Medicated by the Corporate Soul: Public Relations, Storytelling, and Philanthropy in the Pharmaceutical Industry, 1912-1980

A DISSERTATION SUBMITTED TO THE FACULTY OF THE UNIVERSITY OF MINNESOTA BY

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IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE OF DOCTOR OF PHILOSOPHY

Advised by Dominique A. Tobbell

December 2021

Acknowledgements

I take this space to acknowledge those who have supported me in this process as well as the circumstances that made it possible. I am deeply indebted to my communities, and I have much to say and many to thank, but first, I turn my attention to systems and privileges that have enabled me to get to this point.

I often hear it said that at some level, our research is autobiographical. My study of the healthcare and the pharmaceutical industry became increasingly connected to my own life story over the course of my graduate career. The difficulties of graduate school brought many mental and physical health difficulties to the surface that had been ignored and undiagnosed for years. I was incredibly lucky to be at the University of Minnesota as I faced these difficulties. The Graduate Student Health Plan is the most comprehensive insurance I have ever had and probably will ever have, and many graduate schools do not offer this level of coverage. Without access to and the affordability of the healthcare provided by this plan, I am confident I would never have finished this dissertation. I am grateful to the many advocates over the years who have sought to maintain and protect this plan. While grateful, I am also enraged that healthcare in the United States is rationed by ability to pay. Healthcare is a human right, and we would all be better off with a system that supports our collective health as we pursue the lives we imagine.

While I benefited enormously from an extremely generous health insurance plan, I struggled financially, especially during summers when funding opportunities were inconsistent or nonexistent. In grad school, I have never had just one job. I have

simultaneously held jobs teaching, researching, tutoring, editing, consulting, babysitting, pet sitting, writing, cashiering, and grading. I was privileged in that I was doing this work to support only myself; I have friends who have done and do this level of work to support their immediate families, both children and parents. I was also privileged in the financial support I received from my parents when large and surprising expenses arose, from car repairs to computer failures, and when I was unable to sustain myself on multiple jobs. I am deeply indebted to them for their generosity, and exceedingly privileged in the help they provided. The graduate school system seems to depend unjustly on some level of generational wealth or familial support. With rising rents, rising tuition, and stagnant pay, graduate education is becoming an increasingly prohibitive opportunity, favoring those lucky enough to have support and/or access to enough credit to survive. Graduate students provide critical labor to universities. To expand access to graduate education and truly commit to equity and diversity in education, universities must provide graduate students with opportunities to earn a living wage throughout the calendar year.

The difficulties of graduate school have been far outweighed by the rewards, and I have many to thank for encouraging and supporting me along the way. My journey into graduate education started with three people, Arnold Krammer, Brian Linn, and April Hatfield in the History Department at the Texas A&M University. Dr. Krammer taught me the power of historical work as a form of advocacy. Dr. Linn was the first person to tell me I was a good writer and encouraged me to apply to graduate school. Dr. Linn also helped me identify my interests and play to my strengths, introducing me to the history of science and the history of medicine. Dr. Hatfield supported me in writing my first major

piece of researched history writing. I am deeply thankful for their teaching and mentorship.

I am grateful to my teachers at the University of Minnesota, especially Dominique Tobbell, Jole Shackelford, Jennifer Gunn, Barbara Welke, Elaine Tyler May, and Susan Craddock for the welcoming classrooms and challenging coursework that helped me develop as a scholar. I am also thankful for the community building I experienced. Jole routinely filled us with coffee and good conversation, and attending Julefrokost dinners with the Shackelfords are some of my fondest graduate school memories. Elaine regularly hosted a writing group, giving graduate students from different disciplines the opportunity to share their work and enjoy a meal together. I also thank my committee members, Dominique Tobbell, Jennifer Gunn, Jennifer Alexander, Susan Craddock, and Joseph Gabriel, for taking the time to support me, for reading my work, and for providing invaluable feedback.

I must, in particular, thank my advisor, Dominique Tobbell. Dominique has supported me in this arduous process, through ups and downs in my health, my life, and my belief in my own abilities. She has been incredibly generous with her time, especially in these final months of the process. Her feedback and encouragement have made me a better scholar and a better writer. I have also enjoyed our exchanges of cat and dog photos, which have provided a lot of levity in an otherwise very stressful time. I am overwhelmed with gratitude for her.

In my research, I am incredibly grateful to the many archivists who supported me along the way. I began my research at the University of Wisconsin American Institute for

the History of Pharmacy. I thank Elaine Stroud who helped me use the collection and gave me free use of the copy machine. I also thank Jole and Frankie Shackelford for hosting me and my dog Alfie at their cabin in Wisconsin during this research trip and for their patience when Alfie ran away through the woods after a storm and rolled around in the mud. I thank Lynn Houghton and John Winchell at Western Michigan University Archives as I worked with The Upjohn Company collection. I thank Lee R. Hiltzik for his help in arranging and guiding my exploration of the Rockefeller Archive Center—an absolutely lovely and welcoming place to do research. In Washington, D.C., I thank Diane Wendt at the Smithsonian's National Museum of American History (NMAH) for sharing her office space and collection of uncatalogued ephemera. Also at the NMAH, I thank Alison L. Oswald for helping me arrange my review of the museum's pharmaceutical company collections and Jim Roan for providing access to the trade literature. I also thank archivists at the Brooklyn Historical Society, the University of Pennsylvania, the Philadelphia Museum of Art, and Rutgers University for their support of my research.

I have benefited from many conferences, workshops, and fellowships over the course of my graduate education. Both the American Association for the History of Medicine (AAHM) and the Business History Conference (BHC) have provided valuable feedback for the work completed in this dissertation. The BHC Dissertation Colloquium was particularly helpful in thinking about this project as a whole. AAHM provided me with the opportunity to reconnect with Joe Gabriel, who generously served on my committee and who I consider to be wonderful scholar and great and thoughtful person. I

am grateful that I was invited to take part in the first History of Capitalism Summer Camp, where I learned valuable techniques and met an incredible community of scholars. I received funding for research and writing from: the American Institute for the History of Pharmacy's Thesis Research Travel Grant; the University of Minnesota's Doctoral Dissertation Fellowship; the University of Minnesota's Graduate School Fellowship Office; the Warren and Henrietta Warwick Fellowship in the History of Medicine; and the Sara D. Wangensteen Fellowship in the History of Medicine.

My many communities have been enormously supportive throughout this process. I will inevitably fail to mention everyone. Emmie Miller, the History of Science, Technology, and Medicine program administrator, has helped me stay on track in the process. I'm also grateful to Barbara Eastwold and Julia Knoll, her predecessors, and to Mary Thomas. I'm thankful for my cohort, Liz Semler, Cameron Lazaroff-Puck, and Cosima Herter, for great conversation, good food, and lots of laughter. I'm particularly thankful for Cosima, who has always been ready to read my work and talk through ideas. She is a lovely human being. My larger community of graduate students has been a great support over beers and cheese curds, and some have become my dearest friends. Macey Flood, Jessica Nickrand, and Emily Beck have been constants in the midst chaos. I am grateful for how they have helped me grow, challenged me to be better, and loved on me. I also thank them for the time they committed to helping me in my writing and revising. I thank Brendan McHugh, Jennifer Doanne, and Caty Taborda for laughter, great conversation, encouragement, and sass. I'm grateful for my gang of friends in Texas, especially, Steffanie Stevens and Jacqueline Bates who have commiserated with me,

cheered me on, made me laugh endlessly, and helped me feel connected to home. I am thankful for Dave Anderson's seemingly endless patience and encouragement. The University's Center for Writing has been the most welcoming, respectful, and empathetic work community I have ever been a part of. At the Center, Kirsten Jamsen, Katie Levin, and Jasmine Tang have provided me with examples of passionate and compassionate leadership, and I will be forever grateful to them. And I want to give a special shout-out to Katie, who made time in her schedule for writing consultations with me and encouraged me to apply to the Center's Dissertation Retreat. She's been so supportive of me as a worker and a writer.

I also thank my family. I thank my parents, Steve and Barbara Klaffke, for loving me whole-heartedly, always believing in me, teaching me the value of education, and encouraging me to aim higher. I thank my brothers, Hans and Ben Klaffke. I thank my grandparents for always telling me they're proud of me even when they didn't quite understand what I was doing. I thank my in-laws, Greg Wilson and Janice Hodnefield for their unquestioning and seemingly endless love, support, and encouragement. Although he will never read or comprehend this, I thank my dog Alfie for being my closest companion through my grad school journey, staying by my side through joy and sorrow, going on little walks with me, and laying at my feet during hours of writing. To be fair, I must also thank my pandemic cats, Archer, Artemis, and Argus, who continue to make a once-in-a-hundred-years phenomenon more bearable with a lot of cuddles and silliness. Finally, I thank my partner, Elliot Wilson. While I have known and loved Elliot for a comparatively short part of my graduate career, this dissertation came together with his

love, encouragement, understanding, and willingness to take on all the chores. Every time he told me that I was amazing and could write all the words, I started to believe it a little more, and here I sit with a completed dissertation. I look forward to making up for a lot of lost hours together and to welcoming our little bean, my next big project.

Abstract

Over the course of the twentieth century, the pharmaceutical industry evolved into its modern form. Individual pharmaceutical companies formed trade organizations in the early 1900s and experienced exponential growth in the 1930s and onward with the development of lifesaving and life-changing therapeutics. While providing products with immense value, the industry also faced criticism for a variety of practices, from labeling and advertising to pricing and patenting. In the midst of public ire and regulatory threats at various points in its growth, the industry and individual companies developed public relations programming to offset critiques, enter and grow markets, connect with their workforce, and (re)gain favor with the public. Using philanthropy and marketing as lenses into public relations, this dissertation explores public relations efforts through a series of case studies of one of the industry's major trade organizations, the American Drug Manufacturers' Association, as well as individual companies, including The Upjohn Company, Parke-Davis, Smith, Kline & French, and Alcon Laboratories.

I begin in 1912 and follow the priorities of the ADMA in its first decades. Despite discussions about the need to educate the public about the industry's work and its story, the ADMA failed to follow-through, leaving this storytelling to individual companies. I then explore how individual companies engaged in storytelling and history crafting through museum work and the creation of art. Finally, I examine industry-level and company-level philanthropy, connecting small philanthropic acts as well as programmatic philanthropy to positioning the industry and offsetting legislation. In this work, I

contribute to the historiography of the pharmaceutical industry's public relations and philanthropy.

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Introduction

A 2021 Gallup Poll found that the pharmaceutical industry was the third most poorly regarded industry in the United States, just above the oil and gas industry and the federal government.[1] This was a boon from the industry's 2019 rating, which placed it at the bottom of the list.[2] The modern pharmaceutical industry has been the villain in many stories, and for good reason, as is evidenced by state lawsuits and a federal bankruptcy case against Purdue Pharma. Purdue Pharma has been taken to court over the misbranding and deceptive marketing of opioids, fueling a national public health crisis—deaths from opioid overdoses increased sixfold from 1999 to 2017, not to mention the innumerable Americans struggling with addiction.[3] This role of villain has been the label throughout, and long before, my graduate student career. But within living memory is the pharmaceutical industry's role as hero, developing lifesaving and life-changing drugs: antibiotics, vaccines, corticosteroids, and psychopharmaceuticals. In the present, pharmaceutical companies developed vaccines against Covid-19 at incredible speed, and Merck and Pfizer are seeking approval for Covid-19 antivirals.[4] As I undertook this

[1] "Business and Industry Sector Ratings," *Gallup,* August 2-17, 2021, https://news.gallup.com/poll/12748/business-industry-sector-ratings.aspx.
[2] Justin McCarthy, "Big Pharma Sinks to the Bottom of U.S. Industry Rankings," *Gallup,* September 3, 2019, https://news.gallup.com/poll/266060/big-pharma-sinks-bottom-industry-rankings.aspx.
[3] Ryan Hampton describes his experience serving on the Official Unsecured Creditors Committee in the bankruptcy case against Purdue Pharma. He argues for systemic reform. Ryan Hampton, "The Sacklers are Walking off into the Sunset. Reform the System.," *The New York Times*, September 11, 2021, https://www.nytimes.com/2021/09/11/opinion/purdue-sacklers-opioids-oxycontin-settlement.html?searchResultPosition=3. For information on the growth of the epidemic, I used: Sarah DeWeerdt, "Tracing the US Opioid Crisis to its Roots," *Nature*, September 11, 2019, https://www.nature.com/articles/d41586-019-02686-2. Heidi Ledford, "Covid antiviral pills: what scientists still want to know," *Nature*, November 10, 2021, https://www.nature.com/articles/d41586-021-03074-5.
[4] Phillip Ball, "The lightning-fast quest for COVID vaccines—and what it means for other diseases," *Nature*, December 18, 2020, https://www.nature.com/articles/d41586-020-03626-1.

dissertation, I became interested in how the roles and stories of the pharmaceutical industry developed and changed over time. What stories has the industry told and sold? What is the impact of these stories?[5]

I arrived at questions about corporate image and the pharmaceutical industry out of research on the pharmaceutical industry's corporate philanthropy. The interconnectedness of philanthropy and corporate image became clearer as I studied my sources. As a result, this dissertation explores public relations in the pharmaceutical industry through education, storytelling, image-making, and philanthropy. Understanding the philanthropic work and the public image historically of an industry at the intersection of health innovation and healthcare provision offers insights into debates regarding healthcare access, funding mechanisms for drug discovery and development, and the ways in which philanthropy attempts (and fails) to address the inequities of capitalism and the inequities of a capitalist-based healthcare system.

In this dissertation, I argue that the pharmaceutical industry's attempts to educate the public on its social importance, create its own historical significance and narratives, and participate in philanthropic work are rooted in public relations. This work demonstrates the industry's self-view while seeking to offset regulatory efforts, enter new markets, connect with their workforce, strengthen relationships with physicians and pharmacists, and foster public approval. The American Drug Manufacturer's Association

[5] I came to the idea of storytelling through my advisor, Dominique Tobbell. In her work, Pills, Power, and Policy, Tobbell describes how industry leaders focused on the idea of "telling the industry's story" in response to accusations of price-fixing, Congressional hearings, and regulation. Dominique Tobbell, *Pills, Power, and Policy: The Struggle for Drug Reform in Cold War America and its Consequences* (Berkley: University of California Press, 2010), 89-120.

(ADMA), an early industry trade organization, failed to educate the public about the industry's work and its story, leaving this storytelling to individual companies. I follow the debate around and failure of so-called educational programs in the first decades of the ADMA. I then explore how individual companies engaged in storytelling and history crafting through museum work and the creation of art. Finally, I company-level and examine industry-level philanthropy, connecting small philanthropic acts as well as programmatic philanthropy to positioning the industry and offsetting legislation. I briefly explore the relationship between companies and the industry trade organization as well as public relations the trade organization level.

Three critical historiographies frame and provide context for this work: public relations, philanthropy, and pharmaceutical industry. In the following, I will explore these historiographies to situate this dissertation within the literature.

Public Relations

Historians argue that public relations matured in the aftermath of the Ludlow Massacre of 1914 in which 21 people, including women and children, were killed during a miners' strike in Ludlow, Colorado.[6] The Rockefellers brought in Ivy Lee, now

[6] Howard Gitelman argued that public relations grew out of the public indemnification of John D. Rockefeller, Jr. in the aftermath of the Ludlow Massacre. Howard M. Gitelman, *Legacy of the Ludlow Massacre: A Chapter in American Industrial Relations*, (Philadelphia: University of Pennsylvania Press, 1988). In September 1913, the United Mine Workers of America began a general strike against poor conditions in the Colorado Fuel and Iron Company's (CF&I) southern Colorado coal mines. The strike continued through December of 1914. CF&I was partly owned by John D. Rockefeller, Jr. On April 20, 1914, Colorado National Guardsmen approached an encampment of laborers at Ludlow, demanding the release of a man supposedly being held at the encampment against his will. Fighting broke out, and the guardsmen had the upper hand having strategically placed machine guns around the camp. The guardsmen were later joined by non-uniformed mine guards. Twenty-one people, including miners' wives and children, were killed. Four women and 11 children were killed hiding in an underground shelter when the tent above them was set on fire.

recognized as a highly influential figure in the history of public relations, to improve publicity around the strike. The Rockefellers then retained Lee to work on the family's other interests. Lee's public relations efforts fueled the public's reimagining of the Rockefeller family and particularly John D. Rockefeller, Jr.[7] The field further evolved to legitimize major corporations within an evolving social order.[8] Corporations aimed to become "institutions," to "rise above mere commercialism and remove the taint of selfishness."[9] In other words, corporations sought to be members of society within the public imaginary rather than forces of extraction and profit.

Focusing on the historical development of public relations offsets a tendency by historians to avoid defining the term. Richard Tedlow is the only historian I have noted who offers a definition: "a conduit of information from an organization whose views or activities are noteworthy (at least in the opinion of the leaders of the organization in question) to the public through mass media."[10] In addition to a definition, I identified core features of public relations historiography by evaluating how historians discuss public relations. Legitimacy, validation, favorable public image, and public approval all come up in the literature on public relations.[11] Legitimacy and validation are particularly

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[7] Ray Eldon Hiebert, *Courtier to the Crowd: The Story of Ivy Lee and the Development of Public Relations* (Ames: Iowa State University Press, 1966).
[8] Marion K. Pinsdorf, "Building a Business on Virtue: Actual, Image, or Spin," *Business and Economic History* 28, no. 2 (Winter 1999): 185-199.
[9] Roland Marchand, *Creating the Corporate Soul: The Rise of Public Relations and Corporate Imagery in American Big Business* (Berkeley: University of California Press, 2001), 2.
[10] Richard Tedlow, *Keeping the Corporate Image: Public Relations and Business, 1900-1950* (Greenwich, CT: Jai Press, 1979), xvii-xviii.
[11] Marchand's comprehensive work explores the development of public relations across a variety of American industries in the early to mid-twentieth century. Reveley and Singleton describe how London Clearing Banks engaged in public relations to tell their stories and demonstrate their benefit to the public. James Reveley and John Singleton, "Clearing the Cupboard: The Role of Public Relations in London Clearing Banks' Collective Legitimacy-Seeking, 1950 – 1980," *Enterprise and Society* 15, no. 3 (September 2014): 472-498. Marovich describes how women sought legitimacy for their businesses

relevant for early public relations programs prior to World War II. The newness of the large corporate entities (trusts and monopolies), violent labor disputes, and the tragedies that resulted from work-related safety issues made legitimacy and validation major areas of focus for public relations. In the post-World War II period, favorable public image and public approval are more common themes. Mobilization for World War II brought legitimacy and validation for many industries and large corporations as they served the country's war needs. Postwar, public relations shifted to respond to safety and environmental issues as well as scandals. For example, public relations executives helped Nestlé manage the consumer boycott over their marketing of infant formula in developing countries.[12] Public relations has also been mobilized to offset potential unwanted legislation. For example, in 1946, liberal Democrats and the Truman administration sought passage of the Full Employment Bill. In part, the bill stipulated that government would step in to ensure sufficient employment opportunities for all Americans. The National Association of Manufacturers initiated a public relations campaign against the bill, which helped eliminate the requirement that the government ensure full employment through mandatory spending.[13]

Within these themes, historians tend to focus on public relations via media: news stories, publications, photos, radio programs, commercials, short films for television and theater, etc. These forms of public relations enable individuals and corporations to tell

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through public relations. Lisa A. Marovich, "'Let Her Have Brains Too': Commercial Networks, Public Relations, and the Business of Invention," *Business and Economic History* 27, no. 1 (Fall 1998): 140-161.
[12] Colin Boyd, "The Nestlé Infant Formula Controversy and a Strange Web of Subsequent Business Scandals," *Journal of Business Ethics* 106 (2012), 283-293.
[13] Elizabeth Fones-Wolf, *Selling Free Enterprise: The Business Assault on Labor and Liberalism, 1945-1960,* (Urbana: University of Illinois Press, 1994), 33-39.

their stories and connect with the public to understand thematic intersections across industries. In this dissertation, I consider some of this work as explored by the industry and individual companies. However, I also expand my interest in public relations to include corporate philanthropy, because inevitably, philanthropy becomes a major part of the stories that industries and corporations tell, bringing good publicity that (they hope) endows legitimacy.

Historians of public relations and advertising argue that corporations have sought legitimacy by presenting themselves as members of society and adopting normative social roles—family member, friend, neighbor, and community member.[14] Using advertising from the first half of the twentieth century, Roland Marchand argues that corporations crafted images as more than "things" and rather, "project[ed] a distinct personality."[15] Humanizing firms placed them into traditional categories and existing relationships and social structures understood by the public. In this way, companies were able to offset widespread public opposition to growing corporate power. Pamela Laird argues that firms used advertising to frame corporate expansion as an asset to community growth and to highlight the power of consumption as a means of social progress.[16] Elizabeth Fones-Wolf argues that companies attempted to establish themselves in communities as good neighbors to inhibit growing union power.[17] To establish themselves as good neighbors, corporations engaged in welfare capitalism to gain loyalty

[14] Marchand, *Creating the Corporate Soul*, 7-8.
[15] Ibid.
[16] Pamela Laird, *Advertising Progress: American Business and the Rise of Consumer Marketing* (Johns Hopkins University Press, 1998), 121.
[17] The work of becoming a "good neighbor" provides many of the antecedents of corporate social responsibility (services and gifts to the community, support for recreational programs, programs for children, employee volunteer work, corporate fundraising). Fones-Wolf, *Selling Free Enterprise*, 170-180.

from their workers so they would not turn to unions.[18] These historians demonstrate that corporations used public relations to situate themselves as members of the community to achieve particular ends: change public perception, promote consumerism, and subvert unions. In this dissertation, I contextualize the public relations work performed by the pharmaceutical industry using the frameworks crafted by these historians. In their public relations strategies, pharmaceutical companies framed themselves as community caretakers via physicians and pharmacists. Pharmaceutical companies positioned themselves as supportive of physicians and pharmacists, who had normative social roles, to integrate themselves into the community of caretakers.

Philanthropy

Scholarly work on the intersections of philanthropy and the profitability of giving frame this dissertation. The historiography of philanthropy covers a broad array of philanthropic outreach, with particular attention to the work of personal foundations. Historians have explored foundation work in relation to education, public health initiatives, and civil rights, setting studies of philanthropic work within these respective historical genres.[19] The historiography of the large foundations—Rockefeller, Carnegie,

[18] Elizabeth Fones-Wolf defines welfare capitalism as a strategy to support workers' company consciousness (through recreation, health plans, and profit sharing) with political implications. Fones-Wolf, *Selling Free Enterprise,* 86-88.

[19] Roy Finkenbine, "Law, Reconstruction, and African American Education in the Post-Emancipation South," *Charity, Philanthropy, and Civility in American History*, eds. Lawrence J. Friedman and Mark D. McGarvie (Cambridge: Cambridge University Press, 2002). Marcos Cueto, ed, *The Rockefeller Foundation and Latin America* (Bloomington: Indiana University Press, 1994). Marcos Cueto, *Cold War, Deadly Fevers: Malaria Eradication in Mexico, 1955-1975* (Baltimore: Johns Hopkins University Press, 2008). Axel Schäfer's review of *Charity, Philanthropy, and Civility in American History* was helpful in alerting me to the lenses through which philanthropy has been studied. He also makes an important point in identifying the "'older frameworks' of which see philanthropies as beneficent agents of uplift or as instruments of social control and capitalist hegemony." Axel Schäfer, review of *Charity, Philanthropy, and Civility in American History*, eds. Lawrence J. Friedman and Mark D. McGarvie, November 2005, *History in Focus*. http://www.history.ac.uk/ihr/Focus/welfare/reviews/schafer.html.

Ford—demonstrates the transformation of giving from charity for the needy to philanthropy with large social goals for the "betterment of society."[20] In other words, some historians differentiate between acts of charity, which responds to poor circumstances, and philanthropy, which seeks to change the circumstances all together. For this dissertation, I find the work of Olivier Zunz to be the most helpful; he provides a critical analysis of philanthropy and defines philanthropy as providing a return on investment.[21]

The literature also establishes the political nature of philanthropy, arguing that philanthropy permeates the boundaries between the public and private. Domestically, the government funneled money into philanthropic organizations to carry out policy objectives.[22] Take, for example, the shift in hospital ownership. Prior to World War II, twenty-five percent of hospitals were nonprofit (then known as voluntaries). In 1960, two-thirds of all hospitals had converted to nonprofit status, and by the 1970s, the federal government was the largest source of direct and indirect revenues for nonprofits.[23] Further, foundation managers have served as administrators of government programs, providing their private sector expertise.[24] Internationally, philanthropy has served to

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[20] Olivier Zunz, *Philanthropy in America: A History* (Princeton: Princeton University Press, 2012), 43. Also see Ruth Crocker "From Gift to Foundation: The Philanthropic Lives of Mrs. Russell Sage," and Judith Sealander, "Curing Evils at their Source: The Arrival of Scientific Giving," in *Charity, Philanthropy, and Civility in American History*, eds. Lawrence J. Friedman and Mark D. McGarvie (Cambridge: Cambridge University Press, 2002).
[21] Zunz, *Philanthropy in America*, 2.
[22] Peter Dobkin Hall, "The Welfare State and Careers of Public and Private Institutions Since 1945," in *Charity, Philanthropy, and Civility in American History*, eds. Lawrence J. Friedman and Mark D. McGarvie (Cambridge: Cambridge University Press, 2002).
[23] Hall, "The Welfare State and Careers of Public and Private Institutions Since 1945," 365.
[24] William J. Breen, "Foundations, Statistics, and State-Building: Leonard Ayres, the Russell Sage Foundation, and U.S. Government Statistics in the First World War," *The Business History Review* 68 (4) (Winter 1994): 451-482.

promote capitalism and export American ideology, both prior to World War II and during the Cold War.[25] In the midst of ideological battles around capitalism and communism, many believed philanthropic work would help establish allies of capitalism abroad. This belief framed the pharmaceutical industry's work in Project HOPE, as I discuss in chapter 4.

The growth of foundations and philanthropic giving in the postwar World War II period is an important contextual point—in 1938 there were 188 foundations but by 1955 there were 1,488—growth that stemmed from postwar federal tax policy.[26] In the midst of the Great Depression, community chests lobbied the federal government to change tax policy to alleviate their desperate financial situations—chests planned to seek support from local corporations. The Revenue Act of 1938 allowed for charitable giving exemptions at up to 5% of net income. In 1969, stricter regulations on foundation giving were fueled by segregationists in Congress who objected to foundation donations to groups like the Congress of Racial Equality. The politics of giving—foundations working with and for government and contributing to causes deemed political or otherwise

[25] See Volker Berghahn, "Philanthropy and Diplomacy in the 'American Century,"" *Diplomatic History* 23, no. 3 (Summer 1999): 393-419; and Inderjeet Parmar, *Foundations of the American Century: The Ford, Carnegie, and Rockefeller Foundations in the Rise of American Power* (New York: Columbia University Press, 2012). In addition, understanding the spread of American capitalism abroad is important for understanding not only foundation philanthropy but the role of business in foreign policy throughout the twentieth century. This work demonstrates the ambiguity of public and private responsibilities in the United States. In her work on foreign investment in the early twentieth century, Emily Rosenberg argues that the State Department's encouragement of bankers and industry leaders to invest abroad "raised significant, and never resolved, dilemmas about the division of public and private responsibilities." Emily Rosenberg, *Financial Missionaries to the World: The Politics and Culture of Dollar Diplomacy, 1900-1930* (Duke University Press, 2004), 3. Also see Bert Spector "'Business Responsibilities in a Divided World': The Cold War Roots of the Corporate Social Responsibility Movement" *Enterprise and Society* 9, no. 2 (April 2008): 314-336.

[26] Zunz, *Philanthropy in America,* 169. Hall, "The Welfare State and Careers of Public and Private Institutions Since 1945," 380.

controversial—provides important context for my exploration of corporate giving in the pharmaceutical industry, intended to offset regulatory efforts and improve public opinion. In the 1950s and 1960s, the industry faced accusations of monopoly and price-fixing, resulting in the Kefauver hearings. The industry responded, in part, by engaging in the politics of giving, supporting a hospital ship that traveled to so-called Third World countries in the midst of the Cold Ward. I discuss this further in chapter 4.

The Pharmaceutical Industry

The historiography of twentieth century pharmaceuticals explores regulation, drug discovery, patient experience, patient activism, and marketing. These topics, particularly marketing, provide important context for public relations and philanthropy in the pharmaceutical industry. There is a strong literature on specific classes of drugs—birth control, amphetamines, mood stabilizers—which chronicle the public life of drugs, provide insight into targeted drug advertising and public relations, and review regulatory efforts. These works also highlight changes in patient autonomy in the postwar period, demonstrating the demands patients placed on their doctors, the FDA, and the industry.[27]

Marketing is a major theme in pharmaceutical industry literature. So-called ethical drug manufacturers generally advertised to physicians rather than the patient-public.[28] Some companies worked around this commitment by engaging in institutional

[27] Lara Marks, *Sexual Chemistry: A History of the Contraceptive Pill* (New Haven: Yale University Press, 2010); Elizabeth Siegel-Watkins, *On the Pill: A Social History of Oral Contraceptives, 1950-1970* (Baltimore: Johns Hopkins University Press, 2001); Nicolas Rasmussen, *On Speed: The Many Lives of Amphetamine* (New York: New York University Press, 2009); Robert Bud, *Penicillin: Triumph and Tragedy* (Oxford: Oxford University Press, 2009); David Herzberg, *Happy Pills in America: From Miltown to Prozac* (Baltimore: The Johns Hopkins University Press, 2010); and Andrea Tone, *The Age of Anxiety: A History of America's Turbulent Affair with Tranquilizers* (New York: Basic Books, 2009).

[28] Proprietary companies, like Miles Laboratories, were heavy advertisers of vitamin products. See Rima D. Apple *Vitamania: Vitamins in American Culture* (New Brunswick: Rutgers University Press, 1996). Print

advertising or conducting advertising in support of physicians and pharmacists.[29] Companies also engaged in direct-to-consumer advertising in more deceptive ways. For example, David Herzberg describes the marketing of "happy pills" through "educational interviews" that were aired on the radio, close relationships with news reporters, and mentions of prescription drug use by celebrities in gossip columns.[30]

In addition to marketing under the guise of education to the general public, pharmaceutical companies also "educated" physicians. Nicolas Rasmussen describes Smith, Kline & French's advertising strategy for Benzedrine, the amphetamine they marketed to physicians in the mid-twentieth century. In their campaign, the company "educated" physicians through advertisements that demonstrated what kinds of patients Benzedrine could treat.[31] Jeremy Greene and Scott Podolsky explore pharmaceutical marketing as physician education and the underlying, contemporary ethical issues.[32] In his work on Diuril, Jeremy Greene describes the expansion of physician education on pharmaceutical products beyond factual, text-based journal and direct-mail advertising through emerging sales tactics such as gifting.[33]

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advertising seems to be qualified separately from window displays in pharmacies, which appear to be quite common. For example, one of The Upjohn Company's earliest and largest products, Phenolax, a laxative candy wafer, benefitted from elaborate window displays in pharmacies. Photos of the displays can be viewed at Jeremy Winkworth, *Memories of The Upjohn Company*, last modified October 2020, https://www.upjohn.net/sales/phenolax/displays.htm.

[29] Roland Marchand describes institutional advertising at E. R. Squibb and Sons. Marchand, *Creating the Corporate Soul*, 174-181. Parke Davis engaged in advertising to encourage readers to see their doctors for illness and ongoing issues. Tobbell, *Pills, Power, and Policy*, 68.

[30] Herzberg, *Happy Pills in America*, 42.

[31] Rasmussen, *On Speed*, 114.

[32] Jeremy A. Greene and Scott H. Podolsky, "Keeping the Modern in Medicine: Pharmaceutical Promotion and Physician Education in Postwar America," *Bulletin of the History of Medicine* 83, no. 2 (Summer 2009): 331-377.

[33] Jeremy Greene, *Prescribing by Numbers: Drugs and the Definition of Disease* (Baltimore: The Johns Hopkins University Press, 2007), 37-47.

Jeremy Greene's work on "defining disease," also provides useful insights into public relations. According to Greene, while the field of public relations grew in the early twentieth century, the pharmaceutical industry did not engage with it until the post-World War II period. I find this to be true in a broad sense, but I will argue that certain actions undertaken by the industry and individual companies suggest earlier forms of public relations, whether or not they were formalized and institutionalized.[34]

Dominique Tobbell's work explores public relations around the Kefauver hearings and inspired the work in this dissertation.[35] Tobbell also provides important policy context, by focusing on the politics and regulation of the pharmaceutical industry. She demonstrates how the industry created alliances with academics, offset regulatory challenges, and positioned itself as a centerpiece of the capitalist system in opposition to the adoption of socialized medicine.[36]

The historiography of pharmaceuticals establishes the increasing prominence of pharmaceuticals as objects of therapeutic value and regulatory intervention. As pharmaceuticals became increasingly valuable because of their lifesaving and life-changing potential, they had higher social and economic value and as a result, higher exploitative potential. In exploring these central issues around pharmaceutical research and development, the historiography provides important contextual points for

[34] Greene's statement is generally in line with my findings for the American Drug Manufacturer's Association (ADMA), who discussed and ultimately rejected industry wide efforts. In their case, Greene is specifically referring to the American Pharmaceutical Manufacturer's Association (APMA). I did research the APMA but exploring this organization as part of expanding this project would likely be fruitful. Greene, *Prescribing by Numbers*, 35.
[35] Tobbell, *Pills, Power, and Policy*, 89-106.
[36] Tobbell, *Pills, Power, and Policy*, 59-88.

understanding the industry's self-perception, the expectations of the public and government, and the industry's public relations strategies.

Boundaries of this Dissertation

I positioned this project from the 1910s through the 1970s in an attempt to understand development, continuity, and discontinuity in the pharmaceutical industry's public relations. I begin in the 1910s, following both the development of the field of public relations and the formation of major industry trade organizations. The 1910s through the late 1930s provide context for industry public relations prior to major therapeutic advancements and post-World War II growth. In the postwar period, I explore the industry's response to growth and its impact on philanthropy.

During this timeframe, the industry also faced three major periods of public critique and regulatory oversight. The Food, Drug, and Cosmetic Act of 1938 forced major changes on drug industry practices, including requiring that companies demonstrate safety before marketing products, and strengthening legislation around misbranding products. The Durham-Humphrey Amendment of 1950 defined drugs that could only be used under a doctors' supervision (by prescription) and restricted their sale to licensed pharmacists. Finally, the Kefauver-Harris Amendments of 1962 regulated drug efficacy and strengthened safety protocols, launching modern clinical trials.

I curtail my work in the early 1980s for three reasons. Corporate social responsibility entered the corporate lexicon and became a highly structured and managed feature of companies in the late 1980s and early 1990s, complicating explorations of

philanthropy and public relations in more recent history.[37] Second, pharmaceutical companies altered the structures of their corporate giving in response to the HIV/AIDS crisis, initially recognized in the early 1980s. For example, Steven Epstein argues that firms provided monetary donations to AIDS activists, which supported AIDS research and faster drug approval processes thus benefitting companies.[38] Finally, pharmaceutical industry direct-to-consumer advertising vastly expanded in the 1980s, further complicating studies of public relations in the industry.[39] Prior to the 1980s, firms were more invested in institutional advertising because it was the only "ethical" advertising. They also faced strict marketing regulations that individual companies began challenging in the 1980s. For the purposes of this study, institutional advertising provides a useful blending of advertising and education.

I conducted my research using two lenses: an industry wide lens and a firm-based lens, asking questions about the relationship between the industry and the firm and how both responded to external conflict by engaging in different forms of public relations and philanthropy. Using these two lenses, I found that, in the first half of the twentieth century, industry trade organizations deferred to individual company's public relations programs until growing critiques of the industry in the post-World War II decades necessitated collective industry action.

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[37] Kenneth E. Goodpaster, et. al. ed., *Corporate Responsibility: The American Experience* (New York: Cambridge University Press, 2012), 344-346.
[38] Steven Epstein, *Impure Science: AIDS, Activism, and the Politics of Knowledge* (Berkeley: University of California Press, 1996), 299.
[39] Jeremy A. Greene and David Herzberg "Hidden in Plain Sight: Marketing Prescription Drugs to Consumers in the Twentieth Century," *American Journal of Public Health* 100, no. 5 (May 2010): 793-803.

Sources for this Dissertation

Sources on the pharmaceutical industry are disparate and somewhat difficult to come by. Pharmaceutical companies that once allowed historians into their archives have shut their doors. Such was the case, for example, for Eli Lilly, that invited scholar James Madison for work on a biography of the company's founder but would not permit my research.[40] This was particularly unfortunate given Eli Lilly's obvious philanthropic work in Indiana. For example, Ruth Lily funded the philanthropy archives at Indiana University. Roland Marchand used resources at Princeton University on E. R. Squibb, which no longer appear to be available.[41] The University of California at Berkley has the records for Cutter Laboratories, which have remained unprocessed for the duration of this project.

I cast a wide net for my research, hoping to collect sufficient sources to understand industry philanthropy. I first visited the American Institute for the History of Pharmacy, where I learned about Alcon Laboratories, a company explored in this dissertation. Because of its location in Fort Worth, Texas, near family, I investigated the company, and I was able to obtain contact information for the son of one of the company's cofounders, R. Denny Alexander. Alexander had a personal collection of materials, saved by his father, which has shaped my work on philanthropy at Alcon.

I explored corporate archives where publicly available. The Upjohn Company archives at the Western Michigan University in Kalamazoo, the home of Upjohn, provided useful insight into philanthropic projects of that company. In Washington D.C.,

[40] James H. Madison, *Eli Lilly: A Life, 1885 – 1977* (Indianapolis: Indiana Historical Society Press, 2006).
[41] Marchand, *Creating the Corporate Soul*, 174-181.

I visited archives at the Smithsonian's National Museum of American History, exploring records of Sterling Drug and Norwich Eaton. I found some evidence of small-scale philanthropic activities in these archives. While in D.C. I also explored the records of the Smithsonian itself to better understand the museum's relationship with Upjohn—the two had collaborated to develop an exhibit in the 1930s.

Personal papers served as a workaround to the limited nature of pharmaceutical company archives. I visited Rutgers University, which holds the Harold Sims papers. Sims was part of the Corporate Responsibility Department at Johnson & Johnson (J&J), and his work focused on J&J's anti-apartheid work in South Africa. While I did not use these sources in my dissertation, this presents an opportunity to expand this work. The University of Pennsylvania holds the Alfred Newton Richards papers, which contained valuable information on medical education and corporate philanthropy, but this topic has been thoroughly explored by Dominique Tobbell and John Swann.[42]

I also conducted research at several archives with pharmaceutical company connections. I visited the Rockefeller Foundation Archives in Sleepy Hollow, New York, but these archives, unfortunately, did not hold useful evidence of philanthropic collaboration between the foundation and drug companies. The Brooklyn Historical Society contains oral histories with employees of Pfizer, which would be particularly helpful for research focusing on employee relations—another possible extension of this

[42] Swann explores the networks form between the pharmaceutical industry and academic scientists in expanding research programs in collaboration with the industry. John P. Swann, *Academic Scientists and the Pharmaceutical Industry: Cooperative Research in Twentieth-Century America* (Baltimore: The Johns Hopkins University Press, 1988). Tobbell's work *Pills, Power, and Policy* explores alliances between pharmaceutical companies and health professionals (doctors and pharmacists) and includes an exploration of how education funding supported these alliances. Tobbell, *Pills, Power, and Policy*, 37-58.

project. While in Philadelphia, I also visited the Philadelphia Museum of Art Archives to better understand the relationship between Smith, Kline & French and the museum.

After settling on topics for this project, I had planned to return to both Western Michigan University and the American Institute for the History of Pharmacy in the summer of 2020. Unfortunately, the Covid-19 pandemic derailed those plans. Instead, I focused on the sources I had already collected.

In seeking to understand public image and philanthropy at the industry level, I examined the historiography of industry trade organizations. I found references to early trade organizations, but no historians had fully explored the beginning of these organizations. I wanted to understand how organizations imagined the industry from the beginning and explore any philanthropy and public relations efforts in which early trade organizations engaged. To conduct this part of my research, I reviewed the annual meeting proceedings for the American Drug Manufacturers' Association (ADMA) from 1912 through 1958, held by the University of Minnesota Libraries.[43] I also reviewed newspaper and journal publications available through the university's libraries.

Organization of this Dissertation

In Chapter 1, I explore the development of the ADMA, an early industry trade organization. The ADMA sought legitimacy in the medical marketplace of the early twentieth century United States. The weakness, and in some cases nonexistence, of legislation to regulate the practice and production of medicine combined with the

[43] Jeremy Greene uses industry resources at the Pharmaceutical Researchers and Manufacturers of America, but I was unable gain access to these sources. Greene references these sources in his work *Prescribing by Numbers*, 35-37.

ineffectiveness of many of the available treatments provided a broad swath of options to the patient-consumer. In this atmosphere of abundant quacks, educated and trained physicians sought to distinguish themselves from other healers. In this same market, the so-called ethical drug manufacturers sought to distinguish themselves from quack and patent medicine makers. Ethical drug manufacturers defined themselves by abiding to certain standards: they developed products that had gained recognition and respect within the orthodox medical community; clearly listed ingredients for the physician and consumer; and marketed their products exclusively to physicians.[44] The ADMA, as an organization of ethical manufacturers, aimed to maintain high standards for pharmaceutical products, promote new research, reduce fraudulence, encourage the creation and enforcement of drug legislation, and promote member collaboration as well as collaboration with the medical and allied professions.[45]

In this chapter, I argue that while the ADMA formed around industry image and practice, its main work focused on addressing potential legislation at the local, state, and federal levels. While members discussed educating the public on the goals of the industry—going so far as to form a Committee on Education, which met for several years in the 1920s—nothing came of these efforts. Instead, the organization deferred to individual companies, claiming that members were already making great efforts in educating the public about the work of the industry. My analysis of the ADMA concludes prior to World War II because the pharmaceutical industry's postwar growth and

[44] Joseph M. Gabriel, *Medical Monopoly: Intellectual Property Rights and the Origins of the Modern Pharmaceutical Industry* (Chicago: The University of Chicago Press, 2014), 195-237.
[45] Charles M. Woodruff, "Preamble," *Proceedings of the First Annual Meeting of National Association of Manufacturers of Medicinal Products*, (1912): 14.

mobilization against the regulatory efforts of Senator Estes Kefauver in the late 1950s and early 1960s have been thoroughly explored by Dominique Tobbell. As part of industry mobilization, the ADMA merged with the American Pharmaceutical Manufacturers' Association to consolidate and streamline public relations efforts.[46] The industry's failure to organize a public relations strategy proved to be less of an issue leading up to and during World War II, when the industry experienced massive public acclaim for its developments and its war mobilization efforts. In the post-war period, however, that acclaim diminished in the face of accusations of price fixing.

Chapters 2 and 3 complement each other in exploring philanthropy and history-telling in the pharmaceutical industry. For these chapters, I develop two terms to categorize engagement with history-telling as performed by the pharmaceutical industry: *generative history-telling* and *associative history-telling*. In generative history-telling, the industry/companies developed their own artifacts to connect their history and story with events far removed from their own immediate histories/stories; these connections might be minimal or central to the story told through the artifacts. In associative history-telling, the pharmaceutical industry/individual pharmaceutical companies sought to connect themselves with artifacts of historical importance, i.e., works of art, historical instruments, etc., thus *associating* the industry/companies with events that were far removed from their own immediate histories/stories.

[46] The APMA started in 1909 and focused on pharmaceutical chemists. The organizations often had representatives at each other's meetings, and there was overlap in membership. Occasionally their messaging differed. Tobbell, *Pills, Power, Policy*, 83-120.

In Chapter 2, I explore two case studies of generative history-telling. In the first, I examine The Upjohn Company's collaboration with the Smithsonian in the 1930s to create an exhibit about pharmaceutical history and the manufacturing, research, and development processes. While the conversations between Upjohn and the Smithsonian explicitly denounce the exhibit as advertising, the Smithsonian described the benefits of the exhibit to the Upjohn company in fostering goodwill with the public. Further, the Upjohn company shared their work on the exhibit in their employee magazine, *The Overflow*. While not shared with the general public, *The Overflow* primarily served the company's sales force, who could talk about this museum work with doctors and druggists in their sales meetings. This collaboration enabled Upjohn to position itself historically and highlight its own work in the process.

In the second case study, I explore Parke, Davis' 1950s *Great Moments* series: *Great Moments in Medicine* and *Great Moments in Pharmacy*. Through meticulous research and attention to detail, George Bender, the company's director of advertising, led a team in developing historical oil paintings of important events in the history of medicine and pharmacy for display as well as print copies for distribution. Both series told progressive stories of medical history that led to American medicine as the pinnacle of practice. Through this art, Parke, Davis sought to connect their company to the history of discovery and highlight their position as central to modern American medicine.

In Chapter 3 on associative history telling, I focus on the decades long relationship between Smith, Kline & French (SKF), originally headquartered in

Philadelphia, and the Philadelphia Museum of Art (PMA).[47] In 1948, SKF made a monetary donation to the museum to develop the *Ars Medica* collection.[48] Over the course of the relationship, the size and frequency of these donations increased, but so did the demands of SKF on the PMA. SKF wanted the exhibit to travel to locations that would benefit the company on a national and international level. For example, as SKF established a relationship with the Japanese pharmaceutical company Fujisawa Pharmaceutical Co. Ltd., SKF wanted the PMA to send the exhibit to Japan. At the same time, SKF denied PMA requests for other support, such as increasing accessibility in the museum. The relationship between SKF and the PMA shows the prioritization of the corporate agenda and profitability in philanthropy.

In Chapter 4, I explore philanthropy at the industry level as well as in individual companies, The Upjohn Company and Alcon Laboratories. In this chapter, I argue that both industry-level and company-level giving was motivated by business objectives and profit motives. I also argue that increasing regulatory pressure—resulting from the Kefauver Hearings—prompted the development of strategic giving as well as giving at a larger scale. I describe small instances of giving at Upjohn, as highlighted in the company's employee magazine, *The Overflow*. I then explore the philanthropy of Alcon Laboratories, a small, specialized pharmaceutical company in Fort Worth, Texas. The company was founded and grew significantly in the early post-World War II period and quickly became active in the industry's trade organization. One of the co-founders of

[47] At some points in this dissertation, PMA will also refer to the Pharmaceutical Manufacturers of America. I will make my use of acronyms clear in each chapter.
[48] *Ars Medica* is Latin for medical art.

Alcon, William Connor, served as a vice president of the Pharmaceutical Manufacturers of America during the Kefauver Hearings. Connor argued for a strong public relations strategy for the industry and developed a form of strategic giving at Alcon. Finally, I end this chapter on the work of Project HOPE (an acronym for Health Opportunities for People Everywhere), which launched a hospital ship. The ship, partially funded and supplied by the pharmaceutical industry, travelled to "Third World" countries to provide both healthcare and rudimentary training in basic surgical procedures.

This dissertation explores intersections of education, storytelling, and philanthropy to understand public relations in the pharmaceutical industry. While the sources might be disparate, the chapters provide a narrative of evolution, as the industry and individual companies adopted informal and formal public relations strategies. I argue that the industry engaged in public relations for a variety of reasons: to offset regulatory interventions; to open new and expand existing markets; to connect to their work force; to strengthen relationships with physicians and pharmacists; and to foster public approval. At the root of this study is a critique of philanthropy and the stories we are told.

Chapter 1: Creating an Industry Image: The Development of the American Drug Manufacturers' Association

Introduction

In 1912, the first meeting of the American Drug Manufacturers' Association (ADMA), the nascent pharmaceutical industry trade organization, convened in New York City, amidst proposed legislation around opioids and poisons.[1] A collection of companies began meeting because they perceived existing drug-focused organizations to be failing to meet their needs. Frank G. Ryan, the first president of the ADMA and the representative of Parke, Davis & Co., offered the basis of the organization as such: "Every other department of the drug business has its national organization. Our idea is not to antagonize any other; but rather to work in harmony with those now existing; and to bend our efforts more directly to those questions in which the manufacturer is concerned."[2] Others at the meeting suggested that manufacturing interests sometimes conflicted with those of the National Wholesale Druggists' Association and the proprietary organizations; they wanted a closer association between chemical and pharmaceutical interests through an organization of drug manufacturers.[3] F. M. Bell of

[1] The organization originally formed under the name National Association of Manufacturers of Medicinal Products. For the sake of simplicity, I refer to this organization as the American Drug Manufacturers of America throughout this dissertation. The change in name took place between the 1916 and 1917 annual meetings. Meeting proceedings lack specifics about the why the name was changed, but the change was nearly unanimous. Charles J. Lynn, "Address of President Lynn," in *Proceedings of the Sixth Annual Meeting of National Association of Manufacturers of Medicinal Products Now American Drug Manufacturers' Association* (1917), 29. I suspect the change came about for two reasons. First, many members expressed anti-foreign sentiments at the first meeting of the association and wanted to exclude foreign members. Second, the United States joined World War I in 1917. Both of these reasons provide some explanation for the inclusion of "American" in the new name.

[2] Frank G. Ryan, "Tuesday Afternoon, February 6, 1912" in *Proceedings of First Annual Meeting of National Association of Manufacturers of Medicinal Products* (1912), 13.

[3] W. Campbell, "Tuesday Afternoon, February 6, 1912" in *Proceedings of First Annual Meeting of National Association of Manufacturers of Medicinal Products* (1912), 20.

Armour & Company wanted to organize because he had "encountered so many things that were so annoying."[4] Thirty companies attended the first meeting, including some of the biggest pharmaceutical houses at of the time, such as Parke, Davis & Co, Eli Lilly, Abbott, Mulford, Upjohn, and Merck.[5]

The pharmaceutical industry initially organized to protect its interests and reputation. The companies represented at this first meeting wanted to create an organization for mutual support, collective action, and industry protection, which they hoped to achieve through both public education and legislative support.[6] Ultimately, the ADMA focused on legislative support, both at the state and national levels. The ADMA's choice to focus on legislative support rather than public education shaped, or really failed to shape, how the industry interacted with the broader public.

In the first half of the 20th century, public education on the pharmaceutical industry came through the choices of individual companies rather than for the benefit of the manufacturing industry or the health professions more broadly. As historians have explored, public relations became increasingly important for the industry in the second half of the twentieth century.[7] This dissertation uses Richard Tedlow's definition of

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[4] F. M. Bell, "Tuesday Afternoon, February 6, 1912" in *Proceedings of First Annual Meeting of National Association of Manufacturers of Medicinal Products* (1912), 19.
[5] "Tuesday Afternoon, February 6, 1912," *in Proceedings of First Annual Meeting of National Association of Manufacturers of Medicinal Products* (1912), 55-56.
[6] These ideas come up in conversation between representatives. The topics of conversation included the decision to form the organization as well as revising the organization's constitution. "Tuesday Afternoon, February 6, 1912" in *Proceedings of First Annual Meeting of National Association of Manufacturers of Medicinal Products* (1912), 17-33. In addressing legislative matters, specifically upcoming opium regulations, representatives explicitly linked education and legislation. "Thursday Afternoon, February 6, 1912" in *Proceedings of First Annual Meeting of National Association of Manufacturers of Medicinal Products* (1912), 62.
[7] See Dominique Tobbell, *Pills, Power, and Policy: The Struggle for Drug Reform in Cold War America and its Consequences* (Berkeley: University of California Press, 2012).

public relations: a conduit of information from an organization to the public through mass media.[8] What did early industry public relations programs look like? Why did early industry efforts to build public relations programs fail? The discussions of industry representatives around these potential public relations programs offer a longer history of the industry's storytelling in response to public ire in the mid-twentieth century.

This chapter considers the meanings of public education and advertising, both as types of public relations. Members of the ADMA opposed advertising individual products based on the ethical industry's reputation and relationship with physicians. They were concerned that pharmaceutical company advertising might interfere with the doctor-patient relationship. Institutional advertising—advertising that celebrated a company, its reputation, and accomplishments—served as a powerful alternative. Institutional advertising created brand interest, prompting a patient and/or physician to explore that company's products. Another alternative form of advertising was public health education. In educating the public about various diseases, a company would encourage the public to see their doctor. This advertising served two functions: 1) it provided some useful information about signs and symptoms of disease to the public, and 2) it strengthened the relationship between the company and the physician-prescriber. The strengthened relationship would increase awareness of and sales for a company's products. Essentially, institutional advertising would help companies sell their products via physicians. A final alternative included education about historical and modern developments in medicine to highlight medical progress. Here again, celebrating physicians and medical researchers

[8] Richard Tedlow, *Keeping the Corporate Image: Public Relations and Business, 1900-1950* (Greenwich, CT: Jai Press, 1979), xvii-xviii.

supported the relationship between the physician and the advertising company.

In addition to exploring the industry's failure to develop early public relations efforts, this chapter examines the development of ADMA legislative support. Historians and journalists have explored the legislative work and lobbying of the industry throughout the twentieth century, but no one has explored this history through the lens of the trade organization in the first half of the twentieth century.[9] Joseph Liebenau argues that early industry trade organizations "maintained mutually agreeable relations with the government."[10] While this is broadly true, those agreeable relationships were with some government officials. This chapter provides more nuance to the relationships the ADMA had with federal and local governments as well as with the healthcare professions.

The ADMA formed in an effort to develop a unified response to and provide mutual support in the evolving regulatory environment. The ADMA claimed to be for legislation, particularly with regard to safety and uniformity, but the organization's representatives were keen to shape that legislation toward its own ends. As I discuss, the ADMA was first interested in legislation that would primarily support physicians in their care for patients and secondarily interested in legislation that would limit the market power of proprietary medicine sellers. They also sought uniform regulations that would help companies avoid making costly manufacturing and shipping adjustments to align with the demands of individual states and localities.

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[9] For the early twentieth century, see: Joseph M. Gabriel, *Medical Monopoly: Intellectual Property Rights and the Origins of the Modern Pharmaceutical Industry* (Chicago: The University of Chicago Press, 2014); and Jonathan Liebenau, *Medical Science and Medical Industry: The Formation of the American Pharmaceutical Industry* (Baltimore: The Johns Hopkins University Press, 1987). For the latter twentieth century, see Tobbell, *Pills, Power, and Policy*.

[10] Liebenau, *Medical Science and Medical Industry*, 95.

This chapter describes the formation of the ADMA. Two events frame the chapter: the inception of the organization in 1912 and the beginning of World War II. The industry's growth during WWII and beyond has been thoroughly explored by other historians.[11] I also focus on specific legislative trends and public relations issues. The goals of this chapter are twofold: first, to examine the organization's legislative and educational efforts, and second, to map educational and public relations efforts the ADMA discussed, whether or not the industry pursued those efforts. I build on the works of historians who focus on legislation and the pharmaceutical industry in the twentieth century.

This chapter also provides additional context to histories of industry and academic networks. Exploring discussions of collaboration within the ADMA in the first decade of its existence complements John P. Swann's work on the development of biomedical research programs in the pharmaceutical industry in the 1920s and 1930s. To be sure, Swann acknowledges that scattered research collaborations began prior to the 1920s.[12] The formation of the ADMA and the organization's meeting proceedings also provide insight into how the industry related to peer organizations. Dominique Tobbell's work on the development of industry alliances with the health professions and mid-twentieth century public relations programs have roots in the organization's early years.[13] As such, this chapter provides further insight into these topics.

[11] See, in particular, Tobbell, *Pills, Power, and Policy*.
[12] John P. Swann, *Academic Scientists and the Pharmaceutical Industry: Cooperative Research in Twentieth-Century America* (Baltimore: The Johns Hopkins University Press, 1988), 2-3.
[13] Tobbell, *Pills, Power, and Policy*, 48.

The Medical Marketplace and Business in Crisis

Pharmaceutical companies came together in trade organizations during a "crisis in confidence" in business more broadly. H. M. Gitelman argued that the founding of professional organizations before World War I signaled that existing structures for addressing business problems were inadequate.[14] Tragedies such as the Triangle Shirtwaist Fire (1911) and the Ludlow Massacre (1914) left blood on the hands of business owners and increased public animosity toward corporations.[15] The election of Woodrow Wilson (1912), who many business leaders viewed as sympathetic to unions and supportive of business regulation, further ignited concerns about threats to business. On the other hand, scholars have suggested that the Chamber of Commerce, formed in 1912, the same year as the ADMA, demonstrates the collaborative relationships between business and government.[16] The United States Chamber of Commerce, which formed to "bring parts of government into a more systematic and closer working relationship with manufacturers and merchants," originated out of a desire to increase American exports.[17] While the Chamber of Commerce addressed business interests broadly, trade associations continued to form to address the interests of particular industries.[18] As historians have

[14] H. M. Gitelman, "Management's Crisis of Confidence and the Origin of the National Industrial Conference Board, 1914—1916," *Business History Review* 58, no. 2 (Summer 1984), 155.
[15] On March 25, 1911, the Triangle Shirtwaist Fire led to the death of 146 garment workers. They were trapped in the garment factory because managers had locked the workers in to prevent the workers from taking breaks or stealing product. As described in the introduction of this dissertation, the Ludlow Massacre was a violent attack against coalminers during a strike in Ludlow, Colorado. Twenty-one people were murdered by national guardsmen and non-uniformed mine guards.
[16] Richard Hume Werking, "Bureaucrats, Businessmen, and Foreign Trade: The Origins of the United States Chamber of Commerce," *Business History Review* 52 no. 3 (Autumn, 1978), 322.
[17] Ibid.
[18] Companies were members of both trade associations and chambers of commerce. At the ADMA, for example, many pharmaceutical companies were members of the Chicago Chamber of Commerce and wanted to avoid duplicating the chamber's work. Harold Sorby, "Tuesday Afternoon, February 6, 1912,"

argued, while business leaders felt threatened by strong regulatory environments, those environments have been shown to foster stability and thereby competition and growth.[19]

This regulatory environment was particularly potent for restricting the use and sale of drugs. With the passage of the Pure Food and Drug Act of 1906, the federal government took an increasingly active role in food and drug labeling and purity. In particular, the act aimed to control patent medicines (defined below). The Department of Agriculture's Bureau of Chemistry, which became the Food and Drug Administration (FDA) began to inspect patent medicines sold through the mail. While companies were rarely prosecuted for adulteration, mislabeling, or substitution, the American Medical Association (AMA) published findings of joint investigations with the bureau in the *Journal of the American Medical Association* in an effort to expose patent medicine makers and educate their readers, physicians and other health professionals, about these issues.[20] Additionally, the repercussions of the Flexner Report changed the structure of medical education, emphasizing research and the need for full time faculty.[21] This change meant that physicians who worked for both companies and medical schools had to choose one or the other. At the same time, companies began to recruit physicians directly from medical schools for research and development.[22] Finally, growing concerns about opiate abuse spurred local and eventually national legislation around the sale of opiate-

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Proceedings of First Annual Meeting of National Association of Manufacturers of Medicinal Products (1912), 23.

[19] Benjamin C. Waterhouse, *Lobbying America: The Politics of Business from Nixon to NAFTA* (Princeton: Princeton University Press, 2014), 16.

[20] Liebenau, *Medical Science and Medical Industry*, 92-93.

[21] E. Richard Brown, *Rockefeller Medicine Men: Medicine and Capitalism in America* (Berkeley: University of California Press, 1979), 135-191.

[22] Liebenau provides one example of how Parke, Davis recruited from the University of Michigan. Liebenau, *Medical Science and Medical Industry*, 130.

containing products. These legislative changes and reforms began to alter the environment around the practice of medicine and the sale of drugs in the early twentieth century.[23]

In addition to governmental regulation and reform in medicine, self-policing existed within the broader drug industry. Companies that sold drugs had been categorized—both through internal identification and external judgment by medical practitioners—as ethical manufacturers or patent medicine makers. Patent medicine makers advertised, often falsely, to the general public and produced medicines of unknown ingredients that were often unsafe, had inconsistent formulas, and/or contained addictive or toxic substances.[24] The companies that formed the ADMA self-identified as ethical manufacturers. Ethical pharmaceutical firms adhered to standards in line with orthodox medical practitioners as set out by the AMA's code of ethics. Specifically, ethical manufacturers refused to patent medicines or advertise to the public.

The markets for drug production (ethical vs. patent) and the emergence of drug legislation are critical contexts in understanding the launch of trade organizations for drug manufacturers. Modern studies of professional organizations of the pharmaceutical industry, in the mid- and late- twentieth and early twenty-first centuries, critique trade organizations in their efforts to lobby against legislation. In this early period, the bigger, ethical companies in the industry lobbied the government *for* legislation that would push

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[23] Arthur A. Daemmrich, *Pharmacopolitics: Drug Regulation in the United States and Germany* (Chapel Hill: University of North Carolina Press, 2004), 21-24. Philip J. Hilts, *Protecting America's Health: The FDA, Business, and One Hundred Years of Regulation* (New York: Alfred A. Knopf, 2003), 35-71. Gabriel, *Medical Monopoly*, 195-237. Liebenau, *Medical Science and Medical Industry*, 79-90. James Harvey Young, *The Toadstool Millionaires: A Social History of Patent Medicines in America before Federal Regulation* (Princeton: Princeton University Press, 1961), 227-244.
[24] Gabriel, *Medical Monopoly*, 2. Also see Young, *The Toadstool Millionaires*, 205-225.

out companies making extravagant claims about their drugs, which also contained unidentified and/or adulterated compounds. According to Jonathan Liebenau, these trade organizations formed in response to the 1902 and 1906 Food and Drug Acts, though Liebenau makes limited reference to and analysis of these organizations.[25] In an early history of the pharmaceutical industry—both in terms of time of writing and content—James Harvey Young describes the lobbying by various industry entities against this legislation.[26] These so-called industry representatives, in part, came from practitioners who *interacted with* the pharmaceutical industry, such as druggists. This is an important distinction: druggists made significant profits off patent medicines. Another group that lobbied against the 1906 Food and Drug act was patent medicine producers, who faced greater regulation in the passage of these laws.

The stated position of ethical companies was clearly *in favor* of regulation even after the passage of the Food and Drug Act and *against* manipulating legislation in favor of the industry. As one member of the ADMA stated, "The thought occurred to me that that might appear as if we wanted to exert an influence as a body in shaping legislation in our own particular direction . . . I do not think this association ought at any time to put itself in antagonism with any legal, lawful regulation that is instituted."[27] The Food and Drug Act legitimized some companies—the slightly larger, ethical companies—that could adhere to federal standards while eliminating competition from firms that could not. As Liebenau states, the act gave "legal support to the notion of scientific practice,

[25] Liebenau, *Medical Science and Medical Industry*, 97.
[26] Young, *The Toadstool Millionaires*, 235.
[27] A. M. Hance, "Tuesday Afternoon, February 6, 1912," *Proceedings of First Annual Meeting of National Association of Manufacturers of Medicinal Products* (1912), 33.

and to rationalize the character of the industry accordingly."[28] Protecting the reputation of the industry was central to the ADMA's goals, and this continued to play a role in how the industry viewed and promoted itself into the midcentury.

Joseph Gabriel argues that participants in the debate around commercialization of therapeutic products included physicians who sought to enforce laws regulating the market and pharmaceutical manufacturers interested in both improving medicine and earning a profit. As ethical companies, they operated under the norms promoted by the orthodox medical community while facing competition from disreputable companies, who, while perhaps viewed as quacks by the orthodox community and a mix of legislators and journalists of the period, made a profit on their low quality and/or exploitative products.[29]

In this atmosphere of loose and loosely enforced regulations, pharmaceutical manufacturers met to form a trade organization to protect their interests. Ethical manufacturers claimed to see benefit in a strengthened regulatory environment that held patent medicine manufacturers accountable for their advertising and products, potentially pushing those manufacturers out of the market. Given that ethical manufacturers committed strictly to advertising to physicians, they missed out on significant market opportunities.[30] Their participation in legislative work, however, suggests more flexibility in their distinctions between ethical and patent manufacturers. The ADMA stated that

[28] Liebenau, *Medical Science and Medical Industries*, 97
[29] Gabriel, *Medical Monopoly*, 2.
[30] Ethical manufacturers' commitment to advertising to physicians grew out of a desire to promote the image of science in their products and respect for the American Medical Association's code of ethics. Liebenau, *Medical Science and Medical Industry*, 7, 26-29.

they wanted to avoid exerting influence on legislation, and they wanted regulation of quack manufacturers. When this legislation came forward, however, they actively worked against it.

The Formation of a New Organization

The ADMA was the brainchild of Charles M. Woodruff. Woodruff was the corporate attorney for Parke, Davis, & Co. In occasional meetings with representatives from other companies, Woodruff developed the idea of organizing an association of manufacturers. As mentioned previously and speaking to the influence of Parke, Davis & Co, Frank G. Ryan, another representative of Parke, Davis & Co, was the first president of the association. While Parke, Davis & Co, located in Detroit, played a significant role in terms of leadership, the ADMA did not become a Midwest organization; attendees of the organization's first meeting decided to hold future meetings in New York because of the high concentration of East Coast firms.

In forming the organization, firm representatives argued about membership. Arguments about membership attempted to exclude international members with warehouses in the US, proprietary manufacturers, and jobbing druggists (small scale manufacturers). These exclusions suggest the elimination of some competition. Representatives wanted to establish boundaries around the organization and strictly include companies committed to shared business practices: consistency in products, ingredient labeling, and advertising only to physicians. They also wanted to keep out foreign interests, likely also to avoid competition. Representatives also argued over including a list of reasons for expelling members. An early draft of the constitution

suggested that companies should be expelled if they divided profits with physicians or offered inducements to physicians.[31] Physician reformers in the Progressive Era sought to promote rational therapeutics free of commercial interests and influence.[32] As such, the ADMA wanted to avoid associating with companies participating in activities that would damage the organization's relationship with physicians. Member conversations around the rule reflect this motivation. Richard Stofer of the Norwich Pharmacal Co. argued that "it is a good idea to have in our rules and regulations something that will convey the fact that we are banded together on a little higher plane than purely commercial interests."[33] Another representative, E. H. Nelson of Baker & Co., argued that such a rule insinuated that the physician was calculating and greedy, which would reflect poorly on the pharmaceutical trade rather than provide a useful framework for the functioning of the organization. Ultimately, members eliminated the language, leaving such decisions about firm behavior to the membership committee.[34]

Arguments also arose about the preamble to the ADMA's constitution, specifically about the preamble's stated goals around legislation. In the initial draft of the constitution, one of the stated goals of the organization was "to secure uniform drug legislation."[35] Anthony Hance of Hance Bros. & White voiced concerned over the

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[31] Fee splitting was also an in issue in the AMA. Liebenau, *Medical Science and Medical Industry*, 26-29.
[32] Harry Marks, *The Progress of Experiment: Science and Therapeutic Reform in the United States, 1900-1990* (Cambridge: Cambridge University Press, 1997), 23-41.
[33] Richard Stofer, "Tuesday Afternoon, February 6, 1912," *Proceedings of First Annual Meeting of National Association of Manufacturers of Medicinal Products* (1912), 51.
[34] The American Medical Association's Code of Ethics forbade physicians from prescribing patent medicines, but this rule was voluntary and often ignored. David Herzberg, *White Market Drugs: Big Pharma and the Hidden History of Addiction in America* (Chicago: The University of Chicago Press, 2020), 27.
[35] "Tuesday Afternoon, February 6, 1912," in *Proceedings of First Annual Meeting of National Association of Manufacturers of Medicinal Products* (1912), 55-56.

appearance of the organization; Hance was concerned that the organization would look as if it was seeking to "exert an influence as a body in shaping legislation" and suggested that the organization "exercise great caution as to any action we may take in shaping legislation that is favorable." [36] Frank Ryan, however, offered that the association would be "of assistance" to legislative bodies "who were only too glad to have these suggestions from outside sources."[37] As a result of these discussions, the organization modified the language: "to advance uniform and just drug legislation."[38] This change in language, while small, reflects the concerns of the organization over the appearance of legislative impropriety.

The organization's goals reflect three main themes that emerged in the first decades of the organization's history: 1) the industry's desire to distinguish itself from medical quackery, 2) an emphasis on following and developing legislation, and 3) an effort to establish fair and mutually beneficial collaboration among members and with healthcare professionals.

The Legislative Agenda and Physician-Industry Relations

Despite concerns about legislative impropriety, the organization's agenda focused on legislation. In this section, I explore the organization's relationship to physicians via the lens of federal legislation. First, I explore the organization's views on the regulation of habit-forming drugs. Second, to provide an example of the

[36] Anthony Hance, "Tuesday Afternoon, February 6, 1912," in *Proceedings of First Annual Meeting of National Association of Manufacturers of Medicinal Products* (1912), 33.
[37] Frank Ryan, "Tuesday Afternoon, February 6, 1912," in *Proceedings of First Annual Meeting of National Association of Manufacturers of Medicinal Products* (1912), 33.
[38] Frank Ryan Afternoon "Tuesday Afternoon, February 6, 1912," in *Proceedings of First Annual Meeting of National Association of Manufacturers of Medicinal Products* (1912), 34.

organization's approach to legislation, I follow the ADMA's response to regulations against the labeling of medicines with false therapeutic and curative claims as amendments to the Pure Food and Drug Act and related legislation.

The organization's views around the regulation of habit-forming drugs favored use under doctor's orders, which tended to mean the use of ethical products. In the late nineteenth century, with advances in manufacturing, transportation, and corporate organization, trade in consumer products increased, and among these products were opium and cocaine.[39] In the early twentieth century, opium and cocaine as drug additives came under increased oversight and prohibition efforts moved forward at the state and federal levels. David Herzberg explores the markets around the sale and use of opium and cocaine in different forms, identifying the formation of the medicine-drug divide, a framing derived from demands for reform or criminalization with distinctions for each made according to users' race, class, and country of origin.[40] For example, nativist reports of opium smoking among Chinese immigrant populations in the United States framed the use of opium as vile and pernicious and a threat to white women, who would lured into opium dens.[41] At the same time, physicians wrote broad prescriptions of opium for a multitude of "female" complaints.[42] To be sure, the legislation supported by both physicians and the ADMA in this atmosphere focused on both eliminating so-called quack medicines and "immoral" use, while continuing to support the prescription use of

[39] Herzberg, *White Market Drugs*, 15-45.
[40] Ibid.
[41] Herzberg, *White Market Drugs*, 19-20.
[42] Herzberg, *White Market Drugs*, 17.

products.[43] The legislation the ADMA supported thus framed the ethical manufacturers in contrast to the patent medicine manufacturers and in support of physicians.

In these public discussions about regulation and criminalization, the industry generally stood to benefit. Initially, the industry maintained concerns about exemptions for their work as well as record keeping practices around the use of opium and cocaine products. In 1912, ADMA Secretary Charles Woodruff argued that the Pure Food and Drug Act did not need amending:

> " . . . if the majority of the medical profession, believing that cancer cannot be cured, want to put a small minority who believe and affirm that it can be cured, in jail because of their opinion, they must secure a change in the fundamental law of the land that every citizen would oppose."[44]

Despite this early claim, the ADMA ultimately supported amending the Pure Food and Drug Act to curb the problematic use of opium and cocaine in drug products. They were, however, intentional about what amendments they backed.

When Woodruff reported on proposed amendments before Congress at the 1913 meeting, he discussed legislation in relation to ethical medicine and quackery. As "legitimate manufacturers of medicinal products," the organization ultimately supported the passage of the Sherley Amendment to the Pure Food and Drug Act in 1912, which prohibited labeling medicines with false therapeutic claims intended to defraud the purchaser.[45] The Sherley Amendment, however, was difficult to enforce; according to

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[43] Herzberg, *White Market Drugs*, 26-29.
[44] Charles Woodruff, "Wednesday Morning, February 7, 1912," in *Proceedings of First Annual Meeting of National Association of Manufacturers of Medicinal Products* (1912), 64.
[45] In *Johnson v. the United States* (1911), the Supreme Court found that the 1906 Pure Food and Drug Act strictly regulated the mislabeling of drug ingredients; it did not pertain to the therapeutic or curative claims made on products. The Sherley Amendment developed as a result of this legislative gap, or as many at the time viewed it, to correct the mistake of the Supreme Court. Hilts, *Protecting America's Health*, 60-61.

accepted interpretation of the law, the claims for the curative or therapeutic effect of a drug had to be made with the intent to deceive the buyer. Furthermore, the Bureau of Chemistry, lacked the manpower to investigate all claims fully, especially against a monied class of proprietary manufacturers with well-paid lawyers and lobbyists.[46] It is unclear in meeting proceedings why the ADMA chose to support the Sherley Amendment among other bills. On the one hand, a weak law and weak enforcement might prevent the industry from facing additional oversight. On the other, these weaknesses also allowed the continuation of a major source of competition, patent manufacturers.

Amidst these discussions of supporting or opposing legislation, the ADMA discussed its patchy relationship with Harvey Wiley. Wiley, a chemist who pushed for the 1906 Food & Drug Act, served as the first commissioner of the US Bureau of Chemistry. In pushing for extended legislation, Wiley asked the industry to take on some onerous requirements around drug labeling for the greater good. W. C. Abbott of Abbott Laboratories in Chicago felt that these requirements punished the ethical industry for the failings of patent manufacturers.[47] At the same time, in their shared work on the Sherley Amendment, Woodruff noted that Wiley offered "moderate and fair" judgements of legislation.[48] By the time of this 1913 meeting, Wiley had resigned from the Bureau of Chemistry and begun working at the Good Housekeeping Institute, a series of laboratories which determined what products deserved the Good Housekeeping Seal of

[46] Ibid.
[47] W. C. Abbot, "Wednesday Morning, February 7, 1912" in *Proceedings of First Annual Meeting of National Association of Manufacturers of Medicinal Products* (1912), 65.
[48] Charles Woodruff, "Secretary's Report," in *Proceedings of the Second Annual Meeting of National Association of Manufacturers of Medicinal Products* (1913), 105-106.

Approval. This position possibly offered Wiley more power to protect consumers from unsafe or adulterated goods, considering the weaknesses of early food and drug legislation, by providing information about and testing of products. This information and testing was otherwise unavailable to consumers at the time.[49]

Woodruff demonstrated a different relationship with Lyman Kebler, who became the first director of the Bureau of Chemistry's drug laboratory. Kebler's background suggested that he might be an industry favorite. After training at the University of Michigan pharmacy program, traditionally linked to Parke, Davis, Kebler joined Smith, Kline and Company in its newly established analytical laboratory. At Parke, Davis, Kebler evaluated ingredients for adulteration before stocking them for use in manufacturing drug products. In 1903, Kebler was recruited by Wiley to join the Bureau of Chemistry as chief of their drug laboratory.[50] Kebler's training in laboratory techniques seems to have made him a staunch proponent for regulation of products, regardless of any allegiance he might have felt to Smith, Kline.

Take, for example, Woodruff and Ryan's reactions to Kebler over the Richardson Bill. The bill, proposed by Harry A. Richardson of Delaware, was another potential amendment to the Pure Food and Drug Act. The bill targeted fraudulent medical claims with more regulatory power than the successful but difficult to enforce Sherley

[49] Wiley claimed to have rejected a million dollars of advertising for inferior products. Lauren Strach and Malcolm Russell, "The Good Housekeeping Seal of Approval: From Innovative Consumer Protection to Popular Badge of Quality," *Essays in Economic and Business History* 21, no. 1 (2003): 154-155.
[50] Liebenau, *Medical Science and Medical Industry*, 42-44. Dennis B. Worthen, "Lyman Frederick Kebler (1863-1955): Foe to Fakers," *Journal of the American Pharmacists Association* 50, no. 3 (2010): 429-432.

Amendment. Woodruff claimed that Kebler's testimony before Congress demonstrated that he was

> "not competent to discriminate [between dangerous and helpful treatments] or that he believes that so-called patent or proprietary medicines recommended to the public for the treatment of diseases are all altogether [sic] pernicious and should be outlawed."[51]

Woodruff's response to Kebler demonstrates an important distinction: whether a product was patent or ethical, if recommended by "thousands of the most ethical and reputable physicians throughout this country," it should not be regulated.[52] While the ADMA was for ethical manufacturers, the organization first allied itself with physicians. The ADMA's choice centered the organization's strongest customer, the average physician. While ADMA members committed to developing and manufacturing pure, consistent products, they did not police the practices of physicians.

Ryan doubled down on Woodruff's arguments. He argued that the Richardson Bill "would have destroyed a branch of the drug business legitimate in itself, although often conducted illegitimately." He further argued that the bill would have "confined the whole medical profession, eclectic, homeopathic, regular, and even different branches of the regular profession, to use one class of fluid extracts, tinctures, etc., irrespective of the views and experiences of different branches."[53] Ryan's comments show further allegiance to physicians, but to a more diverse set of physicians than those affiliated with the AMA. Again, this demonstrates an emphasis on the organization's commitment to physicians as

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[51] Charles Woodruff, "Secretary's Report," in *Proceedings of the Second Annual Meeting of National Association of Manufacturers of Medicinal Products* (1913), 106.
[52] Ibid.
[53] Charles Woodruff, "Secretary's Report," in *Proceedings of the Second Annual Meeting of National Association of Manufacturers of Medicinal Products* (1913), 110-111.

the industry's primary customers, but the commitment to a broader set of physicians is surprising, given the ADMA's organizing principle as a group of ethical manufacturers serving orthodox practitioners. The ADMA's position was likely strategic. While the AMA reorganized in 1901, making members of county medical societies automatic members of the state and national organization, local organizations often acted against the national organization.[54] Further, while orthodox practitioners aimed to eliminate sectarian practitioners via legislation, there was very little self-policing amongst orthodox practitioners.[55] And finally, sectarian practitioners, including homeopaths and eclectics, had generally strong and competitive practices in the early twentieth century.[56]

At the center of Richardson's 1913 bill were potentially fraudulent products making wild claims about their curative abilities. Among those products specifically cited by both Kebler and Woodruff was Vapo-Cresolene, manufactured by the Vapo-Cresolene Company. Vapo-Cresolene, a kerosene-fueled lamp that vaporized an accompanying cresol solution and first sold in the 1880s, promised to cure whooping cough, diphtheria, and other diseases.[57] The idea behind the lamp capitalized off germ theory. Joseph Lister had used carbolic acid, a byproduct of coal tar distillation, to sanitize himself and his patients to reduce infection risks. Making a logical leap, cresol, another byproduct of coal tar distillation, was believed to have similar sanitizing properties to carbolic acid. The ADMA's interest in this product as well as others likely stemmed from two aspects of its

[54] Ronald L. Numbers "Physicians, Community, and the Qualified Ascent of the American Medical Profession" in *Major Problems in the History of American Medicine and Public Health,* ed. John Harley Warner and Janet A. Tighe (Boston: Wadsworth, Cenage Learning, 2001), 301.
[55] Numbers, "Physicians, Community, and the Qualified Ascent of the American Medical Profession," 299.
[56] Ibid.
[57] Young, *The Toadstool Millionaires,* 215.

use: first, it was prescribed by many orthodox physicians at the time, and second, cresol was a product of known ingredients manufactured according to US Pharmacopoeia standards, all qualities in line with the ADMA's mission. According to Jonathan Liebenau, polarization in the broader industry, between reputable and less solid companies came out of attempts to "force compliance with Pharmacopoeia."[58]

While widely used by physicians, in 1908, the AMA reported that its laboratory had evaluated Vapo-Cresolene, finding it to be an "ordinary product endowed, by the manufacturer, with extraordinary virtues" and emphasized the "dangers attendant on the inhalation of any of the phenols."[59] Despite these warnings from the AMA, the Vapo-Cresolene was used and sold into the 1950s. That the ADMA chose to support such products, despite their extreme claims, suggests much about the organization's ideals. The ADMA centered the physician but not necessarily the physician's professional organization or scientific reports. Rather than treating physicians as a monolith under the professional and perhaps elitist AMA, the ADMA supported the hard-working physician, the everyman physician, seeking to support his patients.

Ultimately, the Richardson Bill did not pass. Vapo-Cresolene and products like it continued to be sold without strong regulation of the therapeutic and curative claims listed on their labels. While the Sherley Amendment stated that products could not list untrue claims, the onus was on prosecutors to prove intent to deceive. The Richardson Bill aimed to remove the burden of intent. Congress did not revisit the weakness of Sherley and other weaknesses of the 1906 Act for some time.

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[58] Liebenau, *Medical Science and Medical Industry*, 99.
[59] "Report on Vapo-Cresolene" *Journal of the American Medical Association* 50, no. 14 (1908): 1135.

Legislation against fraudulent medical claims re-emerged just over twenty years later, once again featuring Kebler and the disjointedness between the ADMA and the AMA. In a bit of déjà vu, Kebler appeared before Congress to rail against fraudulent medical claims and support potential legislation.[60] These renewed legislative efforts developed out of a series of muckraking books published in the late 1920s and early 1930s. *The Tragedy of Waste* (1925), *Your Money's Worth* (1927), and especially *100,000,000 Guinea Pigs: Everyday Dangers in Foods, Drugs, and Cosmetics* (1933), described fraudulent and hazardous products coming out of the food and drug industries. These works strengthened a growing consumer movement. *100,000,000 Guinea Pigs* was written by two colleagues, Frederick J. Schlink and Arthur Kallet, at the newly formed Consumers' Research group. The group served as an independent product-testing organization and published bi-monthly newsletters. The group gained 40,000 members by 1932.[61] The publication of these books, especially *The Tragedy of Waste*, coincides with the formation of the Committee on Education within the ADMA, which I discuss in a later section of this chapter.

The FDA, formerly the Bureau of Chemistry and renamed in 1927, used ideas from these books to develop of an exhibit dubbed by journalists as the "Chamber of

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[60] *A Legislative History of the Federal Food, Drug & Cosmetic Act and Its Amendments, Volume 4*, (Washington, D.C.: U.S. Department of Health, Education, and Welfare, Public Health Service, Food and Drug Administration, 1979), 1019, https://books.google.com/books?id=bYEyKAF4dUQC&pg=PA1015&lpg=PA1015&dq=h.r.+14060+1912&source=bl&ots=adrhJZ-inp&sig=ACfU3U3El0fCuVh2LaWBYpMd_Q_es8J3Zg&hl=en&sa=X&ved=2ahUKEwi4yfbwp_jzAhVbGs0KHQ9TDZIQ6AF6BAgWEAM#v=onepage&q&f=false.

[61] Lizabeth Cohen, *A Consumers' Republic: The Politics of Mass Consumption in Postwar America* (New York: Vintage Books, 2003), 24-25.

Horrors."[62] The 1933 exhibit included a series of posters with products, labels, therapeutic claims, hazards, and, for the most dangerous products, death certificates.[63] Included in the "Chamber of Horrors" was the Vapo-Cresolene. The exhibit was shared with senators, the press, and copies were made for display at the Century of Progress Exhibition in Chicago. Eleanor Roosevelt viewed the exhibit, wrote about it, and encouraged her visitors to see it for themselves.[64] The ADMA called the "Chamber of Horrors" propaganda designed to rush legislation through Congress.[65] Despite this bad publicity, the ADMA took no action to change public opinion and, rather, focused on the introduction of new bills to replace the Pure Food and Drug Act of 1906.[66]

Rexford Guy Tugwell, Assistant Secretary of Agriculture in the Franklin D. Roosevelt Administration, was frustrated with the FDA's complete inability to win court cases and wanted to put the regulatory body in a position to protect the consumer.[67] Drug companies frequently exploited loopholes in the 1906 Act. For example, successfully prosecuted companies quickly relabeled products and reentered the market, even if those products were dangerous or worthless. Labeling techniques also became increasingly

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[62] In 1927, the Bureau of Chemistry was reorganized into two separate entities. The Food, Drug, and Insecticide Administration (shortened to the Food and Drug Administration in 1930) maintained regulatory functions, while the Bureau of Chemistry and Soils conducted nonregulatory research. Hilts, *Protecting America's Health*, 84-88.
[63] James Harvey Young, *Medical Messiahs: A Social History of Medical Quackery in 20th Century America* (Princeton: Princeton University Press, 1967), 169.
[64] Rexford Guy Tugwell, interview by Charles O. Jackson, June 7, 1968, U.S. Food and Drug Administration Oral History, 14-15, https://www.fda.gov/media/81126/download/. Young, *Medical Messiahs*, 170.
[65] A. Homer Smith, "Address of the President," in *Twenty-Third Annual Meeting, American Drug Manufacturers of America* (Baltimore: The Lord Baltimore Press, 1934), 13.
[66] For more on the FDA and public relations, see: Gwen Kay, "Healthy Public Relations: The FDA's 1930s Legislative Campaign," *Bulletin of the History of Medicine* 75, no. 3 (Fall 2001).
[67] Tugwell, U.S. Food and Drug Administration Oral History, 6-7.

vague and some products removed labeling all together.[68] Tugwell's frustration began a five-year effort to overhaul the FDA. Tugwell was an economist, a member FDR's Brain Trust, and seemingly socialistically inclined—this was played up in press against his bill.[69] Tugwell had originally proposed the legislation to overhaul the FDA to Roosevelt, who brought in Royal S. Copeland, a senator from New York and chairman of the Commerce Committee, to sponsor the legislation.[70]

Both Copeland and Tugwell were complicated choices for this work. Copeland was a practicing homeopathic physician, a former medical writer for Hearst publishing, a medical consultant for drug companies, and a reputed collaborator, both across the aisle and with industry. However, Copeland had worked closely with and supported the FDA as health commissioner of New York City.[71] Copeland was also a New Deal dissident, and members of Roosevelt's administration resented him and his association with the bill. FDR even withheld endorsement for Copeland in his 1934 re-election campaign, even though they shared New York as their home state. Tugwell, on the other hand, was a "lightening rod" of the Roosevelt administration and was deeply disliked by rural Democrats and conservatives alike. Tugwell's work on the bill triggered "Tugwellmania" efforts to discredit Tugwell in the press.[72]

Tugwell felt that the best opportunity for the legislation came from looping it into the emergency actions taken by Congress and the president to address the deepening

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[68] Daniel Carpenter, *Reputation and Power: Organizational Image and Pharmaceutical Regulation at the FDA* (Princeton: Princeton University Press, 2010), 81.
[69] John E. Lesch, *The First Miracle Drugs: How the Sulfa Drugs Transformed Medicine* (Oxford: Oxford University Press, 2007), 177.
[70] Tugwell, U.S. Food and Drug Administration Oral History, 17.
[71] Hilts, *Protecting America's Health*, 88.
[72] Carpenter, *Reputation and Power*, 83.

Depression while taking advantage of the presidential honeymoon period.[73] Copeland, described as a "very dignified looking white-haired gentleman with carefully shined shoes and . . . a carnation in his buttonhole" who "looked very affluent and talked very cooperatively," planned to hold hearings to consult with all the industries involved.[74] Copeland then planned to write a new bill based on collaboration with Tugwell and the results of these hearings. While Roosevelt played a role in bringing Tugwell and Copeland together, he did not actively support the bill, focusing instead on his other New Deal priorities.

Copeland sponsored a series of bills with different goals. S.1944 was authored by FDA officials. The bill focused on the patent medicine industry, requiring that they disclose ingredients on labels, and remove the "intent to defraud" condition set in place for seizing misbranded goods—the FDA could not seize goods or prosecute companies without clear evidence that the company had labeled those products with an intent to defraud consumers. The bill also gave the FDA power to seize multiple shipments of misbranded goods, made advertisers and manufacturers liable for fraudulent claims, and gave the FDA power over pharmaceutical advertising (otherwise under the control of the Federal Trade Commission).[75] The revised versions of this legislation, S.2800 and S.5 relaxed many of these regulations.

The AMA came out in favor of the Pure Food, Drugs and Cosmetics Bill in 1934, and, in particular, endorsed the so-called Tugwell-Copeland Bill (S.1944), the stronger

[73] Tugwell, U.S. Food and Drug Administration Oral History, 36.
[74] Tugwell, U.S. Food and Drug Administration Oral History, 17.
[75] Carpenter, *Reputation and Power*, 81.

version of the bill authored by FDA officials. The AMA claimed that the growth of advertising since the passage of the Pure Food and Drug Act had "made it possible for manufacturers to sell goods with false, preposterous and misleading claims, simply because it is the advertising that sells the goods rather than the label on the bottle or package."[76] While the AMA claimed "complete support" for strengthening and extending the Pure Food and Drugs Act in their journal, they sent no representatives to support the bill during Congressional hearings.[77] Collaborators on the bills claimed the AMA was not enthusiastic about it.[78] Morris Fishbein, editor of the *Journal of the American Medical Association* from 1924 to 1950, knew the importance of advertising, especially from ethical pharmaceutical manufacturers, to the journal's existence.[79] This dependence also helps explain the AMA's reluctance to more actively support the bill.

The ADMA's relationship with the AMA was complicated, and the organizations' arguments for and against the first attempts at a Pure Food, Drug, and Cosmetics Bill suggested no different. The ADMA generally praised (or feigned praise) of the AMA, but the ADMA sometimes stood in opposition to the AMA. The ADMA lamented the power of the AMA, which, in its efforts to work against quack medicine and the abuse of

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[76] "Tugwell-Copeland Pure Food, Drug and Cosmetics Bill," *Journal of the American Medical Association* 102, no. 9 (1934): 696.
[77] *Hearings before the Subcommittee on Reorganization and International Organizations of the Committee on Government Operations, Part 5 Intragency Coordination in Drug Research and Regulation* (1963), 3027, https://books.google.com/books?id=-2W-6vMQ6RsC&pg=PA3027&lpg=PA3027&dq=tugwell+bill+ama&source=bl&ots=ifcBJzECDe&sig=ACfU3U1qdQBrcuo3EzPzm1Il5agagi0K9A&hl=en&sa=X&ved=2ahUKEwjrtJLdwfnzAhVUB50JHSSACkQQ6AF6BAgZEAM#v=onepage&q&f=false.
[78] Tugwell, U.S. Food and Drug Administration Oral History, 10.
[79] Tugwell, U.S. Food and Drug Administration Oral History, 23.

alcohol in drugs, negatively impacted ethical manufacturers.[80] Afterall, the AMA had gained significant membership and power after its reorganization in 1901.[81] The ADMA called the Tugwell Bill (S.1944) "the most vicious piece of bureaucratic legislation that was ever introduced into the Congress of the United States."[82] Tugwell knew his bill was contentious and would "raise hell."[83] The revised Copeland Bill (S.5), on the other hand, was developed under industry influence: representatives of interested organizations, including the ADMA spent nine hours with Senator Copeland one day, reviewing the bill paragraph by paragraph. Copeland accepted some revisions and considered others.[84] Reportedly, Copeland "tried to conciliate every interest opposed to it" and "had no interest whatever in the consumer."[85] The organization also wrote its own bill, known as the McCarran-Jenckes Bill, which was introduced in the House.[86]

While in 1912, the ADMA claimed the Food and Drug Act did not need amending, in 1935, the ADMA claimed that the act needed amending but that it should not be replaced.[87] The organization's secretary affirmed "the position that we have always taken, namely that we favor new legislation to strengthen the present act" and "we recognize the necessity of such legislation."[88] The "always" in this statement suggests the

[80] Charles Woodruff, "Report of the Secretary," in *Seventh Annual Meeting American Drug Manufacturers' Association* (1918), 33.
[81] Numbers, "Physicians, Community, and the Qualified Ascent of the American Medical Profession," 301.
[82] "Report on the Committee of Legislation" in *Twenty-Third Annual Meeting, American Drug Manufacturers Association* (Baltimore: The Lord Baltimore Press, 1934), 33.
[83] Tugwell, U.S. Food and Drug Administration Oral History, 12.
[84] "Report on the Committee of Legislation," 1934, 32-33.
[85] Tugwell, U.S. Food and Drug Administration Oral History, 20-21.
[86] Ibid. McCarran was a representative of Indiana in the House. I suspect she might have had ties to Eli Lilly, given the company's influence in the state.
[87] "Report of the Committee on Legislation," in *Twenty-Fourth Annual Meeting, American Drug Manufacturers Association* (Baltimore: The Lord Baltimore Press, 1935), 29.
[88] "Report of the Committee on Legislation," in *Twenty-Fourth Annual Meeting, American Drug Manufacturers Association* (Baltimore: The Lord Baltimore Press, 1935), 29-31. Discussions about this bill

organization's short memory. Their overall approach to legislation—always opting for the less extreme option of the moment—insinuates a legislative conservatism the organization never acknowledged.

Newspapers were largely quiet about the goings on in Congress around strengthening enforcement of food and drug regulations. If the press reported on the bills, the reporting skewed negative. Newspapers, heavily dependent on advertising revenue, shied away from negative press against their food, drug, and cosmetic advertisers. The advertisers also claimed that a new law regulating therapeutic claims would hurt the newspapers as food, drug, and cosmetic companies scaled back their advertising.[89] Because of this limited press coverage, there was little public relations work for the ADMA to do. The food, proprietary drug, and cosmetic industry trade organizations had pursued major campaigns against the bills in rural areas.[90] In other words, these other industries had done the work for the ADMA.

Ultimately, none of these bills passed. Some bills passed one house of Congress but not the other, and one bill, Copeland's Bill (S.5), nearly ready for the president's signature, was killed by a Republican maneuver overseen by Representative Clarence Lea of California, who worked against the bill on behalf of his fruit grower constituents.[91] A

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place the ADMA in opposition to the American Pharmaceutical Manufacturers' Association. The relationship between these two organizations presents a topic ripe for future study.

[89] Young, *Medical Messiahs*, 162. Young doesn't have a clear citation for these claims, but the ideas are reflected in an oral history with Rexford Tugwell. Tugwell, U.S. Food and Drug Administration Oral History, 26-27.

[90] While this focus on rural areas is unclear from the sources, I suspect this relates to a general distrust of federal regulation and the power of rural populations in the Senate. Tugwell, U.S. Food and Drug Administration Oral History, 26-27.

[91] Hilts, *Protecting America's Health*, 88. The then Secretary of the ADMA, Carson P. Frailey, had flown to Washington, D. C. in a shipping plane overnight, thinking the bill was poised for signature. He collaborated with Senator Arthur Vandenburg of Michigan to make last minute changes to the bill. "Report

form of this legislation was reworked into the 1938 Pure Food, Drug, and Cosmetics Act, fueled by the public's ire over the 1937 Sulfanilamide disaster. S. E. Massengill Co. created and sold a liquid sulfanilamide mixture that contained diethylene glycol, otherwise known as antifreeze, which killed 107 people. Notably, S. E. Massengill Co. was not a member of the ADMA. The tragedy created a favorable legislative atmosphere, also helped by Tugwell's resignation from the Department of Agriculture and resolution of a dispute between the FDA and the Federal Trade Commission (FTC) over monitoring drug advertising.[92] The 1938 Pure Food, Drug, and Cosmetics Act included several major reforms of particular interest to the ADMA. The act gave the FDA authority over cosmetics and medical devices, required proof of safety before drug marketing, eliminated the Sherley Amendment's requirement to prove intent to defraud, and created standards for package labeling. Considering the scope of the 1938 Act, the ADMA showed less interest in marketing regulations. The ADMA did not support the 1938 Act, citing threats to public health, slowed drug development, and an erosion of manufacturer autonomy.[93] The atmosphere around the passage of the bill allowed limited time for changes, and the ADMA and other organizations had little say in the bill's final form. The national attention to the sulfanilamide tragedy and the speed of the legislation allowed little room for a public relations response from the ADMA.

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of the Committee on Legislation," in *Twenty-Sixth Annual Meeting American Drug Manufacturers Association* (1937), 38-39.

[92] The Wheeler-Lea Act (1938) expanded the FTC's powers to protect consumers from false advertising. The FTC was given the authority to oversee products otherwise regulated by the FDA, with the exception of prescription drugs.

[93] "Report of the Committee on Legislation," in *Twenty-Seventh Annual Meeting American Drug Manufacturers Association* (1938), 45.

The ADMA's legislative work around drug marketing demonstrates several trends in the organization's history. First, despite the organization's claims otherwise, the ADMA was often against legislation before supporting it. This change in opinion might come from revisions to legislation, but it suggests a general conservatism around new regulations. Second, even when new regulations primarily target their patent medicine competitors, the ADMA resisted legislation that might affect their business. In terms of market, it is likely that many companies had some line of products, however small or banal, that was advertised to the public and made some exaggerated claim. Third, the ADMA, as one trade organization among many opposed to this legislation and an organization that was committed to limited advertising, had the least to lose. Food, proprietary drug, and cosmetic companies faced the most severe consequences from regulation of marketing claims. Because so many industries were involved and working with media, the ADMA had little need to pursue public relations projects. Importantly, the organization's position on legislation sometimes opposed the position of the AMA. In this opposition, however, the ADMA framed their position on legislation in terms the interests of a broader set of practicing physicians.

A Crises in Public Relations: The Mercury Bichloride Poisonings

While the previous section explored the ADMA's legislative work, relations with the AMA, and in/attention to public opinion at the national level, this section explores the organization's response to legislation at both the national and local levels. The ADMA's response to media attention around mercury bichloride shows how the organization viewed policy changes internal to the organization and public education as a means of

avoiding restrictive legislation, but they ultimately failed to pursue either internal policy change or public education.

Mercury bichloride is a poison that, in the late 19th and early 20th century, doctors prescribed to treat sepsis and other infections, from diphtheria to syphilis.[94] The compound had received national attention not because of its curative properties, but rather because it was the cause of accidental and intentional death for many around the country. For example, the accidental death of a newlywed, who took mercury bichloride thinking it was cough medicine, made page one headlines in *The New York Times*.[95] In another instance, the *Chicago Day Book* reported that a man took mercury bichloride capsules that had been mistakenly placed in an aspirin bottle.[96] Accidental ingestion also occurred when children thought bichloride was candy.[97] While some deaths were also reported as suicides and murders, the public clamored for legislation that would create uniformity in the production of the drug in the 1910s.[98]

The US Pharmacopeia developed interest in pursuing legislation that would require products that contained mercury bichloride to be manufactured in a uniform color

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[94] Jean-Louis Vincent and Edward Abraham, "The Last 100 Years of Sepsis," *American Journal of Respiratory and Critical Care Medicine* 173, no. 3 (October 2005), https://www.atsjournals.org/doi/full/10.1164/rccm.200510-1604OE.

[95] "Bridegroom Died a Week After Taking Poison as Cough Remedy," *The New York Times*, October 27, 1913, 1.

[96] "Report of St. Louis Fisherman," *The Chicago Day Book*, July 23, 1913, <https://chroniclingamerica.loc.gov/lccn/sn83045487/1913-07-23/ed-1/seq-25/>.

[97] For more on drug safety for children, see Cynthia A. Connolly, *Children and Drug Safety: Balancing Risk and Protection in Twentieth Century America* (New Brunswick: Rutgers University Press, 2018). "Girl Makes Great Mistake Bichloride is not Candy" *The San Francisco Call*, July 29, 1913, <https://chroniclingamerica.loc.gov/lccn/sn85066387/1913-07-29/ed-1/seq-2/>.

[98] "Says He Made Her Take It," *The New York Times*, August 27, 1912, 9; and "Report of 6th Woman to take Mercury Bichloride in the City," The Chicago Day Book, July 3 1913, <https://chroniclingamerica.loc.gov/lccn/sn83045487/1913-07-03/ed-1/seq-5/>; and "Poison in Van Zandt Home," *The New York Times*, February 1, 1910, 2.

and shape. With the passage of the Pure Food and Drug Act in 1906, the US Pharmacopoeia—the country's official listing of drugs with ingredients, applications, and side effects—became an important standard for drugs.[99] The act defined any drugs sold "under or by a name recognized in the United States Pharmacopoeia or National Formulary" but differing from "the standard of strength quality or purity" as adulterated.[100] In 1914, Joseph Remington attended the ADMA's annual meeting as a delegate of the American Pharmaceutical Association, the professional association for pharmacists, while at the time also serving as head of the Committee of Revision for the US Pharmacopoeia. Remington's address to the organization praised the deep connections between manufacturers, pharmacists, and druggists. He recalled his personal history, attending the Philadelphia College of Pharmacy, being mentored by William Proctor Jr. as a retail pharmacist, working under Dr. E. R. Squibb in manufacturing, and then returning to the practice and teaching of pharmacy in Philadelphia.[101] In a later discussion of the Pharmacopoeia, Remington spoke with members about definitions of and packaging for poison tablets. Remington reported a move by the German Pharmacopoeia to dye all poisonous tablets red and wrap them individually to prevent

[99] The US Pharmacopoeia, developed in 1820, aimed to standardize nomenclature and prescribing and dispensing practices for orthodox medical practice. For more on the development of and revisions to the Pharmacopoeia, see: Lee Anderson and Gregory J. Higby, *The Spirit of Voluntarism: A Legacy of Commitment and Contribution, The United States Pharmacopoeia, 1820 – 1995* (Rockville, MD: The United States Pharmacopeial Convention, 1995). For the appropriation of indigenous knowledge in the Pharmacopoeia and how indigenous knowledge shaped pharmaceutical markets in the twentieth century, see: Joseph M. Gabriel, "Indian Secrets, Indian Cures, and the Pharmacopoeia of the United States of America," in *Drugs on the Page: Pharmacopoeias and Healing Knowledge in the Early Modern Atlantic World* ed. Joseph M. Gabriel and Matthew James Crawford (Pittsburgh: University of Pittsburgh Press, 2019).

[100] Anderson and Higby, *The Spirit of Voluntarism*, 220.

[101] Anderson and Higby, *The Spirit of Voluntarism*, 198. Joseph P. Remington, "The Address of Professor Joseph P. Remington," in *Proceedings of 3rd Annual Meeting of National Association of Manufacturers of Medicinal Products* (1914), 15-16.

accidental ingestion. ADMA members objected to the difficulties involved in such a task. Further, Remington doubted the US Pharmacopoeia's legal standing to hold manufacturers to standards of form. Creating tablets of certain forms, shapes, or packaging fell outside the bounds of the Pharmacopoeia's defined power under the Pure Food and Drug Act.[102]

In lieu of production and packaging, the ADMA proposed to end the threat of accidental poisoning through a public education course. With no explicit guidance on the development or execution of such a course, the suggestion rang hollow. Some in the organization questioned the organization's response. Dwight T. Scott of The National Vaccine and Antitoxin Institute and a member of the Committee on Legislation, questioned, "Is it fair to ask the public to take a short course in pharmacy to learn that Mr. Lynn puts his antiseptic tablets out in diamond shape, and Mr. Quincy puts them out in clover shape, and that Parke, Davis & Company make them round and green?"[103] The individual companies had taken some efforts to adopt designs and protocols to alleviate accidental poisonings, but each company had approached pill production differently, leading to a diverse set of shapes and colors to indicate the threat of poisoning. Scott called the organization "chronic kickers"—the organization continually kicked against proposed legislation—claiming that if the ADMA continued to operate antagonistically against legislation, they would quickly lose legitimacy in the eyes of the government and

[102] "More Discussion of Bichloride of Mercury Tablets," in *Proceedings of 3rd Annual Meeting of National Association of Manufacturers of Medicinal Products* (1914), 53.
[103] "Discussion on Bichloride of Mercury Legislation," in *Proceedings of 3rd Annual Meeting of National Association of Manufacturers of Medicinal Products* (1914), 81.

the general public. He suggested that a small loss of profit demonstrated a praiseworthy sacrifice for the public's safety.

Discussions about tablet uniformity stalled, and the organization decided against pursuing collective uniformity at its annual meeting in 1914.[104] The organization's president laid blame for public agitation on sensationalistic newspaper reporting. He further claimed that establishing a uniform shape for mercury bichloride tablets was nonsensical considering the wide array of poisons on the market.[105] One druggist recalled the swallowing of Paris green, carbolic acid, and poison gas in past "suicidal waves," referring to other "popular" options for ingestible poisons.[106] While some suggested that those who wanted to take poisons had many options, none of the referenced options came in convenient pill form like mercury bichloride. The ADMA was not alone in identifying the press coverage as sensational. The American Pharmaceutical Association weighed in on the sensationalistic press coverage, arguing that newspapers should not report mercury bichloride poisonings.[107]

The organization's approach changed with respect to city ordinances in two major markets. New York City passed an ordinance in 1914, and Chicago followed suit in 1915. New York approached the problem of drug safety in two ways: 1) regulating the color and shape and 2) limiting the sale to prescription only. The city's Board of Health also lobbied the state legislature to draft a similar bill.[108] While the bill regulated color

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[104] Ibid.
[105] "Discussion on Bichloride of Mercury Legislation," *Proceedings of 3rd Annual Meeting of National Association of Manufacturers of Medicinal Products* (1914), 82.
[106] "City to Regulate Sale of Mercury" *The New York Times*, November 11, 1913, 9.
[107] Ibid.
[108] Ibid.

and shape, it did not require a specific color or shape; rather, it acquiesced to industry demands, allowing for a wide variety of colors and shapes, as long as they were distinctive. The ordinance required that pills be individually wrapped and that both the wrappers and the bottle be labeled with the word poison. At the same time, Congressman William J. Browning of New Jersey had proposed a bill regulating the shape and design of antiseptic tablets containing poisons, especially mercury bichloride. Browning wanted these tablets to be shaped like coffins.[109] Browning was unable to get the bill passed, and in lieu of legislation, attempted to collaborate with the trade organization to find a solution that would ensure public safety while attending to the industry's concerns. At that point, the organization explored adopting a new rule around the sale of the product and lobbying states to pass similar and consistent laws—laws that included individual wrapping and labeling, without requiring companies to adopt uniform shapes and colors.

Changes in the organization's approach to the sale of mercury bichloride indicate the power of local legislators in shaping the industry. Further, the ADMA responded to costly and inconsistent legislation at the local level. It appears that if the ADMA had to adapt to local changes, the organization was inclined to support similar legislation at the state or national level in order to combat costly differences across their market geographies. The failure of federal legislation, at the same time, suggests the difficulty of legislating the industry at that level. Local- and even state-level battles appeared to have more success in prompting the industry to make changes in the public

[109] "Report of the Committee on Legislation," in *Proceedings of 4th Annual Meeting of National Association of Manufacturers of Medicinal Products* (1915), 51.

interest that might otherwise eat into industry profits.[110] And in this case, once again, the ADMA considered but then opted not to pursue public education as a course of action to offset legislative challenges.

The Committee on Education: Educating the General Public and Educating the Profession

While the ADMA failed to pursue education around the dangers of mercury bichloride, educating both physicians and the general public about the importance of the ethical drug industry was seen as an important arm of the organization's work and would potentially offset costly legislative work. Charles Woodruff, the first secretary of the organization, stated the following: "It therefore strikes your Secretary that the most important work of the Association is that of educating the public. The people, when informed, are not disposed to be unjust or exacting."[111] Despite this early expression of interested in public education, the organization did not establish the Committee on Education until years later, in 1925.

I suggest the consumer culture of the interwar years impacted the development of the Committee on Education. In the 1920s, consumer culture welcomed broader access

[110] Dominique Tobbell discusses this phenomenon of state and local legislation overcoming the impediments to federal legislation around generic prescriptions in the mid-twentieth century. Tobbell, *Pills, Power, and Policy*, 188-189. Issues around the availability of mercury bichloride continued into the 1920s, following sensational stories of deaths by the drug. In September of 1920, the death of Olive Thomas, a Ziegfeld girl and Hollywood star, made the dangers of mercury bichloride national news. Thomas' husband, Jack Pickford, was using mercury bichloride to treat his syphilis. The star was having trouble sleeping and sought relief from sleeping pills located in the bathroom. Reports conflicted about whether or not Thomas mistakenly took the pills or intentionally overdosed. The most significant case to make national headlines, however, was the attempted suicide of Madge Augustine Oberholtzer during her kidnap and rape by David Curtis Stephenson in 1925. Jacob Roberts, "Coffins in a Bottle," *Science History Institute*, April 2, 2015, https://www.sciencehistory.org/distillations/coffins-in-a-bottle

[111] Charles Woodruff, "Secretary's Report," in *Proceedings of the Second Annual Meeting of National Association of Manufacturers of Medicinal* (1913), 118.

to goods as well as new developments, including medical innovations.[112] Medicine received positive publicity as newspapers and magazines made scientific reporting a routine part of their coverage and as Hollywood made films about the practice of medicine.[113] Overlapping with this good publicity, a number of muckraking books about consumer products, including food, drugs, and cosmetics, came out between 1925 and 1933. The strong consumer movement of the Progressive Era went into hibernation in the 1920s as a result of the seeming affluence of the decade resulting from many new products on the market as well as the Republican government's preference for voluntary rather than enforced compliance. The Great Depression shattered this image and generated a new era of consumer activism.[114] The timing of the creation of the Committee on Education follows the some of the muckraking books on consumption but does not appear to be a direct response to a strong consumer movement, especially considering the good press medicine received more broadly in the 1920s. Notably, the committee formed in the midst of a weakened consumer movement and as the ADMA's legislative needs increased in the 1930s because of proposed replacements to the Pure Food and Drugs Act, the committee was slowly disbanding.

In 1925, Alfred Burdick's presidential address described education as an activity into which the organization had hardly ventured.[115] The president situated the pharmaceutical industry as in service to the physician and described the industry's public

[112] Nancy Tomes, *Remaking the American Patient: How Madison Avenue and Modern Medicine Turned Patients into Consumers* (Chapel Hill: The University of North Carolina Press), 40.
[113] Ibid.
[114] Cohen, *A Consumers' Republic*, 23-25.
[115] S. R. Light, "Address of the President," in *Fourteenth Annual Meeting American Drug Manufacturers' Association* (1925), 12.

relations as directed toward the physician; the industry focused on telling the physician the industry's story. But Burdick further claimed that physicians had come to believe in the "triumphs of prophylaxis" over the "triumphs of medication." To be sure, until the widespread use of antibiotics, disease prevention did greater good and less harm than any curatives of the period.[116] Burdick's proclamations about the role of the industry in alleviating suffering and saving lives overstated the power of medicines while alluding to the clear power of public health in the period.[117]

In Burdick's view, both physicians and the general public took for granted the role of pharmaceutical companies in researching, discovering, manufacturing, and distributing medicines. The disconnect between the industry's work and the public's welfare robbed the public of a "romantic, thrilling, and convincing story," for "Is there anything to compare in interest, to the average man, with the fact that modern science veritably stands between him and death?" [118] To share the drama and earn the respect of public, Burdick celebrated the development of the Committee on Education.

The Committee on Education celebrated the efforts of other organizations in working toward educating the general public around medicine and health. For one, the committee praised the work of *Hygeia*, a journal of the American Medical Association written for the lay public.[119] As another example, the committee referenced the American

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[116] Lesch, *The First Miracle Drugs*, 16-17.
[117] The first so-called miracle drugs, sulfonamides, were initially developed in 1935 in Germany. The first sulfa drug, Prontosil, served to control many common and often deadly bacterial infections, such as streptococcal infections, pneumonia, meningitis, dysentery, gonorrhea, and urinary tract infections. For more on this topic, see Lesch, *The First Miracle Drugs*.
[118] S. R. Light, "Address of the President," in *Fourteenth Annual Meeting American Drug Manufacturers' Association* (1925), 12.
[119] "Hygeia: A Journal of Individual and Community Health," *Journal of the American Medical Association* 79, no. 23 (December 2, 1922), 1932, doi:10.1001/jama.1922.02640230042013; and H. H.

Association for Medical Progress, Inc (AAMP). The AAMP was founded and directed by laymen for the protection of medical research. The leaders were so-called "high order" men and women who had prominent roles in higher education and religious organizations. Then President of the American Medical Association, William Allen Pusey, argued that, "Such an organization can be much more effective than medical men can be in fighting the propaganda against medical research." Pusey set the AAMP against organizations creating "relentless propaganda against experimental medicine."[120] The creators of this so-called propaganda were antivaccinationists and antivivisectionists.[121] Pusey contended that "Education is necessary and highly important." The committee celebrated these organizations as well as "the better class of druggists": "the general public are [sic] learning to discriminate between the products of the scientific and reliable manufacturer and those that are simply put up to sell as the result of an extensive advertising appropriation."[122] Considering how the Committee on Education talked about education, most of the industry's so-called education took place through advertising.

Other forms of education occurred through advertising and events for the public. The work of ADMA's members conveyed the manufacturing processes and

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Whyte, "Committee on Education" in *Sixteenth Annual Meeting American Drug Manufacturers' Association* (1927), 112.

[120] William Allen Pusey, "Correspondence," *Journal of the American Medical Association* 84, no. 21 (May 23, 1925), 1590-1591, doi:10.1001/jama.1925.02660470052029.

[121] For more on antivivisection and antivaccination, see: Susan E. Lederer, *Subjected to Science: Human Experimentation in America Before the Second World War* (Baltimore: Johns Hopkins University Press, 1995); and James Colgrove, *State of Immunity: The Politics of Vaccination in Twentieth Century America* (Berkeley: University of California Press, 2006).

[122] "The Committee on Education," in *Sixteenth Annual Meeting American Drug Manufacturers' Association* (1927), 111.

research work through advertising in newspapers, magazines, window displays, household booklets, and film. To be sure, this advertising consisted of research, processes, the role of health professionals, and institutions; the companies were not directly advertising products. The committee also described community lectures at parents' organizations, schools, and businesses, as well as facilities tours for health professional schools, including medicine, pharmacy, and nursing.[123]

While the Committee on Education aimed to educate the public on behalf of the organization, the committee also pursued the goal of garnering support through work with physicians. The campaign, "See Your Physician First," began with a focus on publicity and supplementation. Committee members, including Charles Merrell of William S. Merrell & Co., Harry Skillman of Parke, Davis & Co., and two representatives of Abbott Laboratories: Dr. F. H. Peck and S. DeWitt Clough, sent over five thousand surveys to doctors across the country and received one thousand replies. The responses varied widely, but through analysis, the committee developed a three-phase plan to address concerns around the public's lack of knowledge about the work of the pharmaceutical industry.

The first phase included the writing and distribution of a series of articles on the history of medicine. These articles would include topics on early medicine, pharmacy, and chemistry, and then explore modern medical discoveries. The committee wanted to center the work of the industry in a larger context of progress. The emphasis on progress,

[123] "The Committee on Education," in *Sixteenth Annual Meeting American Drug Manufacturers' Association* (1927), 112.

in particular, was clear in the naming of the potential series: *The Conquest of Disease*.[124] Because articles would appear only with the ADMA's name and perhaps a physician of significant position in the medical world, the organization aimed to avoid any suggestion of advertising and focus purely on education. In this form, articles might gain significant support from the medical profession and earn a place in rural and urban newspapers. The success of the first phase of the plan would then support the second phase of the plan: a published book. Books would be sold to physicians, pharmacists, and druggists, as well as students of those subjects. Book sales beyond professionals would take place through doctors, pharmacies, and medical societies. The third phase would then include advertising the book for broader distribution.

By the following meeting of the ADMA in 1926, the aims of the committee changed. These changes suggest that the organization wanted to focus its efforts on connecting with and supporting their prescribers and distributors to gain favor. The committee's report reframed their goals with a wider approach: to "inform the doctors and druggists what this association is doing for them through research work of its members, through standardization, through simplification and its high standard of business ethics" and to educate the public about "the value of (a) periodical health

[124] A book titled *The Conquest of Disease* was published in 1925. The book contains vignettes about medical history, which suggests a relationship to the goals outlined by the Committee on Education. I am unable to find any association with the ADMA. Judging the by timing of publication, so close to the committee presenting its initial idea, and the complete lack of credit given to the organization, I am assuming the publication is a surprising coincidence. The book was celebrated in *The New York Times*, but criticized in some scholarly journals, such as *The American Journal of Public Health*. For the book, see: David Masters, *The Conquest of Disease* (New York: Dodd, Mead & Co., 1925). For the reviews, see: Van Buren Thorne, "Man's Uphill Fight in the Conquest of Disease," *The New York Times*, February 14, 1926, 40; and Mazyck P. Ravenel, "Books and Reports," *The American Journal of Public Health* 16, no. 5 (May 1926), *524-525*.

examinations, (b) the value of the doctor and druggist to his community, (c) the value of scientific medicine as opposed to the dangers of cults of all kinds, (d) the history and accomplishments of the medical profession."[125] This reframing suggests less of an emphasis on public education and the decentering of history and storytelling. Rather, the committee points to a multitude of aims, which largely focused on conveying the value of the medical profession to the public. These new, broader goals moved away from telling the industry's story to the public and focused on conveying the importance of the physician to the public. This suggests the ADMA was most interested in building support among physicians.

In widening the aims, the committee also noted the importance of educating the public about the impact of the pharmaceutical industry as an endeavor that would be important to the industry's future. The committee suggested that,

> "If any educational work is undertaken by this association, it should be regarded as an investment for the future—not an immediate dividend producer. We all believe in the principle of insurance for ourselves and our plants—education may be looked upon as a means of insuring the future of our industry." [126]

The committee went on to describe the changing nature of the industry as they entered "the research era." They described the increasing confidence of the medical profession in the work of the industry but warned that continued work to strengthen that confidence and those relationships was necessary to support and protect the industry into the future.[127]

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[125] S. DeWitt Clough, "Committee on Education," in Fifteenth Annual Meeting American Drug Manufacturers' Association (1926), 92.
[126] Ibid.
[127] While they described this increasingly confidence broadly, they provided no clear measure of this

In 1927, the Committee on Education, then chaired by H. H. Whyte of Smith, Kline & French, pointed to changes in the public's perception of medicine through a focus on vaccines. In this period, the development of vaccines stood as the most powerful evidence medicine's ability to improve health. In the early twentieth century, pharmaceutical companies, which were becoming increasingly more scientific and research-focused, produced and manufactured many new, biologic products to prevent and treat illness. These included new vaccines against cholera, plague, and typhoid.[128] While members of the ADMA did not develop these vaccines, they did manufacture and distribute them. At the same time, vaccines remained (and remain) contentious for some groups of people.[129]

The Committee on Education continued to shift its focus toward physicians. The committee developed two main endeavors, first mentioned at the 1928 meeting: (1) exploring how to best present products to physicians and (2) exploring how to encourage physicians to prescribe members' products.[130] The committee's marked shift followed a decided focus on advertising at the 1928 meeting. The response the committee developed was an "extra-pharmacopoeia." The hope was to supplement the official US Pharmacopoeia through a desk manual, which would contain facts about pharmaceutical specialties manufactured in the United States.[131] The book would be completely indexed

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confidence. S. DeWitt Clough, "Committee on Education," in Fifteenth Annual Meeting American Drug Manufacturers' Association (1926), 93.

[128] Colgrove, *State of Immunity,* 46-52.

[129] Ibid.

[130] Sheridan Baketel, "Committee on Education," in *Eighteenth Annual Meeting American Drug Manufacturers Association* (Baltimore: Lord Biltmore Press, 1929), 48.

[131] Sheridan Baketel, "Committee on Education," in *Eighteenth Annual Meeting American Drug Manufacturers Association* (Baltimore: Lord Biltmore Press, 1929), 50. This idea emerges again in the late 1960s and early 1970s when the Pharmaceutical Manufacturers of America work with the AMA to

by trade name and therapeutic application.[132] Such a book, while a form of public education, would, of course, prove a useful form of advertising for members of the association. The committee's chair, Dr. Sheridan Baketel of Reed and Carnrick, a pharmaceutical company, distinguished and prioritized the importance of this extra-pharmacopoeia over that of the pharmacopoeia itself.

Sheridan Baketel, a physician from Brooklyn, was commissioned as a First Lieutenant in the Army in 1912, served for almost three years during World War I, and became a Colonel in the Medical Reserve Corps, US Army, in 1924. He was in command of the Unites States Army General Hospital No. 79 at the time he became head of another drug trade organization.[133] He became president of Reed and Carnrick in Jersey City in 1926.

Baketel had a history of promoting popular engagement with medicine. For example, at a 1924 meeting of the Medical Society of the County of Kings, Baketel gave a talk called "The Medical Profession and the Press."[134] He suggested that every newspaper should have a medical editor to prevent the inadequate or untruthful presentation of medical issues and discoveries. Baketel promoted cooperation between physicians and news organizations to communicate with the public. Baketel was also one of the founders of *Medical Economics*, a journal supporting the business side of medical practice, and served as the journal's first editor.

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establish a national drug information book.

[132] Charles G. Merrell, "Committee on Education," in *Nineteenth Annual Meeting American Drug Manufacturers Association* (Baltimore: Lord Biltmore Press, 1930), 45.

[133] "H. Sheridan Baketel," *Journal of the American Pharmaceutical Association* 18, no. 8 (August 1929), 755, https://doi.org/10.1002/jps.3080180801.

[134] "Medical Society of the County of Kings," New York State Journal of Medicine 24, no. 10 (March 28, 1924), 477.

As chair of the Committee on Education in 1929, Baketel led the committee in ways that reflected the culture at Reed and Carnrick. Reed and Carnrick had previously published an educational manual about both conditions and products for physicians.[135] The company was also connected to *The Medical Summary: A Monthly Journal of Practical Medicine, New Preparations, Etc*. The journal was established in 1879. Baketal was interested in pushing the committee to develop an extra-pharmacopoeia from the ADMA.

Interest in the extra-pharmacopoeia continued into 1930, but the form of education continued to shift. The ADMA wanted to share with physicians what the organization was doing for their profession. The committee intended to focus on research, standardization, and simplification of treatment while emphasizing the organization's high standard of business ethics. The organization also wanted to tell physicians how they wanted to assist in educating the public by encouraging periodic health examinations; educating the public on the value of the doctor and druggist in the community; emphasizing the value of scientific medicine and the dangers of different "cults"; and highlighting the history and accomplishments of the medical profession. To execute these goals with the public in support of the physician, the committee again suggested the creation of a "See Your Physician First" campaign. They also (again) discussed publishing articles on the early history of medicine, pharmacy, and chemistry as well as articles about modern medical discoveries and the growth of manufacturing pharmacy. If

[135] *Physician's Manual* (Jersey City: Reed and Carnrick, 1924) https://archive.org/details/manualthisbookis00reed/mode/2up.

this material was sufficiently successful, the committee proposed compiling it into a book.[136]

These ideas were not new. The efforts discussed in 1930 reflect ongoing conversations within the committee with limited efforts to enact those ideas. This pessimistic view around the committee's efforts surfaced in the report: "the Association [sic] has never seen fit to act up on the suggestions of the Committee on Education, and . . . no definite plan of education has been formulated and followed consistently during the five years of organization."[137] The report suggested that the committee had been unable to act because committee members and member organizations had been unable to agree on a course of action.[138] As a result of these sentiments, the committee's report for that year ended with two options: 1) create a detailed study to understand current efforts around public education to avoid duplicating efforts or 2) accept that many members of the organization had developed their own programs for disseminating information, which the ADMA "cannot hope to surpass or even equal."[139]

The final thoughts in the report pointed to accomplishments of the Committee on Education. The committee found that some member firms had already pursued ideas developed in the committee. Ultimately, the committee shied away from pursuing more public education out of concern for redundancy. The Committee on Education also referred out some of its work to other committees, such as the Sales and Advertising

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[136] Charles G. Merrell, "Committee on Education," in *Nineteenth Annual Meeting American Drug Manufacturers Association* (Baltimore: Lord Biltmore Press, 1930), 44-45.
[137] Charles G. Merrell, "Committee on Education," in *Nineteenth Annual Meeting American Drug Manufacturers Association* (Baltimore: Lord Biltmore Press, 1930), 45.
[138] These conversations were not recorded in the meeting proceedings.
[139] Charles G. Merrell, "Committee on Education," in *Nineteenth Annual Meeting American Drug Manufacturers Association* (Baltimore: Lord Biltmore Press, 1930), 46-47.

Committee.[140] After five years of discussion, the committee had discussed a wide array of ideas but failed to develop any programming.

In the following few years, the Committee on Education waned in terms of ideas discussed. The committee continued to a limited extent in 1931, sustained only to "take cognizance of such developments in the field as might come to its attention."[141] Members hoped that the American Institute of Pharmacy (AIP), the home of the American Pharmacists Association in Washington, D.C., would take up the ADMA's education programs or collaborate with the ADMA.[142] The committee remained in place symbolically rather than actively until the AIP Washington building was completed.[143] At the point of the buildings' completion, the committee intended transfer its survey data to the AIP and the American Pharmacists Association (APhA).[144] The committee was ultimately dismissed in 1936.[145]

Conclusion

In this chapter, I explored how the ADMA formed and responded to legislation at local and national levels. Repeatedly throughout the organization's early years, members talked about the importance of educating the general public about the industry's work and developments in medicine more broadly. Many felt this education was important to offset

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[140] Charles G. Merrell, "Committee on Education," in *Nineteenth Annual Meeting American Drug Manufacturers Association* (Baltimore: Lord Biltmore Press, 1930), 47.
[141] Charles G. Merrell, "Committee on Education," in *Twentieth Annual Meeting American Drug Manufacturers Association* (Baltimore: Lord Biltmore Press, 1931), 68.
[142] Ibid.
[143] H. A. B. Dunning, "Report of the Committee on Education," in *Twenty-First Annual Meeting American Drug Manufacturers Association* (Baltimore: Lord Biltmore Press, 1932), 136.
[144] H. A. B. Dunning, "Report of the Committee on Education," in *Twenty-Fourth Annual Meeting American Drug Manufacturers Association* (Baltimore: Lord Biltmore Press, 1935), 149.
[145] H. A. B. Dunning, "Report of the Committee on Education," in *Twenty-Fifth Annual Meeting American Drug Manufacturers Association* (Baltimore: Lord Biltmore Press, 1936), 67.

legislative challenges. Each time these conversations occurred, however, little came of them.

In the case of amending and then replacing the Pure Food and Drug Act, the impact and power of the ADMA was dwarfed by the interests of many other trade organizations. The massive, allied effort to avoid legislative change made ADMA efforts toward educating the public unnecessary. When the Pure Food, Drug, and Cosmetics Act of 1938 finally passed, the resolve for change was strengthened by public tragedy that left little room or time to develop a public relations response.

In considerations of public relations and public education in the mercury bichloride accidents, members briefly discussed public education and making product changes, but the ADMA ultimately blamed the press for sensationalistic coverage and ignored the victims. At the federal level, individual companies could not be forced to create mercury bichloride tablets of uniform color and shape because regulating these qualities was beyond the scope of the Pure Food & Drug Act. Importantly, the organization crafted a response to the events when local and state politicians developed regulations.

Educating the general public as well as educating physicians became an important endeavor for the ADMA, and the organization formed a Committee on Education in 1925. While initially targeting both the general public and physicians, the committee narrowed its scope year by year in service of physicians. The reasons for this narrowing are unclear from the sources. I speculate that the committee formed in the midst of a weakened consumer movement and as the ADMA's legislative needs increased in the

1930s, the committee had already begun disbanding. Further, physicians were the organization's primary audience, critical intermediary, and sometimes ally, making serving the physician an economically and politically motivated decision.

While public relations and education programs in the ADMA failed, the organization covered a broad array of topics, including issues around labor and employment, shipping and manufacturing, and sales. The organization also shared scientific papers, including new techniques and new products. The meeting proceedings review many legislative topics at the local, state, and federal levels. While my exploration focuses on failures, the organization provides rich opportunities for additional scholarship.

While the ADMA never shared the story of the drug industry, members certainly talked about sharing their story to a considerable extent.[146] In the legislative atmosphere of the late 1950s and early 1960s, when the pharmaceutical industry was narrowly targeted, telling its story became a critical strategy.[147] In the meantime, sharing the industry's story became the work of individual companies. The next chapters also demonstrate some of the ways in which pharmaceutical companies attempted to convey their value to medicine and society.

[146] As Roland Marchand describes, E. R. Squibb & Sons engaged in institutional advertising that included the celebrating the industry's efforts in World War I, eulogizing doctors, and encouraging patients to see doctors. Marchand, *Creating the Corporate Soul*, 174-181.
[147] Tobbell, *Pills, Power, and Policy*, 89-120.

Chapter 2: Creating Histories of Medicine: Generative History Telling in the Pharmaceutical Industry

Introduction

The previous chapter demonstrated how the industry trade organization, the American Drug Manufacturers' Association, discussed educating the public about the pharmaceutical industry's story, but ultimately left the actual work to individual companies. In this chapter and in the next, I explore how pharmaceutical companies shared their stories with the general public through the creation of historical art and visual forms. In this chapter, I argue that companies within the pharmaceutical industry generated works—both written and visual—as means of telling their history and seeking social and cultural power. I examine two case studies: 1) The Upjohn Company's creation and display of dioramas exploring the history and functions of the pharmaceutical industry, and 2) Parke, Davis' creation and display of historico-medical paintings. The histories companies told through these creations grounded pharmaceutical companies in a larger arc of progress through which they could legitimize their positionality in business and medicine and their work in support of the American public. As part of a narrative of progress in medicine, pharmaceutical companies demonstrated their contributions to improved health and longevity. The companies who engaged in history-making did so, critically, in four contexts: 1) the history of medicine as a field, 2) the politics of museums, 3) the cultural power of the American Dream, and 4) the history of advertising and public relations.

As I engage with the histories told by pharmaceutical companies, I contextualize these histories within the modern growth of and changes in the history of medicine as a field. In the early to mid-twentieth century, the history of medicine was often written by doctors for doctors, and the work of the pharmaceutical industry both complemented this static and traditional form of historical production and benefitted from highlighting the accomplishments of its primary audience. Charles Rosenberg, a seminal historian of medicine, describes the history of medicine in the United States in the 1930s, 1940s, and 1950s as "an Anglo-American world of medical history dominated by clinicians and clinical teachers."[1] In this same period, however, he also identifies the work of historians of medicine who changed the field: Henry Sigerist, George Rosen, Owsei Temkin, Erwin H. Ackerknecht, Walter Pagel, and Ludwig Edelstein. These historians sought to shift the field away from a genealogy of influential texts and discoveries to consider medicine as an active, social function.[2] At the same time, these historians maintained the exceptionalism of Western science and medicine. Western exceptionalism assumes the unrelenting progress of human thought, experiment, and discovery, beginning with the work of Greek philosophers in classical antiquity and spreading through Europe and to the United States.[3] For the case studies in this chapter, the traditional form of history as genealogy as well as the pervasiveness of Western exceptionalism even in the more "radical" enclaves of historians importantly frame the histories that pharmaceutical companies created.

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[1] Charles Rosenberg, "Erwin H. Ackerknecht, Social Medicine, and the History of Medicine," *Bulletin of the History of Medicine* 81, no. 3 (Fall 2007): 512.
[2] Rosenberg, "Ackerknecht," 521-522.
[3] Rosenberg, "Ackerknecht," 526.

Companies engaged in this kind of storytelling to highlight the role of the pharmaceutical industry in the history of medical progress. In sharing their stories, they hoped to center their contributions in improving and extending life. In this way, companies hoped to demonstrate the importance of the pharmaceutical industry's work to the broader public.

In addition to writing history, the histories in this chapter were designed to educate through display. The Parke, Davis paintings went on tour and are now housed and exhibited in the American Pharmacist's Association headquarters in Washington, D.C. The Upjohn Company's dioramas were created in collaboration with the Smithsonian, where they were displayed for two decades. In thinking about display, I turn to the historiography of museums. Scholars argue that museums employ processes of producing, distributing, and consuming knowledge, all of which have political implications. This means that museums of art and history may be sites of "civilizing," and a growing scholarship argues that these museums are not "value-neutral and indisputable."[4] At the same time, there is limited scholarship specifically on science and technology museums. In the scholarship that does exist, historians examine science and technology museums alongside the contested, political, and social structures that shape science and technology. [5] The subjects of the case studies in this chapter sit at the intersection of art/history and science/technology. They tell stories from around the world

[4] Tony Bennett, *The Birth of the Museum: History, Theory, Politics* (New York: Routledge, 1995).
[5] Jieun Shin, "Displaying Cold War Technology: The National Air and Space Museum, 1946 – 1976" (dissertation, University of Minnesota, 2018), 1-2. Also consider Sally Kohlstedt, "Place and Museum Space: The Smithsonian Institution and the America West, 1850-1900," *Geographies of Nineteenth-Century Science*, ed. by David Livingstone and Charles Withers (Chicago: University of Chicago Press, 2011), 399-437.

and use visual forms while highlighting what they identify as advances in science and technology.

While these stories of progress in science, technology, and medicine have global roots, for American pharmaceutical companies, the story of progress brings the audience to the practice of medicine in the United States. The companies examined in this chapter are American, and thus, their histories of medical progress come to an American denouement. This does not mean that international events were ignored, however; these histories appropriate international moments, firsts, and discoveries to lead the audience to the present pinnacle: American medical practice.[6] The deliberate framing and distortion of history to sell an American story and advertise an American company reflects the merchandising strategies of advertisers in the early- to mid-twentieth century as they imagined and imaged the American Dream.[7] This history-telling worked to bolster corporate reputation and thereby sell the company's merchandise while at the same time, situating the company within the history and promise of the United States, thus playing on patriotic fervor at different moments in twentieth-century US history.

As stated previously, in this chapter, I use two case studies to understand how Upjohn and Parke, Davis engaged in history telling. I examine this history-telling through art, objects and texts, which I collectively refer to as artifacts.[8] Companies developed and

[6] I will talk more about appropriation in the Parke, Davis section of this chapter, and in the next chapter. There is a mix of appropriation from other Western countries and the Global South.
[7] Roland Marchand, *Advertising the American Dream: Making Way for Modernity, 1920 – 1940* (Berkeley: University of California Press, 1986), xxvii-xviii.
[8] My use of artifacts here comes from Foucault's discussion of documents in Archaeology of Knowledge. Foucault writes of documents and documentation to describe change in historical methodology: he argues in the 1970s that historians began to focus on displacements (periods of change) rather than continuities (historical progress): "the problem is no longer one of tradition, of tracing a line, but one of division, of limits; it is no longer one of lasting foundations, but one of transformations that serve as new foundations,

collected cultural, historical products to create an American identity of medical progress.[9] In my research, I have identified and named two forms of engagement with history-telling as performed by the pharmaceutical industry: *associative history-telling* and *generative history-telling*.[10] In associative history-telling, the pharmaceutical industry/individual pharmaceutical companies sought to connect themselves with artifacts of historical importance, e.g. works of art, historical instruments, etc., thus *associating* the industry/companies with events that were far removed from their own immediate histories/stories. In generative history-telling, the industry/companies developed their own artifacts to connect their history and story with events far removed from their own immediate histories/stories; these connections might be minimal or central to the story told through the artifacts. In this chapter, I focus on companies engaging in generative history-telling.

Few historians have explored efforts of "history-telling" in the pre-WWII pharmaceutical industry; rather, much of the historiography focuses on the industry origin stories created in the mid-twentieth century. In the late 1950s and early 1960s, pharmaceutical companies used corporate and industry history to offset a hostile regulatory environment. As Dominique Tobbell has demonstrated, the industry used this technique of "telling company stories" in response to the Kefauver congressional

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the rebuilding of foundations." While Foucault writes about change in how history is written, his observation of the "inextricable link" between society and "a mass of documentation" demonstrates the importance of history to social power. I argue that in the cases of The Upjohn Company and Parke, Davis, pharmaceutical companies sought to create lasting foundations through documents/artifacts. They created histories in the traditional forms seeking to align/ally themselves with medico-historical tradition. Michel Foucault, *The Archaeology of Knowledge* (New York: Vintage Books, 2010), 4-11.

[9] Melani McAlister, *Epic Encounters: Culture, Media, & U.S. Interests in the Middle East since 1945* (Berkeley: University of California Press, 2001), 3.

[10] These are terms I developed to describe these forms of "history-telling."

hearings, which initially challenged the industry's price-fixing and eventually led to legislation requiring a demonstration of drug efficacy. Telling these company stories was a strategy intended to offset public outrage against the industry.[11]

Story-telling worked as a form of lobbying for the industry in the 1950s and 1960s, and understanding how and what kind of stories the industry began telling in the 1930s and 1940s contextualizes that later work.[12] The histories explored in this chapter demonstrate the ways in which the industry began telling these stories earlier in the century and how the industry situated itself as a support for physicians while giving primacy to the industry itself. In this chapter and the next, I examine both corporate histories, and I take storytelling beyond these stories to include the narratives told and implied through images.

History as advertising plays into broader industry advertising trends centering corporate reputation. As Roland Marchand has described for pharmaceutical company E. R. Squibb and Sons, the industry as a whole pursued a "veiled merchandising strategy" of selling the company's reputation rather than the company's products. Ethical pharmaceutical companies—self-identified companies that adhered to the standards of orthodox medical practitioners—marketed almost exclusively to physicians and pharmacists. To expand sales to consumers without tarnishing their relationship with these medical professionals, companies chose to advertise particular qualities essential to their public service; for Squibb, these were purity and scientific authority.[13] When

[11] Dominique Tobbell, *Pills Power and Policy: The Struggle for Drug Reform in Cold War America and its Consequences* (Berkeley: The University of California Press, 2012), 90.
[12] Tobbell, *Pills, Power, and Policy*, 90.
[13] Marchand, *Creating the Corporate Soul*, 174-176.

companies used histories of medicine, they wove their work into a larger narrative, highlighting the qualities of longevity and contributions to improvements in the quantity and quality of human life.

Advertising played different roles in the creation of medico-historical art for The Upjohn Company and Parke, Davis & Co. While Upjohn collaborated with the Smithsonian under an agreement that these works would not be used as advertising, Parke, Davis explicitly developed these works as advertising. Further, any potential use of exhibit photographs that could be construed as advertising was reviewed by the Smithsonian, and Upjohn deferred to the museum's judgment. Considering this stark difference between the work of The Upjohn Company and Parke, Davis & Co., why bring these two sets of works together and consider them in shared context? I have two reasons. First, as I have discussed, both sets of works seek to establish a narrative of medical progress; they both engage in generative history-telling. Second, while one company engages in advertising and the other engages in philanthropy, both sets of works, arguably, foster "goodwill."

Goodwill is an intangible asset derived from corporate reputation; it underlies the relationship between the company and its publics.[14] I view goodwill, corporate citizenship, and corporate social responsibility as variations on a private business attempts to build positive relationships with customers, employees, communities, and

[14] I loosely take this definition from Stephanie Decker's dissertation. The dissertation itself never defines goodwill, assuming an understanding of goodwill on the part of the reader. I read her introduction to understand how she applied the concept of goodwill and developed this definition. Stephanie Decker, "Building Up Goodwill: British Business, Development and Economic Nationalism in Ghana and Nigeria, 1945-1977" (dissertation, University of Liverpool, 2006), 15-56.

government regulators. One might be tempted to group goodwill, corporate citizenship, and corporate social responsibility with corporate liberalism as efforts to manipulate legislation for the benefit of business and/or limit regulation. This grouping, rightly so, provides an important critique of such programs. It is, however, inherently limiting as it misses the ways in which goodwill, corporate citizenship, and corporate social responsibility impact customers, employees, and communities in myriad ways. According to Jennifer Klein, corporate liberalism is no longer a useful historiographical theme for explaining social reforms in the United States. She argues that:

> "When we widen our view beyond the state, it is clear that business firms have a tremendous ability to affect the nature of U.S. social provision . . . by shaping a particular piece of legislation [and] by making strategic choices within their own firms and communities about the transfer of resources beyond wages and about the structure of employment within their firms."[15]

While Klein focuses on the privatization of the welfare state, her critique provides useful insight into conceptions of goodwill, corporate social responsibility, and corporate citizenship. For example, the ways in which firms make strategic choices about supporting museums, creating medico-historical art, and educating the public, I argue, are all forms of a kind of "transfer of resources" to companies' publics.

Historians of corporate social responsibility focus on how companies used the concept to offset legislation. Christy Ford Chapin defines corporate social responsibility (CSR) as the idea that "business had obligations to society that went beyond making

[15] Jennifer Klein, *For All These Rights: Business, Labor, and the Shaping of America's Public-Private Welfare State* (Princeton: Princeton University Press, 2003), 9-10.

profit."[16] In part, Chapin focuses on the health insurance industry in the years after World War II. Chapin argues that companies responded to a push for national health insurance by developing product standards in the name of social responsibility. Invoking and applying social responsibility enabled the industry to offset threats of reform and to unite business and government leaders across the ideological spectrum. Making changes in the name of social responsibility strengthened private business while providing concessions to progressive politicians and business leaders.[17] Rather than framing CSR as part of the industry's story, insurance industry leaders used it as a unifying concept to satisfy different government and industry actors. Bert Spector also focuses on ideology in exploring the development of CSR. Spector defines corporate social responsibility as the application of business resources for "social good."[18] He argues that CSR evolved as a response to Cold War ideology, serving to protect free enterprise in an ideological war against communism.[19] Once again, CSR is explored through ideological battles rather than as part of a story companies are telling the public.

The actors in my work do not actively engage in the concept of CSR. I explore the concept, however, because it is closely tied to corporate philanthropy, and yet is absent from the philanthropy historiography. Definitions of CSR are debated in the business literature and by business academics historically. Today, almost universally, companies describe their CSR activities in corporate annual reports, yet CSR differs widely across

[16] Christy Ford Chapin, "The Politics of Corporate Social Responsibility in American Health Care and Home Loans," *Business History Review* 90 (Winter 2016): 647.
[17] Chapin, "The Politics of Corporate Social Responsibility," 656-662.
[18] Bert Spector, "'Business Responsibilities in a Divided World': The Cold War Roots of the Corporate Social Responsibility Movement," *Enterprise and Society* 9, no.2, 315, doi: 10.1093/es/khn023.
[19] Spector, "Business Responsibilities in a Divided World," 318-319.

companies and industries as well as over time. To make space for these differences, I define CSR as programs established by businesses in response to perceived social needs beyond the provision of the company's product or service. These programs are: context dependent; often a response to critiques of the company itself or the industry of which the company is a part; and can tie to a company's profitability via public relations.

I argue that goodwill, corporate citizenship, and corporate social responsibility operate as forms of public relations. In part, I apply Richard Tedlow's definition of public relations:

> "Public relations is the controlling of news about an individual or organization by planned and organized effort through informing and cultivating the press and through encouraging the corporation itself to alter its policies in accord with perceived public desires."[20]

Tedlow's definition reflects aspects of Ford Chapin's definition of CSR in describing how the corporation "alters its policies in accordance with perceived public desires." The difference between Ford Chapin and Tedlow, however, lies in their publics—Tedlow refers to the general public whereas Ford Chapin refers to regulators and business leaders. I critique Tedlow's emphasis on public relations via the press. Invariably, the press, via advertising or news coverage, is an aspect of public relations, but there are additional intermediaries for communicating messages about a corporation. For the purposes of this chapter, museums and other sites of education act as intermediaries between the corporation and the public.

[20] Richard Tedlow, *Keeping the Corporate Image: Public Relations and Business, 1900-1950* (Greenwich, CT: Jai Press, 1979), xvii-xviii.

Corporations make decisions that are not obviously and directly related to generating greater profits, which has been identified (and debated) as the primary purpose of the corporation.[21] The company's perception of public desires informs decision-making through public feedback, both positive and negative. Positive feedback, however, cannot be directly translated into direct benefits for the bottom line.[22] For these case studies, I use companies' continued investment in their projects as evidence that the projects had value, whether perceived or otherwise. The companies also engage in this work with assumptions about what the public would find to be of value, and they continue with this work based on both internal (employee) and external (museum staff, letters from physicians and customers) feedback. I thus position Upjohn and Parke, Davis' work as public relations through generative history-telling, which the companies perceived to be important for the public, the individual companies, and the industry more broadly.

In the following sections, I will explore how The Upjohn Company and Parke, Davis & Co. used art and other visual forms as a means of sharing the history of medicine to strengthen their corporate reputations, highlight medical progress, and connect to the American dream.

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[21] Milton Friedman, *Capitalism and Freedom*, (Chicago: University of Chicago Press, 1962), 133.
[22] I see this public perception two steps removed from branding, which does have direct benefits for bottom line. Joseph Gabriel explores how trademarks began to acquire the characteristics of property in relation to the pharmaceutical industry. Name and reputation have value. Joseph M. Gabriel, *Medical Monopoly: The Intellectual Property Rights and the Origins of the Modern Pharmaceutical Industry* (Chicago: The University of Chicago Press, 2014), 204-207. Jeremy Greene explores the contested history of generic drugs, including the financial implications of their use over brand-name products. Jeremy A. Greene, *Generic: The Unbranding of Modern Medicine* (Baltimore: Johns Hopkins University Press, 2014).

The Upjohn Company and The Smithsonian

Figure 1: "A Monastery Apothecary Shop," the first diorama in The Upjohn Company's Smithsonian Exhibit. The Manufacture of Medicines: An Exhibit, *held in the offices of Diane Wendt at the Smithsonian's National Museum of American History.*

Beginning in November of 1934, visitors to the Arts and Industries Building of the Smithsonian in Washington, DC could view the story of the invention and development of the pharmaceutical industry through a collection of dioramas gifted to the museum by the Upjohn Company. Beginning in a monastery apothecary and moving into modern pharmaceutical research and production, the collection aimed to provide the general public with a greater understanding of the profession and scientific aspects of medicine making. The dioramas could be compared to stills from rudimentary claymation films. The scenes are detailed with active human figures. The exhibit brought together historical moments and contemporary innovations to highlight the development of the pharmaceutical industry.

At the 1933 annual meeting of the American Pharmaceutical Association in Washington, D.C., representatives of The Upjohn Company, including Company President Donald S. Gilmore, met with Dr. Charles S. Whitebread, head of the Smithsonian's Division of Science and Medicine within the Arts and Industries building.[23] Whitebread approached the representatives about constructing a diorama

[23] At this point in time, the Smithsonian had two buildings: the Arts and Industries Building (the Old National Museum) and the Natural History Building (the New National Museum).

displaying the production of the friable pill, an easily dissolved pill for the delivery of medicines and Upjohn's original product. There were and continue to be strong relationships between the Smithsonian and corporate donors, so the relationship established in this meeting was typical for the museum.[24] This diorama would be on display in the Smithsonian for the general public, which included upwards of two million visitors each year. The original plans called for one display case featuring ten dioramas demonstrating the production process. By the end of negotiations, Upjohn created 31 dioramas and built three display cases for the museum.

As Charles Whitebread invited the expansion of The Upjohn Company's contribution to the museum, The Upjohn Company used the opportunity to make a statement about the vital role of its company and the pharmaceutical industry as a whole to the medical profession and to American life. I argue that this served as a form of advertising, while not explicitly labeled as such. Like much of the pharmaceutical industry's advertising in this period, public service programming operated as institutional advertising.[25] At the same time, the Smithsonian explicitly prohibited corporate advertising. In this way, The Upjohn Company's dioramas demonstrated the nuance in negotiating private donations in public spaces. The following analysis situates the industry as a creator of medical history and as an educator of the public on matters of history, medicine, business, and health, all for the purpose of corporate image-making.

[24] Robert C. Post, *Who Owns America's Past: The Smithsonian and the Problem of History* (Baltimore: Johns Hopkins University Press, 2017), 3.
[25] Marchand, *Creating the Corporate Soul*, 183-189.

Negotiations of Intent

After meeting with Charles Whitebread, The Upjohn Company contracted with a Chicago company called the Diorama Corporation of America to create the exhibit. Letters between The Upjohn Company and the Diorama Corporation reveal how The Upjohn Company conceived of this project. In one of the earliest letters to the Diorama Corporation, outlining the purpose and goal of the Exhibit, E. Gifford Upjohn[26], grandnephew of founder W. E. Upjohn, stated, "Quite clearly, the physical exhibit or exhibits should portray manufacturing operations." Upjohn expanded on this, however, making it clear that he wanted the exhibit to serve larger purposes: "At the same time, we feel that we would like to have the exhibit convey, if possible, the idea of service and indispensability, that is, service to the medical profession on the one hand and to the public on the other hand."[27] Upjohn intended for the exhibit to be educational in portraying pharmaceutical manufacturing, but he also wanted this display to educate the public about industry purpose. The industry's "service" and "indispensability" became critical to its image-making in periods of potential regulation, including in this context, when then the industry faced changes to the Food and Drug Act of 1906. Because Upjohn developed the display and controlled the narrative, this work also speaks to how the industry viewed itself.

While the dioramas provided The Upjohn Company with public acclaim and conveyed messages about the company and the industry, both Whitebread and Upjohn

[26] E. Gifford Upjohn graduated from the University of Michigan Medical School and earned a PhD in 1928. Thereafter, he joined the family business.
[27] E. Gifford Upjohn to George Senseney, August 17, 1933, Exhibits: Smithsonian Exhibit, box 1, folder Smithsonian Exhibit Correspondence, 1933, Pfizer Inc. Collection, Western Michigan University Libraries.

representatives were clear that the pharmaceutical manufacturing exhibit was not advertising. In one exchange, Upjohn representatives noted that they were "very anxious to get some good pictures of the exhibit."[28] Whitebread's response was cautious:

> "For me to have the general administrative office supply the required permit to your photographer it will be necessary for me to say what the photographs are to be used for. I presume the pictures are for your office records. Knowing the reputation of your company I am positive they are not to be used for advertising purposes, but this must be stated in writing."[29]

The Upjohn Company ensured Whitebread that they had "no intention to use whatever pictures we may get for advertising purposes."[30] Upjohn requested permission to use some of the pictures in their monthly employee magazine, which they did "not imagine that it could be called advertising."[31]

In his response to Upjohn, Whitebread approved of Upjohn's use of the photographs and also commented on the social value of the exhibit. Whitebread noted that audiences remarked upon the presentation and the "public spiritedness" of the company that donated the exhibit in the "highest terms." Whitebread frequently expressed gratitude for Upjohn's contribution in this way in their exchanges. I find that these expressions hint at how Upjohn benefits from the exhibit without obviously engaging in advertising. Whitebread emphasized the impact of Upjohn's work, which has power in retaining Upjohn as a corporate sponsor by demonstrating the value of their

[28] E. Gifford Upjohn to Charles Whitebread, April 1, 1935, Exhibits: Smithsonian Exhibit, box 1, folder Smithsonian Exhibit Correspondence, 1935, Pfizer Inc. Collection, Western Michigan University Libraries.
[29] Charles Whitebread to E. Gifford Upjohn, April 4, 1935, Exhibits: Smithsonian Exhibit, box 1, folder Smithsonian Exhibit Correspondence, 1935, Pfizer Inc. Collection, Western Michigan University Libraries.
[30] E. Gifford Upjohn to Charles Whitebread, April 8 1935, Exhibits: Smithsonian Exhibit, box 1, folder Smithsonian Exhibit Correspondence, 1935, Pfizer Inc. Collection, Western Michigan University Libraries.
[31] Ibid.

investment. Regarding the photographs, Whitebread wanted to avoid any complaints that might "originat[e] as a result of their [the pictures] use." He further stated that he did not want to "make competitors envious." Once the Smithsonian put the dioramas on display, The Upjohn Company contracted a photographer to capture the dioramas for a photo album, offering "We can assure you that there is no intention to use whatever pictures we may get for advertising purposes."[32]

The History of Pharmacy on Display

As conversations about the photographs and photograph use evolved over time, so did the expanse of the exhibit. In their initial conversations, Whitebread proposed that the Upjohn Company focus on the creation of the friable pill—a pill that held together but was also digestible by the body.[33] By November 1933, Whitebread suggested that "the exhibit be spread out over three cases and the entire east end of the gallery."[34] Donald Gilmore responded that the company was "somewhat startled by the proposal."[35] Whitebread went on to "earnestly recommend the use of the three cases," noting that "the space is the best in the Medicine Gallery" and "the exhibit will be seen by between 50 and 75 million people during its period of usefulness[36]"—which Whitebread later stated

[32] Charles Whitebread to E. Gifford Upjohn, April 9, 1935, box 11, folder RU244 B11 1920, 1934-1940, Smithsonian Institution Archives.
[33] The development of this form of pill was profitable for the company because previous iterations of pills would be excreted whole i.e. without absorption.
[34] E. Gifford Upjohn to George Senseney, August 17, 1933, Exhibits: Smithsonian Exhibit, box 1, folder Smithsonian Exhibit Correspondence, 1933, Pfizer Inc. Collection, Western Michigan University Libraries.
[35] E. Gifford Upjohn to George Senseney, November 9, 1933, Exhibits: Smithsonian Exhibit, box 1, folder Smithsonian Exhibit Correspondence, 1933, Pfizer Inc. Collection, Western Michigan University Libraries.
[36] Charles Whitebread to George Senseney, November 9, 1933, Exhibits: Smithsonian Exhibit, box 1, folder Smithsonian Exhibit Correspondence, 1933, Pfizer Inc. Collection, Western Michigan University Libraries.

would be 25 years—the dioramas were on display until 1959.[37] Whitebread emphasized the impact of the exhibit in his efforts to expand it. He did so again after several hiccoughs in the plans led to rewiring the cases and the potential addition of more dioramas.[38]

Not only did the number of dioramas grow, but so did The Upjohn Company's commitment to the project and the Smithsonian's long-term construction. Whitebread ultimately asked Upjohn to pay for a series of new cases for the museum. During the time the project was in development, the museum decided to replace the old cases. Whitebread asked the Upjohn Company to pay for the cases in which its new exhibit would be displayed. The costs of the cases made up about a third of the total exhibit cost, which was $4,145.[39] The company also paid for upkeep of the dioramas in the years of their display.

[37] W. O. Miller to John B. Blake, October 12, 1959, Exhibits: Smithsonian Exhibit, box 1, folder Smithsonian Exhibit Correspondence, 1940-1949, Pfizer Inc. Collection, Western Michigan University Libraries.
[38] Charles Whitebread to E. Gifford Upjohn, September 21, 1934, Exhibits: Smithsonian Exhibit, box 1, folder Smithsonian Exhibit Correspondence, August – December 1934, Pfizer Inc. Collection, Western Michigan University Libraries. For a full list with descriptions of the dioramas, see Appendix I.
[39] Notes from E. Gifford, December 1, 1933, Exhibits: Smithsonian Exhibit, box 1, folder Smithsonian Exhibit Correspondence, 1933, Pfizer Inc. Collection Upjohn, Western Michigan University Libraries.

Figure 2: This photo shows the placement of The Upjohn Company display cases within the Smithsonian Museum. The Manufacture of Medicines: An Exhibit*, held in the offices of Diane Wendt at the Smithsonian's National Museum of American History*.

The 31 dioramas were displayed in three cases, each loosely following a particular theme. The first case provided a brief historical review of the development of modern pharmaceuticals. It included a monastery apothecary shop and a 19th century pharmaceutical laboratory. It emphasized the growing importance of specialization and uniformity in meeting the public's health needs and the importance of research for modern pharmaceutical manufacturers. The second case focused on the processes of producing medicines in modern pharmaceutical work, including the extraction of substances to generate biological products and the manufacture of effervescent salts.[40]

[40] The display vaguely references bioprospecting. Taken from Cori Hayden, bioprospecting is defined as "corporate drug development based on medicinal plants, traditional knowledge, and microbes culled from 'biodiversity-rich' regions of the globe." The caption for Upjohn's diorama about raw materials reads, "The materials from which medicinal substances are derived come from the far corners of the earth. Some are

The final case featured dioramas demonstrating the production of pills in different forms, such as hard pills coated in sugar and gel capsules. This was of particular importance to The Upjohn Company because the company was founded on the production of the friable pill. These pills were created in large revolving tubs in which the pills gradually became bigger as more material was added, like snowballs. Friable pills were more easily digested and improved dosage accuracy. The case also followed the processes of packaging and shipping pills, which allowed companies to track products and improve shelf stability.

Contemporary sources suggest that processes on display would have been of interest to Smithsonian visitors. In the late nineteenth and early twentieth century, the publication of medical discoveries became increasingly common and prompted public interest in these new developments.[41] In the case of these dioramas, the mix of both historical discovery and contemporary discovery and development appealed to a powerful trend in modern American media. Audiences were accustomed to reading about these new ideas in newspapers and magazines, stories which were often accompanied by photographs. Therefore, these dioramas fed into the public's consumption of such ideas.

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animal, some vegetable, and some mineral in origin. Many of the newer drugs are obtained as by-products of other industries, [sic] or are prepared synthetically from other chemicals." The caption does not specifically mention peoples or places but the reference to "far corners of the earth" hints at colonialism and imperialism in resource extraction. For more on bioprospecting, see: Cori Hayden, *When Nature Goes Public: The Making and Unmaking of Bioprospecting in Mexico* (Princeton: Princeton University Press, 2003); Abena Dove Osseo-Asare, *Bitter Roots: The Search for Healing Plants in Africa* (Chicago: The University of Chicago Press, 2014); and Gabriela Soto Laveaga, *Jungle Laboratories: Mexican Peasants, National Projects, and the Making of the Pill* (Durham: Duke University Press, 2009).

[41] Bert Hansen, "New Images of a New Medicine: Visual Evidence for the Widespread Popularity of Therapeutic Discoveries in America after 1885," *Bulletin of the History of Medicine* 73, no. 4 (Winter 1999): 629.

The Upjohn dioramas were unique within the Smithsonian exhibit for a few reasons. Unlike the majority of Smithsonian holdings, Upjohn created objects specifically for the Smithsonian to display—these were not donated, historical artifacts. From the museum's beginning, curators largely focused on historical technologies, such as the telegraph. Many of the larger objects in the museum drew the greatest enthusiasm from audiences. By the 1930s, for example, airplanes were the most popular objects, as can be seen featured in Figure 2. Placing names and dates on objects in sequence, many curators believed, provided the audience with an understanding of technological development—an idea that would be challenged by later curators.[42] While this approach to display of ordering objects made up most exhibits at the Smithsonian, the Upjohn exhibit adopted a more unusual technique of storytelling, conveying parts of the *process* of developing pharmaceutical products.

To create the historical dioramas, the Diorama Company consulted the edited volume *Fighting Disease with Drugs: The Story of Pharmacy*.[43] The editor, John C. Krantz, worked in the Maryland Department of Health and had industry ties throughout his career. The volume included chapters written by representatives of companies like Parke, Davis, Squibb, Sharp and Dohme, and even the American Drug Manufacturers' Association. The authorship of these articles suggests an echo chamber of historical production amidst companies in telling, retelling, and displaying history. The production and reproduction of these histories may demonstrate the creation of a larger, consistent

[42] Post, *Who Owns America's Past?*, 7-8.
[43] John C. Krantz, editor, *Fighting Disease with Drugs: The Story of Pharmacy* (Baltimore: The Williams & Wilkins Company, 1931).

historical narrative. While a product of time and place, the ways in which company histories influenced each other evidences the creation of a broader industry narrative.

In addition to the historical dioramas, 25 of the 31 displayed aspects of the modern pharmaceutical laboratory, and these were all based on The Upjohn Company's own facilities. For example, The Upjohn Company modeled the diorama laboratory on its own plans for the construction of a new laboratory building, suggesting that it would be "deceitful to use an idealized plant."[44] Representatives did, however, tell the Diorama Corporation to "omit the sign of The Upjohn Company on the top of the tower."[45] As such, the company sought to focus on the industry generally rather than The Upjohn Company specifically, in line with their agreement with the Smithsonian that the exhibit would not be advertising, while subtly highlighting its own processes and products. One development that was historically known to be an Upjohn innovation was not the product itself but a process: the making of the friable pill.[46] The friable pill was common feature of early Upjohn institutional advertising and the company's work was likely recognized by drug developers, physicians, and pharmacists. In this way, the dioramas served as a model for the "several great organizations . . . Built up to cooperate with modern pharmacists and to supply them with uniform, dependable and standardized therapeutic

[44] Charles Whitebread to E. Gifford Upjohn, November 23, 1933, Exhibits: Smithsonian Exhibit, box 1, folder Smithsonian Exhibit Correspondence, 1933, Pfizer Inc. Collection, Western Michigan University Libraries.
[45] E. Gifford Upjohn to George Senesey, August 14, 1934, Exhibits: Smithsonian Exhibit, box 1, folder Smithsonian Exhibit Correspondence, August – December 1934, Pfizer Inc. Collection, Western Michigan University Libraries.
[46] Other products featured were not obviously Upjohn products. One major Upjohn product was cod liver oil, and the series included four dioramas featuring the process of making the product: fishing, extraction, purification, and standardization. *The Manufacture of Medicines: An Exhibit*, held in the offices of Diane Wendt at the Smithsonian's National Museum of American History.

agents in keeping with the most recent advances in medical science."[47] Further, four of the dioramas demonstrated the process of producing cod liver oil—a major Upjohn product at the time—depicting fishermen in Norway, the rendering of the livers, processing and shipping, and bottling under carbon dioxide. Company representatives were very particular about how the Diorama Company would design these models.

The manufacturing and production processes conveyed in The Upjohn Company's dioramas exhibited the modernity that business leaders, beyond the pharmaceutical industry, imagined would restore public perceptions of business in the midst of the Depression.[48] There are two aspects of the dioramas that exemplify this evolving approach to advertising and public relations: simplicity and education. The dioramas reflect a simplified form of communication of corporate purpose and history, which appealed to the general public. Second, the dioramas educated the public about the pharmaceutical industry, demonstrating the intricacies of drug production. Outside of Whitebread's comments about the impact of the dioramas, I do not have any additional sources on the general public's reaction. The popularity of the Smithsonian and the exhibit's 23 years on display, however, suggest a significant distribution of this information.

Within the Company

The Upjohn Company shared news of the Smithsonian exhibit within the company through the employee magazine, *The Overflow*. As described by Elizabeth

[47] *The Manufacture of Medicines: An Exhibit*, held in the offices of Diane Wendt at the Smithsonian's National Museum of American History.
[48] Marchand, *Creating the Corporate Soul*, 266.

Fones-Wolf, employee magazines served to connect the individual with the corporation to discourage the formation of unions.[49] In the magazine, editors centered the exhibit as both a "gift" from the company and an "honor" for the company to tell this history. The editors described the exhibit as "perpetuating for posterity the invention and development of the friable pill which contributed so much to pharmacy and led to the establishment of our Company," thus centering company history in a larger narrative of the history of pharmacy and the history of medicine.[50]

In addition to small photographs of the various dioramas with complete text of the exhibit, the article featured publicity around the exhibit. For example, the editors included text from a paper Charles Whitebread gave at the American Pharmacists Association annual meeting in Portland in August of 1935. The chosen text highlighted the importance of telling a history of medicine that the general public could understand as well as text celebrating The Upjohn Company for its contribution.[51]

The Overflow and other employee publications featured the Smithsonian exhibit in additional issues over the course of the exhibit's lifetime. Such additional attention served to both remind employees about the exhibit share any further press the exhibit garnered. On one such occasion, *The Overflow* reprinted an article from the *Washington Sunday Star* describing the Upjohn Diorama at the Smithsonian.[52] The article described a "frolicksome [sic] youth about 10 years old" stopping at the display of Upjohn dioramas

[49] Elizabeth Fones-Wolf, *Selling Free Enterprise: The Business Assault on Labor and Liberalism*, 1945-1960 (Urbana: University of Illinois Press, 1994), 79-82.
[50] "Gift of The Upjohn Company," in *The Overflow*, August 1935, Exhibits: Smithsonian Exhibit, box 1, folder Smithsonian Exhibit Contract and General Specifications, Pfizer Inc. Collection, Western Michigan University Libraries.
[51] Ibid.
[52] Ibid.

and getting a personal lecture from Charles Whitebread about the exhibit.[53] The article, however fanciful or staged, suggests the impact of the exhibit.

The attention that employee publications gave to the Smithsonian exhibit suggests multiple meanings and uses. For one, learning about the exhibit might have been a source of pride for employees. That the Upjohn Company's work on the friable pill was centered in a history of medicine exhibit and that models of the company's research and manufacturing buildings were part of the exhibit could have provided a sense of social or cultural importance to their work. Secondly, the historical knowledge gleaned from the exhibit and The Upjohn Company's role in telling history might have been a conversational point for detail men—pharmaceutical company sales representatives—as they engaged physicians. While detail men would have primarily been focused on selling their products, information about The Upjohn's Company's exhibit could have provided an additional way to connect with physicians, serving bolster the relationship.[54]

Beyond the Museum

Two years into the display of the dioramas, Whitebread published an article in 1936 in the *Journal of the American Pharmacists Association* providing an overview of the display. While the article lacked many pictures of the dioramas themselves, it provided all of the display labels as well as the thematic overviews of each case. Whitebread offered that the article served to "give publicity to collections of interest to

[53] Ibid.

[54] Jeremy Greene describes how salesmen and managers reconstructed sales as education about new products. Jeremy A. Greene, "Attention to 'Details': Etiquette and the Pharmaceutical Salesman in Postwar America," *Social Studies of Science* 34, no. 2 (April 2004): 271-292. Also see Jeremy A. Greene and Scott H. Podolsky, "Keeping Modern in Medicine: Pharmaceutical Promotion and Physician Education in Postwar America," *Bulletin of the History of Medicine* 83, no. 2 (Summer 2009), 331-377.

special groups" and then praised The Upjohn Company for its contributions. Giving publicity to the collection and recognizing Upjohn's contribution in the primary journal for pharmacists again suggests the ways that The Upjohn Company received positive publicity due to their collaboration with the Smithsonian. As a result of the article, Upjohn received letters from professors asking about using pictures of the dioramas in their lectures.[55] This article likely intended to publicize the exhibit rather than advertise for Upjohn but Upjohn certainly benefited from the connection.

Whitebread had published many times in the *Journal of the American Pharmacists Association* prior to his article about Upjohn's dioramas, which included some miscellaneous histories of pharmacy. In his writing, Whitebread also reflected on the relationship between the private and public in museum work. Whitebread offered that, "it is no secret that every museum must depend to a greater or lesser extent upon the interest manifested by and the assistance received from devotees of an art, industry, or science, which it endeavors to illustrate."[56] He contextualized the importance of this relationship in terms of the museums aims: to promote scientific doctrines and impart more general knowledge.

In addition to his publications, Whitebread also had a relationship with the Washington DC chapter of the American Pharmacists Association. After a request to address historical topics in the history of pharmacy, including a discussion of the dioramas, the Smithsonian hosted a meeting of the branch. Whitebread noted to Upjohn,

[55] Paul D. Lamson to E. Gifford Upjohn, February 19, 1936, Exhibits: Smithsonian Exhibit, box 1, folder Smithsonian Exhibit Correspondence, 1936, Pfizer Inc. Collection, Western Michigan University Libraries.
[56] Charles Whitebread, "The United States National Museum Pharmacy Collection—Its Aims, Problems and Accomplishments," *Journal of the American Pharmaceutical Association* 19, no. 10 (1930): 1125.

"all of the members manifested great interest in the exhibits, and your dioramas received special attention with everyone praising your company for its generosity."[57] In this way, the exhibit again garnered significant attention from a major sector of their market—pharmacists—and provides an example of the kind of publicity the exhibit gave to Upjohn. While the audience for this exhibit was only one chapter of the larger organization, the Washington DC chapter had significant importance as the headquarters of the national organization.

Meaning

The Smithsonian displayed the dioramas developed by The Upjohn Company from 1936 to 1959.[58] After the close of the exhibit, the dioramas made their way to Kalamazoo, Michigan, the location of Upjohn's headquarters, for display at the Kalamazoo Public Museum and within The Upjohn Company itself.[59] While the public impact of the exhibit likely paled in comparison to some of the bigger, flashier objects on display in the Smithsonian Arts & Industries building—trains, planes, and automobiles—the company's contribution had some measurable results for the company itself, in terms of attention from professionals within the field of pharmacy. Professors of pharmacology, for example, wanted to use these dioramas for teaching about pharmaceutical research and development in their classrooms. Further, with the millions of the visitors to the

[57] Charles Whitebread to The Upjohn Company, August 12, 1938, RU244, box 11, folder Upjohn Co. 1920, 1934 – 1940 B, Smithsonian Institution Archives.
[58] In the 1940s, Whitebread contacted Upjohn about upkeep for the dioramas. Whitebread received bids and Upjohn paid for repairs. This suggests an ongoing interest in and return on the dioramas. E. Gifford Upjohn to Charles Whitebread, April 21, 1941, Exhibits: Smithsonian Exhibit, box 1, folder Smithsonian Exhibit Correspondence, 1940 – 1949, Pfizer Inc. Collection, Western Michigan University Libraries.
[59] H. J. Maloney to Bill Johnson, March 17, 1960, Exhibits: Smithsonian Exhibit, box 1, folder Smithsonian Exhibit Correspondence, 1940 – 1949, Pfizer Inc. Collection, Western Michigan University Libraries.

Smithsonian each year, the exhibit certainly reached many, conveying information about the work of pharmaceutical companies and generating goodwill for The Upjohn Company. The company also publicized the dioramas in its employee magazine to generate a sense of goodwill within the Upjohn community.[60]

Parke, Davis' Great Moments

From 1948 to 1964, Parke, Davis & Co. pursued the creation of two series of eighty-five (total) medico-historical paintings known as the *Great Moments in Pharmacy* and *Great Moments in Medicine*. The paintings depicted a series of pharmaceutical and medical developments and advancements across history, from ancient Egyptian medical practices to modern visits from the family doctor. The paintings were eventually released as pamphlets with historical notes and became a traveling exhibit, with shows organized by the wives of physicians and pharmacists.

Parke, Davis & Co.'s *Great Moments* have been explored by scholars, including Jacalyn Duffin and Alison Li as well as Jonathan Metzl and Joel Howell.[61] I build on their analysis by drawing comparisons to the work done by The Upjohn Company in generating historical content, memorializing history for display, and using history as a form of advertising.[62] I also contextualize their work in my analysis of pharmaceutical

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[60] Roland Marchand argues that house organs often attempted to create an "esprit de corps" in efforts to tamp down non potential unionization. Marchand, *Creating the Corporate Soul*, 98.

[61] Jacalyn Duffin and Alison Li, "Parke, Davis and Company and the Creation of Medical Art," *Isis* 86, no. 1 (March 1995): 1-29. Jonathan Metzl and Joel D. Howell, "Great Moments: Authenticity, Ideology, and the Telling of Medical 'History,'" *Literature and Medicine* 25, no. 2 (Fall 2006): 502-521.

[62] I also depend on their sources to an extent. I had planned on completing a short research trip to the American Institute for the History of Pharmacy (AIHP) in summer 2020. The COVID-19 epidemic, which led to widespread shutdowns across the United States beginning in March of 2020, derailed these plans. For this section, I use sources available online and through the University of Minnesota Libraries. I rely on source description, narrative, and quotations from archival sources used by Duffin and Li and Metzl and Howell.

industry trade organizations established in the previous chapter. I argue that Parke, Davis used generative history-telling as a form of public relations to position the company in a historical narrative of medical progress.

Developing Great Moments

Great Moments began as George Bender's passion project. Bender, a trained pharmacist who eventually worked as a pharmaceutical journalist, had reportedly been interested in creating a series of pictures to tell the story of medicine since as early as 1941, when he first made contact with George Urdang at the American Institute for the History of Pharmacy (AIHP) in Madison, Wisconsin.[63] Bender began at Parke, Davis in 1947 as a director of advertising with the accompanying responsibility of editing *Modern Pharmacy*, the company's internal publication. Only a month after starting his work at Parke, Davis, Bender resumed communication with Urdang, developing ideas about the paintings. It ultimately took Bender two years to get corporate support and approval from Parke, Davis for the work, likely because of his newness to the company.

Bender celebrated the way he was able to "sell" his idea to Parke, Davis executives. In his proposal, which included an estimate of scope and costs, Bender described the many uses of the paintings as well as the "goodwill" with healthcare

[63] Bender sought advice from historian George Urdang at the American Institute for the History of Pharmacy in Madison, Wisconsin and then later Erwin Ackerknecht, a historian of medicine also that the University of Wisconsin. Urdang consulted on the first series of paintings on the history of pharmacy. Erwin H. Ackerknecht was part of a small group of historians of medicine who, along with Henry Sigerist, George Rosen, Owsei Temkin, Walter Pagel, and Ludwig Edelstein, transformed the field of the history of medicine. It was his time at Wisconsin that led Ackerknecht to become dissatisfied with America's "businessman's culture." The timing of Ackerknecht's collaboration with Park Davis suggests that this work contributed to some extent to that dissatisfaction. Charles Rosenberg, "Erwin H. Ackerknecht, Social Medicine, and the History of Medicine," *Bulletin of the History of Medicine* 81, no. 3 (Fall 2007): 511-532.

providers, predominantly physicians and pharmacists, the company would earn through the art.[64] Considering these aims, it is clear that Parke, Davis executives intended to use the paintings for public relations purposes. In committing the company to a $1 million research and production investment for the pharmacy series alone, it is likely that George Bender's senior managers perceived a significant benefit for the company as a result of this work. Duffin and Li argue that, "The supposed lucidity of style, together with the scrupulous research, was intended to convey a confidence-building, nothing-to-hide image that Bender later claimed reflected the character of the Parke, Davis firm itself." [65] Metzl and Howell similarly argue that the series promoted an image that conveyed reputation and respectability.[66] With corporate approval, the creation of the two series, *Great Moments in Pharmacy* and *Great Moments in Medicine*, became Bender's primary responsibility from 1951 to 1966.[67]

Robert Thom's position on the project also builds on the commercial nature of the work. Prior to working for Parke, Davis on *The Great Moments* series, Thom had been a commercial artist for General Motors and Detroit Edison—a local electric company. In 1945, he transitioned to freelance and independent contract work, but his background in marketing provides some additional context for the paintings he produced.

The overall project took form piece by piece: Bender drafted a story, which was translated into art by Thom. In preparing to paint, Thom visited museums around the United States and traveled to Europe twice to interview experts and view relevant

[64] Duffin and Li, "Parke, Davis," 5.
[65] Duffin and Li, "Parke, Davis," 11.
[66] Metzl and Howell, "Great Moments," 507.
[67] Duffin and Li, "Parke, Davis," 5.

imagery and locations. George Urdang of the AIHP continued to consult.[68] The efforts of contracting a historical consultant and pursuing extensive travel to find appropriate representations of objects and images conveys Bender's emphasis on accuracy. If early audiences of the art noted any anachronistic errors in the paintings, Bender commissioned Thom to repaint those portions.[69]

As suggested by Thom's travels and Bender's attention to each minute detail, Thom's work as an artist for Parke, Davis quickly transformed into that of amateur historian. A 1965 interview Thom gave to the *Detroit Free Press* reported that, "He had signed on as an artist, but three quarters of his time would be spent as a historian."[70] He further stated that while he "never liked history in school" and "avoided it like the plague," he later came to "love history as the most challenging of disciplines."[71]

The challenges Thom faced, however, were specific to his task as an artist depicting scenes with attention to detail. For example, Thom described his attention to a set of hooks on windows in a painting of Friedrich Sertüner, the German pharmacist who first isolated morphine from opium in 1804. While the windows in the painting were closed, Thom said that purpose of the hooks was to keep the windows open in the summertime. Of these hooks, Thom said, "It may be a tiny thing, but anyone who has

[68] These consultations were fraught. Bender wanted precise historical details from Urdang to bring accuracy to Thom's images, but, quite understandably, Urdang could not supply the minutia of the scenery, including fabric colors or appropriate props. At one point, Bender went behind Urdang's back and attempted to contract Urdang's graduate student, Glenn Sonnedecker, for the work. Bender eventually worked out an arrangement with Urdang: Urdang would supply writing on six topics and in exchange, Parke, Davis would donate $500 annually to the AIHP.
[69] Duffin and Li, "Parke, Davis," 9.
[70] George Cantor, "The Man Who Changed the Face of the American Doctor's Office," *Detroit Free Press* (Detroit, MI), October 3, 1965.
[71] Cantor, "The Man Who Changed the Face."

ever been in that room in Hamelin, Germany will see the picture and perhaps notice the hooks and say: 'Yes, that's what it looks like.'"[72] Thom's focus on depictions with accuracy, attention to detail, and verifiability by both the educated and general public all emphasize the project's focus on authenticity. As described by Metzl and Howell, authenticity emerged as "an ideology as much as a method" in the development of *The Great Moments*.[73] George Bender and Robert Thom focused on developing authentic reproductions of their subjects and topics. This dedication to authenticity reflects one of the long-term goals articulated by the pharmaceutical industry, as described in chapter one. For most of the first half of the twentieth century, the so-called ethical pharmaceutical industry sought to distinguish itself from patent medicine makers by highlighting the consistent quality of their products. These anxieties about perception again manifest in Parke, Davis' exacting focus on historical detail in its art.

This dedication to authenticity provided interesting historical detail that connected to the audience but also demonstrated a practice of history that was becoming increasingly outmoded. Considering the movement away from genealogies of progress emerging in the 1930s and 1940s, the historical work of the *Great Moments* largely sits with exacting precision, rather than making an argument or recognizing larger trends in science or medicine in the period. In these ways, the paintings, in a sense, made scientific measurements of historical moments rather than engage in the field of history. At the same time, the creative team sought the legitimacy of the historical profession by collaborating with historians on this work.

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[72] Cantor, "The Man Who Changed the Face."
[73] Metzl and Howell, "Great Moments," 2006, 513.

While historical in nature, the paintings had broader meaning, reflecting the values of the period in which they were produced and which gave them advertising value. Bender oversaw the production of Parke, Davis' *Great Moments* in a period of prosperity for Parke, Davis & Co., the industry as a whole, and the United States. Metzl and Howell position the *Great Moments* as reflections of the era in which they were painted, giving primacy to the white male physician, pharmacist, and innovator.[74]

Bender and Thom developed paintings that connected to the public in additional ways. The paintings exhibited a quaintness that prompted the *Detroit Free Press* to name Thom the "Norman Rockwell"—the so-called painter of populist kitsch—of the medical profession and thanked him for redecorating doctors' offices.[75] The style of the paintings was generally popular and had mass appeal. At the same time, the paintings were done using oil to lend sophistication to the form. In this way, Thom created dualistic presentations of the *Great Moments* paintings, appealing to the way the paintings spoke to the "common man" while also distinguishing the technique and medium with pretension. The dual nature of this work invited the praise of a broad audience.[76]

Some of the paintings demonstrated active discovery, encompassing a style long employed in scientific art. The 1885 portrait of Louis Pasteur, painted by Albert Edelfelt, first popularized this style of active science. In the portrait, Pasteur holds and examines a flask in his laboratory. Into the twentieth century, historians Richard Weisberg and Bert

[74] Metzl and Howell, "Great Moments," 2006, pg. 505-506.
[75] Cantor, "The Man Who Changed the Face." Catherine Liu, "Norman Rockwell vs. Richard Serra: Cultural Populism and Its Vicissitudes at the End of the Twentieth Century," *Australian and New Zealand Journal of Art* 11 (2011): 17-33.
[76] Metzl and Howell, "Great Moments," 2006, 504.

Figure 3: "Pasteur: The Chemist Who Transformed Medicine" by Robert Thom. Parke, Davis, & Company, Great Moments in Medicine: A History of Medicine in Pictures *(Detroit: Northwood Institute Press, 1966), 257.*

Figure 4: "Stanislas Limousin – Pharmacal Inventor" by Robert Thom. Parke, Davis & Company, Great Moments in Pharmacy: A History of Pharmacy in Pictures *(Detroit: Northwood Institute, 1966), 167.*

Hansen argue, the portrait and the style came to represent science to the general public, even becoming the model for the 1946 comic "White Magic: The Miracle of Penicillin."[77]

The endurance of the laboratory and lab work in the public image of science and Thom's use of similar images enabled moments of quick recognition by and connection to the public imaginary. Thom's *Great Moments in Medicine* painting, "Pasteur: The Chemist Who Transformed Medicine," features Pasteur in a lab, holding and examining two glass flasks, while additional flasks and

[77] Richard E. Weisberg and Bert Hansen, "Collaboration of Art and Science in Albert Edelfelt's Portrait of Louis Pasteur: The Making of an Enduring Medical Icon," *Bulletin of the History of Medicine* 89, no. 1, (Spring 2015): 59-91.

instruments sit on the lab table before him.[78] The laboratory also features in *Great Moments in Pharmacy*. The painting "Stanislas Limousin—Pharmacal Inventor" features Limousin, a French retail pharmacist, working at his lab bench with a Bunsen burner. Limousin developed an apparatus for the therapeutic administration of oxygen as well as the ampoule, a small, sealed glass vial.[79]

In addition to highlighting science and discovery, the paintings also emphasized care. John Harley Warner argues that while historians have explored the ways in which representations of medicine and physicians feature science and discovery, they have ignored representations beyond the laboratory. He "invites us to see the cultural grounding of modern medicine as vastly more complex than a story scripted around the biomedical embrace of a stripped down, reductionist aesthetic."[80] The painting "Lister Introduces Antisepsis," displays Lister's research while positioning the

Figure 5: "Lister Introduces Antisepsis" by Robert Thom. Parke, Davis, & Company, Great Moments in Medicine: A History of Medicine in Pictures *(Detroit: Northwood Institute Press, 1966), 269.*

[78] Parke, Davis, & Company, *Great Moments in Medicine: A History of Medicine in Pictures* (Detroit: Northwood Institute Press, 1966), 257.
[79] Parke, Davis & Company, *Great Moments in Pharmacy: A History of Pharmacy in Pictures* (Detroit: Northwood Institute, 1966), 167.
[80] John Harley Warner, "The Fielding H. Garrison Lecture: The Aesthetic Grounding of Modern Medicine," *Bulletin of the History of Medicine* 88, no. 1 (Spring 2014): 1.

Figure 6: "Medicine Today and Tomorrow" by Robert Thom. Parke, Davis, & Company, Great Moments in Medicine: A History of Medicine in Pictures *(Detroit: Northwood Institute Press, 1966), 387.*

Figure 7: "The Hopkins: A Revolution in Medical Education" by Robert Thom. Parke, Davis, & Company, Great Moments in Medicine: A History of Medicine in Pictures *(Detroit: Northwood Institute Press, 1966), 287.*

research as part of care.[81] The final painting in the collection, "Medicine Today and Tomorrow," features a white, male physician, a little grayed at the temples, taking the pulse of a young girl, clutching her doll, sick in bed. Her parents stand in the background, looking concerned. Here again, care was linked to science, pulling on the particularly emotive imagery of a sick child.[82]

The paintings also highlighted education. The painting "The Hopkins: A Revolution in Medical Education" features the faculty of the Johns Hopkins Medical School, meeting to discuss education policy. The

[81] Parke, Davis & Company, *Great Moments in Medicine*, 269.
[82] Parke, Davis & Company, *Great Moments in Medicine*, 387. The use of images of children has a long history of bringing attention to diseases, evoking strong emotions from the public and particularly parents. Gretchen Marie Krueger, "'For Jimmy and the Boys and Girls of America': Publicizing Childhood Cancers in Twentieth-Century America," *Bulletin of the History of Medicine* 81, no. 1 (Spring 2007): 70-93.

Figure 8: "Charcot: Master of Neurology" by Robert Thom. Parke, Davis, & Company, Great Moments in Medicine: A History of Medicine in Pictures *(Detroit: Northwood Institute Press, 1966), 279.*

Figure 9: "A Revolution in Pharmaceutical Education" by Robert Thom. Parke, Davis & Company, Great Moments in Pharmacy: A History of Pharmacy in Pictures *(Detroit: Northwood Institute, 1966), 139.*

ornate room holds a small library and a long table, around which a large group of white men sit and stand, presumably discussing the direction of the medical school.[83] In another painting, "Charcot: Master of Neurology" Jean-Martin Charcot sits in an ornate office, surrounded by books, reviewing paperwork with a colleague.[84] Like paintings of discovery, these paintings suggest minds at work, but through reflection and study rather than activity in a lab. In the *Great Moments in Pharmacy* painting "A Revolution in Pharmaceutical Education," Dr. Albert B. Prescott, a pharmacy education reformer at the University of Michigan, lectures to a group of students at lab benches.[85] Focusing on education in these paintings reflects the

[83] Parke, Davis & Company, *Great Moments in Medicine*, 287.
[84] Parke, Davis & Company, *Great Moments in Medicine*, 279.
[85] Parke, Davis & Company, *Great Moments in Pharmacy*, 139.

strong relationship between pharmaceutical companies and medical and pharmacy schools. In the mid-twentieth century, pharmaceutical companies strengthened their relationships with medical and pharmacy schools, offering a variety of fellowships.[86]

A final theme emerges, exclusively in the *Great Moments in Pharmacy* series. Research, development, and manufacturing are the topics of many of the twentieth century paintings. In "The Era of Biologicals," a painting of pharmaceutical scientists working with horses in stalls alludes to the development of diphtheria antitoxin—inoculation of horses was often the first step in producing antitoxin.[87] The caption for the published version of the painting centers Parke, Davis as a diphtheria antitoxin pioneer and also mentions the work of Jonas Salk, who worked at the company and developed the polio vaccine in 1955. "Pharmaceutical Research," "Pharmaceutical Manufacturing Comes of Age," and "The Era of Antibiotics" all include features of the modern pharmaceutical industry.[88] These paintings move beyond the historical and connect more closely to the contemporary. Rather than connecting to a longer history, these final few paintings in the

Figure 10: "The Era of Biologicals" by Robert Thom. Parke, Davis & Company, Great Moments in Pharmacy: A History of Pharmacy in Pictures *(Detroit: Northwood Institute, 1966), 173.*

[86] Tobbell, *Pills, Power, and Policy*, 37-58.
[87] Parke, Davis & Company, *Great Moments in Pharmacy*, 173.
[88] Parke, Davis & Company, *Great Moments in Pharmacy*, 187,195, 207.

Great Moments in Pharmacy series tell the industry's story in the interwar and post-World War II periods.

Of these major themes, education and care seem out of the scope of a pharmaceutical company interested in research and development. The paintings within these two themes, however, emphasize the march of progress toward a white, western, and male ideal of medicine. The emphasis of these painting aligns with the values of the company and the exhibit's audience: healthcare professionals and students. The paintings celebrate the work of physicians and pharmacists, prime industry consumers, and center the position of the company itself, as an American firm aiming to improve the health and longevity of people around the world.

The *Great Moments* centered the notion of progress and demonstrated the value placed on innovation in the period contemporary to the mass production of penicillin, a vaccine for polio, and new psychopharmaceuticals. Metzl and Howell argue that the *Great Moments* paintings reflect the values of the period in which they were produced, rather than accurate portrayals of history sought by the Bender.[89] In building on this argument, I suggest that these paintings must also be viewed critically within the context of other forms of medico-historical art. This comparison shows how different companies approached storying telling and what they valued in their work. It provides historians with a longer history of the relationships between the pharmaceutical industry, their advertising, and their storytelling.

[89] Metzl and Howell, "Great Moments," 519.

This context also reflects both how the industry perceived itself and how the industry perceived the public's view of the industry. The industry received significant public acclaim for its efforts in mobilizing to produce penicillin in World War II, a fact Parke, Davis highlighted in their Great Moments in Pharmacy with "The Era of Antibiotics." This painting features a manufacturing facility, demonstrating the role of the pharmaceutical industry in scaling up antibiotic production.[90] The industry, however, faced increasing public criticism over pricing and price-fixing after World War II. I view the stories that pharmaceutical companies told the public as the stories that the companies told themselves. In this way, companies insulated themselves from the public's view of the industry and failed to recognize growing public upset over their actions. The industry certainly saw Washington and overbearing legislation as a problem but sensed that they maintained public approval. Even in the midst of bad press about antibiotic resistance and negative drug side effects in the early 1950s, industry executives felt they continued to have high public approval.[91]

Figure 11: "The Era of Antibiotics" by Robert Thom. Parke, Davis & Company, Great Moments in Pharmacy: A History of Pharmacy in Pictures *(Detroit: Northwood Institute, 1966), 207.*

The firm's self-view is also reflected in how Parke, Davis suggested exhibit hosts introduce the works. In recommendations for framing the display while traveling for

[90] Parke, Davis & Company, *Great Moments in Pharmacy*, 207.
[91] Tobbell, *Pills, Power, and Policy*, 62.

exhibition, the company centered its place in history: “For the past century, Parke, Davis has been closely identified with the great advances which have been made in medicine.”[92] The obvious implication of this messaging is that the company intended to closely identify itself with great advances made in medicine throughout history.

The primary source materials also demonstrate how the company viewed the undertaking of the paintings. Parke, Davis published books of both sets paintings, offering in the preface that, the paintings were undertaken to “immortalize the high lights [sic] of service of these countless generations of medical men in a new and different way.”[93] Here, the company placed itself in service to the medical and pharmaceutical professions. The paintings, of course, served the company, but they also “served” the profession to highlight the how medical professionals have improved quality of life through care and scientific advancement.

While the paintings were in service to the medical and pharmaceutical professions, they also served the company as advertising. Over a period of ten years, Parke, Davis made the paintings more broadly available through souvenirs, such as postcards, that detail men and other company representatives could share freely with doctors and pharmacists at meetings and conferences. The souvenirs present more overt forays into advertising. At the same time, the creation of the paintings themselves, the expense, the laboriousness, and attention to detail, far surpassed more typical advertising. The duality of the paintings, as both educational and advertising, makes them an

[92] From Parke, Davis’ recommendations for framing and display, as cited in Metzl and Howell, “Great Moments,” 507.
[93] Parke, Davis & Company, *Great Moments in Medicine*, 7.

interesting case study to explore in considering public relations in the pharmaceutical industry.

Conclusion

The Upjohn Company's dioramas and Parke, Davis' *Great Moments* both fall under what I call generative history-telling. Both companies told stories through visual art forms that they created. These stories connected the companies to innovation and important developments in medical history. There are marked differences between these two projects, to be sure. The Upjohn Company developed their dioramas at the behest of Charles Whitebread at the Smithsonian, while Parke, Davis developed *Great Moments* at the insistence of advertising director George Bender. Upjohn's dioramas intentionally avoided the advertising label, and the images were not disseminated to preserve the integrity of the museum work. At the same time, Whitebread noted that the company succeeded in amassing significant goodwill in creating these dioramas. Parke, Davis' work was intentionally advertising, but the financial investment and the form the advertising took connected the company to history and culture and also generated goodwill. The projects also had very different audiences. In the case of Upjohn, the general public visited the company's dioramas at the Smithsonian, which educated the public about the role and work of the pharmaceutical industry. Parke, Davis shared their art primarily with physicians and pharmacists, celebrating their strongest allies thus strengthening the relationship with the intermediaries between Parke, Davis products and the average American consumer.[94]

[94] Tobbell, *Pills, Power, and Policy*, 121-162.

Taken together, these two projects demonstrate how individual companies positioned themselves to create educational materials to situate the industry in the history of medicine and place themselves as a centerpiece of American culture. Through this art, pharmaceutical companies attempted to harness cultural legitimacy and demonstrate their social importance. In the broader field of the history of medicine, this kind of work was often used to offset legislative interventions, both in strengthening relationships with health professionals and in educating the public about the work of the industry. The legislative power of this work will be discussed in greater detail in chapter 4.

In considering the work of both The Upjohn Company and Parke, Davis, this chapter intervenes in the historiographies of medicine, advertising/public relations, and museums/display. The writing of the history of medicine in these exhibits as well as the writing of the history of medicine by physicians and historians demonstrate overlapping trends in how this history has been told, emphasizing progress and the pinnacle of medicine in the West. The works explored in this chapter blur the lines between advertising and education, working as forms of institutional advertising for their respective companies while seeking to educate and impress audiences. Finally, the development of Upjohn's dioramas and the Parke, Davis paintings reflect the ways that museums and displays seek to define, develop, and control a collective narrative. Control over a narrative is particularly important in considering the work of Upjohn and Parke, Davis. This power of the museum display as well as the relationships between museums and pharmaceutical companies is the topic of the next chapter.

Chapter 3: Curating Histories of Medicine: Associative History-Telling in the Pharmaceutical Industry

Introduction

In 1948, Smith, Kline & French (SKF), a Philadelphia-based pharmaceutical company, collaborated with the Philadelphia Museum of Art (PMA) to create a traveling exhibition of medical prints. The exhibition, titled *Ars Medica*, Latin for medical art, was underwritten by SKF. *Ars Medica* sought to present "the essential aspects of medical iconography, as they have been reflected in graphic art through the ages."[1] SKF intended for the collection to have special interest for the medical profession but also be of interest to the general public. In the following decades, SKF merged with other companies and underwent several name changes, but continued to support the exhibit and integrate the exhibit into its marketing.[2] The last showing of *Ars Medica* works took place in 2000, in an exhibit called "The Nightingale's Song: Nurses and Nursing in the *Ars Medica* Collection of the Philadelphia Museum of Art."[3] In this chapter, I explore this ongoing relationship as the company collaborated with the museum to display the exhibit locally,

[1] Carl Zigrosser, *Ars Medica: A Collection of Medical Prints Presented to the Philadelphia Museum of Art by SmithKline*, The Philadelphia Museum of Art, 1976, Internet Archive. https://archive.org/details/arsmedicacollect00phil/page/n1/mode/2up.

[2] John K. Smith opened a pharmacy in Philadelphia in 1830. Mahlon Kline joined Smith in 1865, forming Smith, Kline & Co. Smith, Kline & Co merged with French, Richard and Company in 1891, and adopted the name Smith Kline & French Laboratories in 1929. In 1973, the company changed its name to the SmithKline Corporation as it expanded its offerings. SmithKline merged with Beckman, Inc in 1982, becoming SmithKline Beckman. In 1989, SmithKline Beckman merged with Beecham Group to form SmithKline Beecham. SmithKline Beecham merged with Glaxo Wellcome in 2000, becoming GlaxoSmithKline (GSK).

[3] This last exhibit was not sponsored by SKF, but used art purchased by SKF donations. Philadelphia Museum of Art, "The Nightingale's Song: Nurses and Nursing in the *Ars Medica* Collection of the Philadelphia Museum of Art," August 26, 2000 – October 29, 2000, https://www.philamuseum.org/exhibitions/2000/34.html.

nationally, and internationally, in line with SKF's needs between the 1940s and early 1980s.[4]

I explore how pharmaceutical companies engaged in philanthropic preservation and the display of historical objects as a means of public relations. The historical-philanthropic work I focus on in chapter 2 is about generating, i.e. the creation of written and visual forms, whereas the work in this chapter is about collecting and exhibiting art.

As described in my previous chapter, the companies I examine engaged in history-telling through art and objects, which I collectively refer to as artifacts.[5] Companies developed and collected cultural, historical products to create an American identity of medical progress.[6] Here, I repeat my definitions of the pharmaceutical industry's engagement with history-telling for the purposes of this chapter. I have identified two forms of engagement with history-telling as performed by the pharmaceutical industry: *generative history-telling* and *associative history-telling*.[7] In generative history-telling, the industry/companies developed their own artifacts to connect their history and story with events far removed from their own immediate histories/stories; these connections might be minimal or central to the story told through the artifacts. In this chapter, I address associative history-telling, through which the pharmaceutical industry/individual pharmaceutical companies sought to connect themselves with artifacts of historical importance, i.e. works of art, historical instruments,

[4] I end in the 1980s based on available sources and slowed support.
[5] I use the museum definition of artifacts, i.e., objects made or used by people.
[6] Melani McAlister, *Epic Encounters: Culture, Media, & U.S. Interests in the Middle East since 1945* (Berkeley: University of California Press, 2001), 3.
[7] These are terms I developed for analyzing pharmaceutical company engagement in history-telling.

etc., thus *associating* the industry/companies with events that were far removed from their own immediate histories/stories. I describe the work of SKF with the PMA as associative.

A major distinction between this chapter and the last is about control over the narrative and legacy. In the last chapter, Upjohn and Parke, Davis developed a narrative, which they then displayed through art. In this chapter, SKF supported the purchase of medical art, but does not control the narrative. Rather, this philanthropic work connects the company to artifacts of prestige and high cultural value, developing a long relationship with the art as its purchaser on behalf of the museum. The company placed medical art in an advertising and marketing context to benefit from the value and history of the works.

In this chapter, I argue that the PMA and SKF added meaning to medical art as artifacts by considering display in two ways. One, the PMA's medical art was displayed thematically, as opposed to by period, technique, region, etc.[8] What is the pedagogic effect of such organization? In bringing these works together, SKF benefited from the sharing of medical history through art, emphasizing the relationship between the company and historical progress in medicine. Two, *Ars Medica* travelled in alignment with the business objectives of SKF, particularly to cultivate new markets abroad. SKF

[8] Considerations for display are an important topic both in the history of museums and current museum theory. For scholarship on display in art museums, see, Andrew McClellan, ed., *Art and its Publics: Museum Studies at the Millennium* (Malden, MA: Blackwell Publishing, 2003). For scholarship on display in science museums, see Sharon Macdonald, ed., *The Politics of Display: Museums, Science, Culture* (New York: Routledge, 1998). Also see, Gerard Corsane, ed., *Heritage, Museums, and Galleries: An Introductory Reader* (New York: Routledge, 2005).

often dictated where the exhibit would travel in line with the opening of new markets or establishing relationships with pharmaceutical companies abroad.

In working with the Philadelphia of Museum Art and financially supporting the creation, maintenance, and expansion of *Ars Medica*, SKF established a relationship with medical art and added new layers of meaning, particularly as a form of institutional advertising. In this relationship, the art became an extension of SKF, a means of communicating the company's connection to the history of medicine and medical progress to its physician- and patient-consumers as well as to potential partners, employees, and customers abroad. The PMA served as a mediator of the art and SKF's marketing goals, while the PMA benefitted from SKF's financial support for the exhibit and some additional programming. Exploring the relationship between artifacts (medical art) and actors (SKF and the PMA) reveals the overlapping nature of marketing and philanthropy as well as the sometimes problematic interdependence of public and private organizations.[9]

In this exploration of associative history-telling, I further argue that the work of collecting represents knowledge curation, using intentionally chosen objects to tell stories and infer meaning. Knowledge curation, under the umbrella of philanthropy, serves as a form of public relations. SKF engaged in associative history-telling to connect itself to both the history of medicine and medical progress as well as the social and cultural capital associated with art collecting and museums. SKF had some say in where and when the collection traveled, coinciding with company interests. In presenting the exhibit

[9] While these terms suggest Latour's Actor Network Theory, I do not apply ANT here. Bruno Latour, *The Politics of Nature: How to Bring Sciences into Democracy* (Boston: Harvard University Press, 2004).

locally, nationally, and internationally, SKF, through the PMA, demonstrated its part in the history of medicine through association while also demonstrating its philanthropy in preserving and sharing art and history. In contrast to the case studies in the last chapter, SKF gained legitimacy through the reputation of the PMA and its arts and humanities knowledge. Particularly in terms of international travel, I argue that SKF used the exhibit to build connections to and support for the company as it aimed to enter and expand in international markets.

Museum Historiography

My last chapter touched on the historiography of museums and display, exploring the relationship between The Upjohn Company and the Smithsonian from the 1930s into the 1950s. This chapter takes a longer view of the relationship between a pharmaceutical company and a museum. I use this case study to build on museum historiography around corporate giving, especially as it pertains to the pharmaceutical industry. While the relationship between SKF and the PMA began in 1948, aspects of the longer histories of museums provide useful points of analysis to the relationship. Because I define associative history-telling in terms of collecting, considerations of collecting as a practice are helpful for this analysis. For example, in Western culture, collecting began as a hobby of the elite in the sixteenth century in the form of cabinets of curiosity (and continues today). Assembling art and curiosities provided entertainment and demonstrated wealth.[10]

[10] Arthur MacGregor, *Curiosity and Enlightenment: Collectors and Collections from the Sixteenth to the Nineteenth Century* (New Haven: Yale University Press, 2007), 11-69.

As SKF invested in collecting in 1948, they publicly demonstrated financial success. The company had sufficient profits to invest philanthropically and chose to do so.[11]

By the end of the nineteenth century, public art museums were prevalent in major cities in the United States and across Europe. Public art museums emerged from a rise in tourism, increase in demands to see art, and as the interests of the upper class spread to other classes. Public art museums also served the cultural pretentions and political ambitions of the ruling class, while preserving and protecting patrimony; even as public institutions, they remained in the control of the elite.[12] At the same time, philanthropy signaled a commitment to the norms of an elite social class while legitimating social standing and accessing new markets and investments.[13] Here again, I argue that the ways in which SKF displayed works through the PMA reflected similar pretentions and ambitions: the ways in which the company influenced the display and traveling exhibition of art created a public image of the company to support the company's business goals.

Put differently, Tony Bennett argues that museums, in "providing a new setting for works of culture, also functioned as a technological environment which allowed cultural artefacts [sic] to be refashioned in ways that would facilitate their deployment for new purposes."[14] Bennett's lens proves useful in thinking about the relationship between Smith, Kline, & French and the Philadelphia Museum of Art: SKF employed the cultural

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[11] I cannot speak to their intent more specifically, as this is absent from the archival sources. Their actions do follow my definition of corporate social responsibility, as outlined in the previous chapter.
[12] Carole Paul, ed. *The First Modern Museums of Art: The Birth of an Institution in 18th and Early 19th Century Europe* (Los Angeles: J. Paul Getty Museum, 2012), xi.
[13] Lucas Rieppel, *Assembling the Dinosaur: Fossil Hunters, Tycoons, and the Making of a Spectacle* (Boston: Harvard University Press, 2019), 109.
[14] Bennett continues this quote: "as parts of governmental programmes aimed at reshaping general norms of social behaviour." Bennett's analysis depends heavily on both Foucault and Bourdieu. Tony Bennett, *The Birth of the Museum: History, Theory, Politics* (New York: Routledge, 1995), 6.

cachet of the PMA in order to improve relationships with the public and physician consumer by creating an identity based in this elite social sphere.

Bennett focuses on government programs, whereas the relationship between the SKF and PMA centers corporate programs. With cuts in funding and the rise of neoliberalism compounded by the culture wars of the 1980s and 1990s, the shift from government to corporate programming was critical in the changing environment around museums and sponsorship in the mid- to late-twentieth century. With this shift came different goals in how cultural artifacts were used. While Bennett and other scholars emphasize the government's creation of a shared culture in an attempt to control the population through museums, the introduction of corporate sponsorship in museums suggests the need for a new analysis of intention and meaning.[15]

In the shift from government programming to corporate programming, museum scholar Mark Rectanus provides useful framing for this chapter through his exploration of corporate cultural politics. Mark Rectanus argues that "corporations have a disproportionate influence in shaping cultural programming," allowing corporations to "validate and insert their interests into local communities."[16] Rectanus identifies three

[15] For more on museums as sites of control, see: Tony Bennett, Fiona Cameron, Nélia Dias, Ben Dibley, Rodney Harrison, Ira Jacknis, and Conal McCarthy, *Collecting, Ordering, Governing: Anthropology, Museums, and Liberal Government* (Durham: Duke University Press, 2017).

[16] According to Mark Rectanus, "Corporate cultural politics attempt to legitimize corporate interests in globalized societies—in cultural, social, economic, and political spheres—but in doing so they also expose their stake in institutional and communal discourses and values." Further, "corporate cultural politics not only attempt to maintain social legitimation, but they also respond to dynamic social forces and public policies (e.g., alcohol and tobacco legislation, environmental issues) that the corporation can partially defuse or strategically redirect but not completely control." Rectanus examines the development of corporate sponsorship over the course of the twentieth century but focuses on the last quarter of the twentieth century. Mark Rectanus, *Culture Incorporated: Museums, Artifacts, and Corporate Sponsorships* (Minneapolis: The University of Minnesota Press, 2002), 3-5 and 10-11.

ways that corporations define cultural programing. First, "the corporation produces consumer and media culture by defining the relationships between products and images that construct the contexts and social relations of everyday life."[17] Considering that pharmaceutical product advertising to the general public was limited for ethical manufacturers in much of the twentieth century, the industry explored other modes of image creation. Both institutional advertising and advertising in support of health professionals allowed pharmaceutical companies to engage in "ethical" public relations. In the case of working with the PMA, SKF positioned *Ars Medica* as a product with cultural benefits while associating the company's healthcare work with historical progress in medicine. Further, SKF used art as a product that it exported internationally, through the PMA, as it sought entrance and expansion into new markets.

Second, Rectanus argues that "corporate models of institutional operation and management (e.g., in search of market approval, efficiency) are increasingly accepted as legitimate by government, nonprofit, and educational institutions."[18] As I discuss in this chapter, SKF placed demands on the PMA to prepare *Ars Medica* to travel according to the promotional needs of SKF, coinciding with medical conferences, the opening of new medical schools, and the launch of new products and relationships abroad. At times, these demands were at odds with the safety of the collection. The PMA had to balance the demands of its donors with the care and protection of museum collections in adherence to corporate models of operation and management.

[17] Rectanus, *Culture Incorporated*, 23.
[18] Ibid.

Finally, Rectanus argues that "although nonprofit institutions . . . occupy different positions within the cultural marketplace . . . they share common interests" and above all, they "strive to maintain institutional survival."[19] While the PMA was not dependent on SKF for survival, the company became an increasingly significant donor. Further, SKF helped the PMA reach new and returning audiences—SKF's customers, employees, and partners—allowing the museum to secure stability and connect with their audiences.

In addition to this framing, an important theme that emerges in considering the goals of corporations in museum work and the potential impact of SKF's support for *Ars Medica* is the creation of a normative ideal of history and culture in medicine. As discussed in the previous chapter, the history of medicine is replete with stories of medical progress. Progressive narratives in medicine tend to present one type of practice as the culmination of medical progress to the exclusion of historically ignored groups and non-Western practices. This chapter argues that *Ars Medica* fits into such historical ideals, reinforcing the notion that Western science and medicine are not only normative but also superior to other ways of knowing and healing.

Smith Kline & French: Ars Medica

While SKF's collection at the PMA grew and changed over time, aspects of collecting remained consistent. Topically, the collection included works on hospitals, medicine in wartime, public health, medical teaching, drug advertising, and medicine in institutions, to name a few. The collection also contained portraits of so-called great physicians as well as the works of medical men who have made contributions to the arts,

[19] Ibid.

such as François Rabelais, a French writer and a member of the faculty of the medical school of Montpellier. In terms of style, the works included a variety of graphic media: woodcuts, engravings, etchings, lithographs, serigraphs, and photographs. One of the oldest works was a woodcut from Ketham's *Fasciculus Medicinae* entitled "The Zodiac Man," which is the oldest printed bloodletting chart. The collection also included a diverse set of artists from different periods and genres, ranging from the work caricaturists and humorists of the eighteenth and nineteenth centuries, such as George Cruikshank, James Gillray, Gavarni, and Honoré Daumier, to modern artists such as Edvard Munch, Kathe Kollwitz, and Michael Mazur.[20] Below are some of the pieces purchased by the PMA through SKF over the years.

[20] Ellen Sharp, "Special '*Ars Medica*' Exhibition Being Brought to Detroit as Feature for MSMS 1968 Annual Session," *Michigan Medicine* (June 1968), 739-742.

Figure 12: Anonymous, "Wound Manikin," German, 1517. This woodcut provided a model for the common injuries of foot soldiers in battle. The image provides a guide for bloodletting and battlefield surgery. "Ars Medica Collection," Special Exhibitions Department Records, Box 43, Folder 8, Philadelphia.

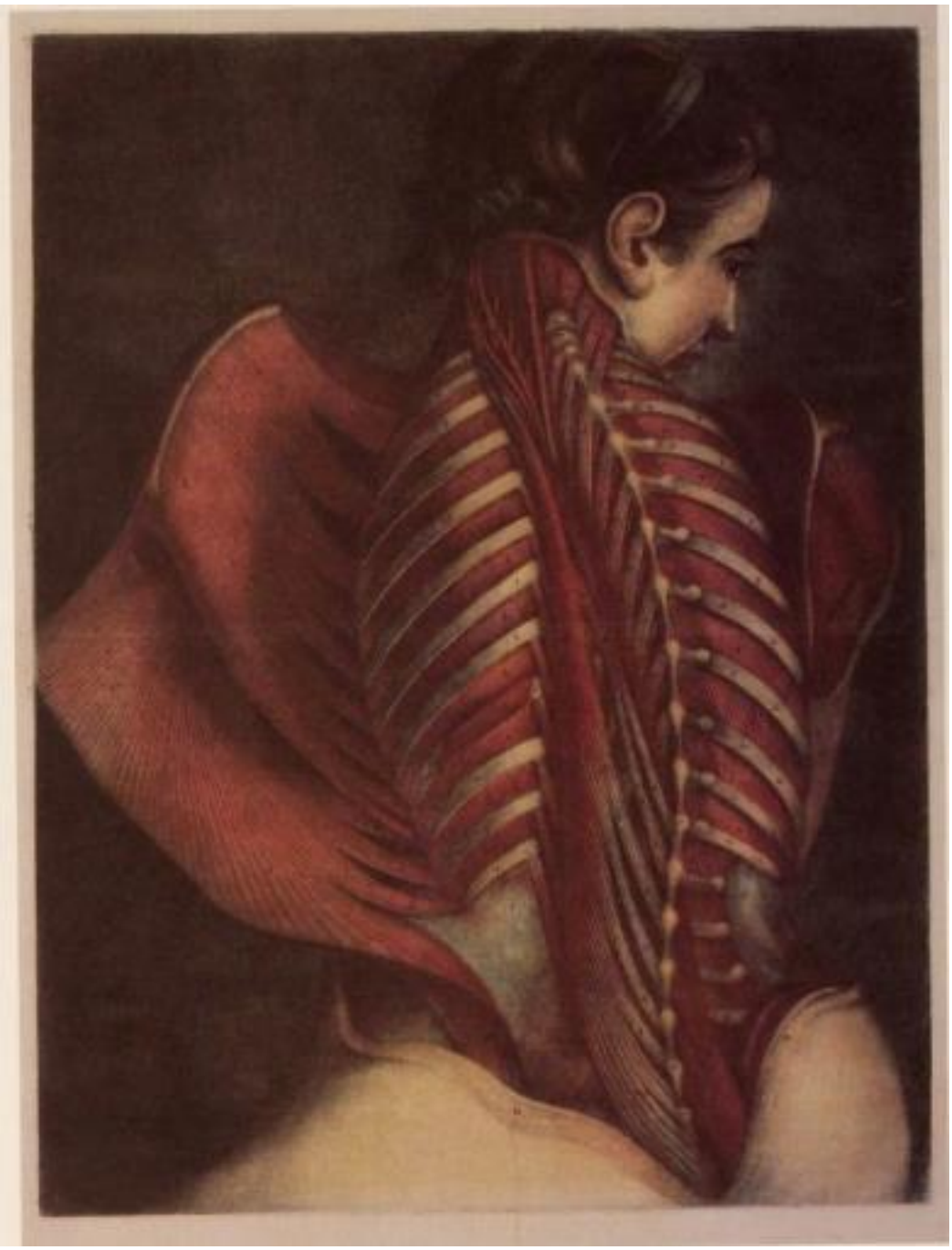

Figure 13: Jacques-Fabien Gautier-Dagoty, "Muscles of the Back," French, 1746. Gautier-Dagot published printed, colored images for scientific and anatomical texts—the first colored prints in France. "Ars Medica Collection," Special Exhibitions Department Records, Box 43, Folder 8, Philadelphia.

Figure 14: Jess, "The Sun: Tarot XIX," American, 1960. This modern lithograph was developed through collages of anatomical drawings of the nervous and circulatory systems used for teaching anatomy in medical schools. "*Ars Medica* Collection," Special Exhibitions Department Records, Box 43, Folder 8, Philadelphia.

Figure 15: W. Eugene Smith, "Maude Callen," American, 1951. This photograph from Smith's series "Nurse Midwife" centers the child as the midwife and assistant tenderly watch. The photo focuses on the relationship between the midwife and the child in this composition. "Ars Medica Collection," Special Exhibitions Department Records, Box 43, Folder 8, Philadelphia.

Forming The Collection

The *Ars Medica* collection was developed both internally and externally to the PMA. Some works came from the museum's existing permanent collection while SKF created a special fund of $10,000 to purchase additional works of interest, which formed the core of the collection. The museum had the final say on what works to purchase and chose according to a work's artistic quality and value in telling the history of medical practice. In the initial agreements, R. Sturgis Ingersoll, then President of the Museum, permitted SKF to exhibit the collection and refer to it as owned by the museum and sponsored by SKF.[21] In this agreement, SKF also helped the museum take the collection on the road.[22] Between 1952 and 1961, the collection circulated for exhibition in sixty-six US cities and also travelled to Canada and Britain. In his memo to the museum about further developing the collection, Kneeland McNulty, then Curator of Prints and Drawings at the PMA, cited numerous institutions across the nation as well as some in other countries that were interested in hosting or otherwise interacting with the exhibit. These organizations included universities, libraries, health professional schools, hospitals, and other museums—all organizations interested in medicine, medical education, and/or art and medicine. The timing also coincided with the development of many history of medicine graduate program and historical libraries. There was a general interest in the

[21] R. Sturgis Ingersoll to Joseph N. DuBarry, December 2, 1948, Julius Zieget Records, Box 15, Folder 11, Philadelphia Museum of Art Archives.
[22] R. Sturgis Ingersoll to Julius Zieget, October 25, 1949, Julius Zieget Records, Box 15, Folder 11, Philadelphia Museum of Art Archives.

history of medicine among medical professionals in this era, which complements the development of this exhibit.[23]

Where and how the collection travelled mattered to pharmaceutical companies. With the continued development of *Ars Medica* and other medical art collections, one 1960 *JAMA* editorial noted, "modern medical art sustains the rich tradition behind it . . . Medical art is largely in the hands of drug companies" which "have done a great deal to promote the arts."[24] The editorial references both the work of SFK as well as Parke Davis' *Great Moments*. The editorial is unsigned, which, combined with the timing—in the midst of the Kefauver hearings—suggests that it might be part of an effort to garner support from the AMA against pharmaceutical company regulation. If that is the case, it provides useful evidence of the ways in which pharmaceutical companies drew attention to their philanthropic work beyond research on and production of drugs, especially when that work supported the medical profession.

The sources available for this early period are unfortunately limited, but they establish the basis for the relationship between the PMA and SKF. The first important aspect of this relationship is sponsorship. According to museum scholar Mark Rectanus, "sponsorships have considerable qualitive impact in cultural politics, even when they represent a relatively small proportion of programming budgets."[25] As such, he argues that corporate donors have a disproportionate influence in shaping museum

[23] Take, for example, the development of the Wangensteen Historical Library and Program in the History of Medicine at the University of Minnesota. "About Owen H. Wangensteen," Wangensteen Historical Library, University of Minnesota, https://hsl.lib.umn.edu/wangensteen/visit/about-owen-h-wangensteen.
[24] "Medicine in Art," Journal of the American Medical Association 174, no. 13 (November 26, 1960), 1733, doi:10.1001/jama.1960.03030130061020.
[25] Rectanus, *Culture Incorporated*, 11.

programming. SKF's seemingly small donation in 1948 (approximately $115,000 in 2021 dollars[26]) shaped the direction of the PMA's collecting practices. The second important aspect of the relationship was travel and exhibition. After the initial donation, SKF then provided additional funds to support transporting the collection nationally and internationally. Kneeland McNulty's research on groups interested in the collection suggests that the museum sought further support from SKF and appealed to their interest in marketing.

Ebbs and Flows in the Relationship

To understand how the relationship between SKF continued, it is important to consider the work of William Grala, who served as the company's public relations chair and then vice president of public affairs from 1966 to 1987 at which point he became chairman of the company's foundation. Grala also served on the board of the Institute for Educational Affairs, which was a clearinghouse for corporate philanthropy that linked conservative thinkers in need of funds with like-minded business executives. In addition, Grala was a trustee of the Heritage Foundation. The Heritage Foundation began in 1973 as a conservative think tank aiming to fight the culture wars.[27] *The Washington Post* characterized Grala as playing "a key role in the company's [SKF's] activist stance" in creating a more pro-business climate by supporting conservative think tanks, legal institutes, academic centers, and media ventures.[28] As vice president of public affairs,

[26] Calculated according to the CPI inflation calculator. U.S. Bureau of Labor Statistics, "CPI Inflation Calculator," accessed on August 30, 2021, https://www.bls.gov/data/inflation_calculator.htm.
[27] Kim Phillips-Fein, *Invisible Hands: The Businessmen's Crusade Against the New Deal* (New York: W. W. Norton, 2009), 171-172.
[28] Peter H. Stone, "Businesses Widen Role in Conservatives 'War of Ideas,'" *The Washington Post*, Sunday, May 12, 1985, F4.

Grala supported funding higher education for ideological reasons: "the preservation of the system" and to "strengthen democratic capitalism."[29] While not specifically mentioned by Kim Phillips-Fein, Grala fits the mold of businessman-activist in conservative politics and think tanks, fighting against liberalism in the mid- to late twentieth century.[30] Grala was part of a larger movement that pushed for government budget cuts to liberal arts programming. In this way, he helped make the social, cultural, and governmental changes that shaped the relationship between SKF and the PMA. In other words, the PMA became more dependent on private donations as a result of changes in government funding.

The Smith, Kline & French Foundation, the educational and scientific trust of SKF provided an additional grant in January of 1968 to create the *Ars Medica* Center at the PMA.[31] The company dedicated $21,000 (about $177,000 in 2021 dollars) over three years to the acquisition fund, but the museum had to find operational funds elsewhere.[32] At the same time, some of the museum's collection, previously held in storage, traveled with additional SKF support. In 1967, the exhibit went on tour specifically to professional organization meetings and events important to SKF's business endeavors. For example, the exhibit visited Toronto for the Canadian Pharmaceutical Association's annual conference.

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[29] William Grala as quoted in Lawrence C. Soley, *Leasing the Ivory Tower: The Corporate Takeover of Academia* (Boston: South End Press, 1995), 11.
[30] Phllips-Fein, *Invisible Hands*, xi.
[31] "Announcements: Philadelphia," *Bulletin of the History of Medicine* 42, no. 2 (1968), 186-187.
[32] Dollar amount converted according to Consumer Price Index inflation calculator. U.S. Bureau of Labor Statistics, "CPI Inflation Calculator," accessed on December 12, 2021, https://www.bls.gov/data/inflation_calculator.htm. Kneeland McNulty to Evan Turner, January 18, 1968, Evan H. Turner Records, Box 2, Folder 44, Philadelphia Museum of Art Archives.

Up to this point, the SmithKline Corporation[33] donated money to the museum at irregular intervals. The pattern of the relationship between SmithKline and the PMA suggests that the museum approached SmithKline for money as previous funding pledges expired. The work of seeking funding fell on the museum as did the work of finding ways to make the company's donations "work" for the benefit of both the company and the museum. On some occasions, the company approached the museum about support unrelated to *Ars Medica*. For example, in 1978, the company wanted "a piece of the Irish Show"—the exhibit "Art Treasures of Ireland," which the museum was hosting on loan from Ireland—because the company had "a manufacturing plant in Ireland and want [ed] to show their people how wonderful they think this exhibition is." SmithKline looked for tangible ways to donate so they could "have something to 'show' to their people in Ireland . . . [something] directly related to the exhibition."[34] Through corporate cultural politics, companies seek to legitimatize themselves in globalized societies.[35] In this instance, SmithKline wanted to use the work of the PMA to legitimize its relationship with its workforce in Ireland. The sources are unclear about how the company advertised this support, but one might surmise that SmithKline's support was featured in employee newsletters and/or that Irish executives were taken to the show when visiting Philadelphia.

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[33] In 1973, the company changed its name to the SmithKline Corporation, but retained the name Smith, Kline, and French Laboratories for its pharmaceutical division. Because donations came from the SmithKline Corporation and/or Foundation, I use the new moniker. For a brief history of the company, see Glenn E. Ullyot, Barbara Hodsdon Ullyot, and Leo B. Slater, "The Metamorphosis of Smith-Kline & French Laboratories to Smith Kline Beecham: 1925 – 1998," *Bulletin of the History of Chemistry* 25, no. 1 (2000), 16-20.

[34] Sandra Horrocks to Arnold Jolles, February 2, 1978, European Decorative Arts before 1700, Box 11 Folder 16, Philadelphia Museum of Art Archives.

[35] Rectanus, *Culture Incorporated*, 10-11.

In another example of SmithKline donating to the museum beyond *Ars Medica*, in 1979, the company pledged $20,000 (about $81,000 in 2021 dollars) to the Museum to co-underwrite the programming costs of Isamu Noguchi's "Variable Landscapes."[36] SmithKline's interest likely stemmed from a growing interest in collaborating with Japanese pharmaceutical makers, which I discuss shortly. The event included a partnership between the Museum and the Opera Company of Philadelphia. In a thank you letter to William Grala, who at the time was Vice President of Community Relations at SmithKline, Noble Smith, the Assistant Director for Development and Membership at the PMA noted that, "When one talks of mileage from a gift, there are not enough words to describe the mileage that both the Museum and the Opera Company, and we hope, SmithKline have received from this gift."[37] Here and going forward in this narrative, the PMA emphasized the public relations implications of the company's donations. Appropriately, SmithKline responded to the museum's request for support quickly and advertised the related events in local newspapers.[38]

Later that same year, the SmithKline Foundation and SmithKline Corporation reorganized the structures and goals of their philanthropic work, for reasons unclear in the archival sources. The foundation focused its efforts on programs in the Philadelphia community: "most of these programs are related to employees; have broad community

[36] Dollar amount converted according to Consumer Price Index inflation calculator. U.S. Bureau of Labor Statistics, "CPI Inflation Calculator," accessed on December 12, 2021, https://www.bls.gov/data/inflation_calculator.htm. William Grala to Noble Smith, January 7, 1980, J. Boggs Records, Box 48, Folder 6, Philadelphia Museum of Art Archives.
[37] Noble Smith to William Grala, January 23, 1980, J. Boggs Records, Box 48, Folder 6, Philadelphia Museum of Art.
[38] Jean Sutherland Boggs to William L. Grala, January 30, 1980, J. Boggs Records, Box 48, Folder 6, Philadelphia Museum of Art Archives.

interests."[39] They continued to be "interested in supporting exhibitions to which their name can be attached."[40] In seeking to benefit from this shift, Noble Smith, then Assistant Director for Development, and Bill Wood of the museum met with William Grala of SmithKline. As a result of the meeting, the museum planned on asking SmithKline for at least $100,000 to complete the National Endowment for the Arts Challenge grant match, which would provide capital support to the PMA.[41] This match followed the new direction of the company and the foundation in supporting local programs broadly.

These sources suggest a continuation and expansion of SmithKline's approach to giving. The company further emphasized the local but continued to seek name association with art exhibits. Explicitly seeking exhibitions with the company's name attached emphasized philanthropy as a form of advertising; in this case, the company continued to use philanthropy as a form of public relations to build public goodwill. Interestingly, the company chose to bolster a relationship it had already established with the PMA rather than provide such a significant donation to other causes in the Philadelphia community. Returning to the concept of corporate cultural capital, SmithKline matching strengthened the interdependence between the company and the museum.

[39] Noble Smith to SmithKline French, March 6, 1980, J. Boggs Records, Box 48, Folder 6, Philadelphia Museum of Art Archives.
[40] Ibid.
[41] Ibid.

Mexico

Also in 1980, SmithKline requested that the *Ars Medica* collection go on display at the newly restored Palacio de la Escuela de la Medicina in Mexico City, Mexico with support from SmithKline - Mexico. While archival materials do not provide more specific reasons for SmithKline's interest, the context of the pharmaceutical industry in Mexico sheds some light on exhibition travel as a public relations move. By the late 1970s and early 1980s, the Mexican state-owned pharmaceutical company, Proquivemex, could not compete in global marketing and sales and depended on transnational companies to enter international markets. Additionally, the social and cultural landscape had changed in Mexico by the early 1980s. The once populist leanings shifted in the expanding neoliberal landscape, and the government prioritized supporting business leaders over laborers. Finally, a growing financial crisis in the early 1980s led to reforms that eventually caused the closure of several state-owned companies.[42] SmithKline might have seen an opportunity for expanding its foothold in Mexico as a result of this climate.

More broadly, American pharmaceutical companies faced some difficulties in the 1970s and 1980s as well. The era of blockbuster drugs—the major drugs launched in the mid-twentieth century that had earned the industry great public acclaim—waned. The declining pipeline for drugs led to less innovative products that showed slight improvement over their predecessors, so-called me-too drugs. As a result of increasing regulation of the industry, many feared (an exaggerated) drug lag. Finally, American companies faced growing competition internationally, particularly from Japan and

[42] Gabriela Soto Laveaga, *Jungle Laboratories: Mexican Peasants, National Projects, and the Making of the Pill* (Durham: Duke University Press, 2009), 197-199.

Germany.[43] The tenuousness of the situation for American pharmaceutical firms would have made expanding international markets a particularly appealing move for SmithKline.

In preparing the exhibition for Mexico, SmithKline "would foot the bills as usual," but the request was placed a mere three months before the desired opening.[44] The museum typically required five-month's notice prior to exhibition tours, but SmithKline asked for a waiver. The restored medical school was devoted to post-graduate training activities and also housed a Museum of the History of Mexican Medicine as well as an Archive and Library of the History of Medicine. In addition to the opening of the restored medical school, a Medical Museum in Mexico City was slated for opening in December of 1980. With the request for a waiver, SmithKline offered to pay an additional consultant fee and any additional funds for shipping that might be necessary to expedite the exhibition process. SmithKline took total responsibility for the safety of the collection.[45]

Conversations around this request at the museum suggest tension around acquiescing. In an October 1980 memo from Noble Smith to Jean Boggs, then director of the museum, Smith offered,

> "Clearly I recognize that one problem is providing curatorial assistance and I hope there is some way to work that out given the very strong support that SmithKline gives us and the indication we got yesterday through Bill Roberts that Henry Wendt [then CEO of SmithKline] has

[43] Dominique Tobbell, *Pills, Power, and Policy: The Struggle for Drug Reform in Cold War American and its Consequences* (Berkeley: University of California Press, 2010), 183-188.
[44] Kneeland McNulty to Jean S. Boggs, September 16, 1980, Anne d'Harnoncourt Records, Box 6, Folder 7, Philadelphia Museum of Art Archives.
[45] Malcolm Barlow to Jean S. Boggs, September 18, 1980, Anne d'Harnoncourt Records, Box 6, Folder 7, Philadelphia Museum of Art Archives.

> verbally committed $10,000 to the Corporate Partners of the Philadelphia Museum of Art as a leadership commitment."[46]

Smith remained in contact with William Grala and found a curator for the exhibit within the museum. Smith's communication with Boggs demonstrates the power of SmithKline in negotiations around exhibit travel with explicit indication of financial commitments to the museum.

Ultimately, the museum acquiesced to SmithKline and the Palasio met the museum's conditions for exhibition.[47] Dr. Marco Botey, Medical Director of SmithKline-Mexico, was the "driving force behind the exhibit" and took charge of the project in Mexico, working on translations of the prints and layouts for SmithKline's catalogue.[48] SmithKline-Mexico's efforts to publicize the event brought great success, setting record attendance for the exhibit.[49] José López Portillo, then President of Mexico, attended the opening ceremonies, and while not explicitly stated, the audience likely included physicians, medical students, business leaders, and politicians among others.

The exhibition in Mexico, while successful in terms of attendance, was riddled with problems for the PMA. The issues included miscommunication of exhibition dates, damage to crates in transit, and changes in display and security on site.[50] Malcolm Barlow, SmithKline's Director of Corporate Communication International,

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[46] Noble Smith to Jean S. Boggs, October 1, 1980, Anne d'Harnoncourt Records, Box 6, Folder 7, Philadelphia Museum of Art Archives.
[47] Elizabeth Cuellar to Fernande E. Ross, January 30, 1981, Anne d'Harnoncourt Records, Box 6, Folder 8, Philadelphia Museum of Art Archives.
[48] Malcolm Barlow to Noble Smith, October 13, 1980, Anne d'Harnoncourt Records, Box 6, Folder 7, Philadelphia Museum of Art Archives.
[49] Malcolm Barlow to Noble Smith, Anne d'Harnoncourt Records, Box 6, Folder 8, Philadelphia Museum of Art Archives.
[50] Memorandum by Ellen S. Jacobwitz, December 22, 1980, Anne d'Harnoncourt Records, Box 6, Folder 7, Philadelphia Museum of Art Archives.

acknowledged the pressure the company had placed on the museum and their cooperation: "Thank you for the extra effort and patience on this project. Every corner was cut to meet the tight deadlines, and this was only possible with complete cooperation from the Art Museum staff."[51] Along with a thank you, however, Barlow also mentioned additional travels for the exhibition: Buenos Aires and Tokyo. Similar to the exhibit's travel to Mexico, this interest likely derived the potential to develop or expand markets. Boggs was distressed at the news, having only agreed to send the collection to Mexico "under the most extraordinary circumstances."[52]

Talks about the next steps for the collection included not only where the exhibition would travel but its preservation and expansion. As the exhibition in Mexico wound down, Ellen Jacobwitz, the Associate Curator of Prints who also accompanied the collection on its return trip to the museum from Mexico, was already in the process of preparing a three- to five-year plan for *Ars Medica*. The plan included conservation of works as well as a plan for changing content and acquisitioning new materials. Conservation was of utmost importance. After the exhibit in Mexico, the collection needed tending rather than further traveling: "not unless—by a miracle—[the] conservation [department] thinks they can travel."[53] Extended exposure to light and rough handling left the prints needing considerable restoration.[54] The continued showing of the

[51] Malcolm Barlow to Noble Smith, Anne d'Harnoncourt Records, Box 6, Folder 8, Philadelphia Museum of Art Archives.
[52] Jean S. Boggs to Noble Smith, January 23, 1981, Anne d'Harnoncourt Records, Box 6, Folder 8, Philadelphia Museum of Art Archives.
[53] Ellen S. Jacobwitz to Jean S. Boggs, April 1, 1981, Anne d'Harnoncourt Records, Box 6, Folder 8, Philadelphia Museum of Art Archives.
[54] Marilyn Kemp Weidner to Marigene H. Butler, June 17, 1981, Anne d'Harnoncourt Records, Box 6, Folder 8, Philadelphia Museum of Art Archives

art led to sustained exposure to bright lights, which was particularly harsh in the collection's positioning at the Palaisio. Jacobwitz noted that curtains blocking light were thin and one print was exposed to bright light when the door to the central courtyard opened. They also noted the "considerable amounts of dirt" that entered the galleries, evident by the "filth . . . on the glass surface of most of the prints."[55] Boggs stated that the works required careful examination to assess damage and pursue any necessary restoration. The wear and tear on the pieces that traveled for the exhibition were described as far more than usual.

Jacobwitz was particularly concerned about SmithKline's power over the collection. In a memo to Boggs, she argued, "I do not think they [SmithKline] should be making all the decisions and we should be a bit firmer and more precise in our mandates."[56] She urged Boggs to set up further meetings with representatives of SmithKline to "to re-evaluate this program and re-examine our goals." She hoped a meeting would help the museum avoid another situation that would lead to "an unprofessional series of arrangements [that] put a whole collection in jeopardy and produced difficult circumstances for everyone involved."[57]

Boggs pushed parts of the collection into conservation after the Mexico exhibition. To be sure, the collection had certainly sustained decades of wear, and the Mexico exhibition did not solely cause the damage. Many of the prints that traveled a

[55] Memorandum by Ellen S. Jacobwitz, March 17, 1981, Anne d'Harnoncourt Records, Box 6, Folder 8, Philadelphia Museum of Art Archives.
[56] Ellen S. Jacobwitz to Jean S. Boggs, December 22, 1980, Anne d'Harnoncourt Records, Box 6, Folder 7, Philadelphia Museum of Art Archives.
[57] Ibid.

great deal in the 1950s and 1960s had to be "retired" with limited use for loans and exhibitions.

The challenges continued to surface in the PMA's ongoing relationship with SmithKline, particularly around exhibit travel, which were unsurprisingly not new. Similar issues around shipping the collection had arisen in 1976. In requesting a loan to Belgium, SmithKline asked that the exhibit to be given directly to the SmithKline European location in Belgium. Known as Recherche et Industrie Therapeutiques or R.I.T., SmithKline purchased the Belgian company in 1963 as it expanded into animal health. As one museum registrar noted, the museum could "let the show travel through Europe if lent to and under the auspices of a recognized cultural institution... [sic] not to a commercial company's Public Relations department."[58] In other words, museum staff wanted to loan the exhibit to other museums to protect the art and settle terms with other museums rather than loan the exhibit directly to SmithKline. And again, similar concerns arose around the company's contributions to the museum; the staff felt the situation was complicated by the company's generosity to and thus leverage over the museum.

The significance of *Ars Medica* exhibit's travel to Mexico is threefold. First, SmithKline pressured museum staff to loan the exhibit under unsafe conditions because the company wanted the exhibit to travel internationally at a moment that was convenient to the company's business needs without respect for the protection of the art. Second, the PMA felt additional pressure to comply because of its ongoing financial relationship with SmithKline. Finally, SmithKline used *Ars Medica* as a means of establishing

[58] Memorandum by Barbara Chandler, August 30, 1976, Arnold H. Jolles Records, Box 11, Folder 23, Philadelphia Museum of Art Archives.

relationships internationally to increase market share. These themes continue in SmithKline's ongoing relationship with the museum.

The Third Expansion

In the early 1980s, staff at the Museum also considered expanding the nature of their requests to SmithKline. In a meeting with SmithKline, Noble Smith proposed working with the company to develop an accessible West Entrance ramp for people with mobility needs and funding a summer theater program. SmithKline was largely interested in ongoing support for *Ars Medica*. While the company demonstrated interest in the ramps, any donation to ramps would lessen its contributions to *Ars Medica*. William Grala stated that he was "cool" to the idea of funding a summer theater program, and the program thus had very limited chances of receiving funding from SmithKline.[59]

The differences between what SmithKline did and did not choose to fund are striking. The exhibition in Mexico and the company's support of Noguchi's "Variable Landscapes" programming in collaboration with the museum and the Opera Company both suggest an interest in a particular audience and aligning the company with particular endeavors. Choosing not to fund ramps to increase accessibility or a children's theater camp provide some insight into how the company intended to position itself. While not explicitly stated, Grala's opinions on these programs might relate to a lack of market opportunities among these audiences; people with disabilities represent a limited market,

[59] Noble Smith to Jean S. Boggs, April 1, 1981, Anne d'Harnoncourt Records, Box 6, Folder 8, Philadelphia Museum of Art Archives.

and parents, rather than children, purchase drugs.[60] The company prioritized more prestigious programs that appealed to an ideal of sophistication and class.

While donations had been irregular in the early decades of the relationship between the museum and the company, donations in the 1980s became more frequent and considerably larger. As mentioned previously, SmithKline gave the museum a significant gift of $100,000 for an NEA Grant Matching Challenge. This contribution was dwarfed by the company's gift the following year. In August of 1981, the SmithKline Corporation gave the Museum $786,435, the largest corporate donation the Museum had ever received. The aim of the grant was to conserve, expand, and exhibit the *Ars Medica* collection.[61]

One congratulatory note to Noble Smith about the grant offered that, "The most influential factor has been the cooperation provided by you and your staff on international exhibitions."[62] This writing, while complimentary of the Museum staff for their work with the collection, suggests that the museum's funding depended on their ability to comply with SmithKline's requests for the exhibition's international travel. Further, knowing the strain that travel put on the condition of pieces from the collection,

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[60] As Cynthia Connolly has explored, pharmaceutical companies had a complicated history in relationship to drug companies and drug trials. At various times children were included to better understand their different biology in relation to drugs and excluded to protect them. *Cynthia A. Connolly, Children and Drug Safety: Balancing Risk and Protection in Twentieth-Century America* (New Brunswick: Rutgers University Press, 2018), 5.

[61] "Philadelphia Museum Gets Gift of $786,435," *The New York Times*, September 1, 1981, C9. In budget estimates, $62,500 covered conservation, $35,435 covered catalogue development, $500,000 over five years covered acquisitions, and $140,000 covered exhibition costs to four different sites. "The Ars Medica Center: Statement of Aims and Functions," May 6, 1981, Anne d'Harnoncourt Records, Box 6, Folder 8, Philadelphia Museum of Art Archives.

[62] Malcolm Barlow to Noble Smith, July 15, 1981, Anne d'Harnoncourt Records, Box 6, Folder 8, Philadelphia Museum of Art Archives.

SmithKline's intentions for the collection challenged an important aspect of the museum's mission: conservation. This contradiction challenged museum staff as their dependence on the company increased.

The challenges faced by the PMA were increasingly common in the waning decades of the twentieth century. In the 1970s and 1980s, government funding for museums declined as a result of recession and cuts to public funding. Museums had long standing relationships with corporations, but corporate sponsorship of exhibitions became increasingly critical for museum's budgets in the 1980s. Museums became more commercialized, dependent on corporate funders and blurring the lines between serving the public and serving corporate sponsors, and this problem became apparent at the PMA.[63]

Also in 1980, SmithKline celebrated its 150th anniversary, citing its inception as a company in 1830.[64] The company's reinvestment in the *Ars Medica* exhibition might also signal an investment in the past in orientation toward the future. The company not only celebrated its corporate history but, in its relationship with the PMA, coupled its own history with the history of medicine via art. Through situating its work in this way, SmithKline followed the path of other companies in seeking to associate their names with the history of medicine, as described in the previous chapter.

SmithKline connected itself to the PMA exhibit through both events and advertising. Further connecting the opening of the exhibit with the SmithKline's

[63] Michael Jacobson, "Museums that Put Corporations on Display," *Business and Society* (June 1, 1993), 24.
[64] Jean Sutherland Boggs to Robert F. Dee, May 1, 1980, J. Boggs Records, Box 48, Folder 6, Philadelphia Museum of Art Archives.

celebration of its anniversary, the company celebrated the anniversary with an event on Wednesday, June 11, 1980 as the museum coordinated with SmithKline to open the new *Ars Medica* exhibition on Wednesday, June 25, 1980.[65] The *Philadelphia Inquirer*'s art critic, Victoria Donohue, highlighted the connection between the company's anniversary and the relaunch of the art exhibit in the opening of its article announcing *Ars Medica*. The article acknowledged SmithKline's sustained support, with a nod to individual support from William Helfand, a vice president of Merck Sharp & Dohme.[66] In collaboration with SmithKline, the museum planned the ceremonial openings. SmithKline paid for the ceremony. SmithKline also planned for five years of publicity with the museum. The plan included: regular mailings to international trade publications, regular press releases, television features (local programing, SmithKline internal programming, and a cable TV featurette), slide presentations, radio and TV appearances, and articles from the curator.[67]

Japan

In pursuing touring exhibitions for the *Ars Medica* collection, SmithKline pushed for a tour to Japan. The timing of SmithKline's push makes sense both in terms of the

[65] Opening in Anne d'Harnoncourt Records Box 6 Folder 7; Anniversary Celebration: Noble Smith to Jean Boggs, June 4, 1980, J. Boggs Records, Box 48, Folder 6, Philadelphia Museum of Art Archives.
[66] Helfand, a collector of quackery and ephemera, established a long relationship with the museum. Helfand eventually donated 1000 prints, posters, and ephemera to the museum. In working with Helfand, the museum had to navigate this diplomatic challenge in working with both SmithKline and a representative of Merck. Victoria Donohoe, "Medicine in Art: Museum gives it the full treatment," *Philadelphia Inquirer*, August 22, 1980, Anne d'Harnoncourt Records, Box 6, Folder 7, Philadelphia Museum of Art Archives; and Anne d'Harnoncourt to Bob Scott, July 6, 1988, Anne d'Harnoncourt Records, Box 40, Folder 10, Philadelphia Museum of Art. Also see: Philadelphia Museum of Art, "Health for Sale: Posters from the William H. Helfand Collection," https://www.philamuseum.org/exhibitions/740.html?page=2&pubID=31044.
[67] "Ars Medical Guidelines," Anne d'Harnoncourt Records, Box 6, Folder 8, Philadelphia Museum of Art Archives.

company's growing business relationships and the broader context of the international pharmaceutical market at the time. In the mid 1970s, SmithKline established a relationship with Fujisawa Pharmaceutical Co. Ltd. In this period, from approximately 1975 to 1990, the Japanese pharmaceutical industry shifted toward research and development to great success. Maki Umemura describes Japan's growing market share in launching innovative, safer, and more effective products.[68] American companies, including SmithKline, saw Japanese pharmaceutical companies as growing competition.[69]

Considering this context, expanding its market in Japan and partnering with Japanese firms were important moves for SmithKline's growth. In December of 1981, SmithKline gained approval to sell Tagamet, the company's anti-ulcer drug, in Japan. At the time, Japan was the second-largest pharmaceutical market in the world, and Tagamet had become the most financially successful drug in history, with sales expected to reach $771 million by the end of the year. SmithKline entered the Japanese market in a partnership with Fujisawa. While the two companies contracted to split profits on Tagamet equally, SmithKline was still set to further increase its profits on the drug, especially considering that the company charged 27 cents a tablet in the US and was increasing the price to 42 cents a tablet in Japan. This was an ongoing relationship between SmithKline and Fujisawa. In 1977, SmithKline marketed Fujisawa's antibiotic Ancef under an exclusive licensing agreement and the two pursued a joint venture in the

[68] Umemura describes the different policies in Japan around New Chemical Entities, which could enter the Japanese drug market with relative ease and small changes to drugs, such as easier dosing and fewer side effects. Japanese drug companies benefited from their home country's large drug market and government subsidies to reduce and control drug prices for the Japanese population. Maki Umemura, *The Japanese Pharmaceutical Industry: Its evolution and current challenges* (London: Routledge, 2011), 20-23.
[69] Ibid.

marketing of Cefizox, an injectable cephalosporin antibiotic typically used against drug-resistant strains of bacteria.[70]

As a result of the company's growing relationship with Japan, William Grala wanted a small selection of material, twenty to thirty items, related to infectious disease to travel to Kyoto, Japan in June 1985 to coincide with a major international conference on chemotherapy. [71] The company was also opening new offices in Tokyo.[72] The costs of exhibit travel were added to the SmithKline Beckman grant.[73] The choice of potential items was the job of Diane Karp, who became curator of the *Ars Medica* collection with the increasing funds from the company, while Ellen Jacobwitz identified museum sites.[74] In planning the exhibit, Anne d'Harnoncourt, the director of the PMA from 1982 to 2008, asked William Grala to connect with his Japanese office about possible museum sites that would have appropriate facilities and experience handling the loans.[75] Considering previous relationships between the company and the museum this suggests a more nuanced approach to how the museum interacts with the company, using the company for local leverage and knowledge and suggesting reciprocity in the relationship. The schedule

[70] Arthur Howe, "Smith Kline Wins Final OK to Sell Tagamet in Japan," *Philadelphia Inquirer*, December 29, 1981, C06, https://infoweb-newsbank-com.ezp1.lib.umn.edu/apps/news/openurl?ctx_ver=z39.88-2004&rft_id=info%3Asid/infoweb.newsbank.com&svc_dat=AWNB&req_dat=0D0CB57F7B6B6F80&rft_val_format=info%3Aofi/fmt%3Akev%3Amtx%3Actx&rft_dat=document_id%3Anews%252F0EB2937F5D44EF18.
[71] Anne d'Harnoncourt to Bob Scott, March 14, 1984, Anne d'Harnoncourt Records, Box 6, Folder 10, Philadelphia Museum of Art Archives.
[72] Anne d'Harnoncourt to Shozo Tsurumoto, December 21, 1987, Anne d'Harnoncourt Records, Box 40, Folder 11, Philadelphia Museum of Art Archives.
[73] In 1982, the SmithKline Corporation merged with Beckman Inc. in 1982. The company will be referred to as SmithKline Beckman until otherwise noted.
[74] Anne d'Harnoncourt to Bob Scott, March 14, 1984, Anne d'Harnoncourt Records, Box 6, Folder 10, Philadelphia Museum of Art Archives.
[75] Anne d'Harnoncourt to William A. Grala, February 3, 1988, Anne d'Harnoncourt Records, Box 40, Folder 11, Philadelphia Museum of Art Archives.

continued to depend on the goals of SmithKline Beckman, as the museum looked for dates that complemented major medical meetings to bring publicity to SmithKline Beckman.[76]

The company also celebrated the relationship between SmithKline Beckman and Japan in Philadelphia. In 1987, John T. Dorrance, Jr. Chairman of the museum's Board of Trustees, announced a $1 million gift from SmithKline Beckman in support of the museum's capital campaign. It was allotted to the unrestricted endowment and annual operations. The museum honored SmithKline Beckman's contribution by renaming the gallery containing the Japanese Buddhist Temple and ceremonial Teahouse the SmithKline Beckman Gallery.[77] Dorrance emphasized the SmithKline Beckman's endorsement of "the purposes and needs of the Museum."[78] Once again, SmithKline Beckman had outshone other corporate donors making the largest donation in the museum's history. Dorrance framed this gift in terms of continuity: "We are extremely grateful to SmithKline Beckman for helping provide the continuity of care our Museum's treasures require and justly deserve."

Interestingly, commentary from SmithKline Beckman also reflected on the donation in terms of its local meaning. At the time of the donation, Henry Wendt was Chairman and CEO of SmithKline Beckman as well as a trustee of the museum and a member of the Far Eastern Committee for art collection. These connections between

[76] N. Raymond Kutsunai to Dorothy Wyld, August 9, 1988, Anne d'Harnoncourt Records, Box 40, Folder 11, Philadelphia Museum of Art Archives.
[77] "News Release: SmithKline Beckman Gallery Dedicated at the Philadelphia Museum of Art," Anne d'Harnoncourt Records, Box 56, Folder 3, Philadelphia Museum of Art Archives.
[78] Ibid.

corporate and museum leadership are unsurprising but also demonstrate the increasing interconnectedness between the company and the museum. Wendt called the donation both an investment in the museum, but also "a long-term investment in the future of our city." He went on to call the museum, "a great source of pride to all of us" and "one of our most important cultural resources, and one of the great museums in America."[79]

The press release also highlighted the relationship between SmithKline Beckman and its ambitions in the Japanese medical market:

> "The naming of the Japanese gallery containing the Buddhist Temple for the Attainment of Happiness and the ceremonial Teahouse in honor of SmithKline Beckman Corporation give recognition to the importance of the Far Eastern collections at the Museum and to SmithKline Beckman's long-standing and expanding business interests in the Far East."[80]

The choice of the gallery explicitly related to SmithKline Beckman's relationship with its Japanese partners.

Conclusion

Critiques of the relationship between corporations and museums grew in the late 1980s and early 1990s. According to one critique in the *New York Times*,

> "when corporate support became essential to museum exhibition budgets, most sponsors were content with the public-relations benefits of the association . . . [in 1990] there is a trend away from pure philanthropy and toward pragmatic philanthropy — the kind that has an impact on the company's bottom line."[81]

[79] Ibid.
[80] Ibid.
[81] Lee Rosenbaum, "Art's Cozy Relationship with Business," *The New York Times*, September 9, 1990, https://nyti.ms/3nGZFVf.

While suggesting that a trend from "pure" to "pragmatic" philanthropy—or strategic philanthropy as business scholars call it—began in the 1990s, this case study shows that "pragmatic" philanthropy had long set the tone for the relationship between SmithKline and the PMA. While this pragmatism might have become more evident in the 1990s with examples strewn across industries, this was a growing trend following budget cuts and changing sources of funding for nonprofit organizations in the 1970s and into the 1980s.

This case study explores the use of associative history-telling in the philanthropy and public relations of SmithKline in relationship with the Philadelphia Museum of Art. SmithKline had increasing power in the cultural politics of art as a result of the PMA's need to find new sources of funding. SmithKline used the relationship with the PMA as a form of publicity and as a means of establishing new relationships in expanding markets. While the relationship was generally reciprocal, conflicts arose around the timing of exhibits and issues with the preservation of the materials. This case study contributes to the historiography of museums in exploring the impact of changing funding sources and corporate funding, and well as the historiography of the American pharmaceutical industry, in providing a broader view of public relations, philanthropy, and corporate advertising.[82]

[82] The relationship between the PMA and now GlaxoSmithKline (GSK) continues, to an extent. GSK has hugely scaled back. Once one of the museum's largest donors, the company is now a "Gold Level" corporate partner, donating $25,000 annually in exchange for free general admission for all employees and one guest for the year. Philadelphia Museum of Art, "Corporate Partners Program," https://www.philamuseum.org/giving/579-256.html?page=2; GlaxoSmithKline; "Charitable Grants Report 2020," GlaxoSmithKline, https://www.gsk.com/media/6849/2020-charitable-grants-report.pdf.

Chapter 4: The Evolution of Corporate Philanthropy in the Pharmaceutical Industry in the Early to Mid-Twentieth Century

Introduction

In the last two chapters, I explored public relations via philanthropy and education as executed through art and history. In this chapter, I narrow my focus to corporate public relations via American medical philanthropy, examining the philanthropic provision of healthcare in the mid-twentieth century United States. These programs specifically addressed treatments, cures, and preventative measures. Unlike the more general philanthropy and public relations explored in the last two chapters, this chapter explores philanthropy directly in line with companies' business goals—developing and providing treatments for diseases to improve health.

With this narrowed focus, the term strategic philanthropy is useful in thinking about the ways in which philanthropy was mobilized for business objectives. Strategic philanthropy was first identified by business scholars in the 1990s and defined as "the process by which contributions are targeted to meet business objectives and recipient needs."[1] I argue that the case studies in this chapter provide early examples of strategic philanthropy, long before scholars identified and labelled it. In the latter half of the twentieth century, pharmaceutical companies and the pharmaceutical industry made strategic philanthropy programmatic rather than engaging in isolated instances of philanthropy. In my case studies, targeted contributions worked in three ways. One, the examples of philanthropy in this chapter all support pharmaceutical companies' bottom

[1] Jerry D. Marx "Corporate Philanthropy: What is the Strategy?" *Nonprofit and Voluntary Sector Quarterly* 28, no. 2 (June 1999): 185.

lines. Two, these examples of philanthropy align with industry and company objectives around public relations. And three, these philanthropic efforts supported the industry in offsetting accusations lobbed against the industry by the general public and legislators about drug affordability and access. Importantly, these case studies exist at the intersections of medicine, imperialism, paternalism, and racism in the history of philanthropy between World War I and the first decades of the Cold War. In the following, I explore the historical literature on these topics to frame my case studies.

Studies of the exportation and development of public health infrastructures in the nineteenth and early twentieth centuries often explore public health as a tool of imperialism.[2] Similar trends exist in the history of major foundations. In the twentieth century, public health campaigns carried out by the Rockefeller Foundation provided a critical expansion of American influence, particularly American capitalism, across continents as diverse as Latin America, Asia, and Africa.[3] Notably, the Rockefeller Foundation operated under the assumption that Western science and medicine were globally epitomized, and thus created programs of force and control that also provided

[2] See, for example: Warwick Anderson, *Colonial Pathologies: American Tropical Medicine, Race, and Hygiene in the Philippines* (Durham: Duke University Press, 2006); and David Arnold, *Colonizing the Body: State Medicine and Epidemic Disease in Nineteenth-Century India* (Berkeley: University of California Press, 1993).

[3] John Farley, *To Cast Out Disease: A History of the International Health Division of the Rockefeller Foundation (1913-1951)*, (Oxford: Oxford University Press, 2004). Marcos Cueto, *Cold War, Deadly Fevers: Malaria Eradication in Mexico, 1955 – 1975* (Baltimore: The Johns Hopkins University Press, 2007). Maurits Bastiaan Meerwijk, "Phantom Menace: Dengue and Yellow Fever in Asia," *Bulletin of the History of Medicine* 94, no. 2 (Summer 2020): 215-243. Socrates Litsios, "Selskar Gunn and China: The Rockefeller Foundation's 'Other' Approach to Public Health," *Bulletin of the History of Medicine* 79, no. 2 (Summer 2005): 295-318. Megan Vaughan, "A Research Enclave in 1940s Nigeria: The Rockefeller Foundation Yellow Fever Research Institute at Yaba, Lagos, 1943 – 49," *Bulletin of the History of Medicine* 92, no. 1 (Spring 2018): 175-205.

aid (explored below).[4] This influence provided crucial support amid ongoing, global conflicts and political struggles through World War II and the Cold War.

Medical philanthropy and research via public health campaigns were paternalistic, seeking to improve their recipients' lives through reform and control. Operating from 1909 to 1914, the Rockefeller Sanitary Commission for the Eradication of Hookworm Disease sought to cleanse victims of the disease and reform their unsanitary practices within the framework of evangelical Protestant belief.[5] In another case, a physician testing the strength of new antibiotics against tuberculosis in the hard-hit Navajo community in the 1950s, with funding from pharmaceutical companies and the National Institutes of Health, surveilled patients for treatment adherence.[6]

Racism also emerges as a theme in medical philanthropy for those who sought care and those who sought to volunteer as caretakers. For example, in the early years of the National Foundation for Infantile Paralysis, who could access and who could raise funds for polio treatment depended on race. Black Americans with polio were restricted from both funds and fundraising. To support Black Americans with polio, NFIP leaders segregated funding and fundraising.[7] In another example, Black Americans were barred from serving in the American Red Cross.[8]

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[4] Cueto, *Cold War, Deadly Fevers*, 18-19.
[5] John Ettling, *The Germ of Laziness: Rockefeller Philanthropy and Public Health in the New South* (Cambridge: Harvard University Press, 1981).
[6] David S. Jones, "The Health Care Experiments at Many Farms: The Navajo, Tuberculosis, and the Limits of Modern Medicine, 1952 – 1962," *Bulletin of the History of Medicine* 76, no. 4 (Winter 2002), 749-790.
[7] Stephen E. Mawdsley, "'Dancing on Eggs': Charles H. Bynum, Racial Politics, and the National Foundation for Infantile Paralysis, 1938-1954," *Bulletin of the History of Medicine* 84, no. 2 (Summer 2010): 217-247.
[8] Julia F. Irwin, *Making the World Safe: The American Red Cross and a Nation's Humanitarian Awakening* (Oxford: Oxford University Press, 2013), 101-102.

In addition to themes in philanthropy, this chapter draws upon the history of the pharmaceutical industry between World War I and into the early decades of the Cold War. In the lead up to World War I, pharmaceutical companies began to launch powerful products, such as Adrenalin and Salvarsan, due, in part, to growing investments in research and industry collaborations with academic researchers.[9] Further, American companies benefited from the Federal Trade Commission's seizing of patents and trademarks from German companies operating in the US. Chiefly, interwar legislation focused on advertising, labeling, and safety. Also in the interwar period, patenting expanded in the ethical pharmaceutical industry as companies aimed to protect their products and the public from competition from unethical firms marketing fraudulent products under the same name. Patenting led to rapid expansion of the industry in the 1920s.[10] The launch of the sulfa drugs in the 1930s ushered in a therapeutic revolution in treating bacterial infections, supporting the continued expansion of the pharmaceutical industry as well as its research and development work.[11] In the United States, the 1930s also saw new regulations of the pharmaceutical industry in the Pure Food, Drug, and Cosmetics Act of 1938, as discussed in Chapter 1.

[9] Salvarsan, the first known treatment for syphilis, was a German drug that American researchers reverse engineered to break the German patent during World War I. See John P. Swann, *Academic Scientists and the Pharmaceutical Industry: Cooperative Research in Twentieth-Century America* (Baltimore: The Johns Hopkins University Press, 1988); and Jonathan Liebenau, *Medical Science and Medical Industry: The Formation of the American Pharmaceutical Industry* (Baltimore: The Johns Hopkins University Press, 1987).
[10] Joseph Gabriel, *Medical Monopoly: Intellectual Property Rights and the Origins of the Modern Pharmaceutical Industry* (Chicago: The University of Chicago Press, 2014), 238-241.
[11] John E. Lesch, *The First Miracle Drugs: How the Sulfa Drugs Transformed Medicine* (Oxford: Oxford University Press, 2007), 3.

In the United States, World War II and its aftermath brought major acclaim to the pharmaceutical industry. The industry collaborated with the government to mass produce penicillin for use in the war effort.[12] In this same era, the industry launched several products that provided major therapeutic advancements: psychopharmaceuticals, corticosteroids, and vaccines.[13] In the early to mid-1950s, however, public perception of the industry soured. The pharmaceutical industry faced accusations of price fixing, which brought the industry before Congressional hearings, led by Senator Estes Kefauver.

Estes Kefauver served as head of the Senate Subcommittee on Antitrust and Monopoly. In this role, Kefauver launched an investigation into pharmaceutical industry practices to evaluate whether antitrust laws were sufficient to hold the industry to account, and if not, develop legislation that would do so. The subcommittee was concerned with the high prices of drugs as well as the seeming lack of competition within the drug market to bring those prices down. As a result of these hearings, Kefauver introduced the first bill attempting to control the price of prescription drugs and began a decades long legislative battle against the industry to control drug pricing.[14] The industry's trade organization responded with a strategy that included positioning the industry as a tool of US foreign policy in the Cold War; telling the industry's "story" of drug development and the life-saving power of its products and thereby "selling free

[12] Robert Bud, *Penicillin: Triumph and Tragedy* (Oxford: Oxford University Press, 2007).
[13] Nicolas Rasmussen, *On Speed: The Many Lives of Amphetamine* (New York: New York University Press, 2009); Robert Bud, *Penicillin: Triumph and Tragedy* (Oxford: Oxford University Press, 2009); David Herzberg, *Happy Pills in America: From Miltown to Prozac* (Baltimore: The Johns Hopkins University Press, 2010); and Andrea Tone, *The Age of Anxiety: A History of America's Turbulent Affair with Tranquilizers* (New York: Basic Books, 2009).
[14] Dominique Tobbell, *Pills, Power, and Policy: The Struggle for Drug Reform in Cold War America and its Consequences* (Berkeley: University of California Press, 2012), 89-120.

enterprise"; and allying with physicians and the American Medical Association against socialized medicine.[15]

This industry strategy stymied Kefauver's regulatory efforts, but he ultimately became part of new legislation around drug safety as a result of chance and tragedy. In the early 1960s, epidemiologists traced an increasing number of birth defects—specifically babies born with shortened limbs—to the administration of thalidomide to pregnant women experiencing hyperemisis gravitas. The thalidomide tragedy—while largely affecting children born in Europe—reframed the Kefauver hearings from a focus on pricing to a focus on safety. The difficulties the Food and Drug Administration (FDA) faced in blocking and then recalling thalidomide shed light on many issues with drug trials in the United States.[16] The Kefauver-Harris Amendments of 1962 required drug companies to conduct clinical trials to prove product safety and efficacy. The FDA also had increased power over human drug trials, advertising, and labeling.[17] As discussed in this chapter, the Kefauver hearings were a critical event in shaping pharmaceutical industry philanthropy.

In this chapter, I use three case studies to explore strategic philanthropy and the evolution of philanthropy in the pharmaceutical industry. First, I explore early examples

[15] Tobbell, *Pills, Power, and Policy*, 89-120.
[16] The FDA had internal issues with its leadership, tending to protect the autonomy of doctors and the power of pharmaceutical companies. It was also (and still is) poorly funded. At the same time, the methodology for clinical trials was evolving and the construction of better trials was emerging though rules weren't written by the FDA for companies to follow until the 1970s. For a broad account of the history of the FDA, see Philip J. Hilts, *Protecting America's Health: The FDA, Business, and One Hundred Years of Regulation* (Durham: University of North Carolina Press, 2004). For a history of the development of clinical trials, see Harry Marks, *The Progress of Experiment: Science and Therapeutic Reform in the United States, 1900-1990* (Cambridge: Cambridge University Press, 1997).
[17] Tobbell, Pills, Power, and Policy, 118-120.

of medical philanthropy at The Upjohn Company, gleaned from pharmaceutical company employee magazines in the 1920s. These examples demonstrate singular instances of giving. I then describe the philanthropy of Alcon Laboratories as part of efforts to position the relatively new company within the established pharmaceutical industry. Finally, I explore the work of Project HOPE as an international symbol of American benevolence and a tool of the Cold War in line with the pharmaceutical industry's public relations goals in the midcentury.

Stories of Philanthropy at The Upjohn Company

In the early and mid-twentieth century, pharmaceutical companies celebrated small acts of philanthropy. Stories of philanthropy made their way into employee magazines to emphasize the good works of the company. Here I focus on The Upjohn Company for two reasons. One, the company has a substantial archive located at Western Michigan University, and two, it was a major pharmaceutical company in the twentieth century and a founding member of the American Drug Manufacturers' Association.

Employee magazines were often part of efforts to build company consciousness—to help employees connect to the company. Many began as part of an effort to offset attempts to unionize.[18] In the case of The Upjohn Company, the magazine connected offices across the country and served the further purpose of educating detail men—pharmaceutical drug representatives—about the company, its stories, and its products. Stories of philanthropy featured in Upjohn's employee magazine highlighted the values of the company, which could then be sold as part of product packaging.

[18] Elizabeth Fones-Wolf, *Selling Free Enterprise: The Business Assault on Labor and Liberalism*, 1945 – 60 (Urbana: University of Illinois Press, 1994), 80-81.

In many instances, Upjohn provided support to individuals. In the early days of the Depression, for example, a woman who worked at a Cook County Hospital in Chicago contacted the company for help. After going without pay for two months, the woman was trying to support her young, ill child. As part of her son's treatment, the doctor had prescribed Super D, an Upjohn vitamin D product. A doctor from the hospital wrote to the company asking if it would supply Super D to help mother and child. The company's lead administrator responded that they would send some immediately. Both doctor and mother responded to Upjohn's generosity. That response is framed through the voice of the magazine's editor:

> "First came a letter form the doctor telling about what good results he had obtained—the baby was suffering with a bad case of myxedema and secondary anemia. A few days later we received a letter from the mother herself telling us about the great improvement which [sic] had taken place."[19]

As framed for employees, this story highlights both the efficacy of Upjohn's products as well as the company's generosity. Upjohn shared many stories and testimonials about the power of its products in its employee magazine, so this story, in particular, was shared to emphasize the company's generosity.

In another story, in 1928, The Upjohn Company received a letter from the head of a hospital in Indian Wells, Arizona requesting discounts and donations. As a small community in Navajo County, the population of Indian Wells was almost exclusively Indigenous American. The physician, unnamed in the excerpts from the letter as published in the company's circular, described his work in the area:

[19] "When Chicago was Bankrupt," *The Overflow* 9, no. 8 (April 1930), 430, Publications/*The Overflow*, Box 3, Western Michigan University Archives and Regional History Collection.

> "No place I have seen in China or in my travels around the world where the need is greater or the neglect more apparent and I hope to give the rest of my life for the Navajo Indian. If there is anything you can do to help us in the upkeep of our hospital, we will certainly be more appreciative of it and it would certainly make our work among these poor people more efficient."[20]

To be sure, the Navajo faced significant population health struggles in the mid-1920s. While they began the twentieth century as one of the healthiest groups of people in the United States, a series of agricultural disasters and detrimental government interventions devastated the community's livelihoods. The spread of disease followed the spread of poverty, and cases of tuberculosis, among other diseases, increased dramatically.[21] As David Jones writes, "Poverty caused disease that prevented the relief of poverty."[22] The Bureau of Indian Affairs responded by establishing a medical supervisor in 1909 and expanding funding. While financial support grew exponentially, conditions remained poor, with relentless overcrowding and inconsistent and infrequent treatments.[23] Doctors and medical supplies were often diverted to other needs as they arose, such as the needs resulting from the US entrance into World War I.

The letter excerpted in the Upjohn's magazine lacks context, but the chosen text and framing provide some insight into the company's beliefs about its work. Editors framed the letter with emotive text, suggesting compassion and drawing on the zeitgeist of Manifest Destiny, which, while a nineteenth-century doctrine, was heavily promoted

[20] "Upjohn in the Land of Navajo," *The Overflow* 8, no. 1 (September 1928), 7, Publications/*The Overflow*, Box 3, Western Michigan University Archives and Regional History Collection.
[21] Jones, "The Health Care Experiments at Many Farms," 756.
[22] Jones, "The Health Care Experiments at Many Farms," 758.
[23] McMillen, "'The Red Man and the White Plague,'" 615.

by Theodore Roosevelt along with his expressed contempt for Indigenous Americans.[24] Referring to Indian Wells as "the waste of cactus land" and the expansion of the pharmaceutical industry in the area as a "far-fetched cry," the author then expanded on the role of The Upjohn Company in the area, identifying the letter as "conclusive proof" of the "numberless ones who know and appreciate the big heart of The Upjohn Company and its power to soothe and heal the pain and suffering of humanity in whatever places they may be."[25] The editorializing around the letter further anonymizes the recipients of care, fixing the company as caretaker and savior and suggesting both paternalistic and colonial benevolence in the language.

Upjohn magazine editors attempted to frame the article to highlight the good works of the company as well as the goodness of the company itself. This framing, however, is entrenched in the capitalist and imperialist ideals and the overt racism of the time. While the audience has limited knowledge of the recipients of Upjohn's aid, the Upjohn Company's detailer in the area, Tom Hunt, is called a "conquering crusader" in the "desert expanses within the realms of his territory." The imperialist language of the article sits at a critical juxtaposition with the philanthropic act and the company's "big heart." The language also echoes the imagery used in dime novels, radio shows, and Hollywood films of the period. Hunt, described as "conquering crusader," was to tame the "Wild West" and his sales territory.[26] While the goodness of the company was touted,

[24] Beverly R. Singer, *Wiping the War Paint off the Lens: Native American Film and Video* (Minneapolis: University of Minnesota Press, 2001), 14.
[25] "Upjohn in the Land of Navajo," *The Overflow* 8, no. 1 (September 1928), 7, Publications/*The Overflow*, Box 3, Western Michigan University Archives and Regional History Collection.
[26] Singer, *Wiping the War Paint off the Lens*, 14.

this goodness was closely connected to the expansion of Upjohn's sales territory. As such, this philanthropic work was rooted in the capitalism and imperialism of the company itself and the American system within which it worked. As the article noted in closing, Upjohn employees could join their "conquering crusader" Hunt and "come in for a little share of the glory."[27]

Both of these instances of philanthropy demonstrate that companies centered the intervention of the physician. In giving funds or gifts in-kind to organizations or individuals, the company responded to the requests of physicians. While the donation of Upjohn products might create a loyal patient, the company reaped greater benefits by supporting doctors, thus gaining loyal prescribers. Further, in sharing these stories in their company circular, Upjohn armed its detail men with stories of the company's powerful products as well as its perceived goodness, cultivating employee loyalty and bolstering its reputation among prescribers.

Upjohn did not limit its support to physicians, however. In another story, the company supported a drug store struggling with its prescription sales. Responding to this need, two Upjohn employees in the company's Missouri district suggested that the store host a free baby clinic with participation of doctors in the local area. Upjohn not only helped develop the project but also provided material aid. The company donated gifts-in-kind of Super D and Myeladol (a malt and cod liver oil mixture that supplies vitamins A and D) and set up a display of the products in the store.[28] Here again, the company

[27] "Upjohn in the Land of Navajo," *The Overflow* 8, no. 1 (September 1928), 7, Publications/*The Overflow*, Box 3, Western Michigan University Archives and Regional History Collection.
[28] "'We' Promote a Clinic," *The Overflow* 11, no. 4 (April 1932), 183, Publications/*The Overflow*, Box 4, Western Michigan University Archives and Regional History Collection.

engaged in philanthropy in a way that also supported the company's sales. Upjohn created a loyal drug store that would be inclined to promote Upjohn products. The company, in collaborating with the drug store, also supported the local community.

Philanthropy, Tax Law, and the Cold War Climate

These early instances of philanthropy at The Upjohn Company are relatively small in scale and scope when compared to the next case studies, which take place in the mid-twentieth century. Philanthropy flourished among the general population and corporate America as a result of increasing taxes combined with charitable giving deductions. This growth of philanthropy began in 1913 with the introduction of the income tax and then in the 1930s and 1940s as tax rates increased to fund New Deal programs and mobilization for World War II. Further, the Cold War became a major framing tool for companies and their philanthropy; themes of imperialism, racism, and capitalism, as they intersect with medicine, were adapted to Cold War rhetoric.

Corporate giving grew as a result of the Revenue Act of 1935, which allowed for charitable giving exemptions at up to 5% of net income. The act was the result of lobbying by community chests, who wanted to tap local corporations for money in the midst of the Great Depression.[29] Up to the 1950s, corporate philanthropy largely supported educational institutions but otherwise lacked particular focus—donations were made to causes and organizations of interest to ownership and management. For example, if an owner or manager attended Princeton University, giving might be directed to that institution. Further, leading up to the significant activism of the 1960s, corporations largely kept

[29] Olivier Zunz, *Philanthropy in America: A History* (Princeton: Princeton University Press, 2012), 174.

donations private. Corporate giving, though growing in prevalence in the postwar period, was not strictly the norm—in fact, corporate giving was legally contested into the 1950s and theoretically for many years thereafter.[30] Philanthropy and charity were, in large part, merely an effort to avoid heavy taxes and maintain private control of profit. In essence, philanthropy and charity allowed corporations to choose how contributions were spent by donating to specific causes.

Pharmaceutical industry giving in the decade following World War II differed somewhat from broader trends in corporate giving; industry giving supported educational programs that would be beneficial for the sponsoring companies. For the industry as a whole, postwar giving largely supported research fellowships. The hoped-for products of fellowship-funded basic research could be further developed or brought to market. As Dominique Tobbell has found, pharmaceutical companies, and particularly Merck, viewed their giving to medical education as a means of preventing medical schools' dependence on government funding—such funding fueled fears of socialized medicine and the erosion of the free enterprise system.[31] Further, these fellowships helped create a workforce pipeline for the sponsoring companies. As an example, Tobbell's focal point in this discussion is the Merck Fellowship Program, which began in 1947.[32]

[30] It was not until 1953 that the legality of corporate giving, if not the philosophical underpinnings, was resolved. In the landmark case *A. P. Smith Manufacturing Co. v. Barlow*, the New Jersey Supreme Court upheld the company's donation of $1500 to Princeton University—stockholders had challenged the donation. The court found that the public expected corporate donations and that such work generated corporate goodwill. More generally during this period, corporate philanthropy largely supported educational institutions and lacked particular focus—donations were made to causes and organizations of interest to ownership and management.
[31] Tobbell, *Pills, Power, and Policy*, 46-50.
[32] Ibid.

In addition to philanthropy, free market ideology informed academic considerations of the expanding role of business over the course of the twentieth century, but particularly during the Cold War. Donald David, Dean of Harvard Business School (HBS), published his 1949 article "Business Responsibilities in an Uncertain World" as Cold War ideology reached political consensus. David argued that businessmen were responsible for supporting American democracy and free market capitalism and that businesses should assume expanded responsibilities to protect American ideals. The pharmaceutical industry held with these ideals, supporting research in medical schools to establish workforce connections and benefit from product development while helping the financially strapped institutions and preventing government intervention in medical education.[33] David was against the growing role of the welfare state in the midst of raging ideological battles of the Cold War. As historian Bert Spector argues, corporate social responsibility, the expenditure of resources for social good, emerged from these HBS discussions of the social role of the corporation and was framed as a defense of the free market against government intrusion, and more specifically, communism.[34] Spector's analysis focuses on conversations occurring among academics and businessmen in the *Harvard Business Review*.

In the following, I explore how these changes in tax law and the Cold War context influenced philanthropy at Alcon Laboratories with attention to the regulatory environment for the pharmaceutical industry at midcentury. I also return to ideas set out in this chapter's

[33] Tobbell, *Pills, Power, and Policy*, 42-43.
[34] Bert Spector, "'Business Responsibilities in a Divided World': The Cold War Roots of the Corporate Social Responsibility Movement," *Enterprise and Society* 9 (2008), 323.

introduction on the shift from singular instances of giving before World War II to strategic philanthropy in the post-World War II period. I argue that as Alcon positioned itself within the industry, it engaged in strategic philanthropy—targeting contributions to meet business objectives and recipient needs—and exemplified trends in the industry as a whole.[35]

Alcon Laboratories

In the decades after World War II, Alcon Laboratories, a specialty pharmaceutical firm in Fort Worth, TX, became the world's largest manufacturer of pharmaceuticals for the treatment of eye diseases.[36] Alcon, through its owners and their families, established itself as a pillar in the local community through job creation, educational donations, and community health programs. Alcon's community work was also part of its business strategy. Through creating these programs and engaging in strategic philanthropy, Alcon established itself within the industry trade organization, the Pharmaceutical Manufacturers of America (PMA), and offset the growing regulatory environment around pharmaceuticals as it expanded its research and development capabilities.[37]

Alcon Laboratories incorporated in 1947 as a manufacturing and then research firm in the postwar heyday of the pharmaceutical industry. Alcon entered the market during a period of immense growth in terms of both profits and innovation for the pharmaceutical

[35] Marx, "Corporate Philanthropy: What is the Strategy?" 185.
[36] "Ed Schollmaier address to Texas Wesleyan University, Fort Worth, TX on Business Day" *The Rambler*, October 4, 1995, Denny Alexander, private collection.
[37] The PMA resulted from a merger of the American Drug Manufacturers Association (ADMA) and the American Pharmaceutical Manufacturers Association (APMA). The APMA started in 1909 and focused on pharmaceutical chemists. The organizations often had representatives at each other's meetings, and there was overlap in membership. Occasionally their messaging differed. The organizations merged in the midst of heighted government attention to and investigation of the pharmaceutical industry. Closer study of the origins of the APMA and comparison to ADMA would complement this study. Tobbell, *Pills, Power, and Policy*, 83.

industry as a whole. From 1945 to 1959, global sales for the pharmaceutical industry increased by 203%, meaning revenues jumped from $890 million in 1947 to $2.7 billion in 1959.[38] By the late 1950s, as pharmaceutical sales were skyrocketing and as Alcon had cleared its first million dollars in sales, the industry faced Congressional investigations led by Senator Estes Kefauver. In the midst of this shift in public opinion, the industry launched a public relations campaign through the PMA.

As it entered its second decade of existence, Alcon Laboratories began establishing itself within the industry as an innovative, prescription-based firm. While it had early success and was experiencing steady growth, its relatively small size made it vulnerable to potential changes in industry regulation, especially as Alcon focused on expanding its research capabilities. The company joined the PMA, whose membership totaled 140 firms out of the 1,300 total firms that made up the drug industry.[39] Alcon, in joining the PMA, made a statement about the direction in which the firm was moving. Members of the PMA produced 95% of the prescription drugs sold in the United States. As Dominique Tobbell has argued, membership in the PMA distinguished the innovative, research-based firms that produced and marketed branded prescription drugs from those focused on unpatented or generic drugs. As the industry itself was transforming, the founders of Alcon Laboratories designated their company as an innovative firm.[40]

In the public relations campaign launched by the PMA, individual companies and the pharmaceutical industry as a whole set an agenda that would highlight and initiate

[38] Tobbell, *Pills, Power, and Policy*, 60.
[39] I cannot determine when Alcon joined the PMA. They had not joined the ADMA as of 1956.
[40] Tobbell, *Pills, Power, and Policy*, 83.

philanthropic programs to offset adverse claims. As I discuss in the following section, PMA members cited their support for philanthropic projects, including Project HOPE, which funded a traveling hospital ship, during the Kefauver hearings.[41] In its new role as a member of the PMA, Alcon's founders adopted the PMA's rhetoric and initiated philanthropic programs to offset claims regarding pharmaceutical pricing.

The programs established by Alcon and similar programs established at other pharmaceutical companies represented new approaches to corporate giving—strategic philanthropy as opposed to singular instances of philanthropy. While Alcon initially directed giving to traditional causes with local benefits, such as the opera, museums, and education, in the 1960s, the company also began to direct giving toward meeting healthcare needs as a result of the social, political, and economic challenges faced by the pharmaceutical industry.

In an address to stockholders in 1962, William Conner, co-founder of Alcon, argued that "teamwork" should be a major part of the pharmaceutical industry's public relations strategy moving forward. He stated, "Success in a free enterprise system depends on competitiveness. But being highly competitive should not rule out the willingness to function as a team where teamwork rather than competition is indicated."[42] Conner was commenting on the PMA's evolving strategy in response to the Kefauver Hearings. Though Alcon did not produce the major drugs that altered the therapeutic landscape, Alcon, as a member of the PMA, established and participated in programs in conjunction with an

[41] Tobbell, *Pills, Power, and Policy*,100.
[42] William Conner, "Speech Alcon Laboratories at Annual Stockholders' Meeting," July 10, 1962, Denny Alexander, private collection.

industry-wide strategy. In adopting these industry strategies and initiating pursuant philanthropic programs, Alcon sought to secure its position as an innovative drug house within the industry and offset legislation that would be harmful to its growth.

Pharmaceutical industry leaders initially viewed the industry as secure in its position because of the enormous health and longevity benefits its work had produced in the postwar period; unlike in the early twentieth century, the industry felt its social contributions were obvious to and appreciated by the public. As recognition of the shift in public opinion became clear to industry leaders, the industry allied itself with physicians and pharmacists to offset adverse claims and protect the profession and medicine more broadly from what they viewed as government interference and threats to autonomy.[43] Alcon, as a small company seeking to develop its research and development capabilities and to continue its mutually beneficial relationships with the large pharmaceutical houses, fell in step with industry strategy. In 1961, William Conner addressed Alcon's shareholders in the president's letter of Alcon's Annual Report:

> "Your Company management is aware of the growing concern over the misleading reports and distorted information propagated by one of the Congressional sub-committees. We feel compelled to express alarm at efforts to discredit the pharmaceutical industry[,] which seem motivated more by headline hunting than genuine concern for the nation's health. We strongly ally ourselves with the traditions of individual freedom which have enabled the American people to enjoy the finest and most economical medical care in the world."[44]

The threat of regulation was particularly important for Alcon's business model, especially as the investigations conducted by the Kefauver evolved. The increased costs

[43] Tobbell, *Pills, Power, and Policy*, 121-162.
[44] Alcon Laboratories Annual Report (1961), 1, Denny Alexander, private collection.

associated with clinical trials had a particularly important impact on Alcon. As a Harvard Business School case study of Alcon indicated, larger firms could spread costs over multiple drugs with larger markets, whereas Alcon, as a specialty firm, had a smaller market for its drugs and was less able to negotiate between higher research and development costs and drug affordability.[45]

Though Alcon continued to profit in this atmosphere, it joined industry efforts in trying to alter public opinion, led by Alcon cofounder William Conner. In his annual speech to stockholders in July 1962, Conner argued that the industry was at fault for failing to engage sooner in public relations programs and politics—reasons the first drug industry trade organizations formed. As Conner noted,

> "A mistake of the drug industry was assuming that the contributions it was making to the health of people spoke for themselves. A mistake was assuming members of Congress were aware of these contributions, as was the public."[46]

Identifying these larger problems in the industry follows Conner's work as a leader in the PMA—Conner served as vice president in 1961.[47] Up to this point, Alcon followed more traditional corporate models of welfare capitalism such as employee benefit and profit-sharing programs. Alcon, taking after larger research firms like DuPont and the major pharmaceutical companies, engaged in contributions to educational programs that supported its business—for Alcon, this meant schools of ophthalmology.[48] Alcon also

[45] "Alcon Laboratories, Inc." Harvard Business Study, 1966, 7, Denny Alexander, private collection.
[46] William Conner, "Speech Alcon Laboratories at Annual Stockholders' Meeting," July 10, 1962, Denny Alexander, private collection.
[47] *Alcon-O-Gram* 6, no. 1 (January 1961), Denny Alexander, private collection.
[48] David A. Hounshell and John Kenly Smith, Jr., *Science and Corporate Strategy: Du Pont R&D, 1902-1980* (Cambridge: Cambridge University Press, 1988), 367-68.

directed giving to its local community (Fort Worth) and educational institutions.[49] At this juncture, in the early 1960s, Alcon engaged in strategic giving in response to the political environment created by the Kefauver hearings.

In 1959, at a meeting of the Board of Directors of Alcon Laboratories Inc., William Conner reflected on the company's giving. He argued that Alcon's philanthropy should go to causes that would support the company's growth. Conner viewed philanthropy as "an expression of Company philosophy," which "should be made to causes from above which Company [sic], its employees', and/or stockholders' benefit." He further limited the bounds of corporate giving, offering that "causes that do not meet the above requisites, directly, or indirectly, should probably be denied corporate financial or personal effort support."[50] At this meeting, board members decided that they would put up to 5% of profits, the maximum allowed for corporations by the Revenue Act of 1935, toward philanthropic giving. In 1959, Alcon dedicated $6,500 for the 1959-1960 fiscal budget year to philanthropic endeavors.[51] This figure represents 2% of the company's profits for that year, which, though seemingly minimal, was above the average percentage for corporate giving. From 1960 to 1970, corporate giving nationwide averaged 1.2%.[52] Members of the board raised Alcon's yearly giving to 2.5% the following year. But as Teresa Odendahl has noted,

[49] Zunz, *Philanthropy in America*, 175.
[50] "Meeting of the Board of Directors," March 18, 1959, Denny Alexander, private collection.
[51] "Meeting of the Board of Directors," March 18, 1959, Denny Alexander, private collection; Unfortunately, I have not yet been able to identify what organizations Alcon contributed to at this time, but I can speculate that at least some funds went to medical school divisions of ophthalmology.
[52] Andrew Crane et. al. eds. *The Oxford Handbook of Corporate Social Responsibility* (New York: Oxford University Press, 2008), 247.

this merging of profits with philanthropy and the decisions made about the distribution of funds suggests that philanthropy is not strictly nonprofit.[53]

Within the context of the Cold War, the pharmaceutical industry framed its work and its giving in terms of free enterprise leading up to and during the Kefauver hearings.[54] For Alcon, management considered profit and the free market as the primary measure of the ability of the company's products to meet the public's health needs. The purpose of the company, as offered in a report to stockholders, was to "be of value and service to society" but "the effectiveness and efficiency in satisfying the health needs is measured in terms of profit growth," which meant that "profit is not our objective but a method of measuring our objective," their objective being to produce eye care products in support of the public's health.[55] Though establishing corporate purpose as meeting social needs and using profits as a measure of success can easily be reduced to posturing, it highlights the conflicted position of the pharmaceutical industry, as a producer of essential goods. The industry walked the line between meeting the expectations of the public and meeting the expectations of shareholders by using profits as a gauge rather than setting profits as a goal. This way of speaking about corporate purpose indicates Alcon's attention to the industry's position and played a significant role in how the company viewed corporate giving.

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[53] Theresa Odendahl, *Charity Begins at Home: Generosity and Self-Interest Among the Philanthropic Elite* (New York: Basic Books, 1991), 49-50.

[54] To be sure, the industry has been criticized for not operating under a free enterprise system. As Marcia Angell argues, "it is utterly dependent on government-granted monopolies—in the form of patents and Food and Drug Administration (FDA)—approved exclusive marketing rights." Marcia Angell, *The Truth About the Drug Companies: How They Deceive Us and What to do about it* (New York: Random House Trade Paperbacks, 2005), xvi. For more on the development of the patent system, see Joseph Gabriel, *Medical Monopoly: Intellectual Property Rights and the Origins of the Modern Pharmaceutical Industry* (Chicago: University of Chicago Press, 2014).

[55] "Philosophy of Alcon Laboratories, Inc., part of Alcon Laboratories, Inc. Stock Option Recommendation," Denny Alexander, private collection.

While aligning profits with "effectiveness and efficiency," the industry used philanthropic programs to address the inequities of the free-market system it sought to preserve. As mentioned previously, industry leaders testified before senate hearings about international programs pharmaceutical companies supported, including Project HOPE and medical missions. Following the industry's lead in supporting philanthropy to offset regulatory efforts, Alcon began its patient assistance program, its medical missions program, and the Alcon Eye Research Foundation in 1962. The patient assistance program provided free medications to low-income glaucoma patients.[56] Considering accusations that companies were pricing their drugs excessively high, the patient assistance program can be construed as a response to the regulatory environment. In giving drugs away to support patients in need, Alcon could argue that they were attentive to the financial constraints of patients. In a similar vein, Alcon provided a grant program for teaching hospitals to work with indigent patients in 1965.[57] The announcement demonstrated a continued commitment to giving as a value and valued giving—after all, investment in teaching supported the creation of physicians with an Alcon prescribing habit. This also reflected a common industry marketing practice. As Jeremy Greene and Scott Podolsky have argued, firms invested heavily in continuing medical education and pharmaceutical detailing as a way of creating physician interest in and loyalty to specific pharmaceutical brands.[58]

[56] Alcon Laboratories Annual Report (1961), 1, Denny Alexander, private collection.
[57] Alcon Laboratories Annual Report (1965), 2, Denny Alexander, private collection.
[58] Jeremy Greene and Scott Podolsky, "Keeping Modern in Medicine: Pharmaceutical Promotion and Physician Education in Postwar America," *Bulletin of the History of Medicine* 83 (Summer 2009): 331-377.

Alcon's medical missions program supported global medical missions, with provisions for training, public health education, and in-kind gifts of medicines and devices related to eye health. The program conveniently coincided with corporate expansion; in addition to establishing its medical missions program in 1962, Alcon also made a commitment to sell its products outside the United States.[59] As Stefan Ecks has argued, supporting international health projects largely through product donations serves as an opportunity to create a new market receptive to and loyal to the corporate benefactor.[60] Alcon pursued an international presence through both business and philanthropic ventures. Though Alcon's initial move was into Canada, by 1977, Alcon had regional offices in Belgium, Mexico, Venezuela, Brazil, Australia, and the Philippines and was selling products in at least 80 countries. In addition to this move internationally, the medical missions, like the patient assistance program, allowed Alcon to offset criticisms of pricing and profits through drug donation.

The international nature of this program, however, operates within a larger Cold War industry initiative in collaboration with the government. As Dominique Tobbell has argued, the pharmaceutical industry—supported by congressmen like Hubert Humphrey (D-MN), himself a pharmacist—framed international drug donation programs as a vehicle of Cold War foreign policy. In this context, international drug donations served to improve individual health and economic viability and to support ideals of capitalism and democracy abroad. The impact of Alcon's international work was not lost on those associated with the

[59] Alcon Laboratories Annual Report (1975), 12, Denny Alexander, private collection.
[60] Stefan Ecks, "Global Pharmaceutical Markets and Corporate Citizenship: The Case of Novartis' Anti-cancer Drug Glivec," *Biosocieties* 3 (2008): 165-181.

company. Dr. Louis Girard, professor of ophthalmology at Baylor School of Medicine in Houston spoke highly of Alcon's works: "These men have given us the tools that made possible the great strides in ophthalmology. [By improving eye care internationally, t]hese people represent you and the United States and tell the story of what capitalism can do."[61] These programs emerged as a result of the altered political economy surrounding pharmaceuticals. As a result, pharmaceuticals became a political tool in foreign relations.

Finally, the creation of the Alcon Eye Research Foundation (AERF) follows more typical forms of philanthropy for the pharmaceutical industry. The AERF supported research in eye health and vision preservation through grants to universities. Scholars have demonstrated that pharmaceutical companies and other research-dependent companies, as discussed previously, have a history of investing in industry-related research programs at universities. Such relationships served the industry by creating a workforce and drug development pipeline. [62] For example, in 1973 Alcon negotiated an agreement with Baylor College of Medicine in Houston, TX to collaborate on research toward new means of combatting impaired vision and blindness.[63]

In Alcon's work to assert itself within the pharmaceutical industry, the company engaged in strategic philanthropy and framed its work within Cold War rhetoric. These efforts reflect trends within the industry more broadly. In the next section, I describe Project HOPE, further exploring how pharmaceutical industry philanthropy was shaped by

[61] "Founders of Alcon Honored on Anniversary of Company," *Fort Worth Star-Telegram*, Tuesday Morning, May 30, 1967, 3-A, Denny Alexander, private collection.
[62] Tobbell, *Pills, Power, and Policy*, 37-48.
[63] Alcon Laboratories Annual Report (1973), 13, Denny Alexander, private collection.

the Cold War and how the pharmaceutical industry used the Cold War to frame its philanthropy as an important part of an international fight against communism.

Project HOPE

In 1960, the U.S.S. Consolation, an American naval hospital ship that served in the U.S. occupation of Japan and in the Korean War, was rechristened the S.S. Hope. The ship, donated by the Eisenhower administration to Project HOPE, was converted into a floating medical center with funds from the pharmaceutical industry. The ship carried 7,000 tons of medical supplies and was equipped with 250 hospital beds, three operating rooms, a special room for eye surgery, and an obstetrical delivery room. The goodwill mission of S.S. Hope was to treat and educate: provide much needed medical treatments to the peoples of developing nations and educate medical workers on the delivery of basic, life-saving medical techniques. The S.S. Hope set sail for the islands of Indonesia in September of 1960. On this maiden voyage, the ship and its volunteers also traveled to Vietnam. Over the course of the next fourteen years in service, the S.S. Hope would also travel to Peru,

Figure 16: The S. S. Hope, donated to Project HOPE by the Eisenhower administration. "Our History," Project HOPE, https://www.projecthope.org/about-us/history/.

Ecuador, Guinea, Nicaragua, Colombia, Sri Lanka, Tunisia, Jamaica, and Brazil. During each yearlong mission, the ship spent a month or two at each port, visiting several sites throughout the country. The work of the S.S. Hope became a powerful symbol of the pharmaceutical industry's efforts in the Cold War, spreading American healthcare and capitalism abroad and building on the themes of paternalism and imperialism identified earlier in this chapter.

Dr. William Walsh, founder of Project HOPE (an acronym for Health Opportunities for People Everywhere), which sponsored the creation of the S.S. Hope, said the following of the ship:

> "Her [the S.S. HOPE's] story is an American saga. We are known as money-grubbers, capitalists, Yankee barbarians. The power with which we emerged from World War II has been bitterly resented: 'Yankee go home.' But we have to lead the free world whether we like it or not—or there won't be any. Our government has poured fortunes into foreign aid. The Hope, I believe is a dramatic and effective symbol of the national trait that makes our power bearable."[64]

Walsh came to the idea of this "dramatic and effective symbol of the national trait" during his service in World War II. As a medical officer aboard a naval destroyer in the South Pacific, he observed poor health conditions in the Pacific Islands, including a lack of access to basic medical treatments—limbs amputated because of complicated fractures; increasingly large, benign tumors that made daily life a physical hardship; cases of preventable blindness. As a result of these experiences, he envisioned the creation of a floating medical center. Medical staff at this center would perform surgical procedures that were deliberately limited; procedures that could be readily adaptable to

[64] William B. Walsh, *A Ship Called HOPE* (New York: E. P. Dutton & Co., Inc., 1964), 15.

local use in the absence of access to advanced medical technologies. The center would also supply nutritional and pharmaceutical supplies. Most importantly for Walsh, however, the ship would provide educational opportunities for local medical workers.[65]

Walsh's idea garnered much acclaim from colleagues, government officials, industry leaders, and even the four presidents who held office during the S.S. Hope's years of service. The impressive materiality of this 15,000-ton, 520-foot "dramatic and effective symbol of a national trait" held powerful sway for the pharmaceutical industry. As the industry began to face increased public scrutiny in the mid-1950s and then Congressional investigations in the late 1950s, the opportunity to support Project HOPE gave the industry a highly visible way to demonstrate their good work to the general public and to regulators.

While Project HOPE served as a powerful symbol for the pharmaceutical industry, it was generally ineffective in making meaningful changes in healthcare abroad. Spending such a limited amount of time at each port provided no opportunity to produce systemic change in the provision of healthcare through education or otherwise. In 1974, when the ship was decommissioned, Project HOPE continued its mission to expand medical education and increase access to healthcare in new ways. The Project no longer employed a floating hospital ship.[66]

I argue that the pharmaceutical industry's participation in Project HOPE was an example of strategic philanthropy, which the industry mobilized to shield itself from

[65] Walsh, *A Ship Called HOPE*, 23.
[66] Winifred A. Quinn, "A Survey of Project HOPE as an Educational Institution," Center for Applied Health Studies, Project HOPE, (1972), 16-21.

public ire in the midst of the Kefauver hearings. The S.S. Hope proved an effective philanthropic rallying point, bringing together a wide swath of individual donors and companies across American industry. As such, the pharmaceutical industry exploited the popularity of Project HOPE as well as its position as a tool for exporting American healthcare and capitalism within the Cold War context.

The S.S. Hope, through its broad public appeal and advertising, proved to be a useful philanthropic investment for the pharmaceutical industry in demonstrating the industry's dedication to American ideals, offsetting public critique, and promoting business. Corporate giving in this period was heavily steeped in Cold War rhetoric and in the ideological battles taking place—capitalism as antithetical to communism. This environment fueled an alliance between the interests of business and the interests of government, spurring corporate investment in projects such as HOPE.[67] John T. Connor, president of Merck and Company from 1955 to 1965, served on Project HOPE's board of directors and committed Merck to donating drugs and funds to the ship. Other companies in the industry followed suit. The pharmaceutical industry used its participation in Project HOPE as a means of defending its economic growth and in defense of the free enterprise system more broadly.[68]

In addition to support from the pharmaceutical industry, Project HOPE sought donations from the general public. Publicity for donations helped popularize the S.S. Hope and provided the pharmaceutical industry with advertising for its philanthropic work. In 1960, Project Hope began "a campaign for donations from the man in the

[67] Spector, "Business Responsibilities in a Divided World."
[68] Tobbell, *Pills, Power, and Policy*, 100.

street."[69] Initially this involved collection boxes at drugstores—boxes that featured images of the S.S. Hope. Publicity in major news publications, including the *New York Times* and *Time Magazine*, gained the attention of a broader audience, accompanied by impressive images of the S.S. Hope. "Launch Project Hope Week," a fundraising campaign that took place in New York, included a 14-foot model of the Hope displayed in Pennsylvania Station. The ship served as a centerpiece for donations. Large donor events, including dances, galas, movies, music, backgammon and bridge tournaments, and cocktail parties, featured images of the Hope. For example, a cotillion to benefit Project Hope featured a large pastry model of the S.S. Hope.[70]

In addition to figures of the S.S. Hope as centerpieces of fundraising events, the S.S. Hope itself served as a centerpiece of fundraisers. One such fundraiser involved a winter cruise on the Santa Paula to Cartagena, Colombia, among other southerly tourist locations. The cruise ship docked at the pier used by the S.S. Hope, where the medical staff was working.[71] Cruise members were "welcomed aboard the hospital ship . . . to observe the staff at work." That evening, the members of the medical staff were dinner guests aboard the cruise ship.[72] The cruise went to a number of other locations, unconnected to Hope's work and concluded in Fort Lauderdale, Florida. And speaking to my earlier discussion of changes to the tax code, advertisements for the cruise included a

[69] "Drive for Medical Ship: Fund to be Sought Here to Send Vessel to Asia," *The New York Times*, December 17, 1959, 45.
[70] "11 Girls Presented at Hope Cotillion," *The New York Times*, December 30, 1965, 27.
[71] "Cruise to Be Benefit for Project Hope," *The New York Times*, February 7, 1967, 42.
[72] Ibid.

breakdown of costs, noting that over twenty percent of the cruise cost was tax deductible.[73]

The project gained additional publicity through the Ex-Cell-O Corporation, which produced the milk cartons used in both collection campaigns and for milk distribution in the S.S. Hope's ports of entry. Ex-Cell-O sought to benefit from Hope as a symbol, funding a documentary about the S.S. Hope, which won an Academy Award in 1961. The documentary ultimately had quite a wide reach, airing on the major television networks for free as a news and public affairs program.[74]

As a privately funded project providing medical education and treatment, the S.S. Hope served the broader goals of both the pharmaceutical industry and U.S. government. In the 1950s and 1960s, the U.S. government encouraged private administration of international projects to create goodwill and to depoliticize international work. Such projects were meant to act relatively independently of the U.S. government, as a means of promoting goodwill without explicitly engaging in an ideological battle with the Soviet Union.[75] In considering Project HOPE as a public-private partnership, the optics of the S.S. Hope worked well in emphasizing private funding for healthcare—the pharmaceutical industry was actively working against threats of socialized medicine.[76]

In addition to the powerful publicity of the ship itself, the work of the ship's medical staff had profound individual outcomes. Drawing an example from Walsh's

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[73] Ibid.
[74] Richard F. Shepard, "TV 'Project Hope' Skirts C.B.S. Rule: Network to Carry Privately Made Show Despite Its Ban," *The New York Times*, August 12, 1961, 41; "Project HOPE (1961)," *YouTube*, https://www.youtube.com/watch?v=ioAyxBGQc4M.
[75] Liping Bu, *Public Health and the Modernization of China, 1865 - 2015* (New York: Routledge University Press, 2017), 399.
[76] Tobbell, *Pills, Power, and Policy*, 42-43.

memoir, he describes a woman with an abdominal tumor so large that she could no longer stand up or lie down. Doctors on the Hope removed the tumor—weighing in at about one-third of the woman's overall weight—and nurses helped her recuperate and taught her how to walk again. Walsh noted that, "Modern surgical cures often seem like miracles and surgery is always the most dramatic form of medicine. Even minor surgery can remake human lives."[77] The "drama" of these surgical procedures and the profound effects of the S.S. HOPE fit well within the Cold War context, exporting the advantages of the American medical treatments and education and the capitalist system that underpinned it. As a reporter for *The New York Times* noted, "There has been considerable emotional appeal in the arrival of a ship that gives medical care to thousands who otherwise might not have received it."[78]

While in rural areas the S.S. Hope may have been a symbol of American generosity and medical advancement, university doctors in major cities visited by the Hope drew different conclusions. The Hope, for example, "had been eagerly awaited by Jakarta's physicians and medical students as a 'floating university,'" according to Dr. Thajeb of Jakarta, "however, it turned out in their view to be 'more like a good-sized county hospital.'"[79] The doctors were unimpressed. Indonesian doctors in Jakarta had hoped to learn to cutting edge medical treatments but were ultimately disappointed in the Hope's offerings. These unfulfilled expectations speak to the racism inherent in the

[77] Walsh, *A Ship Called HOPE*, 27.
[78] Richard Eder, "U.S. Hospital Ship Helping Ecuador: Hope's Staff Concentrates on Showing Techniques," *The New York Times*, Aug 16, 1964, 2.
[79] "Indonesia Views U.S. Mercy Ship: Floating Hospital Praised for Role in Outer Islands—Jakarta Disappointed," *The New York Times*, November 20, 1960, 136.

project. To be sure, many were in need of basic medical care, but the Project assumed a broad ignorance of people in underdeveloped or newly independent nations. Traveling to rural areas to support medical care was surely needed in the United States at this time as well.

Though Hope offered effective surgical treatments, Walsh acknowledged that addressing long-term issues was one of the project's shortcomings. In particular, he noted the limited availability of insulin and the long-term treatments required for tuberculosis. Walsh offered that, "We blessed the pharmaceutical houses back home which had donated quantities of the drug [insulin] but we knew the relief we brought was temporary."[80] Further, the Hope medical team setup mass X-ray clinics to screen out those individuals with active TB, but treatment took longer than the ship was in port, involving 6 to 12 months of treatment with antibiotics. Medical staff lectured on the spread of infection and checked schoolteachers for TB in an effort to protect school children.[81]

The S.S. Hope as a tool in the Cold War failed to make a lasting impression. While it served individuals, it failed in changing day-to-day realities. In Indonesia, for example, some "felt that it would have been more useful to have a much needed 'permanent' hospital—'like the Russians are building'—rather than a 'floating' one."[82] Prior to the Hope's arrival, the Soviet Union had agreed to construct a 200-bed hospital in Jakarta, providing much needed infrastructure in the area. The transitory nature of Hope,

[80] Walsh, *A Ship Called HOPE*, 24.
[81] Walsh, *A Ship Called HOPE*, 25.
[82] "Indonesia Views U.S. Mercy Ship: Floating Hospital Praised for Role in Outer Islands—Jakarta Disappointed," *The New York Times*, November 20, 1960, 136.

while impressive to donors, failed to address the significant needs of its hosts. It also operated from and perpetuated racist ideas about inadequate medical care available abroad. After all, healthcare in the United States in the 1960s (and today) failed to support people based on geographic access as well as based on race and class.[83]

As early as 1963, Project HOPE began establishing more permanent projects. For example, Project HOPE, in coordination with the University of Trujillo in Peru, helped establish the first University Hospital and School of Nursing outside the capital of Lima. These land-based programs had expanded to 32 nations by 1980. In addition to longer term projects abroad, Project HOPE began to recognize and address the needs for access to healthcare and medical education within the United States. In 1969, HOPE began its first domestic programs, seeking to improve healthcare provision in Laredo, TX, near the U.S. border with Mexico, and to develop Native American operated health care systems on the Navajo Reservation in Gando, Arizona.[84] Further, Project HOPE established the Institute for Health Policy and the Center for Health Science Information, Analysis, and Research. Walsh comments on these new outgrowths of HOPE, offering that,

> "as HOPE engaged in these activities abroad, we recognized that problems beset the American health care system, too. Frequently, the difficulties here are different from those which we have dealt in other countries. Sometimes, though, they are similar. Thus, HOPE made a commitment to become involved in the American health care system at home, believing that by transporting some of the lessons learned abroad, we could play a constructive role in the United States through discussion, research, data collection, and information dissemination."[85]

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[83] Beatrix Hoffman, *Health Care for Some: Rights and Rationing in the United States Since 1930*, (Chicago: The University of Chicago Press, 2012).
[84] As far as I can tell, this was separate from the Indian Health Service. Winifred A. Quinn, "A Survey of Project HOPE as an Educational Institution," Center for Applied Health Studies, Project HOPE, (1972), 16-21.
[85] William Walsh, "Publisher's Letter," *Health Affairs* 1, no. 1 (Winter 1981), 3.

Though Project HOPE discontinued the use of the hospital ship in 1974, the S.S. Hope continues to serve as a symbol of Project HOPE's work and growth. The S.S. Hope, as a mobile medical system, had strong symbolic and publicity value, supporting the Project's ability to fundraise and demonstrating American generosity and innovation in highly visible ways.

Drawing on the visibility of Project HOPE, the pharmaceutical industry mobilized Project HOPE as a public relations strategy, contributing to both American foreign policy efforts and its own public image.[86] The industry situated the ship as a part of the Cold War effort to win the hearts and minds of people from underdeveloped and newly independent nations to spread capitalism globally.

Conclusion

Ultimately, pharmaceutical industry philanthropy served as a means of protecting a system of wealth inequality, promoting paternalism, spreading capitalism, and allowing donors to control their wealth. Philanthropy served as a means through which pharmaceutical companies could use their capital to engage in social good, justifying drug pricing and wealth accumulation.

The pharmaceutical industry and individual companies in the early and mid-twentieth century emphasized profits: How can philanthropy serve the company and/or the industry? As evidenced by the work of The Upjohn Company, early philanthropy helped company sales by aiming to support drug prescribers (physicians) and sellers

[86] Tobbell, *Pills, Power, and Policy*, 100.

(pharmacists and druggists). Over time, the philanthropy of individual companies and the industry evolved. Philanthropy continued to support physicians through education and research funding, but it also became a more significant public relations tool, serving as a means of gaining public approval, offsetting potential regulations, and establishing the industry as a tool of US foreign policy.

Conclusion

I opened this dissertation with the competing narratives of the pharmaceutical industry as hero and villain. Rather than choosing one of two narratives, good or bad, right or wrong, hero or villain, I found multiple conflicting and complicated narratives about the industry exist at the same time. This dissertation explored storytelling and history telling in many forms from different actors—individual companies and industry trade organizations—with heavily vested interests in stories of heroism.

The stories told by the industry and companies are embedded in public relations. Their stories reflect their self-perception, highlighting the good (lifesaving and life-changing drugs) while ignoring the bad. Their stories ignore major problems the industry has engaged and reengaged in over time: intentionally or accidentally creating toxic products; excessive, misleading, and dangerous marketing; high pricing and monopoly; deceptive clinical data; and disregard for addiction. In this dissertation, I critically examined the stories told by the pharmaceutical industry and pharmaceutical companies, how they formed, how they were used, and what they mean in context. I argued that in different contexts, their stories are mobilized to offset regulatory efforts, strengthen relationships with their allies, and garner respect and praise from the general public.

In chapter 1, I analyzed the formation of the American Drug Manufacturers Association (ADMA). In forming, the members debated the relative importance of shaping legislation and engaging in public education to achieve those ends; in other words, they discussed protecting their interests and reputation. Rather than pursuing both paths, the ADMA focused on legislation and paid little attention to industry-wide public

education. In focusing on legislative issues, the ADMA left public relations and telling the industry's story to individual companies.

In chapter 2, I explored two case studies of pharmaceutical companies educating the public on the industry's social importance, centering the industry's historical significance, and creating the industry's narratives. I argued that these case studies demonstrated the ways in which companies situated themselves in progressive historical narratives that gave primacy to Western medicine with a pinnacle in American medicine. Companies developed and displayed historical artifacts, work I called generative history-telling, as education and service that functioned as public relations and advertising.

First, I described The Upjohn Company's collaboration with the Smithsonian in the 1930s to tell the industry's story through dioramas. Explicit discussions with the Smithsonian declared the exhibit was not advertising and rather served the public through education about the industry. While explicitly not to be used as advertising, the dioramas told the industry's story while highlighting Upjohn products and innovations. Further, the company featured the exhibit in their company newsletter. This feature served to both connect the workforce to the philanthropy of Upjohn while also giving detail men—pharmaceutical sales reps—a potential talking point as they met with doctors in their territories. The company was recognized for its "goodwill" by the many visitors to the Smithsonian exhibit.

Second, I examined Parke, Davis' work on *Great Moments in Medicine* and *Great Moments in Pharmacy*. The company developed two series of expensive, large, and detailed oil paintings with a commitment to historical authenticity. These paintings were

intended for limited public display—they travelled to exhibitions hosted by the wives of doctors and pharmacists and now hang at the American Pharmaceutical Association headquarters in Washington, D.C. On one hand, the paintings were used as advertising. Parke, Davis sent prints and pamphlets of the paintings to physicians and pharmacists around the country, and the paintings connect the company to the history of medicine, positioning Parke, Davis as the pinnacle of progress. On the other hand, the level of development goes beyond typical advertising and provides some historical education. The company identified these exhibits as works of service, potentially strengthening Parke, Davis' relationships with physicians and pharmacists.

In chapter 3, I focused on Smith, Kline, & French's (SKF) collaboration with the Philadelphia Museum of Art (PMA). In this chapter, I argued that SKF's donations to the PMA, while philanthropic, situated the company within the history of medicine while also serving as a public relations tool. I identified SKF's work as associative history-telling—the company sought to connect itself with objects of historical importance. SKF sponsored the exhibit and its travel to locations that benefited SKF's business needs. For example, when the company was strengthening its relationship with a Japanese pharmaceutical company, SKF wanted the exhibit to travel to Japan to support its international collaborative work and expand its market share. While this was a beneficial relationship for both SKF and the PMA, the PMA sometimes had to make sacrifices to make its donors happy. Corporate cultural capital frames the financial dependence of the PMA on SKF; SKF had some control over programming as a result of the company's donations to the PMA.

Finally, in chapter 4, I explored philanthropy for both individual companies and the industry as a whole. The Upjohn Company used philanthropy to garner support from their consumers, physicians and pharmacists, and share stories of goodwill with their employees. Alcon Laboratories used its philanthropy as a way to connect itself to the trade organization of the time, the Pharmaceutical Manufacturers of America, and combat the threats of regulation emerging from the Kefauver Hearings. I also describe the work of Project HOPE as funded by the pharmaceutical industry. In the midst of the Kefauver Hearings, the industry mobilized Project HOPE as a Cold War weapon to offset potential regulations.

Taken together, these chapters intervene in the historiography of the pharmaceutical industry, museums/display, philanthropy, and public relations. Historians have examined the ADMA and the works of the industry trade organizations prior to World War II in limited ways.[1] Understanding this history complements histories of the post-World War II industry, demonstrating how industry stories began and evolved as the industry grew. Further, while, pharmaceutical advertising has been a major topic of study, few have explored pharmaceutical companies' work with museums and developing works of historical display.[2] These case studies show the longer development of the

[1] Joseph M. Gabriel, *Medical Monopoly: Intellectual Property Rights and the Origins of the Modern Pharmaceutical Industry* (Chicago: The University of Chicago Press, 2014); Jonathan Liebenau, *Medical Science and Medical Industry: The Formation of the American Pharmaceutical Industry* (Baltimore: The Johns Hopkins University Press, 1987); and John P. Swann, *Academic Scientists and the Pharmaceutical Industry: Cooperative Research in Twentieth-Century America* (Baltimore: The Johns Hopkins University Press, 1988).

[2] Jacalyn Duffin and Alison Li, "Parke, Davis and Company and the Creation of Medical Art," *Isis* 86, no. 1 (March 1995): 1-29. Jonathan Metzl and Joel D. Howell, "Great Moments: Authenticity, Ideology, and the Telling of Medical 'History,'" *Literature and Medicine* 25, no. 2 (Fall 2006): 502-521.

industry narratives launched during the Kefauver hearings, for example.[3] While the philanthropy of the pharmaceutical industry has been explored as part of larger studies, it has not been a focal point.[4] These early stories of philanthropy provide context for modern philanthropy. Stories of philanthropy from the 1920s show how companies aimed to support physicians, whereas stories of philanthropy in the 1950s and beyond demonstrate direct connections to contemporary public critiques and the regulatory atmosphere. Today, companies and even the industry's trade organization operate drug affordability programs to offset critiques and potential regulation of drug pricing.[5] Engaging with these histories provides new ways to consider the industry's public relations and the stories it tells about itself.

This dissertation explores some of the stories the pharmaceutical industry tells, how it puts those stories into context, and how it shares those stories. The case studies demonstrated how the industry offset legislation and connected to labor through these stories, suggesting the importance of countering those narratives. In considering how the industry used history, art, and museums to integrate itself socially, we can better understand both the contradictions and power dynamics of corporate sponsored art. These relationships have already motivated protests at the major museums who received money from the Sackler family, the owners of Purdue Pharma. Purdue Pharma produced and heavily marketed OxyContin, leading to excessive prescriptions, unsafe use, and a

[3] Dominique A. Tobbell, *Pills, Power, and Policy: The Struggle for Drug Reform in Cold War America and its Consequences* (Berkley: University of California Press, 2012), 48.
[4] Tobbell, *Pills, Power, and Policy*, 100-101.
[5] For example the Pharmaceutical Researchers and Manufacturers of America (PhRMA), formerly operates a Medicine Assistance Tool to connect patients to programs that support drug affordability. "Patient Assistance," Pharmaceutical Researchers and Manufacturers of America, https://www.phrma.org/patient-assistance/patient-assistance.

national epidemic of opioid addiction. In February of 2019, protestors led a die-in in the lobby of the Guggenheim, protesting the museum's ongoing relationship with the Sackler family.[6] As of September of 2021, seven major museums had cut ties with the Sacklers.[7]

In a talk given by Kristen Peterson at University of Minnesota, as part of the History of Science, Technology, and Medicine's weekly colloquium, an audience member asked Peterson to describe an alternative system of pharmaceutical development and distribution. Peterson deflected the question saying, This is the system we live in.[8] I think about Peterson's response frequently in reflecting on my dissertation research. It is important that we analyze the stories we are told and the stories we tell about this system, considering the complicated and conflicting narratives. Although, like Peterson, I do not have a clear answer as to what a totally alternative system of pharmaceutical development should be, close examination of these cases in pharmaceutical history makes it clear how interwoven the history of pharmaceutical companies is with the history of American culture itself. By beginning with a clearer understanding of how these threads are entangled, we can at least bring ourselves one step closer to making better and more informed decisions with the stories that pharmaceutical companies, and industries in general, tell about themselves.

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[6] Masha Gessen "Nan Goldin Leads a Protest at the Guggenheim against the Sackler Family," The New Yorker, February 10, 2019, https://www.newyorker.com/news/our-columnists/nan-goldin-leads-a-protest-at-the-guggenheim-against-the-sackler-family.

[7] Carlie Porterfield, "Here are the Major Museums that Refuse the Sackler's Money—Through Some Keep the Name Up," Forbes, September 2, 2021. https://www.forbes.com/sites/carlieporterfield/2021/09/01/here-are-the-major-museums-that-refuse-the-sackler-money-though-some-keep-the-name-up/?sh=54c92bda7923

[8] Paraphrased from Kristen Peterson, "Transcontinental Drug Traffic: Chemical Arbitrage, Speculative Capital, and Pharmaceutical Markets in Nigeria" (presentation, History of Science Technology, and Medicine, University of Minnesota, Minneapolis, MN, March 27, 2015).

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Appendix

I.

Case No. I

The first case provides a historical review of the development of modern pharmaceuticals. It emphasizes the growing importance of specialization and uniformity in meeting the public's health needs. The case emphasizes the importance of research for modern pharmaceutical manufacturers.

Diorama	Description
A Monastery Apothecary Shop	In the 17th and 18th centuries, apothecaries were shopkeepers who collected medicinal herbs and chemicals and prescribed them for the sick. During the Dark Ages, apothecaries were often monks who ministered to the physical as well as to the spiritual ailments of their patients.
A 19th Century Pharmaceutical Laboratory	In the early 19th century, pharmacy began to emerge as a science separate from medicine. The apothecary, then called a pharmacist, devoted his time to collecting and compounding medicines, while the physician became a specialist in caring for the sick.
Doctor and Detail Man	Pharmaceutical manufacturers send trained representatives known as detail men to visit members of the medical profession. These representatives not only furnish information concerning new medicines, but establish personal contacts with physicians, thus making it possible to coordinate the findings of the laboratory with clinical needs.
A Modern Prescription Pharmacy	Modern pharmacies are conducted for the benefit of physicians and the public at large. The pharmacist of today obtains his medicinal preparations, already prepared and standardized, from pharmaceutical manufacturers. He then compounds and dispenses them in accordance with physicians' prescriptions.
Modern Pharmaceutical Manufacturing Plant	Several thousand medicinal substances are in constant use by the medical profession. The manufacturing plants required to make these are of necessity quite expensive. Every effort is made to have working conditions pleasant and healthful in all respects.
A World of Raw Materials	The materials from which medicinal substances are derived come from the far corners of the earth. Some are animal, some vegetable, and some mineral in origin. Many of the

	newer drugs are obtained as by-products of other industries, or are prepared synthetically from other chemicals.
Control of Raw Material Purchases	The identification and assay of raw materials are of primary importance in controlling the quality of the finished product. The man at the left is studying a botanical drug to insure its exact conformity to official requirements. The man at the right is engaged in extracting the alkaloid of another specimen to determine its drug potentcy.
Chemical Control of Various Stages of Manufacture	This is another control laboratory. In the rear two chemists are analyzing specimens of products taken at various stages of the manufacturing process. In the foreground, a finished product is being checked for accuracy of formula and also physical characteristics, such as appearance, disintegration and solubility time, etc.
Bacteriological Research	Microscopic living organisms produce infectious diseases in man. This scene shows a group of bacteriologists at work. Through study of these organisms and their toxic products, in which industrial laboratories participate, much progress has been made in the battle against these diseases.
Chemical Research	Here is a view of a chemical laboratory. One of the chemists is altering the structure of a known chemical compound. The discovery of new chemical substances and the synthetic preparation of others known to exist but difficult or expensive to obtain is a field of unlimited possibility for progress.
Library Facilities	Progressive research work involves the frequent publication of observations, as well as the necessity for keeping informed concerning the publications of other laboratories. For this purpose, pharmaceutical manufacturers must maintain complete periodical and reference libraries.
Pharmacological Research and Biological Extraction	The study of the action of drugs by determining their effects on animal tissues and functions, and the isolation or recovery of physiologically active extracts of animal tissue are two highly important divisions of pharmaceutical research.
Laboratory of Experimental Pharmacy	The scene opposite shows a laboratory of experimental pharmacy where manufacturing methods are worked out on a laboratory scale, and where such problems as color, taste, appearance, and stability are determined for each product before it is given to the plant for actual production.

Case No. II

The second case focuses on the processes of producing medicines in modern pharmaceutical work. Specifically, this case focuses on extraction of substances to produce biological produces and the production of effervescent salts.

Corner of Milling Room	The balloon-shaped bags over each mill serve to collect and confine the dust from the milling process so that the air is clear and clean at all times. Dust-free air of this kind protects the workers and prevents contamination of the various batches of material being ground.
Percolation Evaporation and Vacuum Distillation	(A) Packing the ground, moistened drug into small percolators. The fluid or menstruum, used varies with different drugs, but usually contains alcohol. (B) Collection of percolates from larger percolators. The percolate contains the extracted drug. This must be sent to the control laboratory to determine the concentration of the active principle. (C) Aqueous extracts are concentrated in steam jacketed evaporating tanks. (D) Vacuum still for concentrating, at low temperature, percolates containing alcohol or drugs which might deteriorate if subjected to strong heat. The alcohol is recovered and rectified by further distillation.
Preparation of Elixirs	The mixing of ingredients is accomplished by mechanical stirring devices in glass-lined tanks, varying in capacity from 5 to 1,000 gallons. Subsequent clarification and filtering is accomplished by mechanically pumping the exlixir through a large filter press and back into another tank.
Emulsification	Some emulsions can be made with a high-speed vacuum mixer, not unlike a large egg beater, operating in a closed tank. With others, however, particularly where it is necessary to break the dispersed phase into particles of colloidal dimensions colloid mills are used.
Ampoules Sterile Solutions	Sterile solutions are packaged in sealed glass containers, called ampoules. After the solution is placed in ampoules with aseptic technique and sealed, it may again be sterilized by immersing the ampoules in hot water or subjecting them to high temperatures produced by steam under pressure. Solutions of drugs which are to be injected into the tissues or into the blood stream, must be prepared with great exactness to keep them free from contamination

	with foreign materials. Each solution is passed through a porcelain filter to remove all bacteria without exposing the product to air.
Ointments	Ointments are made by stirring the desired medicinal ingredients into the correct mixture of melted greases, fats and waxes. After cooling, a mixture of this kind returns to a semi-solid consistency and is then milled with special equipment such as that shown in the center of the room.
Granular Effervescent Salts	(A) Weighing and mixing the ingredients of a granular effervescent salt in an air-conditioned room. Two operators check each weight to guard against error. The mixers are operated a sufficient length of time to obtain a thoroughly uniform mixture. Each mixture is assayed to insure uniformity. (B) The dry mixture is spread on the trays and subjected to an atmosphere of extreme humidity. This is done in the cabinet at the rear. (C) The moist granules are then screened, placed back on the trays and passed into drying tunnels where the atmosphere is again automatically controlled.
Granular Effervescent Salts (Continued)	(D) The dry granules as they emerge from the tunnel are removed from the trays, again screened, and collected in hoppers. (E) The hoppers are used to load the filling machines from which the filled bottles pass on a continuous belt to the capping, labeling, and cartoning machines in succession.

Case No. III

The final case features dioramas demonstrating the process of producing pills in different forms, such as hard pills coated in sugar and gel capsules. This was of particular importance to The Upjohn Company because the company was founded on the production of the friable pill—pills created in large revolving tubs in which the pills gradually became bigger as more materials was added, like snowballs. These pills were more easily digested and improved dosage accuracy. This case also follows the processes of packaging and shipping pills, which allows companies to track product and improve shelf stability.

One final part of this case, which was important to the Upjohn Company, was the

Friable Pills	An operator is shown pouring the powders slowly onto the starters in the revolving tubs, moistening the mixture at the same time. When the pills have attained the desired size as measured in the sizer which is shown at the left, they are dried in ovens before being coated.
Compressed Tablets	Powdered drug mixtures are converted into minute granules by moistening, drying, and screening. They are then punched into tablets by rotary compressing machines. The operator checks the weight of the tablets for each machine at 15 minute intervals to be sure that the punches retain their correct adjustment.
Coating of Pills and Tablets	Pills or tablets are coated by being rolled in sugar syrup in revolving tubs. Color coatings are applied in the same way. After the coatings are applied, a sample of each lot is sent to the Control Laboratory for chemical assay and for testing disintegration and solubility time.
Filling Hard Gelatin Capsules	Special filling equipment designed to fill empty gelatin capsules with an exact weight of powder renders this form of medication available for those who desire it. This type of filling is carried out in conditioned air, and the capsules are put into bottles and sealed before leaving the room.
Fishing for Cod Lofoten, Norway	From the livers of codfish are obtained the growth-promoting vitamin A and the antirachitic vitamin D. At certain seasons the fish migrate to the coasts of Norway and Newfoundland. Cod fishing is largely confined to these areas and to only a few weeks of each year.
Extraction of Cod Liver Oil	The finest quality of cod liver oil can be obtained only when the livers are removed from the fish as soon as possible after they are caught, and the oil is extracted at once in vacuum equipment to preserve vitamin content and prevent the development of rancidity.
Removal of Cod Liver Stearin	The stearin is removed from the cod liver oil so that the oil will no thicken or solidify when kept in a refrigerator. To do this, the oil is chilled and the solidified stearin is removed by pressure filtration. The by-product, cod liver oil stearin, is used in the manufacture of soap.
Standardization of Cod Liver Oil	On arrival in this country, the higher grades of oil are again assayed and standardized on the basis of natural vitamin content. The potency with respect to vitamins A and D is accurately determined by biological standardization, using albino rats, and checked by chemical methods.

Filling Bottles Finishing Bottles	(A) Washed bottled [sic] are brought to the filling machines by conveyors. As they are filled, carbon dioxide gas is forced into them to displace the air and protect the product. (B) The filled bottles are inspected through magnifying glasses as they pass along the conveyor belt to the capping machines. (C) A moving belt carries the sealed bottles to the labeling machines where a label is put on each bottle, after which the bottles are cartoned in single packages and larger lots. (D) The packages are put into shipping containers and conveyed directly to the warehouse to await shipment.
Distribution	The completed product is shipped to branch warehouses conveniently located at central points in the various sections of the country. From those, wholesalers in the principal cities, and retailers in every corner of the country may be served promptly with supplies to fill their needs.