Misconduct: Judgment Called For

Frederick Grinnell, in his editorial "Ambiguity in the practice of science" (19 Apr., p. 333), argues that the usual practice of science contains "ambiguities," that is, departures from the ideal of total truthfulness and fairness. He tries to show that a definition of misconduct in science should not be based on the principle that scientists should be truthful and fair, or on any other fundamental principle. Instead, the definition should be based on "conceptually unambiguous examples" of misconduct, which will help in some unspecified way in the assessment of more ambiguous cases.

As it happens, misconduct cases generally are about truthfulness or fairness. The important thing is that scientists should not be held to a standard of perfection; rather, a misconduct case should be initiated only when a scientist's departure from truthfulness or fairness has been egregious.

Ambiguity haunts misconduct cases at least as much as it affects the normal practice of science. Even the relatively clear-cut examples Grinnell cites (data fabrication, plagiarism) raise questions such as intent and whether the action in the actual circumstances was serious enough to be misconduct in science. Simple rules do not resolve such questions. The ambiguity of actual cases calls for the application of judgment based on the standards of ethical practice of the relevant community of scientists. Any definition that does not recognize the need for that kind of judgment in individual cases will in the end subject the accused scientist to legal standards taken from some other source. One of the major issues in defining misconduct in science is whether scientists can continue to be judged according to the scientific community's own standards of practice.

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*These remarks should be attributed to the author, and not to his office or agency.

Response: Buzzelli concludes: "One of the major issues in defining misconduct in science is whether scientists can continue to be judged according to the scientific community's own standards of practice." I believe, however, that we have yet to adequately describe these standards. Instead of appealing to theoretical, fundamental principles, we need to articulate what doing science actually entails and to explain how the ethical practices of science fit into the context of everyday research. Identifying sources of ambiguity in science and analyzing unambiguous examples of misconduct will help accomplish these tasks.

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Gifted Public Servants

Henry Miller's ill-natured commentary (Letters, 12 Apr., p. 180) on the editorial by Gerald R. Fink ("Bureaucrats save lives," 1 Mar., p. 1213) requires a response. The National Institutes of Health and the National Science Foundation *do* "indeed have a legion of gifted public servants who possess invaluable knowledge and experience gained at the forefront of science." There is no "may" about it. Miller's aspersions on technical expertise at the regulatory agen-