

the University of California, San Francisco library. *The Cigarette Papers* is a well-crafted, highly useful addition to the tobacco control literature.

Tom Houston, MD
Department of Preventive Medicine
and Environmental Health,
American Medical Association
Chicago, Ill

Smokescreen: The Truth Behind the Tobacco Industry Cover-up, by Philip J. Hilts, 253 pp, with illus, \$22, ISBN 0-201-48836-1, Reading, Mass, Addison-Wesley Publishing Co, 1996.

On December 15, 1953, in Manhattan's luxurious Plaza Hotel, executives of America's most lucrative tobacco companies sat down to plan a strategy to combat the growing animal and epidemiologic evidence of a tobacco hazard. Cigarette consumption in the United States had suffered its first major decline in decades, falling from 418 billion in 1952 to 384 billion. John Hill of the public relations firm Hill & Knowlton proposed a massive campaign to counter reports of the hazards, and the chief executive officers from Philip Morris, RJ Reynolds, Brown & Williamson, American Tobacco, US Tobacco, and Benson & Hedges gave the go-ahead. The result was the establishment of the Tobacco Industry Research Committee (TIRC), a triumph of deception in the guise of research. In the words of H. Lee Sarokin, a New Jersey judge who reviewed the history of the TIRC for a case in 1988, the organization "was nothing but a hoax created for public relations purposes with no intention of seeking the truth or publishing it."

From its inception, the TIRC's claim of "studying the problem" was a pretense. The carcinogenic potency of tobacco smoke was almost never examined, and the in-house work of scientists like Frederic Homberger, who did suggest a hazard, was suppressed. TIRC activists provided under-the-table payments to writers to place sympathetic reports in national magazines. In some cases, authors used fictitious bylines to hide the money trail. TIRC propagandists played the "moralism" card—proposing at one point that Roy Norr, author of the famous 1952 article in *Reader's Digest*, "Cancer by the Carton," be investigated "to find out if he had any puritanical moral views which might be used against him." TIRC officers published reports on "the smoking habits of long-lived, distinguished public leaders" and on "human ills erroneously attributed to tobacco over the centuries." Genetics was a popular focus, as was any other nontobacco process or substance that could be plausibly blamed for lung or heart disease (air

pollution and occupational exposures, for example).

Philip Hilts' account of tobacco industry science, law, and strategy is eminently readable, as one expects from a *New York Times* reporter. Compelling chapters treat the adulteration of cigarettes with tobacco "trash" (eg, stems and scraps from factory floors); advertising strategies (tobacco accounted for 40% of college newspaper ad revenues in the early 1960s); and the industry's unrelenting pursuit of "the youth market" (by targeting convenience stores near high schools, for example). There is an excellent account of internal industry research on addiction and several remarkable stories of how "whistle-blowers" like Merrell Williams and Jeffrey Wigand managed to smuggle tobacco industry documents into public view. Hilts recounts how several of the most successful whistle-blowers suffered slander and, in at least one case, threats to family members.

Hilts also shows how tobacco companies have gone to extraordinary lengths—including genetic engineering—to maintain nicotine levels in tobacco products. He does this by taking us on a tour of how tobacco is manufactured and how breeding and blending techniques are combined to engineer a product with the nicotine levels required to maintain product loyalty (generally 0.4 to 1.2 mg per cigarette). Anyone who ever doubted that nicotine levels are deliberately "manipulated" in the course of tobacco manufacturing will have few doubts after reading this book.

Tobacco companies have long recognized privately that tobacco is addictive, which is, after all, why teenagers are so often the targets of tobacco ads. Hilts points out that US Tobacco, a major manufacturer of chewing tobacco, spends half its advertising budget on "young adults," though young adults make up only 2% of the company's market share. The point is that unless you hook them young, you may not hook them at all. Hilts notes that half of all American teenagers own gifts, such as lighters, knives, or T-shirts, from tobacco companies. He also reveals that a lower fraction of smokers even than of heroin addicts have quit, giving the lie to the executive bluff that cigarettes are not habit-forming.

Hilts himself was once a smoker and confesses wistfully to a fondness for tobacco fragrances. He condemns the industry for its duplicity, but he also recognizes that smokers themselves must share part of the blame for the habit. Hilts' book should be read in conjunction with other recent exposes, notably *Ashes to Ashes*, by Richard Kluger, and

The Cigarette Papers, by Stanton A. Glantz, et al (see accompanying review; one could also include my *Cancer Wars* [reviewed in *JAMA*, August 16, 1995] in this genre). Kluger's book provides a more thorough historical account of the rise of tobacco; Glantz et al dissect tobacco industry chicanery in much greater detail, with a more scholarly style and exacting documentation. Hilts' book has the advantage, however, of being the most easily read and entertaining of the trio.

It is not yet clear what the long-term effect of this avalanche of exposés will be. Under President Clinton, the Food and Drug Administration has promised to regulate nicotine as a drug, and there are moves afoot to eliminate tobacco from all workplaces. It is hard to believe, though, that the tobacco executives who testified before Congress in 1994 will ever be held accountable for having testified, under oath, that tobacco is not addictive. Tobacco policy continues to divide the nation—even Republican and Democratic presidential hopefuls. One suspects that we have not yet heard the last from what Hilts calls the "disinformation machine," the master crafters of both tobacco habits and public deceit.

Robert N. Proctor, PhD
Pennsylvania State University
University Park

Neurosurgery

Neurosurgery, vols 1-3, edited by Robert H. Wilkins and Setti S. Rengachary, 2nd ed, 4271+ pp, with illus, \$550, ISBN 0-07-079991-1, New York, NY, McGraw-Hill, 1996.

The task of encompassing the complex field of neurosurgery by writing the definitive text is daunting to say the least. One should marshal the most formidable minds in the field to provide the in-depth coverage demanded. The editors of this monumental three-volume opus, Robert H. Wilkins of Duke University and Setti S. Rengachary of the University of Minnesota, have succeeded in doing just that. Virtually all the contributors have added importantly to the body of knowledge in their assigned areas. The material is up-to-date; generally, about 20% to 30% of the cited references in refereed journals are in the 1990s.

In addition to sections on the historical development of neurosurgery, one finds chapters like "The Art of History Taking" as well as a complete rendition of the elements of the neurological examination.

Short "courses" are rendered on topics generally regarded as pertinent to neurosurgery, but which have their own specialties. For example, there are tight,