from the Indian Ocean region to permit them to gain practical experience by working aboard ships of the expedition. Several experts are being recruited to work with local scientists on programs related to the expedition. All told, UNESCO will spend in 1961 and 1962 about \$250,000 on various projects concerned with coordination and other international aspects of the expedition, somewhat more than half of its total budget in marine science.

It should also be noted that at its first session (19 to 27 October 1961) the Intergovernmental Oceanographic Commission adopted a resolution directing its secretary (directer of UNESCO's Office of Oceanography) to assume additional coordinating functions for the expedition. Hence, by the time the expedition is in full swing, the role of UNESCO may be even more significant. WARREN S. WOOSTER

Office of Oceanography, United Nations Educational, Scientific, and Cultural Organization, Paris

#### The Competitive World

#### of the Scientist

F. Reif's stimulating article, "The competitive world of the pure scientist" (1), brings to mind an earlier discussion of this theme-namely, Robert K. Merton's presidential address to the American Sociological Society in 1957, on "Priorities in scientific discovery" (2). Like Reif, Merton points out that the "selfish" motives of scientists may be both functional or dysfunctional for the progress of science, and, moreover, that the competition for originality is by no means a modern phenomenon. Thus, he quotes François Arago, one of the permanent secretaries of the French Academy of Sciences, who wrote in 1839, apropos a priority controversy involving Cavendish and Watt, that "to describe discoveries as having been made 'about the same time' proves nothing; questions as to priority may depend on weeks, on days, on hours, on minutes" (3).

My purpose in writing this letter is twofold: (i) to make Reif and the readers of *Science* aware of another treatment of the priorities problem a treatment both exhaustive and delightful; and (ii) to point out that competition for originality may occur not only between the practitioners of a discipline but also between the ad-

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herents of different disciplines which are ordinarily not in close competition with each other-for example, physics and sociology.

WALTER HIRSCH Department of Sociology, Purdue University, Lafayette, Indiana

#### References

Science 134, 1957 (1961).
Am. Sociol. Rev. 22, 635 (1957).
F. M. Arago, Historical Eloge of James Watt (London, 1839), p. 106.

Reif has let the cat out of the bag. Most of the readers knew about this state of affairs, but this is the first time, to my knowledge, that such statements have appeared in print.

This article brings to mind a story told me about 2 years ago by a professor of chemistry at a large southern university. I have put it into dialog form, with suitable disguise for the characters.

#### MERIT OR DEMERIT or

#### Crank Out Those Papers

Characters in order of appearance.

- PROFESSOR A, chairman of the department of chemistry of a large southern university, late middle-aged, expects to retire in 10 to 15 years.
- ASSOCIATE PROFESSOR C, early middleaged, expects his professorship next year.
- ASSISTANT PROFESSOR D, new Ph.D., full of vim and vigor. Aspires to promotion and administrative position.
- Dean B: the villain in this story, who does not appear but whose pervading spirit is always present. He is dean of arts and sciences.

SCENE I

Chemistry department staff meeting in the late autumn, about two years ago.

Prof. A. I have just returned from a meeting of department chairmen of the college, with Dean B. He says that in the future all promotions and pay raises will be based on merit and merit alone.

Assoc. Prof. C. [Somewhat bored; he has seen deans come and go] How is he going to determine merit?

Prof. A. The dean will base merit on publications. Not quantity but quality.

- Asst. Prof. D. [Eagerly] How is he going to determine quality?
- Prof. A. He is going to count the number of papers.

Lights dim as evening falls over the campus. All hurry back to their desks to see what data and articles can be reworked to get one more publication out before the next review of the faculty for promotions and raises.

#### CURTAIN

H. P. LEIGHLY, JR. School of Mines and Metallurgy, University of Missouri, Rolla

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