ment of drugs and devices. In such a way came the discoveries of x-rays, penicillin, the polio vaccine, and genetic engineering. No industrial organization or philanthropy *had* or *would ever have* the resources or disposition to sustain such costly, long-range, apparently impractical programs. In sharp contrast to the success of investments in basic research are the disappointments in narrowly directed programs, such as the assault on cancer, in which the complexity of the problem far exceeds the essential available knowledge.

The current bipartisan support in Congress of the National Institutes of Health attests to the recognition that the federal support of basic research is a cost-effective investment in the nation's health and economy. I can make a similar case that truly pioneering inventions (for example, the airplane, xerography, the transistor) are the sources of industrial strength. It is an utter illusion to expect that philanthropy and industry will for the foreseeable future do more than catalyze the long-term support of basic science from federal sources.

Arthur Kornberg
Department of Biochemistry,
Stanford University,
Stanford, CA 94305–5307, USA

Defining Misconduct

In his editorial of 12 July (p. 163) Kenneth J. Ryan indicts the "scientific community" as a whole, saying it "has been reluctant to discourage misconduct and sloppy research" and that "the current research environment seems to foster cynicism about simple virtues such as honesty and fairness." Against this background of harsh pronouncements, Ryan defends his attempt to replace the existing official definition of misconduct (fabrication, falsification, and plagiarism) by his far more sweeping and vague categories of "misappropriation, interference, and misrepresentation."

Because Ryan refers to writings by each of us, we feel it necessary to make clear to readers of *Science* that neither of us endorses this redefinition. Moreover, it should be pointed out that this proposed definition has encountered widespread opposition by thoughtful people and organizations, including the Council of the National Academy of Sciences (CNAS) and the Federation of American Societies for Experimental Biology (FASEB) (*1*). To remain healthy, scientific research must be protected not only from misconduct but also from undue zealotry in expanding the grounds for charging misconduct.

Gerald Holton
Departments of Physics and History of Science,
Harvard University,
Cambridge, MA 02138, USA
Frederick Grinnell
University of Texas Southern Medical Center,
Dallas, TX 75235–9039, USA

Notes

1. For recent summaries of the reasons for CNAS and FASEB opposition, see *The Scientist* **10**, 3 (22 July 1996).

■

Fowl Call

The caption of the picture (p. 1873) in the item "The tale of a peacock's tail" (Meeting Briefs, 28 June, p. 1872) states, "Computer model finds female peacocks limit time spent on choosing a mate."

No time whatsoever can be so spent. The world lacks female peacocks. There are, however, peahens and peachicks. The picture shows three peafowl—two peacocks and a disinterested peahen who, surely, would take offense at being regarded as a mere "female peacock."