

Daniel J. Wilson. *Polio*. Biographies of Disease Series. Portsmouth: Greenwood Press, 2009. 172 pp. \$45.00, cloth, ISBN 978-0-313-35897-5.



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Published on H-Disability (July, 2010)

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Daniel J. Wilson is professor of history at Muhlenberg College in Allentown, Pennsylvania. He focuses on American medical, social, cultural, and intellectual history of the nineteenth and twentieth centuries. His new book, *Polio*, is part of the ongoing Greenwood Press series *Biographies of Disease*, edited by Harvard professor and author of patient awareness books, Julie K. Silver. *Polio* was written for the general reader. Silver, in her foreword to the series, dwells heavily on the heroism of medical professionals and sacrifices being made to protect and save lives. Historians of disability may find that kind of enthusiastic medical success story irritating. However, Wilson does not necessarily follow the editor's leitmotiv. While his book is in parts a history of medical intervention, it is also to some extent a critical one and one that looks into the sociocultural context of medicine and its side effects.

Wilson begins with an account of his own polio history, which both establishes him as a contemporary witness and provides him with authenticity and authority. He then turns to explain what

kind of disease poliomyelitis is. He addresses its etiology, pathology, symptoms, and consequences. Chapter 2 follows the biography of polio from ancient history to the first U.S. epidemics of the end of the nineteenth century, and the New York epidemic of 1916. Wilson treats this 1916 epidemic as a neuralgic spot: the number of cases was frighteningly high and it became dramatically obvious that very little was actually known about the nature of the disease, about how it was transmitted, and about why some patients were paralyzed while others were not. There was neither therapy nor cure. Medical intervention was limited to making the patients comfortable.

Chapter 3 deals with medical research in Europe and the United States in the first decade of the twentieth century. Although the book is in effect an American history, Wilson never omits to explain what happened elsewhere—at least where medical research is concerned. He also points at transnational knowledge transfers, for example, when he focuses on the discovery of the poliovirus by the Austrian immunologist, Karl Land-

steiner, in 1908. Wilson takes this discovery as the starting point of his account of the study of polio in the laboratories of the United States and Europe. Researchers at the time tried to find out how the virus spread, how it entered the body, and what kind of damage it did to the human organism. Most important, they discovered that survivors produced antibodies. Thus, the human immune system could be stimulated to produce antibodies. This made vaccination a viable option, although still only in theory. While data on the virus augmented, little was known about prevention, treatment, or rehabilitation.

From the history of medical research, Wilson switches to recounting Franklin D. Roosevelt's polio story, beginning in 1921. Describing Roosevelt's efforts to recover, Wilson also shows the help that contacts and money could buy. To offer the same support to those who lacked these advantages, Roosevelt brought into life the Warm Springs rehabilitation center and foundation from 1926 onward. The center, though small--and segregationist--turned into a leading polio rehabilitation facility from the 1930s to the 1950s. Though fascinating, this chapter on Roosevelt might have dealt more critically with what Hugh G. Gallagher called "FDR's Splendid Deception" (in his book by the same title [1994]), that is, his success at disguising his disability. Throughout his second political career, Roosevelt presented himself as having recovered completely from polio and as a role model of overcoming disease. Instead, Wilson again looks into the history of medical research, this time focusing on the search for a vaccine, the 1930s being the actual starting point of clinical polio research (as in contrast to laboratory research). In clinical studies it became obvious that the virus entered the body through the mouth. This was particularly important both for further public health measures and the research on vaccines. First attempts at vaccine development occurred in the 1930s, simultaneously in the United States, Australia, and Europe. All proved unsuccessful. In 1935 a U.S. vaccine trial even resulted

in several children falling ill in Philadelphia. As a consequence, the idea of vaccination was discredited.

At this point, Wilson turns away from research, thus disproving the first impression that this book might be a simple or smooth history of medical innovation. Instead he focuses on how rehabilitation was scarce and expensive to obtain, and therefore socially unjust, and how facilities depended on fundraising. Wilson shows that the March of Dimes, founded in 1938, and the National Foundation for Infantile Paralysis (NFIP) within a short period of time mastered modern methods of fundraising and encouraged millions of people to contribute, even with small sums, to the cause. Part of the March of Dimes media campaign was the annual selection of "poster children." Good looking children who obviously had polio were made the official representatives of each year's fundraising campaign. With their cute looks and reportedly sad fate they were intended to inspire pity and encourage contributions. They were meant to help raise money to fund rehabilitation and research. The general idea of the poster child campaigns was to demonstrate to potential donors that by donating they could contribute to prevent their own children from falling ill. Wilson shows that this imagery was powerful and that the strategy was extremely successful--at the expense of the children. They were exploited by being put on display. This impact was not considered in a critical light. The campaigns were regarded as being particularly modern and they were copied by other institutions. As Gabriele Lingelbach has shown in her study of the fundraising strategies of the German Aktion Sorgenkind e.V. in the 1960s to 1980s, this imagery, and the particular campaign strategy, did not remain a purely American phenomenon but was adopted elsewhere.[1]

Wilson might have explored this problem in more depth. Even so, this part of the chapter is important, particularly since the author relates

how, by utilizing evidence from autobiographical records, the children felt about the procedure. One aspect is odd, though. Both the chapter on fundraising and the cover show a photo of a small African American boy on crutches wearing a very sad look. The context and provenance of the photograph remain rather hazy. It was apparently taken in an institution that received funding from the March of Dimes because it features a sign saying so. Its iconography is certainly typical of that category of photos produced in the United States and Europe to both demonstrate to donors what their money was doing and to encourage others to donate. In the fundraising chapter, this photo has a caption and the inscription at the institution's door "Supported by the March of Dimes" is visible. On the book's cover, however, this inscription was cropped off. With historians of disability this will create an uneasy feeling. Why was this done? Photos like this are typical of a traditional view on disability. They reproduce an image of people with disabilities as helpless, suffering, and child-like, even more so when, like this photo, they are removed from their context. In this case, there is a racial connotation, too, that needs to be considered.

The book continues with a subchapter on how the money that the March of Dimes raised was spent and how families were helped with financing the rehabilitation of, and care for, their children. The chapter also deals with the funding of research and health education in a period when the federal government did not yet fund polio research. Until 1962, the NFIP remained the major source of funds for research as well as awareness campaigns for health care professionals. Wilson shows what an enormous impact this private funding had on polio research.

Chapter 7 takes on the perspective of the children diagnosed with polio and their families: How was the diagnosis given? How did they react and feel? Part of the chapter also deals with how children felt in the isolation wards. These were typi-

cal of polio therapy because they were expected to limit the possibility of spreading the disease any further. However, as Wilson explains, isolation had a minor role in limiting the circulation of the disease. Instead, isolation led to psychological suffering among the young patients and their parents. A small part of the chapter deals with how racial segregation made it much more difficult for African American families to obtain diagnosis and therapy. Wilson also takes on the viewpoint of doctors and nurses and the particularly demanding task of care for patients with respiratory failure being treated in Iron Lungs. Wilson's book is at its strongest when, in chapters like this one, he draws from his 2005 book *Living with Polio: The Epidemic and Its Survivors*. This book was based on over 150 published narratives and focused on the individual experience of polio. It demonstrated what it felt like to contract and have polio, undergo treatment, and live with impairments. Again, in this new book, Wilson is at his best when he explores life with polio and gives voice to those who live(d) with it. The following chapter attends to the methods and facilities of rehabilitation, for example, having surgery, undergoing physiotherapy, and being lodged within and getting weaned from the Iron Lungs. Again, it is largely written from the perspective of the patients. For instance, Wilson demonstrates how patients were incessantly being confronted with motivation propaganda of the compulsive sort. Young children on the polio wards were told continuously that they could get well if only they really tried and worked hard on their bodies.

In the ninth and tenth chapters, Wilson addresses medical research again, this time focusing on the finally successful search for a vaccine. Basic research on how many varieties of polio existed, exactly how the virus entered the body, and how it operated within the body prepared the ground for two simultaneous attempts at creating a vaccine. One part of the scientific community, funded largely by the NFIP, committed itself to a killed-virus vaccine resulting in the product final-

ly introduced by Jonas Salk of the University of Pittsburgh in 1954. Having proved highly effective in a mass trial, his vaccine received a license for general use and Salk was treated as a national hero. Despite a loss of public confidence in the vaccine after an ineffectively inactivated charge had made several children ill (the so-called Cutter incident), trust in Salk's product returned. Between 1956 and 1961, about 400 million doses were administered in the United States and polio rates dropped dramatically. While in 1954 nearly 14 cases per 100,000 people had been recorded, this figure decreased to 0.5 cases per 100,000 people in 1961.

Another group of scientists directed by Albert Sabin had worked on an attenuated live polio virus vaccine to be distributed orally. It promised lifelong protection and worked against all three polio types. While it found little attention in the United States, the government of the Soviet Union used Sabin's product for a national inoculation program with reportedly remarkable success. Wilson demonstrates how the Cold War interfered with health politics and research. In the United States, experts and authorities debated whether the Soviet Union's official announcements could be trusted. If so, how could American children be denied the Sabin vaccine? After initial trials in 1960, Sabin's oral vaccine was quickly introduced to the market and the use of Salk's was discontinued—not only in the United States but also in Europe. While the overall tone of the book is a success story of medical research, Wilson has not let himself be drawn into a linear story of innovation. To the contrary, he points quite clearly at the breaks and holdups, the failures and errors of vaccine research. Convincingly, Wilson also links the processes of invention, innovation, diffusion, and normalization of the new technology with wider social, political, and cultural contexts. From the viewpoint of a modern history of technology, focusing on the social construction of technology, this is particularly appealing.

In the eleventh chapter, the author explains how patients and their families progressed following rehabilitation and how they adjusted to a largely not yet accessible environment. The chapter touches on family dynamics altered by the disease as well as on education, training for jobs, and employment. Some attention is also given on how some former polio patients got involved in the independent living campaign and disability politics. Readers interested in the history of disability might wish to read more on this subject. However, Wilson at this point turns to the present and, in his last chapter, focuses on WHO's and UNICEF's attempts at eradicating polio throughout the world. The conclusion draws attention again to the cultural aspects of polio as an "emblematic disease of mid-twentieth-century America" (p. 146).

This book is an engaging read, well written and precise in its argumentation. It has drive and is easily read from cover to cover. The style is pragmatic and agreeable. The book comes with some nice extras, such as a glossary of medical terms, timeline, and bibliography. This book is literally a biography of polio—but one that looks a lot beyond science and medicine. It demonstrates the effects of the disease on U.S. society and culture, and the search for a treatment. Apart from being an interesting and very agreeable read, this book is certainly more than a traditional medical history. But is it disability history? It obviously was not written in that context. However, it has something to offer to disability history. In teaching disability history, for example, it could be used as a textbook to get an overall view on polio, and it is commendable how the author moves between the perspectives of experts, institutions, patients, and their families.

Note

[1]. Gabriele Lingelbach, *Spenden und Sammeln. Der westdeutsche Spendenmarkt bis in die frühen 1980er Jahre* (Göttingen: Wallstein, 2009); and Gabriele Lingelbach, Konstruktionen von 'Be-

hinderung' in der Öffentlichkeitsarbeit und Spendenwerbung der Aktion Sorgenkind seit 1964, in *Disability History. Konstruktionen von Behinderung in der Geschichte. Eine Einführung*, ed. Elsbeth Bösl, Anne Klein, and Anne Waldschmidt (Bielefeld: Transcript, in press).

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[1]. Hugh G. Gallagher, *FDR's Splendid Deception* (Arlington: Vadamere, 1994).

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Citation: Elsbeth Bösl. Review of Wilson, Daniel J. *Polio*. H-Disability, H-Net Reviews. July, 2010.

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