

## Book Reviews

THE BALTIMORE CASE: A TRIAL OF POLITICS,  
SCIENCE, AND CHARACTER

By Daniel J. Kevles. 509 pp. New York, W.W. Norton, 1998. \$29.95.  
ISBN 0-393-04103-4.

IT is difficult not to feel sympathy for (or fearful identification with) David Baltimore, who endured an ordeal of epic proportions over more than a decade because he objected to the tactics of his inquisitors. After all, it is hard to feel good about a governmental process that takes 10 years to grind to its conclusion, sullies all the participants along the way, and ends with a verdict that excoriates the competence of the prosecutors while damning with faint praise the quality of the science. On the other hand, that the process was horrific is not a defense of conduct. This is a point that Daniel Kevles seems to have passed by in writing this homage to Baltimore.

Kevles, a professional historian, says he approached this work with "an obligation to achieve a balanced understanding of the story," but his book is not even-handed, and his 92 pages of endnotes do not fully support his assertions.

Kevles starts by describing Margot O'Toole, the young postdoctoral fellow who questioned the accuracy of a paper of which Baltimore was a coauthor. Kevles reports from interviewing her that she was "virtually bred to confront trouble." Even more, "Civil rights protests and demonstrations against the Vietnam War had flourished during her undergraduate years, likely encouraging her familial propensity for dissent." The sources for the paragraph containing the latter statement include notes of a telephone conversation in 1993 between two people neither of whom is O'Toole or anyone in her family. In contrast, Kevles learns from direct interviews with Baltimore that his family's "left-leaning" heritage and his exposure to the McCarthy hearings as a high-school student undergirded his principled objections to Congressional inquiries into his questioned science.

Thereza Imanishi-Kari, O'Toole's supervisor and a coauthor with Baltimore of the paper in question, is described as "vivacious, competent, quick on her feet and formidably smart." On the next page, we learn that she "broke the laboratory rules against smoking and neglected to meet M.I.T.'s requirements for getting ahead." Whereas Imanishi-Kari merely "neglected to meet" standards for getting ahead, what O'Toole "seemed at heart to crave was recognition as an insightful scientific critic and, more important, legitimation as a practicing scientist who was not incompetent because she could not get Bet-1 to work."

Of even greater concern is Kevles's seeming willingness to gloss over (or deny) documented facts. He writes that a government lawyer "spent most of one morning in September trying to impugn Imanishi-Kari's veracity, suggesting, among other things, that she had lied about earning the equivalent of a master's degree at Kyoto University. . . . [Her lawyer] demonstrated that the suggestion had no

merit." The endnote at the end of the paragraph containing these sentences makes reference to an official letter from Kyoto University saying there was no record that she had ever been enrolled there, and a "To Whom It May Concern" letter from two faculty members saying "that she had done enough to complete the 'two-year Master course.'" Conspicuously missing is any reference to the National Institutes of Health grant application in which Imanishi-Kari asserted that she had a master's degree in developmental biology from Kyoto University — not that she had "the equivalent of a master's degree."

My central objection to the book, however, is to its premise that Baltimore's "ferocious" defense of the questioned paper, without careful review of the data or any attempt to replicate the admittedly complex science — was appropriate. Much space is given to how very bad the government's process was in this case, which started even before there was a published definition of scientific misconduct or a set of procedures for responding to allegations of it. This seems beyond dispute, and documenting what we have learned about fairness to participants in cases of misconduct is important. But doing that is different from considering the obligations of scientists when questions about their work arise. Do we truly believe that science benefits when a prominent scientist acts as Baltimore did in this case?

Kevles argues that nothing Baltimore could have done would have made any difference. He also endorses how "Baltimore unabashedly defended the common-sensical legitimacy of collaborators' taking the results of participants in other specialties to a considerable degree on trust." Despite these defenses, however, Kevles never addresses how the scientific community should respond when serious questions are raised about published work. This omission undercuts many of the book's conclusions about Baltimore's conduct.

Even more remarkably, Kevles seems to believe that attention to the issue was unwarranted. He comments that concern about scientific fraud and misconduct "was a peculiarly American phenomenon, compelling attention at the time in no other scientifically vital nation, a product in part of the political culture of the day."

What? Are we to understand that it was unsuitable for Americans to pay attention before others addressed these issues? And perhaps, now that serious problems of scientific conduct have surfaced publicly and are being addressed in other countries (including Germany, Denmark, France, and Britain), that it becomes more appropriate?

It is troubling that Kevles appears to have lost his objectivity. He reports that Baltimore's critics applied a "mythical standard of scientific practice" requiring ethical scientists "to respond to every challenge by returning to the lab to check their work." This is simply not what the cited publication, a commentary in *Nature* by Harvard biochemist Paul Doty, states. Doty quotes physicist Richard Feynman on the integrity of scientific thought, which requires "utter honesty — a kind of leaning over backwards . . . (to) report everything that you think might make (an experiment) invalid." This remains a basic tenet of sound science — and *mutatis mutandis*, of sound history as well.

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