Science News of the Week

Science under Ford: Open door, tight budget

Like a refreshing breath of spring in mid-August, the inauguration of Gerald R. Ford as the 38th President of the United States has cooled national tempers and brought a sense of relief to official Washington. The scientific community is no exception. After more than a year and a half of virtual exile from the seat of power-since the Office of Science and Technology (OST) and the President's Science Advisory Committee (PSAC) were unceremoniously dumped from the White House roster (SN: 1/27/73, p. 52) scientists and technical experts may actually be able to meet with the highest elected official in the land. Considering the growing importance of such science-related problems as possible changes in the global climate, depletion of resources, the threat of famine and the search for energy sources, the change came none to soon.

After the expulsion of OST and PSAC, the director of the National Science Foundation, H. Guyford Stever, was named the official presidential science adviser, but he almost never met his client face to face (SN: 7/28/74, p. 52) and had to work through lower echelon officials or shadowy unofficial advisers with access to the throne (SN: 12/1/73, p. 343). Finally a National Academy of Sciences committee led by James R. Killian pronounced the whole set-up "inherently unsatisfactory and insufficient" and proposed establishment of a new White House advisory apparatus, the Council of Science and Technology (CST) (SN: 7/6/74, p. 4).

Not only is the new President apparently more open to advice—he requested a personal briefing by Stever long before his ascension became likely—he also does his homework. Stever told Science News he found Ford to be already familiar with the Killian proposal on CST, that the then Vice President showed "great interest" in the status and aims of NSF programs, and that he asked informed questions concerning progress in science.

Rep. Charles A. Mosher (R-Ohio), ranking minority member of the House Science and Astronautics Committee, told Science News he is confident that President Ford will be "much more open, much more sympathetic" to the views of the scientific community and that "after the dust settles" Mosher intends to personally approach Ford on the subject of reinstituting a White House science advisory apparatus. "He's not only willing to listen to ad-

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President Ford addresses Congress.

vice; he seeks it," Mosher said. "This lays the basis for a much more open, more useful relationship."

The gathering storm threatening this cheery scene is, of course, burgeoning economic unrest accompanied by thundering inflation. Ford is an economic conservative who is expected to approach the problem through tight budgets and tight money. The fortunes of science cannot stray too far from those of other segments of the economy: Inflation has been a serious malady since 1968, when R&D "real dollar" purchasing power peaked (see story on p. 105), and the technical community will have to accept its share of the remedy. "I think we'll have to make some priority judgments," says Stever—as polite a way as any of warning about budget cuts ahead.

Researcher found cheating at psi lab

Fraud has always been a problem for parapsychologists, and notorious cases of deception have kept parapsychology on the fringes of science. Now, from the very center of the parapsychology community, comes another report of fraud. SCIENCE NEWS has learned that a researcher at the Institute for Parapsychology in Durham, N.C., has been caught fudging experimental results and has been forced to resign.

J. B. Rhine of the Institute for Parapsychology has been a moving force since the 1930's in attempts to tighten up parapsychology's procedures and to ensure that experimental subjects have no way of cheating. More recently Rhine has turned to the problem of the possibility of cheating on the part of experimenters.

Ironically, while Rhine was considering the problem of experimenter reliability, a perfect example turned up in his own laboratory. "Not only right here at the Institute for Parapsycholsays Rhine, "but even involving an able and respected colleague and trusted friend." Rhine has outlined the details of the case in an article to appear in an upcoming issue of the JOURNAL OF PARAPSYCHOLOGY, publication of which has been delayed so that the facts of the case could be made public. The institute has drafted a brief news release about the incident, to be issued Aug. 19.

Freud and others have suggested that telepathy may have been a primitive

form of communication that atrophied when humans learned to speak. Following up such suggestions, parapsychologists have attempted to identify psi powers in animals. The results of some of these experiments have been encouraging enough to the investigators and in recent years animal research has become one of the main avenues of research in parapsychology. Some of this animal research has been going on at the Institute for Parapsychology.

In one set of experiments, electrodes were implanted in the brains of rats. Stimulation of the electrodes produced a highly pleasant and desirable sensation in the rats. The number of stimulations was controlled by a random generator—an electronic device that gives stimulations on a purely chance basis. The object of the experiment was to see if the animals could, by psychokinetic powers, influence the generator to give them more than the chance number of stimulations. It was in this set of experiments that the fraud was detected.

The experiments had been going on for more than a year with fairly good results. The animals did seem to be able to influence the machinery. So Rhine urged the experimenters to attempt to have the work independently replicated. But then, the experiment took a bad turn. Results fell back to the chance level and it is not easy to convince other researchers to take up an experiment that does not seem to be successful. Independent replication

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is extremely important in any parapsychological research.

It was at this point that one of the experimenters noticed that the senior researcher seemed to be paying more than usual attention to the equipment. The situation was discussed with two other members of the research team and they decided to check out their suspicions by observing the senior researcher from a concealed position. They saw him cheating. He was manipulating the machinery to yield more than chance results.

The incident was reported to Rhine on June 12, and the researcher involved was confronted with the evidence. The man admitted his guilt and turned in his resignation. "As he expressed his deep regrets," says Rhine, "he added a few words about overwork during recent months."

The man in question has been with Rhine's institute for more than five years and was reported to have been selected as Rhine's successor. Although only one incident of falsification of data was admitted to, all of the man's published research must now be held in doubt. Rhine has attempted to notify everyone in the field—especially those researchers who might be involved in repeating the work or using the results.

In a case of this kind, says Rhine, it is the responsibility of the institute to make all of the facts known. Throughout his journal discussion of the case, however, Rhine refers to the researcher as Dr. W. This, says Rhine, is "for humane reasons." But he admits that, "Any reader can easily discover Dr. W's name. . . . The purpose here is not to hide that information from anyone needing it, but to encourage respect for proper personal rights and those of innocent people in W's non-parapsychological circles."

SCIENCE NEWS received the man's name—Walter J. Levy—from independent sources, but has been unable to contact Levy for comment on the incident.

Robert L. Morris is president of the Parapsychological Association, the professional organization of parapsychologists. Morris disagrees with Rhine's attempt to withhold the guilty researcher's name. Morris told SCIENCE NEWS he has no desire to see the man come to any harm, "but in any form of scientific debate the name must come out." For one thing, Morris says, if the name is not used other people involved in the same type of research might be mistakenly confused with Levy.

The Parapsychological Association has no statement to make on the incident, but Morris says that any type of fraud is naturally condemned and that Levy's resignation from the association was immediately accepted.

What effect will this incident have on the field of parapsychology? It could cast a cloud of doubt over the entire field and possibly harm the reputations of everyone in the field. It could also keep good researchers from entering the field or even force some researchers to abandon parapsychology. "But it would be unfortunate," says Morris, "if people made generalizations from one case. I didn't start doubting other cancer researchers when I heard

about the Sloan-Kettering affair."

Rhine has similar hopes. He says it was fortunate that the cheating was detected and publicized by the parapsychologists themselves. "This might pull us up," he says, "to do something that we haven't been able to do." Rhine feels that the "debacle can at least serve as an example to help bring the field of psi closer to a full realization of this half-hidden problem of honesty."

Claims of great longevity exaggerated

There is no cult of youth and beauty in the Caucasus. In that mountainous region in the southwestern Soviet Union, the older you get the more respected and powerful you become. And the definition there of "old" is nothing to wheeze at-real old age starts after 100. And coincidentally, there are more real old people in the Caucasus region than anywhere on Earth. (Other small pockets of extreme longevity have been found in Ecuador, Turkey and Pakistan.) In the western world, the chances of running into a centenarian are only 2 or 3 in 100,000. But in the Caucasus, the chances are 15 times better-45 in 100,000. Almost 9,000 persons there claim to be 100 to 120, and more than 500 claim to be between 120 and 170 years old.

The Soviet press has long celebrated the Caucasus centenarians, and scientists the world over have read eagerly. Innumerable research teams have journeyed to remote villages to study the secrets of long life, and have formulated many theories, none universally



Shirali Muslimove claimed to be 167 before he died last year in U.S.S.R.

accepted. Now Zhores A. Medvedev, the noted Soviet scientist and physician now living in London, presents a new theory in the upcoming October GERONTOLOGIST. The secret of long life among the Caucasians is simple indeed, he says. They aren't as old as they say they are.

Medvedev says that instead of a biological basis for superlongevity, the answer lies in exaggeration and mistake due to a "complex social problem which developed for many social, cultural, habitual, traditional, local and political reasons . . ."

First, he disputes the more common theories. Special climatic conditions cannot be a factor, he says, because in the Caucasus region can be found cold, dry mountain weather; warm, dry weather in a relatively flat land; and humid and subtropical weather in the Abkhazia subregion. Genetic factors are an unlikely answer because the area is multinational, with statistically no more mixed marriages than are found in other multinational areas of the world. Specific dietary factors have been claimed, but the Caucasian's diet is completely different, and much more nutritious, than the diets of long-lived people in other regional pockets of longevity, eliminating comparison.

Next, he lists some of the main fallacies inherent in the superlongevity claims by drawing on records and personal knowledge about official procedures and traditions in the Soviet Union. Most important, there are no reliable documents establishing the ages of the superold. Census and passport data are given orally. In Moslem areas no birth registration is made, and in Christian areas, these records were destroyed along with the churches. Moslem areas have proportionately more centenarians, and confusion in age assignment may exist, Medvedev says, because the Moslem year is 10 months long, and dates of birth are connected with a significant event, such as a great famine or snowfall.

Other apparent fallacies exist. Although it is normal to find fewer and fewer survivors in each higher age bracket, studies in one area revealed

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