studies will be the center of the science of science.

To the outsider it appears that those engaged in studying science are faced with the chronic problem of the social sciences: how to make research more "scientific" and, at the same time, more significant. At the Edinburgh meeting, because the host country is going through a protracted and fairly agonizing reappraisal of its governemntal science organization, the discussion kept swinging in that interesting direction and the dichotomy received little attention.

The two tendencies were apparent, however, in the documents and remarks prepared for the meeting. They are best exemplified perhaps in the work of Don K. Price of Harvard, who attended the meeting, and of Derek J. de Solla Price of Yale, who was expected but was unable to attend.

Derek Price's pioneering work in science policy is based on the analysis of expenditure, scientific publications, and manpower statistics. His *Little Science, Big Science*, with its central thesis of the exponential growth of science and the implications of this growth, is a milestone in science studies.

Don Price, who gave the inaugural address at Edinburgh, is the best-known exponent of a historical and institutional approach to the study of science policy problems. His books *Government and Science* and *The Scientific Estate* and his activities at Harvard have unquestionably played a large part in making science policy studies academically respectable.

While science studies will obviously continue to be the sum of these approaches, the tension between the two tendencies was put neatly, in conversation, by Professor Donald Marquis of M.I.T., in the pun "What Price science policy studies?"—JOHN WALSH

HEW: Gardner Proposes Reorganization

On 7 November, the day after Defense Secretary Robert McNamara captured headlines around the country with news that the U.S. troop buildup in Vietnam would continue but at a slower pace, Secretary of Health, Education, and Welfare John Gardner drew his share of attention by announcing a proposal for a "major and far-reaching reorganization" of his department. The two events were not entirely unrelated: both stories emanated from the Texas White House, where the President had gone to rest before surgery and to contrive a bit of preelection headline-snatching to which his leading officials were requested to lend their weight. The result in the case of McNamara was a statement that was quickly labeled a ploy to represent as a cutback what is in fact an increasing commitment of U.S. troops. In the case of Gardner, the result was the evidently premature unveiling of a reorganization plan as yet so undetailed in its formulation that it exists not as a document or blueprint but only in a corner of the Secretary's mind.

Despite precipitous announcement of the plan—in circumstances that belied the President's introduction of Gardner to newsmen as "a Republican [who] maybe . . . can discuss some of his plans without being accused of playing politics"—reorganization of HEW is something that has stood high on Gardner's list of priorities since he took over the Department; a great deal of serious thinking has already gone into it.

Gardner's proposal would remodel HEW along Pentagon lines, with three subcabinet-level departments each headed by a Secretary reporting to the overall Secretary of HEW. The departments —Education, Health, and Individual and Family Services—would condense functions and responsibilities now spread through eight major HEW agencies. Education would include the present Office of Education, together with responsibilities for manpower training and perhaps some related functions that are now handled elsewhere; Health would include the Public Health Service (including NIH), the Vocational Rehabilitation Administration, and the Food and Drug Administration; Individual and Family Services would take in the Social Security Administration (and the administration of Medicare), and the Welfare Administration together with its major constituent units such as the Children's Bureau.

In addition, the reorganization might ultimately transfer to HEW a number of related programs now handled by other agencies. If the Office of Economic Opportunity is dismantled for example—a recurrent rumor—the Department of Education would be likely to take over the administration of Project Head Start; the Department of Health, the Neighborhood Health Center program. Other federal activities that could conceivably find a new home range from the operation of Indian schools (currently a function of the Interior Department) to the development of new science and mathematics curricula (now supported chiefly by the National Science Foundation).

The plan for reorganization represents an instinct for bureaucratic rationality and, in addition, a desire for stronger departmental control over the independent agencies that comprise HEW. Whether that result can be attained will depend at least in part on whether the separate agencies are themselves reorganized internally and their functions redistributed. As it stands now, the individual units frequently undertake parallel or identical missions, each in a fashion befitting its own traditions, without coordination. Gardner has assembled what is perhaps the brightest and most creative group of men ever employed at HEW to work under him at the Department level; but, while they hold titles such as "assistant secretary," they are technically in a staff relation to the Secretary—not in a position of independent authority over the operating agencies (*Science*, 3 December, 1965). As often as not, what they say should happen fails to occur, and what they say should stop continues. Last year, for example, the two highest departmental health officials recommended funding of an experimental

project, in a western city, designed to produce "nurse-practitioners." The Public Health Service not only failed to fund the project; it also kept the applicant waiting for about a year and neglected to inform the officials that their will had not been done. Department-level Secretaries such as Gardner has proposed would still have to contend with the distaste for invention and with the rigidity that characterizes the old-line agencies, but they would have considerably more authority and prestige with which to do so.

Another factor influencing the reorganization plan is Gardner's conviction that the Department should remain unified. The proposal for a tripartite arrangement is, in fact, partly designed to undercut the critics and pressure groups—most notably professionals in health and education—who have been seeking separate cabinet-level status for their specialties. Gardner believes the department can better attend to its mission (which he has frequently described as concern for "human resources") as it is; his plan is something of a compromise that would give the professions more visible status without increasing the fragmentation he is trying to curtail. In this, he is supported by the recommendation of the most recent congressional subcommittee to study HEW, a special subcommittee, of the House Interstate and Foreign Commerce Committee, headed by Paul Rogers (D–Florida), which investigated the Department during the last session. The subcommittee addressed itself chiefly to health matters. Its report,* published last month, recommended the creation of a separate Department of Health, but advocated retention of the new agency within the overall HEW framework. "While there is certainly much to be said in favor of the various proposals which have been put forward from time to time for a separate Cabinet-level Department of Health," the committee concluded, "[we do] not feel that efficient administration and effective leadership for Federal health activity require the setting up of an independent Department for this purpose."

More than Housekeeping

The fragmentation to which the HEW reorganization plan is addressed involves more than bureaucratic inconvenience: it is a matter which, particularly in the field of health, actively interferes with the delivery of services to the public. Testifying before the Rogers subcommittee last spring, Rhode Island Governor John Chafee described some of the practical consequences of the present arrangements:

> Let us take the case of a 15-year-old boy on aid to dependent children who has a hearing problem that can be corrected. My natural response, as I am sure yours is too, would be "correct his hearing." However, confusion arises when one considers whether he should be referred to the public assistance medical care program administered by the Department of Social Welfare, the Division of Vocational Rehabilitation administered by the Department of Education, or to the crippled children's program administered by the Department of Health. Under such conditions there is the temptation—and I must say this is a very real one—to refer such a patient not to the program which is best organized to meet his particular need, but to the program in which the State obtains the best financial advantage. The Federal government will pay 50 percent of the cost when the care is provided by the Crippled Children's Division; it will pay 56 percent under title XIX since he is on aid to dependent children; and, if he is cared for by vocational rehabilitation, the Federal Government will soon pay 75 percent of the bill. Each of these programs has some variations in standards for eligibility but nonetheless the differences in Federal reimbursement seem extremely puzzling.

An end to the confusion described by Chafee will require more than desk-shifting in a federal office building. The problem is not simply that the apparatus is unwieldy but that the government's commitment to the provision of services—at least in the field of health—has been uncertain. Programs exist in amplitude, but little effort has been expended to encourage people to use them or to make their use seem desirable. For Gardner's hopes for an effective department to be realized, policies as well as titles will have to change.

Details of the reorganization plan remain to be worked out, but HEW spokesmen say it should be ready for submission to Congress within the first few months of the new session.

—ELINOR LANGER

* Entitled "Investigation of HEW," it is perhaps the most comprehensive and lucid study of the Department to have been made in some time. Limited numbers are available without charge from the U.S. House of Representatives, Documents Room, Washington 25, D.C.

The Smithsonian: More Museums in Slums, More Slums in Museums?

"To be creative in the arts or sciences we must retain the direct apprehension of the environment, the external world."—S. DILLON RIPLEY, *Secretary of the Smithsonian Institution*

Museums are conservative institutions. Their curators tend to be cautious men who preserve those objects which look attractive on display and which do not greatly offend the public.

For instance, in one of the nonpermanent exhibition halls at the Smithsonian's Museum of History and Technology, the visitor can now see a display of Victorian needlework. In the permanent section devoted to portraying the American past, he will find an ornate room containing the 19th-century library of a president of the Philadelphia National Bank with the notation that such a private library has been "a mark of gentility" in America since the 17th century. A little farther on is the sweet-smelling Georgetown confectionary shop which, the sign explains, was "patronized regularly by genteel Georgetown families." There are other displays, such as a Western frontier ranch kitchen and a Delaware farm house, which are not "genteel"; but, while simple, such exhibits are scrupulously neat and clean. The museum displays no slums.

Not yet, anyway. But the idea of building a slum in the Smithsonian is now being discussed in that organization. In a recent interview with *Science*, S. Dillon Ripley, Secretary of the Smithsonian Institution, said that he found the proposed slum "a very interesting idea" but indicated that no final decision has been made. When Ripley was told that building such a slum would create a great stir in the museum world, he replied, "I'm all for doing that."

Discussing the building of slums in