In the course of most long projects, there are key moments that inform the rest of the work. In 1987 I was invited to give a talk at the Woods Hole Marine Biological Laboratories on Cape Cod, once the summer home of several major American reproductive scientists. Some renowned contemporary reproductive scientists were in the audience, along with historians of science and assorted others. I spoke on how and why the scientific study of reproductive phenomena has been controversial for well over a century and remains so today. I also discussed some of the negative consequences of its being construed as "illegitimate science," for those who do it and for the development of reproductive technologies. Through this talk, I came to realize that most people, including most historians of the life sciences, had not recognized this illegitimacy. The reproductive scientists at the talk and others have subsequently told me they were validated by this recognition of a major ongoing problematic of their work—and private—lives.

The article that grew out of this talk (Clarke 1990a, and included in this volume in revised form as chapter 8) also became standard reading in courses on women's health and women's/feminist studies (worlds I have long been part of), where understanding reproductive issues and the reproductive sciences is seen as important to improving the situations of women. The same paper has also been cited by conservative, often religious groups who are strongly opposed in principle to the reproductive sciences and who have sought to bolster their arguments that such science is dangerous and exploitative. Finally, scholars in history and social studies of science assign the paper because it illustrates so vividly how science is part and parcel of everyday social life and not separate from it.

Thus my work, like the reproductive sciences themselves, stands in several ongoing contested arenas and has multiple audiences who attend to it.
for divergent and even conflicting reasons. Because of this and recent rapid 
social changes regarding reproductive issues and technologies, the saga of 
this particular project is more than usually a chronicle of transformations, 
including my own transformation into a different kind of scholar writing a 
book quite different from the one I originally conceived.

The project began in the early 1980s, when one of my professors in 
graduate school, Sheryl Burt Ruzek, asked, "Why can't a scientist build a 
career on diaphragm research?" This question riveted me and led my work 
in a radically new direction, straight into the twentieth-century American 
life sciences. This book is the long version of my answer. It has ended up 
telling the story of the formation and coalescence of the American repro-
ductive sciences in biology, medicine, and animal agriculture, ca. 1910–
1963, and their relations with other key players in the reproductive arena—
philanthropic funding sources and a wide array of birth control advocates.
Sheryl's question about building a career in the reproductive sciences 
intrigued me because it sat at the intersection of most of my scholarly in-
terests and commitments. I had been teaching in sociology and in the 
emerging area of women's health and women's studies since 1970. I had 
also been learning about the practices and politics of contraception not 
only as a scholar but also as a heterosexual woman of the "boomer" genera-
tion who, along with others, assiduously sought the very kinds of control 
over reproduction I write about in this book. We brought these concerns 
with us into the women's health movement, connecting quite directly to 
Margaret Sanger, who wrote in 1919: "To fulfill her duty to herself, a woman 
must know her own body, its cares and its needs . . . her sexual nature . . . 
[A] woman possessing an adequate knowledge of her reproductive func-
tions is the best judge of the time and conditions under which her child 
should be brought into this world. We further maintain that it is her right 
. . . to determine whether she shall bear children or not" (p. 11). We became 
activists on behalf of and against different, and sometimes competing, kinds 
of reproductive control, understanding that, especially for women, the 
costs of reproductive control were historically high, and often remain so.

Once back in graduate school, I became increasingly interested in the 
politics of contraception and thought I would study women's perspec-
tives on different means of birth control. When Sheryl posed her decept-
ively simple question about science and diaphragm research, I realized that 
what had barely been studied was the development of the sciences in and 
through which such technologies were created—what I later came to call 
the reproductive sciences and which I also later discovered had professional 
"homes" not only in medicine but also in biology and animal agriculture. 
I did realize that any adequate answer would be very complicated. It was 
by then clear to me that the problems with women's health care, including 
contraceptive inadequacies, were certainly not only due to the relative ab-
sence of women providers or even the misogyny of some male providers and scientists—though these exist and are consequential.

Through my studies in the history of medicine, I anticipated that a fuller answer would concern the ways in which the life sciences and biomedicine more broadly had themselves been organized and supported historically, especially those sciences directly and indirectly related to sexuality and reproduction. As I moved into this project that became a love of my life, I was also moving into an emergent specialty then called social studies of science and technology. As core assumptions of scientific methods and theories, institutions, and practices were increasingly interrogated, I joined the exciting fray. At the same time, a distinctively feminist science and technology studies was also being forged, linking women’s and women’s health movements to new sites in the academy. My project on the reproductive sciences allowed me to integrate my knowledge of women’s health with these new approaches, today framed even more broadly as cultural studies of science, technology, and medicine. These approaches deepened my analyses of scientific work and practices, including the organization of research materials. They also legitimated my pursuit of the reproductive sciences across the three professional sites where they developed—biology, medicine, and agriculture—as requisite to understanding both the heterogeneities within these sciences and the multiple (and sometimes gendered) interests and cross-fertilizations involved in developing reproductive technologies. Further, in technology studies, examining the early moments in the development of new technologies, called the design stage, was just becoming a focus of investigation. In computer sciences and elsewhere, developers sought to integrate the concerns of users/consumers before making the major investments involved in mass production and distribution, a process now called democratization of participation at the design stage. My project both fit well with and benefited from such new directions.

During the course of this project I have matured intellectually—and so have feminist and cultural studies of sciences. Early hard-edged critiques of science and medicine have been tempered and complicated through grappling over the years with research that revealed the diversity of both the lived experiences of women and of scientists’ practices and commitments. Constraints and contradictions—material and symbolic—abound. Our early analyses have also been extended through wonderful and difficult conversations, first within feminisms and then additionally in cultural studies of science, technology, and medicine, in the various sciences themselves, and increasingly across all these disciplinary boundaries. Transgressing such boundaries has become something between a hobby and a life’s work for many of us. Translating—both within groups and disciplines (themselves often quite heterogeneous) and across such boundaries—is an ongoing challenge.
While I was right about the complications I would find in the history of the reproductive sciences, the deeply controversial nature of those sciences remains the pivotal point. They are controversial because reproduction itself is controversial. When I presented these materials in the late 1980s, I had to convince people inside the academy and beyond of this all-mediating social fact. As this book goes to press, ongoing U.S. domestic terrorism over abortion, very public debate about new reproductive technologies including cloning, and transnational debate about population size and the availability of contraception are routinely in the news. Such media coverage has made most Americans understand that most things concerned with reproduction, tacitly if not explicitly including the reproductive sciences, are routinely positioned close to some center of controversy. And such controversies will likely intensify. But so too will our desires for enhanced control over reproduction.

Significantly, the deep cultural tensions that have permeated reproductive topics historically and in the present have, I would argue, polarized if not balkanized the reproductive arena so that its diverse participants often can neither see nor hear others clearly, much less appreciate either the diversities of position within different groups or the sometimes quite dramatic changes of position taking place. These tensions and blindnesses make it increasingly difficult to create, produce, and distribute reproductive technologies that are safe, effective, desired by consumers, and "work" well not only technically in the bodies of users but also in the incredibly differing social and cultural lives of their users and their radically divergent health care situations across the globe. It is against the historical tensions in the reproductive arena portrayed in this book that efforts are now being mounted to genuinely democratize participation at the technological design stage, democratize access and distribution, and develop improved means of fully assessing the safety and efficacy of contraceptives and other reproductive technologies, including infertility services and innovations in animal agriculture, that are major long-term products of the reproductive sciences.

What will be the future of reproduction? This book is written in part in the belief that good scholarship informs social change. It is intended to intervene in contemporary debates and politics by offering an enhanced understanding of the past and through translations and bridging efforts in the present. Representing is intervening; representation is itself, in the end, a politics. The book is aimed simultaneously, therefore, at all the multiple and divergent audiences who care about reproduction, including reproductive scientists (in biology, medicine, and agriculture), feminists and women's health activists, my colleagues in cultural studies of science, technology, and medicine, demographers and sexologists (disciplinary neighbors whose histories have also been shaped by events discussed here), his-
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