

pity for those impoverished souls who had no labs to go to for solace and amusement. Science may be paying the price for letting the word leak out that scientists (the good ones at least) do it only because they enjoy it. But if that pleasure fades, I recommend Carey's admirable book as the next best thing. □

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Social medication

Richard Davenport-Hines

The Pill: A Biography of the Drug that Changed the World. By Bernard Asbell. Random: 1995. Pp. 411. \$25.

THE contraceptive pill is an exceptional drug. For the past 30 years it has been swallowed as a daily routine by more humans than probably any other prescribed medication in the history of the world. Yet it is intended neither to prevent nor to cure an illness. The first medicine to have been designed for a social rather than a therapeutic purpose, it inaugurated what Bernard Asbell calls the Era of BioIntervention, in which the human reproductive system is regulated and re-devised in an unprecedented manner. For these and other reasons, the oral contraceptive has caused the most serious confrontation between the Roman Catholic Church and science since Galileo. Asbell's account of the scientific research preceding the marketing of an oral contraceptive, and its social sequel, is a balanced, readable and interesting mix of biography, scientific history, theology and public-policy analysis.

The most vivid biographical passages describe the lifetime's work of Margaret Sanger (1879-1966) and Katherine McCormick (1875-1967), whom he rightly identifies as "the indisputable mothers of the Pill". Sanger came from an Irish Roman Catholic family, and, as a girl at her mother's funeral, had furiously reproached her father: "You caused this. Mother is dead from having so many children." Afterwards, as a social worker in

New York's Lower East Side, she was revolted by "poor, weak, wasted, frail women, pregnant year after year like so many automatic breeding machines", and by the many deaths due to illegal abortions. She set out to provide women with reliable contraceptive information, and was imprisoned for her pains in 1916. Later she realized that she could raise large sums for her planned-parenthood projects and obtain protection from legal harassment if her rhetoric emphasized the dangers of over-population rather than focusing on sexual oppression.

One of her supporters was a beneficent multi-millionairess named Katherine McCormick, whose husband had been diagnosed as schizophrenic some years into their marriage and who had been convinced by Mendelian theory that she must never have children. Together, in 1951, Sanger and McCormick commissioned Gregory Pincus of the Worcester Foundation for Experimental Biology to develop an oral contraceptive that could be taken as easily as a pill of aspirin and that would have the same level of fallibility as vaccination. The motives of Sanger and McCormick were threefold: they wanted to simplify life for women, to distance sexual acts as much as possible from contraceptive acts and to reduce the



"Halfway to the corner... shawled, hatless... all day long and far into the evening in ever increasing numbers they came" — the first US birth-control clinic, opened by Margaret Sanger and her sister, Ethel Byrne, in 1916 at 46 Amboy Street, Brooklyn.

fertility of the 'unfit'.

Overall, McCormick provided \$2 million for the research. Pincus in 1951 proved that progesterone inhibited ovulation and began a new search for synthetic drugs. Asbell gives a lucid account of the work of other contemporary researchers in this area: the Harvard gynaecologist John Rock; the maverick chemist Russell Marker; the steroids researcher Carl Djerassi; and Frank B. Colton of the G. D. Searle pharmaceutical company. The upshot of all their efforts was the

marketing from 1957 by Searle of a synthetic anovulent, ostensibly to stop ovulation in women with menstrual disorders, although its contraceptive effects were so well known that by 1959 half a million women in the United States alone were using it.

In 1960 the US Food and Drug Administration accepted the Searle anovulent as an oral contraceptive pill — an event that, as the *Ladies' Home Journal* later declared, made more "immediate difference in women's lives" even than obtaining political suffrage. The universal attraction of this new product, and its importance to married and unmarried women, is indicated by the simplicity and ubiquity of its popular name in the English-speaking world, "the Pill" of Asbell's title. The Pill's appeal was not limited to women. Men were pleased to be relieved of contraceptive responsibility. Biochemical and hormonal contraception seemed like hard science to doctors and complemented their view of the necessity of birth-management by scientific experts.

From the beginning the Pill was detested by those who did not want the fear of pregnancy to be disconnected from the pursuit of sexual pleasure. Asbell gives a shrewd and temperate account of the background to the papal encyclical of 1968, *Humanae Vitae* ("Of Human Life"), which interdicted artificial birth control, as much as anything, one feels, from Pope Paul VI's fear that any change in teaching would seem to repudiate his papal predecessors. Asbell is rightly dismissive of the self-victimization of some American feminists who attacked oral contraceptives as devices that reduced them to passive objects of male lust.

The final section of *The Pill* will make ominous reading for all those who value the free traffic of scientific ideas. Asbell shows how contraception in the United States has become so politicized that its techniques have plummeted as subjects of research. Even the continuing research in the United States into pharmaceutical substances that will kill or disable sperm is conducted in an intimidating social and political context. The bigotry directed by religious fanatics against scientists and physicians is mediaeval in its primitive savagery. Thus the campaign by American zealots against the pharmaceutical company Hoechst, which has marketed the RU-486 abortive tablet since 1988, involved not merely the threat of a world-wide boycott of Hoechst products if RU-486 was sold outside France, but also chilling menaces of extortion and violence. It is dismaying that the leading Western democracy should increasingly be held hostage by ignorant and unscrupulous enemies of scientific freedom. □

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