

New Guineans. This belief in himself rested on a realistic assessment of his own strengths and limitations, constraining him — unlike some other great scientists and many great musicians — to stay within his competence. For instance, he decided after many months of preliminary study not to extend his book *Animal Species and Evolution* to discuss plants, or *The Growth of Biological Thought* to include physiology and embryology, because he recognized his lack of familiarity with these subjects.

Mayr would defend his ideas vigorously. Often construed as dogmatism, it was a trait that he explained as heuristically useful by inviting challenge. He did not hesitate to discard his own long-held views when presented

with convincing contrary evidence, as when the naturalist James Chapin persuaded him to abandon his original lamarckian outlook. Because Mayr had previously stressed the evolutionary significance of peripheral isolates, I expected trouble when, during our collaboration on our book *The Birds of Northern Melanesia*, I sent him an analysis demonstrating that such isolates rarely spread upstream in northern Melanesia — but he raised no objection.

This biography is required reading for evolutionary biologists, historians and philosophers of science, and for scholars of creativity. It is organized for such a readership: Haffer separates the phases of Mayr's career and the fields of his science, explains the scientific problems

that Mayr studied, and appends Mayr's complete *curriculum vitae*, bibliography and an analysis of his publications.

Room remains for another biography of Mayr aimed at a broad public interested in how creative and productive minds are formed. Much more can be extracted from Mayr's diaries and letters, and from reminiscences of his students and younger friends. My advice to such a biographer: start soon, while those people are still available — and be grateful that Haffer has done so much of the groundwork in this splendid account. ■

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The dark side of cancer research

The Secret History of the War on Cancer

by Devra Davis

Basic Books: 2007. 304 pp. \$27.95

Daniel S. Greenberg

Scorn and bitterness steam from the pages of *The Secret History of the War on Cancer*. This amalgam of history, speculation and memoir argues that "the wrong battles with the wrong weapons and the wrong leaders" have consigned millions to preventable death from cancer.

Dangerous carcinogens — mainly tobacco, radiation, asbestos and benzene — continue to pollute the environment decades after their lethality was clearly identified, writes Devra Davis, an epidemiologist and director of the Center for Environmental Oncology at the University of Pittsburgh Cancer Institute in Pennsylvania. Their prevalence, she asserts, is the product of corporate greed and guile, warped political priorities, supine regulatory practices and dirty dealing by notable scientific generals. Today, new hazards may lurk in innumerable chemical compounds in convenience items, electromagnetic propagation and industrial waste, all shielded from scrutiny by malign cover-ups and evasions.

The well-known reality of this 'war' is that environmental clean-up, which means friction with corporate powers, has been neglected relative to curative strategies, which raise hope, enrich the scientific enterprise and offend no one. But the imbalance has been diminishing. In Davis's telling, however, little has changed in decades, leaving industrial polluters unrestrained, while devious characters profit by spreading cancer. For a nuanced understanding of the confrontation with cancer, look elsewhere.

Davis notes that Richard Doll, the epidemiologist credited with establish-

ing the relationship between tobacco and lung cancer, held lucrative consulting deals with major chemical companies and industrial associations, including a firm that he "defended ... against lawsuits from some of its asbestos-exposed workforce". By way of contrast, Davis chronicles the fate of several scientists who sounded alarms about environmental carcinogens, risking and sometimes losing their careers, while their findings were flushed down the memory hole.

Turning to her own experience, the author reports a conversation that she says occurred in 1986 — 22 years after the US Surgeon General's historic report on smoking and health, and 15 years after President Richard Nixon and the Congress declared war on cancer. While she was an environmental staffer at the National



Smoking risks were suspected when this ad came out in 1946.

Academy of Sciences (NAS), Davis alleges that the then NAS president Frank Press doused her plan to write a book about "the fundamental misdirection of the war on cancer". He warned her, she writes: "You can't write a book critical of the cancer enterprise and hold a senior position at this institution." Davis remained at the academy for a decade. "I watched ... the concerted and well-funded effort to identify, magnify, and exaggerate doubts about what we could say that we know [about carcinogens] as a way of delaying actions."

Asked to comment, Press, now an official at a consulting firm in Washington, wrote to me: "I don't recall the incident. It could have happened." Press added, "If as a staff member she wrote a book on issues before the academy, the NAS would be viewed as biased and predictable. Davis should have known this."

Davis details what was long-ago recognized about major environmental cancer risks, and how the polluting miscreants eluded control.

The tales she tells, and retells, are generally well known, as evidenced by the predominance of published sources in 22 pages of citations. From insider whistle-blowers and corporate documents unearthed in legal proceedings, the monumental deceptions of the tobacco industry, reiterated at length here, have been described and dissected in several distinguished books and innumerable articles. In this respect and others, the 'secret' in the title is questionable.

Nonetheless, for a well-documented, prosecutorial account of the dark side of cancer-control politics, Davis's work — lopsided and verbose as it is — merits attention. Younger readers, particularly, may be unaware of the corporate and political machinations that kept carcinogenic pollutants uncontrolled long after their dangers were understood.

Presented in fascinating detail is the long and troubled career of Wilhelm Hueper. Between the First and Second World Wars, this German émigré pathologist pioneered some of the earliest identifications of industrial

carcinogens. Hueper was threatened and eventually fired over his investigations of worker exposure at the chemical company DuPont. At the US National Cancer Institute (NCI), Hueper pursued the connection between environment and cancer, before meeting industrial resistance. Drawing on Hueper's unpublished autobiography, Davis relates that industrial firms were "given extraordinary access to his papers prior to their being submitted for publication when he worked at NCI". Permission to publish was denied, and Hueper was directed to confine himself to animal studies.

Pessimistic about industry voluntarily mending its carcinogenic abuses or government forcing a cleanup, Davis proposes an intriguing remedy. The creation of a Truth and Reconciliation Commission (TRC), à la post-apartheid South Africa, would, she reck-

ons, encourage industrial executives to confess to their environmental delinquencies: "The files of many large multinational businesses could easily tell us about many more health risks associated with workplace exposures of the past." Under a TRC regime, she suggests, "grace and forgiveness become the grounds for renewal and restoration".

Davis's inventory of long-standing corporate and government tolerance of known carcinogenic exposures is faultless. Her failure to acknowledge that in important respects the tide is turning detracts from the credibility of her work. Her call for a TRC is a strikingly imaginative gambit. Given the power and mood of corporate America, file it under 'fantasy'. ■
Daniel S. Greenberg, a journalist in Washington, is author of *Science for Sale: The Perils, Rewards, and Delusions of Campus Capitalism*.

an excellent US initiative led by Nordhaus and Shellenberger, which unfortunately failed to gain political traction. Much more time is spent demolishing the environmental justice movement and discussing the inadequacies of 'not in my back yard' politicians than in spelling out how the environmental dream might actually become reality.

Also galling is the almost limitless flow of optimistic, unsubstantiated assertions about the benefits of a positive mindset. The authors urge environmentalists, instead of being so anti-growth, to proselytize that "things need to get a lot better economically before they can get better environmentally". I happen to agree with this view in terms of emerging countries such as China and India, let alone some of today's poorest nations, but Nordhaus and Shellenberger seem to position themselves outside the critical debate about the kind of economic growth required.

The political naïveté can be as painful as the spurious optimism. The damage done by seven years of the Bush administration is barely referenced. Capitalism is simply assumed to be a good thing, without any deeper analysis. Crude either/or dichotomies rule. For instance, anyone who sees the Kyoto Protocol as part of the global effort now required to decarbonize our economies is portrayed as dumb. Their idea that Kyoto's limits-based, target-driven process is somehow incompatible with investment in clean technology is the kind of simplistic illogicality that Tony Blair struggled with over many years' dealings with Bush.

Break Through is an important but massively flawed contribution to today's debate about the future of the environment. Its historical analysis of the movement is valuable. The promised radical alternative remains elusive — and would still be of enormous worth. ■

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Promoting capitalism over Kyoto

Break Through: From the Death of Environmentalism to the Politics of Possibility

by Michael Shellenberger and Ted Nordhaus

Houghton Mifflin: 2007. 256 pp. \$25

Jonathon Porritt

In 2005, Ted Nordhaus and Michael Shellenberger caused a furore among environmentalists when they published an article entitled 'The Death of Environmentalism' in the online magazine *Grist*. It combined penetrating insights into the inadequacies of contemporary environmental thinking with a robust, upbeat assessment of the opportunity to transform the global economy. At the time, it was exactly what was needed. But in elaborating their original thesis into a densely argued book, the self-styled 'bad boys of environmentalism' have largely lost the plot.

Their analysis of the historical relationship between affluence, economic security, personal identity and 'the American dream' is illuminating, particularly perhaps for European readers. Some of the early chapters assert a creative world view — on how best to deal with the rainforests in Brazil, for instance, or on the contrast between faith communities and the environmental movement. And their sustained, if repetitive, critique of conventional environmental thinking is still apposite. Many environmentalists are indeed too misanthropic, too focused on technocratic and regulatory solutions, and far too apocalyptic for their own good, let alone the good of the environment.

But Nordhaus and Shellenberger did all that three years ago. In *Break Through*, they overegg the pudding with grotesque exaggerations and generalizations, and with such a startling lack of generosity as to make one question their true

motives. For instance, they would have readers believe that they alone are advancing an investment-led approach to climate change (rather than the limits-based regulations embodied in the Kyoto Protocol). Not a mention of *Natural Capitalism*, the radiantly upbeat book by Paul Hawken, Amory Lovins and L. Hunter Lovins, or of the 30-years-plus of inspired, investment-driven technology developments promoted by the Rocky Mountain Institute and Amory Lovins. Similarly, it would have been proper to commend the sophisticated global Marshall plan that Al Gore outlined in his 1992 book *Earth in the Balance* and to highlight the failure of Gore's documentary film *An Inconvenient Truth* to talk solutions.

The main disappointment is that *Break Through* does not produce any coherent new environmental agenda. There are a few references to the Apollo Project on clean energy,



To highlight climate change, naked volunteers pose for a photo on a Swiss glacier as part of a campaign.