**A Book Review**

**Cancer and Ideology**

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This is a powerful book, both in its immediate impact on the reader and, beyond that, in its almost certain impact on the whole cancer research establishment in America. What is becoming more and more widely known in scientific circles—that political and social ideologies have strongly influenced official pronouncements on the effects of industrial chemicals on cancer—is here made the subject of a carefully researched account. We learn in meticulous detail how a group of environmental scientists possessed of high governmental position or influence succeeded in grafting their ideological prejudices onto laboratory and field results.

The author properly describes her book as an intellectual detective story.

I discovered a cultural crime which should not be possible in a free society: a complex corruption of science and a prolonged deception of the public. The crime emerged from the sciences of environmental cancer and cancer prevention, and it has all the superficial characteristics of "The Purloined Letter": It has been committed under our very eyes, its details are publicly recorded in documents which are within hand's reach, and yet it remains invisible to most of the people of this country who are its victims.

A decade went into Edith Efron’s discovery of the nature of the crime—which is, as she unfolds it, the well-mounted campaign to persuade the American people that (1) the United States leads all countries in the incidence of cancer, (2) a veritable epidemic of cancer is now beginning to sweep the country, (3) this "epidemic" will explode in a few decades in unimaginable death rates, and (4) most important by far, this "epidemic" is mostly man-made, the result of man's inflection upon a cancer-free natural environment of thousands of cancer-causing chemicals; this inflection flows directly from a profit-making, private enterprise economic system allowed to run wild by a weak, largely indifferent political state.

Efron shows us clearly, with ample documentation, who the apocalyptics are in contemporary science and what they have wrought. They are the scientists of the past quarter-century who, like Rachel Carson in her best-selling *Silent Spring*, Barry Commoner, Paul Ehrlich, Rene Dubos, George Wald, and the MIT scientists who produced the now notorious *Limits to Growth* report in 1972, contrived to present a doomsday picture of a world crumbling away under the deadly impact of industrial chemicals. In their eyes, as Efron puts it,

If man wanted to survive, he would have to undergo—and immediately—an intellectual, spiritual, moral, and political conversion. Salvation was promised man if he renounced his evil ways: annihilation was guaranteed if he did not. This was not just environmentalism—this was the voice of the apocalypse in new secular attire.

It was during the 1960s that environmentalism became increasingly charged with an apocalyptic character, and much of this is undoubtedly owing to the entry into the movement of individuals whose primary interest was the radical reconstruction of the U.S. economy.


These individuals saw in environmentalism an ideally respectable base from which to work: after all, the movement had been baptized in the early part of the century by people as solid and influential as John Muir, Theodore Roosevelt, and Gifford Pinchot. In the beginning, organizations like the Sierra Club and the Audubon Society were finite in purpose, interested chiefly in preserving areas of the wilderness from egregious misuse or exploitation. Their member-
ships, almost wholly middle- and upper-class, had no discernible interest in using environmentalism in behalf of a wider agenda of social reform.

But this began to change shortly after World War II. It was impossible for the observer to miss a slowly growing but nevertheless potent activism, increasingly manifest in lobbies in Washington, that had not been present before. During the 1960s environmentalism reached its full intensity, throwing down a challenge not only to industrial effluents—previously considered an undesirable side effect of an otherwise desirable industrial system—but to that system itself and the economic order within which it existed. Such environmentalist leaders as Paul Ehrlich and Barry Commoner foretold the ultimate horror: the biosphere itself would eventually be destroyed unless drastic steps were taken immediately, not just to control pollution, but to move toward zero growth, to put a moratorium on new technology, and to give government vast new powers to enforce these economic and technological changes.

**A “Cancer Epidemic” Discovered**

In the late 1960s, Efron informs us, cancer began to fill a more and more prominent role in environmentalist literature. Unlike other proclaimed horrors of industrial technology, most of which lay in the future, cancer had an advantage: it was happening right now. “The pronouncement that all life on earth was in peril and The End was upon us was a cultural hallucination propped up by an industrial garbage problem, while the ravaging of human life by cancer was a fact.” Thus environmentalist groups made common cause with a band of cancer scientists who, also convinced of the evils of industrial effluents, set themselves to proving that large percentages of cancer in America resulted from industrial carcinogens.

This was a powerful charge. For many millions of Americans it was cruel enough to learn that they or a loved one had cancer. To be told now that much if not most of it was the result of carcinogens spewed into the atmosphere by American industry and technology managed by callous seekers of profit, in short by fellow human beings, was almost too much to bear.

Inevitably the apocalyptic scientists, with their grim message of man’s betrayal of man, made their way to the channels of mass communication. Suddenly, the American people were bombarded with announcements that an epidemic of cancer was under way. On October 15, 1975, Dan Rather opened “The American Way of Death,” a CBS documentary, with a doomsday declaration: “The news tonight is that the United States is number one in cancer. The National Cancer Institute estimates that if you’re living in America your chances of getting cancer are higher than anywhere else in the world.” As Edith Efron shows, this was nonsense and known to be nonsense by scientists at the time. But a year later Lesley Stahl, also of CBS, reported that cancer rates caused directly by industry were “soaring.” So it went in television, radio, and newsmagazines.

As Efron emphasizes, even the most sensation-seeking reporters could not by themselves have made viewers believe the grim spectacle of an economic system wantonly inflicting cancer in its mad quest for profit. Such melodrama, to be believable, had to come from scientists. And, as we learn in this book, it did. Thomas Corbett, Marvin Schneiderman, Robert Hoover, Wilhelm Hueper, and, perhaps above all the rest, the redoubtable Dr. Samuel Epstein—these are high among the culprits Edith Efron marches before us.

This is the signal contribution of the book: the demonstration that behind the apocalyptics of CBS, Newsweek, and Time stood the instigating apocalyptics of science who tolled out death knell statistics of the price one paid for living in a democratic-capitalistic society. Thomas Corbett, one of the earliest of the apocalyptics, himself a chemist, intoned that the cancer epidemic would reach catastrophic proportions by the year 2000. Efron further cites Corbett to the effect that “at least 80 percent of all cancers” are caused by toxic industrial chemicals.

The irrepressible Dr. Samuel Epstein saw the cancer problem as primarily a matter of underregulation of industry, as the very title of his book, The Politics of Cancer, might suggest (Sierra Club Books, 1978). In print and in public testimony, Epstein repeatedly declared that up to 70 to 90 percent of the “epidemic of cancer” that surrounds us is caused by the environment, mostly the artificial environment we have wantonly imposed upon the natural environment (an environment that, by implication at
least, is largely carcinogen-free). As if to say: we have at last solved the dread problem of cancer; it is caused by industrial technology and needs only the Biologist State to contain it.

High government officials echoed the apocalyptics' death's-door rhetoric. Administrator Russell Train of the Environmental Protection Agency told a National Press Club audience that all American lives would be in peril unless we got quickly to the vital work of preventing cancer. Until relatively recently, most Americans "had no idea that, without their knowledge or consent, they were often engaging in a grim game of chemical roulette whose result they would not know until many years later." In a peroration that must have thrilled his audience, Train said: "It is time we put chemicals to the test, not people. It is time we gave the people of this country some reason to believe that, every time they breathe or eat or drink or touch they are not taking their life into their own hands."

With oratory of this sort, the public could be forgiven if it came to believe that the price of economic progress was cancer and that it was perhaps time to slow economic growth and even put a moratorium on applied science. That such drastic actions would lead to large job losses and widening deterioration of much of the American way of life did not matter to the apocalyptics. Neither did the almost ordained damage to political democracy; for the kind of actions called for to depress technology and the economy would necessarily have required changes in government inevitably prejudicial to representative political government.

There were, of course, calmer voices: scientists such as Lewis Thomas of Sloan-Kettering and Philip Handler of the National Academy of Sciences pointed out that the increase in cancer was not the result of any discernible increase in the incidence of cancer—except for smoking-related lung cancer—but only of an increase in the numbers of Americans in upper age brackets where cancer incidence had always been high. In fact, all through the 1970s when the apocalyptics were frightening the American people with their alarms about industrial chemicals, there were scientists who knew well how baseless most of those alarms were. They knew and kept on saying at scientific conferences that the significant linkage between cancer and industrial chemicals which had been feared at the beginning of the century had not in fact been found. This did not mean there could not be such linkage; only that scientific studies carried on over a half-century and more had not yet demonstrated it.

The alarms of the apocalyptics carried the day, however. The sweeping Toxic Substances Control Act was passed by Congress in 1976, and ever since the burden of proof has rested on those who use or manufacture industrial chemicals. In one legislative pounce all industrial chemicals were declared guilty until proved innocent. "From that time on," writes Efron, Americans were "ceaselessly bombarded by findings of 'potential' cancer threats from industrial sources. The 'carcinogenic century' had indeed arrived. Unfortunately it arrived in a form that Congress may not have anticipated: that of an unintelligible menace."

From Edith Efron we learn that the National Cancer Institute (NCI) has more than its share of apocalyptic scientists, either holding appointment there or else on close visiting and collaborating terms. It was one of NCI's scientists, Wilhelm Hueper, who early instilled into Rachel Carson the hallucinatory fears which she transposed into her immensely influential book. Efron gives us a number of documented illustrations of NCI's successful scare strategy.

One of them, the "great general population 'epidemic'" of 1976, will serve nicely here. This "epidemic," we discover, came from the National Cancer Institute's Surveillance, Epidemiology, and End Results Program (SEER), which was updating three prior NCI surveys of the U.S. population. According to the update, Efron says, "cancer incidence had suddenly increased at an awesome rate in both whites and non-whites and in both sexes." Even with lung cancer subtracted, the results were shocking. Efron writes: "Comparing cancer incidence rates from 1969 to 1971 with the new SEER rates of 1973-76, [Marvin Schneiderman and his NCI collaborators] reported an average annual increase of 1.3 percent per 100,000 cancers in white males and 2.0 percent for white females. This was indeed an 'epidemic.'"

But happily, for all but the NCI scientists, a purely hallucinatory epidemic. Even other federal health agencies "danced nervously around SEER's 'epidemic.'" And in 1981 this whole report came under violent and devastating attack from the two renowned British scie-
entists, Sir Richard Doll and Richard Peto, mentioned below. To compound NCI’s disgrace, Marvin Schneiderman, who had by then resigned from NCI, recanted, informing the New York Times that there was in fact no epidemic whatever.

Ideology and the Scientific Community

Again I must emphasize that Edith Efron is not arguing that unreasoning hostility to American industrialism motivates all research into possible—doubtless in some cases certain—industrial carcinogens. One of the many merits of her book is its ample recognition of the large number of scientists who have not interrupted their research in order to shout “cancer epidemic” where no such epidemic exists and who do not give themselves to environmentalist SWAT teams on Capitol Hill. In a highly detailed but engrossing series of chapters she takes us into the whole enterprise of cancer research, into the basic science concerned entirely with biological mechanisms of malignancy, and into “regulatory” science—which, as she shows in an extended discussion, has its mind on quick political fixes more often than on the hard but unspectacular work of finding actual causes and assessing risks in a qualified, responsible way. In that discussion we learn of Doll and Peto’s study of American apocalyptic science, done under the auspices of the congressional Office of Technological Assessment and published in the Journal of the National Cancer Institute in June 1981. They demonstrated that fewer than 8 percent of American cancer deaths can be reasonably attributed to industrial carcinogen factors of all sorts, including not only chemicals but pollution, radiation, food additives, and so forth. Meanwhile, industrialization seems to reduce the incidence of many cancers that occur in primitive societies.

Some of us may be forgiven surely for wondering if the federal government operates a carcinogen-of-the-month club. Today the best-seller is EDB (ethylene dibromide), though scientists of the stature of Bruce Ames at Berkeley declare it no more of a cancer threat than peanut butter and much less of one than a great deal of Mother Nature. Yesterday it was dioxin, and before that, going back over the years, Tris, cyclamate and saccharin, DDT, and many other substances, most of them long since forgotten in the breathless rush of the apocalyptic cancer scientists to be ever-interesting to media and public. Among the apocalyptics, as Efron demonstrates with a multitude of examples, the rage to regulation dominates, not the desire to learn about this extraordinarily complex and baffling disease.

In a concluding paragraph, Edith Efron cites Philip Handler who, when president of the National Academy of Sciences, called on scientists to confront the charlatans in their midst, the ideology-driven special-interest scientists, and to banish the antireason, antiscience trends in the general culture and the scientific culture. “That was desperately needed advice in 1981,” writes Efron; “it is still desperately needed advice today. In fact it is the most fundamental conclusion I can reach in this book. I would add one thing; it is not only for the sake of scientific culture that rational science should control their own irrationalists; it is also for the sake of the humanist culture.”

One final observation drawn from a prefatory commentary by the author is illuminating and also depressing. We learn that a finished manuscript of the book was sent to twenty world-renowned cancer scientists for their critical reading and, where appropriate, correction. All were obliging and all gave the book high commendation, declaring it an invaluable contribution to both the scientific community and to the public. Well and good. But when Edith Efron asked the scientists for permission to use their names in the acknowledgements, only four agreed. The others, their enthusiasm for the book and their own professionally secure standings as scientists notwithstanding, asked for (and of course received) total anonymity. The price of public association with so profoundly revelatory a book as this was simply too high even for scientists of highest stature. There is, in sum, and we should never forget the fact, a scientific establishment—church is not too strong a word—and woe betide the transgressor, for his name shall be Ishmael. It is worth remembering that Galileo’s troubles began, not with the church, but with the professoriat at the University of Padua, its scientific orthodoxy outraged by Galileo’s iconoclasm. Edith Efron’s disclosure is only a very recent episode in a melancholy succession in the history of science of orthodoxy and proclaimed heresy.