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EDITORIAL

Simplicity and Complexity in Conflict of Interest

A commentary in the *Journal of the American Medical Association* [(JAMA) 259, 2782 (1993)] entitled "Conflict of interest: The new McCarthyism in science" criticizes the conflict-of-interest policy of *Science*, saying in part that "open dialogue, accusation and criticism is threatened by editorial policies that focus attention on the circumstances of the writer rather than on the substance of the writing." And later, that "like McCarthy in the 1950s, the frenzy of credential checking is apt to get way out of hand." George D. Lundberg, the editor of JAMA, assured me that the science in the subtitle meant science in general, not *Science* in particular, and that he was aware that JAMA's policies on disclosure are almost identical to those of *Science*. He published the commentary, signed by Kenneth J. Rothman, believing it might stimulate debate on an important topic.

The commentary has some good points but vastly oversimplifies the problem. If a distinguished chemist writes an article on the danger of fluorohydrocarbons to the ozone hole, a statement to readers that he or she owns some stock in a company that makes fluorohydrocarbons does not prove that he or she is biased, nor would such information in an article that comes to the opposite conclusion prove that the data must be true. Stating that the author owns stock does not indicate what fraction of his, her, or the company's income might come from that product, but it alerts the reader, who must be assumed to have some sophistication in evaluating data.

Science's policy, elaborated in the editorial of 31 July 1992, was based on procedures used by the National Science Foundation (NSF) that had been found to be effective and not onerous for reviewers. Authors, reviewers, editors, and news writers are asked to inform us of any potential conflict of interest that might consciously or unconsciously bias their opinion in refereeing or writing a paper. That information could include such items as financial interest, work in the reviewer's own laboratory that conflicts with or competes with the paper being reviewed, or strongly held intellectual, religious, or social convictions when relevant. We chose this approach because the NSF had used it in screening grant applicants and grant reviewers with good results.

The information that we receive is kept confidential, and if the editor thinks it is important, we include a comment in the author credits that might say, for example, "Dr. X is President of Y Venture Capital Company." The author is consulted before publication. The journal takes care to avoid direct competitors in selection of referees, but scientists change research interests and become consultants for companies at a rapid rate, and answers to this request can be helpful. Critics may say a deceitful person will fail to provide the information, but a subsequent finding that we had been deliberately misled would cause us to reevaluate the individual as an author or reviewer. Since *Science's* policy has been activated, we have had no serious problems either of commission or of omission that would require us to change it. Wealth can cause a bias, but so can poverty. Fame can cause a bias, but so can obscurity. In developing a conflict-of-interest policy, editors have a difficult job of dealing with a complex subject, and anyone who seems to reduce it to a notion of innocence versus guilt, accusation versus due process, or greed versus altruism is destined to failure.

This editor is mindful of the exchange between a captain and first mate who did not like each other. One day the captain wrote in the ship's log, "First mate was drunk today" and refused to expunge the statement despite pleading by the first mate that it was the only time he had erred in many years of exemplary service. So the following day when it was the first mate's turn to write the log, he wrote, "Captain was sober today." The truth taken out of context can be deceptive and pejorative.

The view that we can do without a conflict-of-interest policy does not seem practical in the current era, and therefore we are going to have to deal with the potential danger of those who will use conflict of interest as an ad hominem bludgeon. An open system in which the reader and the editorial staff are made aware of relevant facts, and are then able to make informed judgments about which facts are determinative, protects readers, authors, and reviewers. This is particularly true when the audience is sophisticated.

Daniel E. Koshland, Jr.