

Corporate scientists: Ethics of dissension

Tales of "whistle blowing" are most often recounted by former corporate scientists and engineers. Once they reveal what they consider unethical or potentially harmful industrial secrets, they resign or get fired in short order. This situation is either "the way it should be," or "the science of intimidation," depending on one's side of the corporate wall. And since 90 percent of science graduates during the next decade will work in industry, the problems of the corporate scientist are not going to go away.

These points were made by panel members during a AAAS session on "Ethics and the Corporate Scientist" in Boston last week. Two corporate scientists, three former corporate scientists, two academic scientists and a lawyer debated the differences between the traditional scientific ethos and the corporate scientific ethos and how these ethical conflicts affect the corporate scientist.

The industrial position was presented by Arthur Bueche, General Electric Co.'s vice president for research. Bueche's participation was appropriately (and ironically) timed—three General Electric nuclear engineers resigned a month ago to protest what they consider the hazards inherent in nuclear power generation. They felt, apparently, that resignation was their only alternative in an ethical schism of such magnitude.

"And I completely agree with their actions," Bueche said. "It is fine for scientists to be advocates as long as they are willing to pay the price." It is difficult, he said, to combine professional scientific investigation with the role of "social advocate." Every corporate employee is hired to "contribute to the growth and success of the company, and all responsibilities stem from this." In his view, the scientist or engineer has three responsibilities: 1) To do creditable scientific work, 2) to protect trade secrets, 3) to develop safe products that perform as intended. "The corporate scientist who does not live up to these responsibilities or who chooses to pursue advocacy," Bueche said, "must be willing to resign."

But resignation, panel member Peter Petkas argued, is not a viable alternative, either in economic terms or in terms of finding other employment in a scientific field in which large corporations dominate large sectors of the job market. This absence of alternatives, he said, often forces the scientist to remain silent about an unethical or potentially hazardous design or practice. Petkas is an attorney for the Southern Governmental Monitoring Project in Atlanta, Ga., and a former member of Ralph Nader's corporate responsibility study group.

The corporate scientist, he said, like other corporate employees, has essentially no rights under common or constitutional

law, including no protection against "malicious discharge" for blowing the whistle. "One of the murkiest parts of the law," he said, "is trade secrecy." Although there is no single definition, it can be considered "a piece of information that, if disclosed, would cause economic harm to the institution that owns it." Corporations, he said, have come to view any criticism or conflict with corporate policy as the disclosure of a trade secret since economic harm might result.

One Xerox chemist, for example, was fired in 1972 for playing the "devil's advocate" in a public debate with managers from other companies—a role Xerox officials asked him to play. He criticized the company's use of outdated information during certain business transactions. His remarks were subsequently published in a trade journal without his permission and the appearance of public criticism cost him his job. He has not been able to find a job as a chemist since.

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Two former corporate scientists told the AAAS session their own stories of ethical conflict and ultimate resignation. Carol Benson, now an environmental consultant in Bethesda, Md., and founder of the Association of Environmental Professionals, worked 10 years ago for a company building a power plant in Nebraska. Benson was in charge of environmental assessment of the proposed site. She discovered that plant construction would destroy an eagle habitat (an endangered species), that the proposed site was upwind from a population center and that one generator was to be nuclear powered (a fact being concealed from the public). The company bulldozed the eagle habitat before biologists finished their field studies and "laughed off" Benson's other protests. "My only alternative was to resign," she said, "and I am proud to report that most of the people I had hired walked out, too."

Louis V. McIntire, now a consultant in Orange, Tex., swung into some strong rhetoric while describing his troubles at DuPont. "Let me refresh your memory regarding what goes on behind the corporate wall." He listed five points from his own experience:

- Scientists must sign patent contracts that waive their legal rights to products they invent.
- Scientists must sometimes sign patent applications for inventions made by former employees.
- Others sometimes get patent credit for a scientist's inventions while he is still employed.

• Supervisors are sometimes told to criticize the work of scientists that company officials wish to fire for other reasons. If the supervisor resists, he is told he is not "management material."

• If a scientist is earmarked for firing, he is told to resign first or the company will make it difficult for him to get another job.

"Are all of these things the science of ethics," McIntire asks, "or the science of intimidation?"

Conflicts stemming from the differences between scientific ethos (rationality, free enquiry, objectivity, open access and self-ownership of theories and patents) and corporate ethos are built in to science education. "There is a striking difference," Harvard sociologist Dorothy Shore Zinberg said, "between a student's training and his employment reality." Students are imbued with the traditional scientific ethos by academic scientists and, in increasing numbers, carry these values into corporate positions.

"In the next decade," Zinberg said, "less than 10 percent of all science jobs will be in academia. And yet, 45 to 52 percent of all college graduates feel 'business is not viable as an institution,' and 94 percent believe that 'business is too concerned with profits and not public responsibility.' This," she said, "does not bode well for the vitality of American industry. Faced with the need to have a job but with the belief that the corporation is ethically bankrupt, young scientists succumb to a feeling of powerlessness. . . ."

Two answers to this problem, Zinberg said in an afternoon session devoted to practical solutions, are to teach science ethics to college students by presenting them realistic case studies and to bring industrial scientists into the universities to team-teach. The goals of such a program should be modest, she said, "not unlike those of consciousness raising" with women and minorities. "With science students, we could call this conscience raising," and perhaps, in time, a new ethic will pervade corporate science.

But the scientist who wishes to blow the whistle now, but cannot afford to resign, should be protected by law, Petkas said. Large corporations should be chartered by the Federal Government, he said, thereby giving employees protections and freedoms not now ensured under state charters. And a company, he said, should be forced to provide the employee with an income until he finds another job if that employee can prove that his rights were abridged.

Bueche pointed to General Electric's ombudsman system and a special board of directors' committee empowered to handle social and ethical problems as a model for other companies. And other panel members felt that professional scientific societies should support their members through difficult ethical conflicts. □