

# SCIENCE'S FLAWED SUPREME COURT

**The Brain Bank of America: An Inquiry into the Politics of Science** By Philip M. Boffey. Introd. by Ralph Nader. McGraw-Hill, 1975, 335 pp. \$10.95.

BY KENDRICK FRAZIER

Since this book argues for maximum possible disclosure of all actual and possible sources of bias and conflict of interest, let me clearly state at the outset three of mine. They concern, in order, the book's subject, sponsor, and author.

First, the subject, the National Academy of Sciences. I am a former staff member of the Academy, having been editor of the Academy's 10-times-a-year *News Report* from June 1966 to June 1969. Like many who have worked in those cloistered halls, I view the Academy with a mixture of restrained admiration and continuing frustration. I have had the privilege (if one can call it that, considering the uneventful nature of most I witnessed) of attending meetings of the Governing Board of the National Research Council and occasionally sitting in on closed meetings of a few of the more than 500 advisory committees. Boffey was not allowed the same right, but that doesn't seem to have impaired his reporting in any way. Reading his descriptions of the foibles of the Academy was like old home week. More on that later.

Second, I consider Ralph Nader, for whose Center for Study of Responsive Law Boffey carried out his investigation, to be an important force for the public good. But I do think Nader is sometimes wrong and misleading, particularly on certain technological issues. I try to exercise skepticism, and not automatically equate him and his activities with God, motherhood and country.

Third, I have always admired Boffey's skills as a thorough and fair-minded, if tough, investigative reporter. His publishers have seen fit to quote, on the book jacket, a sentence to that effect, which I wrote in *SCIENCE NEWS* when his study was announced four years ago (SN: 4/10/71, p. 247).

The book has not diminished my favorable opinion. Some Academy people feared the Academy could not get a fair shake from the Boffey study. They may not agree, but I think it has. The book



*The Academy: Marble walls and hallowed halls, but too cozy with agency interests?*

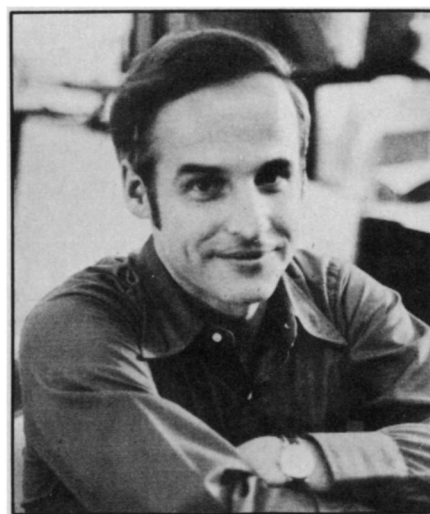
is not an emotional tirade, but a careful, detailed and factual job of reporting and assessment. Its tone is not of anger or outrage, but of methodical analysis and constructive criticism. As long as readers keep in mind that its emphasis is purposely on committees, reports and activities that have showed serious shortcomings, as opposed to those that have fulfilled their public duties honorably, no injustice to the Academy is done. Boffey's is certainly the best critical analysis of the Academy since the lively series of three articles by former Boffey associate Daniel S. Greenberg in *SCIENCE* in 1967—and of course the scope and ambition of Boffey's study is far greater. Boffey's presentation is straightforward and free of the smart-alecky invective that sometimes tarnishes Greenberg's writings.

Boffey begins with a general litany of complaints, major and minor, long familiar to all those who know the Academy. The Academy has aspects of a self-perpetuating gentleman's club, its membership being drawn from the elite universities to a degree greater than warranted by other measurements of where top talent is located. (The Academy's honorific function is less important to the public than its advisory function, but the membership does help shape the advisory apparatus.) Selection of committee members is too often by "the buddy system." Committees tend to be dominated by "safe" scientists with little heart for changing the status quo. Committee staffs tend toward mediocrity. Studies inevitably recommend "more research." Reports tend to be bland and noncommittal (sometimes the reason is that the agencies sponsoring the studies want them that way). Sponsoring agencies are frequently able to use the Academy to support already selected decisions by (for example) writing the terms of the contract so narrowly that the Academy is restricted to

a benign side issue. The Academy's dependence on Government agencies for financial support dampens its willingness to be sharply critical. Committee members selected for their expertise in a problem may be too involved to be objective.

There is truth in all these generalizations, but the points have all been made before, the Academy is well aware of them, and in recent years it has taken a number of steps to try to rectify abuses and problems noted by its own members and critics (Boffey lauds these measures but considers them inadequate). The strength of Boffey's study is that he goes beyond generalities to document in detail, through lengthy and solidly reported case studies, an astonishing variety of Government and industry intrusions of vested interests into the Academy's handling of six major technological problems of our time: radioactive waste disposal, the supersonic transport, defoliation, safety of food additives, persistent pesticides, and airborne lead.

Before entering this labyrinth of claims



*Boffey: Case studies of special interests.*

of bias, conflict of interest, and cozy relationships with sponsoring agencies, it's worth noting two caveats Boffey graciously provides: ". . . It should be acknowledged that the Academy tries harder than most consulting groups to eliminate bias from its advisory committees." (In fact, some segments of the technical community have resented its imposition of a requirement in August 1971 that all appointees submit a confidential statement of "potential sources of bias.") Furthermore, Boffey says, "We found no case of direct, personal conflict of interests" in which a committee member profited financially as a direct result of advice he offered.

Boffey's defoliation inquiry documents one of the ways the Academy can fall victim to the narrow interests of a Government agency that sponsors an Academy study. In the early round of participation of the Academy in the defoliation controversy—review of a Midwest Research Institute report on the literature of defoliation—the Academy's role was so narrowly defined that, as Boffey quotes George Wald, "All the Academy could do was say, 'Yes, it's a creditable library job.'"

Concludes Boffey on the defoliation issue overall: "The Pentagon used the prestige of the Academy as a weapon to beat back challenges from other scientists; it maneuvered the Academy into positions where it could do little to undercut the herbicide program until after it had been phased out."

(A gentle chide of Boffey may be in order here. He criticizes the Academy for appointing as chairman of its 1967 defoliation committee a scientist formerly involved in Army herbicide research, but he looks with apparent favor on the fact that the American Association for the Advancement of Science appointed to head its defoliation committee "a longtime critic of chemical and biological warfare." Is potential bias in one direction acceptable, but in the other direction, not?)

The only subject of a Boffey case study on which I have any personal knowledge was the Academy's involvement in the SST controversy. It was maddening, when I was there, to see the Academy restricted to advising on narrow technical issues of the SST, after the Government decision to build one had already been made, and furthermore to be witness, and even victim, to the enormous strains and pressures caused by the obvious desire of the FAA, agency sponsor of both the SST and the Academy's studies of the SST, to get Academy support for its aircraft. All facts reported by Boffey with which I am familiar regarding the SST flap are accurate.

In food safety, it was a standing, and regretted, joke when I was there that the Academy's Food Protection Committee was in the hands of industry, and compared with other Academy's committees

### How the Government Stifled A Maverick Academy Panel

The report—the toughest attack on the radioactive waste disposal program yet issued—was transmitted to the AEC in May 1966; it promptly disappeared from sight for several years. On Nov. 7, 1966, the AEC sent a 15-page critique to the Academy which purported to show that the committee's report had been misguided in its major conclusions and recommendations. . . . In a cover letter, the AEC said that, since the report had already been made available to pertinent personnel, "we do not believe that additional distribution or publication of the report is warranted." So the report was suppressed. Its disturbing conclusions were made known only to a handful of insiders despite repeated efforts by the committee to get the documents released. The committee prepared a rebuttal of the AEC's critique but this, too, was never made public. What's more, the committee itself was disbanded. . . .

Further meetings were held between Academy and AEC officials and a compromise was finally reached, though the price to the Academy was high. The original committee was dismissed, and a new committee was established with a virtual guarantee that the AEC would have closer control over its operations. . . . A proposal submitted to the AEC by the Academy [acknowledged] that the AEC would retain the right to suppress reports that were not to its liking.

—from *The Brain Bank of America*

it was true. In fiscal 1972, the committee received 40 percent of its budget from industry, and key committee figures had long been openly hostile to contentions of the hazards of food additives. Boffey finds that reports issued by the committee between 1968 and 1972 consistently hesitated to recommend stern action and downplayed the likelihood of subtle, long-term hazards.

In the study of airborne lead, Boffey reveals that a DuPont scientist who had contended for years that there's nothing harmful about tetraethyl lead ended up writing crucial sections of the Academy report despite not being a member of the panel. Moreover, the report was so rambling and poorly written that there was immense confusion over whether it exonerated lead, or, as the panel chairman believes, "provided a clear basis for doing something about lead in the air." Boffey offers no fewer than eight explanations for why the report, in the words of a scientist on the Academy's own report review committee, "failed miserably" in making it clear that airborne lead is a hazard.

It is impossible in a short space to do justice to the detail and documentation Boffey has amassed showing how these and other studies were defective.

What conclusions should be drawn? That the Academy is corrupt, that it

should be dismantled? Hardly. Only that, like all institutions, it is fallible, imperfect. That it bears watching.

Many reports have been highly competent, even farsighted. Two especially praiseworthy early reports, Boffey notes, were the 1963 study on growth of world population that was instrumental in pushing the Government into support of birth-control efforts and the 1962 report on natural resources that warned that U.S. oil production would peak and decline in 10 years, a truth only recently acknowledged by the U.S. Geological Survey. Others include the Academy review of drug efficacy, a 1972 report on biological effects of ionizing radiation ("won praise from all sides"), a 1973 report on motor vehicle emissions and a 1973 report on Western coal lands that warned that there is not enough water to support the massive energy-conversion plants planned by utilities there. But in Boffey's view such successes are limited and overshadowed by the distressing number of defective reports.

Boffey offers a host of proposals for reform: new mechanisms for actively soliciting adversary views, opening advisory proceedings to public inspection (a measure partially put into effect by NAS President Philip Handler last month (SN: 5/17/75, p. 317), inclusion of minority conclusions in reports, and limiting its advisory tasks to those it feels especially significant instead of taking every odd job that comes down the road.

The admirable reforms Handler has implemented during his tenure unfortunately do not, Boffey laments, fundamentally solve the Academy's major weakness: "Its master-servant relationship to the government agencies and industrial interests which provide financial support." Boffey hopes the Academy can get additions to its endowment to provide greater independence, a goal I'm sure the Academy shares. In the meantime, he makes the laudable point that every Academy committee "should approach its task as if it were representing the public rather than offering consulting services to a particular agency."

I feel Boffey somewhat underestimate the importance of the measures Handler has taken to help make the Academy a more open and publicly accountable institution. But in this complicated age, where the Academy is called upon to help adjudicate the most crucial technological issues of our time, we would all do well to do as Boffey suggests in his final chapter:

" . . . Be cautious about accepting the Academy's pronouncements as the Unchallengeable Word from On High. Academy studies run the gamut—from significant to trivial; forward-looking to old hat; courageous to timid; objective to biased. Each must be judged on its individual merit rather than accepted on faith because of the aura of prestige which surrounds the Academy." □