

BOOKS *et al.*

SCIENCE POLICY

# The art of misleading the public

A government insider exposes the industry playbook for undermining evidence-based policy

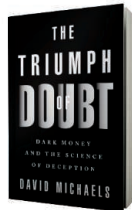
By Sheril Kirshenbaum

At the dawn of a new decade and in a pivotal election year, we face unprecedented challenges that threaten the environment, public health, and security. Meanwhile, dark money is being funneled through powerful lobbyists, plaguing the process of enacting informed, evidence-based policies. David Michaels's new book, *The Triumph of Doubt*, is a tour de force that examines how frequently, and easily, science has been manipulated to discredit expertise and accountability on issues ranging from obesity and concussions to opioids and climate change.

Michaels is the quintessential voice on the influence of special interests in policy-making and government inaction. An epidemiologist and professor of environmental and occupational health at George Washington University, he spent 7 years leading the U.S. Occupational Safety and Health Administration (OSHA) under President Obama and previously served

as President Clinton's assistant secretary of energy for environment, safety, and health.

His book offers account after account of unethical bad actors working against the public good on issues ranging from asbestos to climate change. Powerful firms and individuals seeking personal gain repeat the tactics of a well-worn playbook of denial and misdirection proven effective by Big Tobacco more than 50 years ago. Michaels pulls no punches, naming the corporations and people responsible for fraud, deception, and even what he terms "climate terrorism." He reveals the dirty ways that industries have succeeded at shaping their own narratives regarding safety and health by producing articles and diversions designed to deny and distort science while confusing the public.



**The Triumph of Doubt: Dark Money and the Science of Deception**

David Michaels  
Oxford University Press,  
2020. 344 pp.

When a Boston University brain study found that 110 of 111 National Football League (NFL) players' brains showed pathologies consistent with the rare disease chronic traumatic encephalopathy (CTE), the NFL hired its own conflicted scientists to counter and discredit these troubling findings. When reports from the International Agency for Research on Cancer, the U.S. National Toxicology Program, and the World Health Organization independently linked alcohol

Efforts to undermine brain injury findings keep professional football players in harm's way.

consumption to certain cancers, the alcoholic beverage industry claimed that these associations were not real and doubled down on its messaging that moderate drinking is good for us. When the opioid epidemic hit the United States, ravaging families and communities, well-documented evidence suggests that drug companies suppressed research and misrepresented the clear science demonstrating that opioids are addictive and easily abused.

What is most striking in *The Triumph of Doubt* is that Michaels is not merely reporting on how corporations and industries manufacture uncertainty. Rather, he provides an insider's perspective on the machinations taking place in the nation's capital, in courtrooms, and across the country. He offers firsthand accounts of where and when science is for sale, instances in which data have been reanalyzed to promote uncertainty and misrepresented findings, as well as the establishment of groups that advance corporate interests while hiding their involvement.

There are several moments when Michaels's accounts sound so ridiculous or egregious that *The Triumph of Doubt* feels more like fiction than reality—which, through the lens of 2020, is truly saying something. In one of the most memorable accounts, Michaels recalls when a product defense expert argued on behalf of American chemical manufacturers that OSHA had not adequately demonstrated that exposure to silica causes silicosis—a disease that, as Michaels points out, "by definition is caused only by silica exposure."

Every chapter is deeply disturbing yet feels familiar because the tactics—and at times even the actors—are the same. The book will, and should, infuriate readers and serve as a call to action to demand more government oversight and regulation on health and safety issues that affect every citizen regardless of party affiliation.

Michaels begins the final chapter by acknowledging that capitalism has the capacity to produce extreme wealth and economic development at a cost to our health and the environment. The book closes with a sense of unease and urgency, offering practical steps to strengthen U.S. regulatory oversight, provide more funding transparency, and increase corporate accountability.

Only when we begin to recognize the abuse of power that is rampant in decisions that affect the health and safety of our families and communities will we understand our necessary role in demanding scientific integrity in policy-making. *The Triumph of Doubt* may just bring us one step closer. ■

10.1126/science.aba5495