Mothers for Natural Law (M4NL), prepared for a similar campaign. In 1996, Ticciati founded M4NL with a group of mothers from Fairfield, Iowa, in order "to transform the overwhelming problems facing Americans into simple, practical solutions that will safeguard the future of the nation." After attending a talk by John Fagan on the risks of genetic engineering one month later, Ticciati determined to devote her organization entirely to opposing the biotechnology. M4NL "put everything else on hold and made it their only focus." For Ticciati, the impulse to drop "a list of problems almost a mile long" and focus exclusively on genetic engineering was simple: "When your children's food supply is threatened, you get fearless. In mother-mode you get protective." With Fagan as its technical advisor, Mothers for Natural Law immediately launched a national campaign which advertised the risks of genetically engineered foods and worked to secure pre-market safety testing and the mandatory labelling of GE products.68

Although Mothers for Natural Law and the transnational BanGEF campaign sought more rigorous safety testing and labelling requirements for genetically engineered products, few GMO analysis laboratories existed at the time. Thus, when Fagan founded Genetic ID in Fairfield in 1996, his company became the world's first to use the polymerase chain reaction method to commercially screen for the presence of genetically engineered ingredients in food. Business boomed. As the journal *Nature* reported in October 1996, "a small Iowa company that produces a

^{67.} Richard Wolfson, "Re: BanGEF Action Campaign," email message to Patricia Dines, 6/23/1997, http://www.ibiblio.org/london/agriculture/forums/ Patricia-Dines/msg00052.html.

^{68.} Brynne Sissom, "The Lioness of Natural Law," *Everybody's News*, n.d., Mothers for Natural Law Records, Iowa Women's Archives, Iowa City, IA (hereafter IWA); Information sheets and publications, 1998–2000, Mothers for Natural Law Records, Box 1, IWA.

test able to detect genetic alterations in crops is being deluged with calls as wary European consumers and retailers react to the news that genetically modified corn and soybeans are being harvested in the United States for the first time." As more consumers and retailers demanded food grown without the use of genetically engineered ingredients, middlemen increasingly turned to the testing services of Genetic ID to provide such guarantees.⁶⁹

If the Natural Law Party's signature policy of establishing 5,000-10,000 Yogic Flyers in Washington, D.C., to ward off crime and sickness failed to resonate with Americans in 1992, voters in 1996 were beginning to take notice of the NLP's call for a total moratorium on the release of genetically modified organisms. The Natural Law Party's position on genetically engineered food-in sharp contrast to both Democrats and Republicans-was unambiguous. GMOs were a "serious health hazard" that had already claimed the lives of dozens of people and maimed thousands more. By 1996, activists in Maharishi's movement had spread that message to consumers, retailers, and scientists throughout North America and Europe. Their warnings circulated in leading newspapers, and their letters landed in the hands of powerful retail executives. Fagan's startup, Genetic ID, enabled distributors to guarantee retailers and consumers that their products were produced without the use of genetic engineering-a promise that became increasingly necessary as consumers grew concerned about the risks of consuming genetically engineered food.

This attention seemed to translate to more success at the ballot box. While none of the nearly 350 candidates who sought state or federal offices in the Natural Law Party won their races, they secured well over 2 million votes across the country. Over 140 candidates received more than 1 percent of the vote and 17 candidates earned more than 10 percent of the vote. Dr. John Hagelin won 110,194 votes in his second campaign for President of the United States, representing a threefold increase from his first run in 1992. Emboldened, Hagelin pledged in his post-election message that he would "continue to build America's fastest growing

^{69.} Meredith Wadman, "Genetic Resistance Spreads to Consumers," *Nature* 383, no. 6601 (October 1996), 564.

grassroots party into the most powerful political force in the history of the nation." $^{\prime\prime70}$

In the wake of the 1996 election, Mothers for Natural Law redoubled its efforts to turn public opinion against genetic engineering. As Ticciati noted in a letter to supporters in 1999,

our goal is to make GE a key issue for the 2000 election season through a major multilevel media campaign, with full-page ads in the national press, summit meetings in every major city in the U.S., and a grassroots legislative drive that will create a groundswell of support for this fabulous and powerful new political force."⁷¹

From 1996 to 2000, the Natural Law Party and Mothers for Natural Law orchestrated a sweeping national campaign designed to turn Americans against genetic engineering and toward Natural Law. If these activists were ultimately unable to generate mass support for their own political party, by 2000 they had contributed to the mass resistance against genetic engineering.

For Laura Ticciati, the cause of the Natural Law Party's electoral failure was clear and the solution simple: "Only 70 million [Americans] voted in the last election. That leaves 115 million Americans looking for a reason to vote." Ticciati had one ready: genetic engineering. In *Genetic Engineering: A Reason to Vote*, Ticciati implored supporters to "get political" by voting for the only national party that would "take America's food supply out of the hands of special interests and return it to you." To Ticciati, the stakes facing Americans were absolute: "their lives and the lives of their children depend on it." By supporting any one of the hundreds of candidates running with the Natural Law Party in 2000, Ticciati promised voters "mandatory labeling and safety

^{70. &}quot;Natural Law Party Election Results," Natural Law Party (website), 11/15/1996, https://web.archive.org/web/19971009131420/http:/www.natural-law.org/election_results_96/all_candidates_results1.html; John Hagelin, "Natural Law Party Post Election Message," Natural Law Party (website), 11/6/1996, https://web.archive.org/web/19971009131429/http:/www.natural-law.org/newsReleases/post_election_message1.html.

^{71.} Laura Ticciati, "Letter from the Natural Law Party of the United States," July 1999, Mothers for Natural Law Records, IWA.

testing for all genetically engineered foods, and a moratorium on their further release into the food chain until proven safe."⁷²

To support their goal, Ticciati and her husband Robin published *Genetically Engineered Foods: Are they safe? You decide* (1998). Advertised as "the first consumer book on genetic engineering," the 80-page exposé begins with a functional definition of genetic engineering before turning to its dangers. It introduces John Fagan, an "internationally recognized molecular biologist," and John Hagelin, the "award-winning quantum physicist" as experts to testify against the technology. After identifying the certification services of Genetic ID as "a ray of light," the book concludes by urging readers to join the Natural Law Party. The first edition of the exposé, which was featured on PBS and promoted at health food stores, sold out in months.⁷³

At the same time, Ticciati spearheaded M4NL's ambitious "Consumer Right to Know: One Million in '98 Campaign." By stressing that GE foods contained unknown toxins, triggered allergic reactions, reduced nutritional values, and encouraged antibiotic resistance, Ticciati attempted to gather 1 million petition signatures in favor of a GE label. She intended to deliver them to the President of the United States, Congress, the US Department of Agriculture, and the Food and Drug Administration by Thanksgiving of that same year. The petition took two forms: a VIP petition targeting cultural, political, and business leaders, as well as a grassroots petition distributed to health food stores and regional coordinators throughout the country. The VIP petition yielded the signatures of over 150 leading activists, politicians, and entertainers, from celebrities Larry David, Susan Sarandon, and Kenny Loggins to representatives of Friends of the Earth. Whole Foods Market, Co-op America, and Patagonia.⁷⁴

^{72.} Laura Ticciati, *Genetic Engineering: A Reason to Vote* (Fairfield, IA, n.d.), Mothers for Natural Law Records, IWA.

^{73.} Laura Ticciati, "First Consumer Book on Genetic Engineering in America," Safe-Food.org, 10/9/1997, Mothers for Natural Law Records, IWA; "Essay, Books and Links on GE," the Big Carrot (website), last updated 2/26/2001, https://web.archive.org/web/20010226184234/http://www.thebigcarrot.ca: 80/biotech2.htm.

^{74.} Laura Ticciati, "Consumer Right to Know: One Million in '98 Campaign, VIP Signatories," Mothers for Natural Law Records, IWA.

On Thursday, June 17, 1999, at the Capitol Hilton Hotel, Mothers for Natural Law presented these VIP signatures, alongside 500,000 from the general public, at its National Summit on the Hazards of Genetically Engineered Foods. Every member of Congress was invited to attend the three-hour summit that included panel presentations on the risks genetic engineering posed to everything from the environment and public health to trade and religion.⁷⁵ Covered by leading news organizations, the event attracted significant national media attention.⁷⁶ *The New York Times* identified the summit as the first national conference dedicated to the issue of genetic engineering and widely broadcast Ticciati's prediction that "within five to 10 years, the biotech industry intends to genetically engineer our entire food supply."⁷⁷

After delivering half a million petitions in favor of mandatory labelling to Congress in 1999, Mothers for Natural Law produced 500,000 copies of *Safe Food News*—a 32-page magazine that aimed to reveal the dangers of genetically engineered foods and distributed them to health food stores throughout the country. In *First the Seed: The Political Economy of Plant Biotechnology*, Jack Kloppenburg, Jr. called *Safe Food News* "an excellent example" of how activist groups used public channels to reinforce and extend the negative associations of GM foods.⁷⁸ Indeed, to readers of *Safe Food News*, the risks of genetic engineering would have appeared enormous. The magazine warned that "GE can damage the functioning of the natural genes of an organism," "reduce the nutritional content in our food," "diminish the effectiveness of antibiotics," create "irreversible [ecological] pollution," and lead to "paralyzing food losses." Without labels, *Safe Food News*

^{75. &}quot;National Summit on the Hazards of Genetically Engineered Foods," Mothers for Natural Law Records, IWA.

^{76.} Janelle Carter, "Genetically Altered Food Debated," *Washington Post*, 6/19/1999; "Group Lobbies for Labeling Genetically Altered Foods," *Boston Globe*, 6/18/1999.

^{77.} Agence France-Presse, "Americans Begin to Worry About Genetically Modified Food," *New York Times*, 6/21/1999.

^{78.} Kloppenburg, First the Seed, 302, 375.

cautioned, "we have all become subjects in a highly controversial experiment without our knowledge or consent."⁷⁹

As Mothers for Natural Law worked to secure the mandatory labeling of genetically engineered foods by vocally pronouncing the real or perceived risks of GE, it also piloted a program to provide manufacturers with a non-GE label. By the summer of 1998, Mothers for Natural Law, in collaboration with John Fagan and the labs of Genetic ID, introduced a non-GMO "sticker."⁸⁰ Thus, when the Non-GMO Project looked to create its own, now familiar, "Non-GMO" sticker in 2007, it relied upon the expertise of John Fagan, "one of the world's leading authorities on GMO testing and non-GMO certification," and gave him a seat on its board of directors.⁸¹

With Mothers for Natural Law occupied in a series of highly visible grassroots campaigns designed to foment public support for mandatory labelling, other activists in the Transcendental Meditation movement pursued a legislative strategy. When the National Institutes of Health conducted public hearings on whether government funds should be used for in utero genetic engineering in human beings, John Fagan and John Hagelin gave testimony strongly recommending a ten-year moratorium on the therapy in consideration of the "long-term and short-term safety for the developing fetus and possible side effects on the human germ line."⁸² Following the National Summit on the Hazards of Genetically Engineered Foods, John Hagelin shared a legislative proposal for the mandatory labelling of genetically engineered

^{79.} Laura Ticciati, ed., Safe Food News (Fairfield, IA, 2000), 1, 31.

^{80.} Ticciati, "Consumer Right to Know;" Laura Ticciati and Robin Ticciati, *Genetically Engineered Foods: Are They Safe? You Decide*. (New Canaan, CT, 1998), 21; Natural Law Party, "Natural Law Party Newsletter: Mothers for Natural Law," https://www.natural-law.org/news/newsletters/03_geneng/04_mothers.html.

^{81. &}quot;Board of Directors," Governance, Non-GMO Project (website), 10/4/2009, https://web.archive.org/web/20091004231001/http://www.nongmopro-ject.org/about/governance/board-of-directors/.

^{82.} John Hagelin and John Fagan, "The Institute's Testimony to the National Institute of Health's Recombinant DNA Advisory Committee in Utero Genetic Engineering on Human Fetuses," Institute of Science Technology and Public Policy (website), 9/27/1998, https://web.archive.org/web/ 20000608104702 /http://www.istpp.org/nih_testimony.htm.

foods with House Democratic Whip David Bonior.⁸³ The draft legislation Hagelin provided Representative Bonior in 1999 would, in 2002, serve as the basis of Oregon Ballot Measure 27, which unsuccessfully sought to mandate labelling of all genetically modified food sold in the Beaver State.⁸⁴

In 1998, Steven Druker, a "founding faculty member" of Maharishi International University and the founder and executive director of the Alliance for Bio-Integrity, launched a landmark federal lawsuit challenging the Food and Drug Administration's refusal to require mandatory labels on all genetically engineered foods.⁸⁵ In Alliance for Bio-Integrity v. Shalala, the plaintiff raised three primary arguments: 1) that mandatory labelling should be required on the basis of consumer demand; 2) that GMO foods should be labelled because they are materially unlike their unmodified counterparts; and 3) that labelling was necessary to protect the free exercise of religion. The United States District Court for the District of Columbia rejected all three assertions in 2000, standing with the FDA on each of its procedural and substantive claims. The Alliance did not appeal the decision, and, as Marchant and Cardineau noted in their history of the labeling debate in the United States, the case "remains the final decision on the legality of the FDA policy to not label GM foods."86

Since 1994, Fairfield, Iowa, has been a national hub in the fight against genetic engineering. According to *Global Good News*, the worldwide news network of the Transcendental Meditation movement, "Maharishi's warnings about genetic engineering galvanized many people into action: The Natural Law Party,

^{83.} Laura Ticciati, "About Mothers for Natural Law," Mothers for Natural Law Records, IWA.

^{84.} Natural Law Party, "News Flash: PLEASE HELP THE OREGON CAMPAIGN TO LABEL GENETICALLY ENGINEERED FOODS!," Natural Law Party (website), 6/21/2002, http://www.natural-law.org/enews/ 2002_06_21.html.

^{85. &}quot;Steven Druker Publishes Book on the Fraudulent Foundation of the GMO Food Venture," Achievements from Maharishi University of Management, Maharishi University of Management (website), 4/12/2015, http://www.mum .edu/assets/achievements/2015_04_12.html.

^{86.} Gary E. Marchant and Guy A. Cardineau, "The Labeling Debate in the United States," *GM Crops & Food* 4, no. 3 (July 2013), 126–34.

Mothers for Natural Law, and many practitioners of Transcendental Meditation, Yogic Flyers, and Teachers of TM took it upon themselves to work on this."⁸⁷ After 1996, fomenting public fear about genetic engineering became an explicit campaign strategy of the Natural Law Party. The NLP hoped that genetic engineering could become an issue large enough to motivate tens of millions of new voters to go to the polling booth. When John Hagelin only received 83,702 votes in the 2000 presidential election, it was clear that the Natural Law Party would not emerge as a nationally competitive political force. After the 2000 election, Mothers for Natural Law announced that they were suspending most activities "to take some much-needed time with our families."⁸⁸ John Hagelin soon followed suit, and the national headquarters of the Natural Law Party closed in advance of the 2004 presidential election.⁸⁹

While its political ambitions have dampened and the actors have changed, the Transcendental Meditation movement has continued to play a key role in the national anti-GMO movement even after the 2000 election. Jeffrey Smith, a graduate of Maharishi International University, a one-time congressional candidate with the Natural Law Party, and a Fairfield resident, has written two prominent books and produced a documentary on the dangers of genetic engineering; Ken Roseboro, an MIU alumnus, publishes *The Organic and Non-GMO Report* out of Fairfield; and Steven Druker's *Altered Genes, Twisted Truth* (2015) was dubbed "one of the most important books of the last 50 years" by Jane Goodall in her forward to the book.⁹⁰

^{87.} Fagan, "Maharishi's Contribution in the Field of Agriculture-Part II."

^{88.} Laura Ticciati, "Newsletter: A Message From Mothers for Natural Law," Natural Law Party (website), December 2000, https://www.naturallaw.org/news/newsletters/2000dec/06_mnl.html.

^{89. &}quot;The Natural Law Party of the United States of America," Natural Law Party (website), accessed 10/23/2019, https://www.natural-law.org/.

⁹⁰ For Jeffrey Smith's congressional run, see "Iowa General Election, 1998" in *Archived Election Results and Statistics at the Iowa Secretary of State*, Iowa Secretary of State (website), https://sos.iowa.gov/elections/results/archive.html#7; Smith's books are *Seeds of Deception* (Portland, ME, 2003) and *Genetic Roulette: The Documented Health Risks of Genetically Engineered Foods* (Portland, ME, 2007). His documentary *Genetic Roulette: The Gamble of Our Lives* was produced in 2012. For more on Ken Roseboro and *The Organic & Non-GMO Report*, see https://non-gmoreport.com/.

While the anti-biotech activists in Maharishi's movement have presented genetic engineering as an existential threat to public health and safety for explicit political gain, that does not mean that their opposition to the technology was entirely cynical. For Maharishi and his followers, genetic engineering represented a profound "violation of Natural Law." As Laura Ticciati explained in *Enlightenment: Maharishi Vedic Science and Technology*, "genetic engineering is not constrained by nature's rules and crosses all boundaries set in place by Natural Law."⁹¹

For activists in Maharishi's movement, genetic engineering appeared to threaten their ability to achieve higher states of consciousness by unbalancing the field of pure consciousness.⁹² In the words of Byron Rigby, President of the Australian Association of Ayur Vedic Medicine and a former candidate with the Natural Law Party, "the crisis of genetic engineering is not a crisis of biological science, it is a crisis of consciousness. . . . And it is not a matter of individual consciousness. It is a matter of collective consciousness."⁹³ Dr. Sally Peden, Maharishi Mahesh Yogi's personal assistant, elaborated in *Enlightenment: Maharishi Vedic Science and Technology*:

In addition to the obvious health risks posed by such irreversible gene pollution, Maharishi has emphasized that the natural state of human consciousness is cosmic—the total potential of Natural Law. This is because the structure of the human DNA mirrors the structure of the Veda— the blueprint of total Natural Law. We have no idea whether incomplete, or mutated, DNA can support cosmic awareness—the state of pure consciousness.⁹⁴

^{91.} Laura Ticciati, "Genetic Engineering: Safe or Sorry?" *Enlightenment: Maharishi Vedic Science and Technology* (December 1999), Doug Hamilton Transcendental Meditation Collection, University of Iowa Special Collections.

^{92.} Fagan, "Maharishi's Contribution in the Field of Agriculture-Part II."

⁹³ Byron Rigby, "Genetic Engineering: A Violation of Natural Law," *Living Now* (January–February 1997).

^{94.} Sally Peden, "Bringing the Light of Science into Government," *Enlightenment: Maharishi Vedic Science and Technology* (March 1999), 21, Doug Hamilton Transcendental Meditation Collection, University of Iowa Special Collections.

30 The Annals of Iowa

Reflecting in 2008 on the impact of Maharishi's movement on the place of genetic engineering in agriculture, Fagan remarked that "although genetic engineering hasn't been fully vanquished at this point, I believe that without what Maharishi enlivened around the world in our awareness and especially in his worldwide organizations, today genetic engineering would have overwhelmed the world and the world's food supply."95 In Fairfield, Iowa, and around the world, individuals in Maharishi's movement have actively shaped how consumers have come to understand genetic engineering as a social problem. While these activists have often collaborated with outside groups, perhaps most notably by co-sponsoring a series of full-page advertisements about genetic engineering in The New York Times, their subjectively experienced world-their lifeworld, in the words of Jürgen Habermas—is distinct.⁹⁶ The history of the anti-biotech movement cannot be understood properly when its principle actors are rolled into tables alongside dozens of other organizations generically opposed to genetic engineering.⁹⁷ The activism of the Transcendental Meditation movement must be reckoned with on its own terms, even if doing so would muddle the dichotomies that have come to dominate the historiography.

When Phil Bereano, a co-founder of the Council of Responsible Genetics and AGRA Watch, reviewed Steven Druker's 2015 book, *Altered Genes, Twisted Truth*, he noted that "at the time of the Bio-Integrity lawsuit, Druker was active in a 'Natural Law Party'

^{95.} John Fagan, quoted in, "Maharishi's Contribution in the Field of Agriculture—Part III," *Global Good News*, 7/28/2008.

^{96.} Co-sponsors included the International Center for Technology Assessment, Food First, Foundation on Economic Trends, Council for Responsible Genetics, Humane Society U.S., Sierra Club, Institute for Agriculture and Trade Policy, Center for Food Safety, Edmonds Institute, International Forum on Globalization, International Forum on Food Agriculture, Mothers and Others, Friends of the Earth, Center for Ethics and Toxics, Organic Consumers Association, Campaign for Responsible Transplantation, Earth Island Institute, and the Native Forest Network. See "Genetic Engineering," The Turning Point Project (website), 5/16/2000, https://web.archive.org/web/20000516134119/http://turnpoint.org/geneng.html.

^{97.} Schurman and Munro, *Fighting for the Future of Food*, 78; Reisner, "Social Movement Organizations' Reactions to Genetic Engineering in Agriculture," 1398.

which was associated with the Maharishi International University and advocated the practice of Transcendental Meditation," but conditioned his observation, "it may be just coincidence."⁹⁸ Bereano skepticism that these connections mattered is characteristic. Even where Steven Druker, John Fagan, John Hagelin, and Laura Ticciati appear in the historiography of the anti-biotech movement, there has been no serious attempt to systematically explain the connections among them or view them in relation to Maharishi's Transcendental Meditation movement. Kloppenburg, who refers to *Safe Food News* in what is likely the most authoritative history of plant biotechnology, reports to have "never come across any reference to TM" in "[his] 35 years of work in this area."⁹⁹

Even those that do know bits and pieces of the story are reticent to share it. Alison Van Eenennaam, an animal scientist at the University of California, Davis and a public advocate for genetic engineering in agriculture, plainly admitted, "I don't talk about it much because people would think I'm some sort of a weird, pointy-headed conspiracy-theorist."¹⁰⁰ To Van Eenennaam, the unlikelihood of a connection between Transcendental Meditation and the anti-biotech movement is responsible for this dearth of scholarship: "It is absolutely unbelievable, the entirety of the story, which is why I think you never hear it. It's too crazy, even in this Trumpian era."¹⁰¹ David and Goliath are perhaps a more believable pairing than Transcendental Meditation and genetic engineering.

After John Fagan renounced NIH funds for GE research in 1994, *The Washington Post* reported that "his reasons... tap into a lot of lay people's as yet unfocused worries about the possibilities that biogenetic experimentation could unleash."¹⁰² John Fagan,

^{98.} Phil Bereano, review of *Altered Genes, Twisted Truth,* by Steven M. Druker, *GeneWatch* 28, no. 2 (June–September 2015).

^{99.} Jack Ralph Kloppenburg, Jr., email message to author, 6/13/19; the author met with Kloppenburg later for an interview, and Kloppenburg reiterated his sense of surprise at the role of the Transcendental Meditation movement in the anti-GMO movement. Jack Ralph Kloppenberg, Jr., interview by Gregory Grohman, 6/21/2019.

^{100.} Alison Van Eenennaam, interview by Gregory Grohman, 2/19/19.

^{101.} Van Eenennaam, interview.

^{102. &}quot;A Scientist's Qualms," Washington Post, 11/21/1994.

joined by John Hagelin, Laura Ticciati, Steven Druker, and many others in the Transcendental Meditation movement, would spend the next six years working to transform the relatively obscure biotechnology into an object of public hysteria. Their activism was a deliberate effort to promote the political, pecuniary, and philosophical objectives of Maharishi Mahesh Yogi. While the Natural Law Party was ultimately unable to secure any national electoral success, the arguments that the Transcendental Meditation movement circulated about genetic engineering have endured long after the dissolution of its political party. The scientific consensus that genetically engineered foods pose no greater risk to human health than non-GE foods has done little to console the majority of Americans who still consider GM foods unsafe for consumption.¹⁰³

This is not to say that Maharishi and those who followed him were the first to express concerns about genetic engineering or that they were wholly responsible for that outcome. Genetic engineering endured controversy almost as soon as the technological capacity to artificially synthesize DNA within and across species boundaries emerged. But until the 1990s, this controversy was primarily constrained to scientific circles and among professionals who maintained a commitment to improving a technology that they understood as profoundly promising. In the mid-1990s, a new wave of activism emerged that directly engaged consumers and retailers with the novel message that genetic engineering posed imminent and existential risks to human health and safety. The Transcendental Meditation movement was one of the most significant suppliers of this message, and its role in anti-GMO activism has been almost entirely overlooked by scholars of the debate.

Over the course of its history, genetic engineering has been hailed by its promoters as a technology uniquely capable of tackling the pressing problems of global hunger and climate change. By the 1990s, a counter narrative emerged that framed the technology itself as a global threat. From the tension between these

^{103. &}quot;Public and Scientists' Views on Science and Society," Science & Society, Pew Research Center (website), 1/29/2015, https://www.pewresearch.org/science/2015/01/29/public-and-scientists-views-on-science-and-society/.

claims and counter-claims, Schurman and Munro observed that "the distinction between genetically modified organisms and nongenetically modified organisms [has been established] as the defining social and technical fact about the technology."¹⁰⁴ In this essay, I do not mean to imply that there are no legitimate criticisms of genetic engineering. Rather, I suggest that the activism of the Transcendental Meditation movement has helped to construct and maintain a discursive climate which distracts scientists and consumers alike from the perils and promises of the biotechnology. As Kloppenburg reflected, to focus on the tool itself, rather than on who is using it and for what, is "to misapprehend the problem."¹⁰⁵

To ask whether genetic engineering is safe is the wrong question. But the fact that it is the leading question for much of the American public is itself a demonstration of the role private capital played in steering the trajectory of genetic engineering. While advocacy groups are usually outside of academic critiques of capital, the Transcendental Meditation movement, a "crypto-spiritual business" with vast financial holdings across the world, demonstrates how calls for the ban and regulation of genetic engineering were also tailored to the commercial and political interests of a small minority.¹⁰⁶

^{104.} Schurman and Munro, Fighting for the Future of Food, 185.

^{105.} Kloppenburg, First the Seed, 352.

^{106.} Scott Lowe, "Transcendental Meditation, Vedic Science, and Science," Nova Religio: The Journal of Alternative and Emergent Religions 14, no. 4 (May 2011), 54–76.

34 THE ANNALS OF IOWA