



From Ping Pong to science: Cautious hope

Ideally, science transcends political boundaries—scientists of all nations and political persuasions exchange information freely in their common search for truth. Reality falls short of this ideal, and the flow of data and ideas between scientists in antagonistic nations, such as the United States and Communist bloc countries, is often constrained.

In the past few years, scientific communication between the United States and the Soviet Union has flowed more freely. But the anti-Western sentiment of the 1966 Cultural Revolution in the People's Republic of China placed a barrier between American and Chinese scientists that persists today.

But with the dramatic, invited visit to China in April of the United States' Ping Pong team, there are some signs of a possible thaw in U.S.-China relations.

Though China-watchers in the United States are reluctant to express hopes for immediate renewal of scholarly communication, there is an air of tentative optimism. At a news briefing following the business meeting of the National Academy of Sciences last week, the Academy vice president, Dr. George B. Kistiakowsky of Harvard University, remarked that "we hope to extend the spirit of Ping Pong to international [scientific] collaboration." The annual report of the Academy's foreign secretary, Dr. Harrison Brown of the California Institute of Technology, echoes this sentiment: "With the past year's recognition of the People's Republic of China by numerous countries and China's renewed communications with other countries, it is hoped China's scientists will emulate her sportsmen and join the community of world scientists by attendance at international meetings and participation in the exchange of information."

A less spectacular but equally significant sign that the Chinese may be re-entering the world community of scholars came in March, when a group of Chinese scientists attended a scientific conference for the first time in five years—an oceanography conference in Bordeaux, France.

Since 1966 there has been little

formal communication between Chinese and U.S. scientists. Chinese scientists have attended no international conferences and have ceased publication of hundreds of their scientific journals. Informal, scientist-to-scientist communications are considered by most authorities to be rare. There is a general attitude among U.S. scientists that attempts to communicate with their Chinese colleagues may merely cause trouble.

This blockage in the exchange of technical data is partially one way. Leo A. Orleans of the Library of Congress believes that the Chinese continue to receive most of the major United States scientific journals.

Most of our knowledge of current Chinese science, says Orleans, is deduced from essentially nontechnical Chinese publications, such as PEKING REVIEW and the RED FLAG, both political journals, and CHINA RECONSTRUCTS, a picture magazine. There are a dozen or so such publications. Another source of information is the Foreign Broadcast Information Service, a U.S. Government agency that monitors and translates internal broadcasts from Communist countries, including China.

These sources, Orleans says, give a very general idea of what the Chinese are doing. The emphasis appears to be on applied science, rather than basic research. There may be a brief report, for instance, that Chinese scientists have found a way to convert waste gas with a low content of sulfur dioxide into sulfuric acid, or that they have developed an improved weather rocket to shoot at hail clouds to prevent hailstorms and a water-cooled electricity transformer which is 64 percent lighter and requires 48 percent less silicon steel wire, 40 percent less copper wire, 58 percent less shaped steel, and 77 percent less insulating oil. Occasionally there is more elaboration, however: Last January, for instance, PEKING REVIEW discussed in some detail the use of steam engines and pressure systems in industrial production and construction of a 330,000-volt high-tension cable.

There have, of course, been numerous attempts to reopen the lines of

communication. The National Academy of Sciences' Committee on Scholarly Communication with Mainland China, a joint effort begun in 1966 with the American Council of Learned Societies and the Social Science Research Council, has made repeated overtures, such as invitations to Chinese scientists to attend international conferences. In February, the committee communicated with the Academy's Chinese counterpart, the Academia Sinica, through the executive secretary of the Royal Swedish Academy of Sciences to express an interest in renewed contact. As yet, there has been no response to any of these efforts. The committee's record of accomplishments, says one staffer, is zero.

The Ping Pong invitation, and Chinese attendance at the French conference, says an Academy spokesman, suggest that the Chinese may be seriously prepared to permit exchanges, and the Academy committee hopes to facilitate such exchanges. At present, however, the committee's first task is to find a leader. Its chairman, Dr. John M. H. Lindbeck, died in January and has not been replaced. The committee has taken no formal action since the Ping Pong breakthrough and is still deciding on the best strategy to encourage a reopening of relations. One positive move has been to change the committee's name to the Committee on Scholarly Communication with the People's Republic of China.

Elsewhere, Dr. Edwin L. Goldwasser of the National Accelerator Laboratory in Batavia, Ill., has expressed hopes for Chinese participation at that installation, which has many foreign scientists. Such a move, say State Department officials, would have no trouble obtaining Government approval.

At the State Department, a spokesman for Herman Pollack, director of the Office of International Scientific and Technological Affairs, said it has received a number of inquiries on how to contact Chinese scientists, but has made no moves as yet. They are, he said, trying not to be overly optimistic, and are simply watching to see what happens next. "We're waiting for the other shoe to drop." □