

seem inevitable. "They cannot be avoided. Each in its own right presents enormous and unique difficulties; together, they form an unholy fabric which challenges our credulity."

Reflecting the increasing acceptance of economics as one of the sciences, and the need for considering economic impact together with other factors in facing many present-day technical challenges, the AAAS meeting invited participation by several economists, who briefed delegates on the implications of their discipline for future technological development.

In a talk entitled "The Dismal Science Comes of Age," University of Pittsburg economist Marina V. N. Whitman warned delegates that the crises of the remaining part of this century can only be met successfully if their burden can be more evenly distributed—part of the world must not starve while another part makes off with the wealth. Environmental controls, exploitation of natural resources, technological and industrial development all require economic and political trade-offs, and the science of economics has not yet been able to keep up with predicting and analyzing what these trade-offs will involve. The result, she declares, is "stagflation," the simultaneous rise of inflation and unemployment. "The awkwardness of the word reflects the awkwardness of a situation with which no one knows quite how to cope."

While Whitman was applying to technological advancement the old economists' saying about trade-offs: "There is no such thing as a free lunch"; another economist seemed to be reviving for new application, the gloomy observation: "The rich get richer and the poor get poorer." Irma Adelman of the University of Maryland calls the result of her research on the technological development of underdeveloped countries "rather depressing." A global "Catch 22" seems to be operating, in which the benefits of science and technology are most effective in countries that are already industrialized. When underdeveloped countries try to increase the educational level of their citizens or redistribute wealth through land reform, productivity drops and they fall farther behind the developed nations.

Perhaps the meeting was best summarized by a San Francisco masseuse who was interviewed by a local paper. Scientists' shoulder muscles seemed "awfully, awfully tense," she reported, and delegates generally seemed "very uptight." Maybe they were just beginning to realize the magnitude of the struggle various speakers promise lies just ahead: that, in the ominous words of Rieser, "There is no place or time in which to hide." □

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Feminists on the firing line: Medicine is male chauvinist



John H. Douglas

Steinem: Prescribing for women.

In addition to job, salary and educational discrimination, women's liberation groups charge that a female is also more likely to receive condescending and discriminatory treatment in a doctor's office. First in a seminar on Sex Differences in Health Care, at the AAAS meeting in San Francisco, and later in a paper given to the annual meeting of the California Medical Association, feminists last week aired their complaints and suggested solutions.

The seminar focused on how to get doctors to become more sensitive to the psychological needs of their female patients, particularly in the areas of venereal disease and mutilating surgery, such as breast removal. Both doctors and patients may unconsciously be adopting outmoded sex stereotypes in their relationships, resulting in alienation of women from the male dominated medical profession. Having more

women become doctors may help solve some of the problems, speakers concluded, and lay clinics staffed entirely by women may also play a role. One lay group reported having performed 11,000 abortions and claimed as low a rate of medical complications as most hospitals.

Some 200 doctors at the annual meeting of the California Medical Association, heard feminist Gloria Steinem say that a paternalistic attitude too often pervades their relationships with all of their patients, but that women are most susceptible. Steinem claims doctors do not listen to their patients enough, treat what they say with skepticism and then prescribe treatment without giving the patient either a choice or an explanation. Patients have basic rights as consumers, she maintains, and the first right is that of having a full explanation of one's disease, including the possible effects of various treatments. Only then, Steinem says, can patients make an informed choice, as is their right, concerning what treatment to accept.

Steinem believes that admitting more women to medical schools will eventually help female patients, and in the meantime, may combat sexism in these schools. She said women at one medical school complained that attractive female models in bikinis were being used for classroom demonstrations, to the accompaniment of lewd remarks. Other women medical students were angered at being excluded from certain specialties, such as urology and surgery.

Medical discrimination is only part of a "cultural conspiracy" in which we all unconsciously have taken part, Steinem concluded. This conspiracy has bound women to stereotypes of ignorance and servility, and the greatest accomplishment of the feminist movement, she said, has been to raise society's consciousness of this fact. "What we are learning is that everything is political," including patients' rights. □

Would you buy a used car from a scientist?

The period of public disenchantment with science prevalent in the late 1960's and early 1970's is over, and the trend is now in the other direction, says a noted sociologist of science.

Amitai Etzioni, director of the Center for Policy Research at Columbia University, says science is now ranked second only to medicine among institu-

tions for which the public has "a great deal" of confidence. Etzioni presented to the San Francisco meeting of the AAAS an analysis of recent public opinion polls indicating attitudes toward science and other institutions of our society.

"The antiscience and antimodernity feelings have peaked and now turned,"

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says Etzioni. "The public trust in science is higher this year than last," and it was higher last year than the year before that.

"I predict that you'll see in the next three years an increase in the public trust of scientists and a greater reliance on them for advice and guidance in dealing with crises such as the energy crisis."

The rise of public appreciation of science, says Etzioni, is intimately related to the plunge in the public's regard for political institutions. "The public's disenchantment with political institutions is at its highest in 20 years," he says.

In his view, the public, with its loss of faith in politics, is turning and will continue to turn increasingly to science to help cope with major problems. Actually, the public, in turning away from politics, is turning in two "incompatible" directions, he says. One is toward science; the other, toward such areas as astrology.

His conclusions are based on Harris polls for 1966, 1971 and 1972 and a National Opinion Research Center poll for 1973. Data from the latter poll were made available to him and his associates about three months ago.

They show that science's ranking in public trust among 16 institutions has risen from fifth in 1971 to third in 1972 to second in 1973. In 1973, 54 percent of the public indicated they had "a great deal" of confidence in medicine; the figure for science, next in order, was 37 percent. Following, in declining rank, were education, finance, religion, psychiatry and the U.S. Supreme Court. The military was eighth, retail businesses ninth, the Federal executive branch tenth, major U.S. companies eleventh and Congress twelfth. Trailing the list were the press, television, labor and advertising.

The falling away from science between 1966 and 1972 was part of a general lessening of faith in American institutions and authorities, says Etzioni, rather than a major antisience groundswell. Appreciation for all 16 institutions without exception has shrunk since 1966.

Another conclusion deriving from his analysis of details of the polls is that "the main source of lack of confidence [in science] is traditional and lower-class America, not counter-cultural, liberal or 'greener' America." Persons least confident in the scientific community tend to be those in the Deep South, the rural parts of the country and of lower income.

Poll data, Etzioni cautions, are not a totally reliable guide. "But they do provide a useful antidote to quick overgeneralizations and grand simplifications as to the scope, source and direction of antisience sentiments." □

Studies cite drug overuse in hospitals

A series of studies presented last week to the Senate Health Subcommittee indicates that more than half of the antibiotics used in hospitals across the country are either incorrectly prescribed or not needed at all, and can result in needless adverse reactions, unnecessary expenditures and longer hospitalization for some patients. In addition, according to James V. Visconti of Ohio State University's College of Pharmacy, the unnecessary prescriptions are costing the nation as much as \$200 million a year.

Visconti and Charles C. Edwards, assistant secretary for health at the Department of Health, Education and Welfare (HEW) cited before the committee numerous studies documenting overprescription. In one such study, conducted by Visconti and A. W. Roberts in 1972, out of 1,045 monitored patients, 340 were receiving antimicrobial drugs. "Only 13 percent of the therapies were judged rational by the physician and pharmacist review team; 65 percent were judged irrational and 22 percent were considered questionable," Edwards says.

Edwards partly blames the drug problem on "inadequate drug information" and adds that there are over 35,000 prescription drug products on the market, all clamoring for the physician's attention.

"There is today no single well-organized comprehensive source of practical prescribing information for the physician," Edwards points out. ". . . The Physicians' Desk Reference (PDR), the most widely used information source, contains complete FDA approved labeling for many drugs, but only those promoted by manufacturers who buy

space in the book. The physician wishing to evaluate all his therapeutic options will have difficulty finding them in the PDR."

Sidney M. Wolfe, director of Ralph Nader's Health Resource Group, finds fault with the pharmaceutical industry for overprescription, that is, he believes that many doctors will prescribe drugs not on a diagnosis but "on the basis of those symptoms for which the drug is promoted."

Says Wolfe: "A well trained actor could probably prescribe drugs as rationally as the thousands of American doctors whose prescribing practice reflects drug company indoctrination in lieu of scientific evaluation."

Visconti points out that many times more expensive antibiotic drugs are prescribed by doctors even when a less expensive antibiotic could do just as well.

Subcommittee Chairman, Sen. Edward M. Kennedy (D-Mass.) says that many doctors will prescribe antibiotics even though they won't help, simply out of "a desire to do something" or under the impression that they will help. "As long as treatment of diseases is as unspecific as it is," Kennedy adds, "I think that we are going to continue to overabuse antibiotics." He also suggests that the drug industry's "detail man"—the salesman that calls on doctors—be licensed to prevent overpromotion of drugs.

Wolfe concluded his testimony by saying, "Until detailing of drugs and all other forms of educating doctors about pharmacotherapeutics gain freedom from the bias of the drug companies, the present epidemic of 'ethical' drug abuse is sure to continue." □

New approach: Conquering malaria

At the end of 1972, 73 percent of the 1.84 billion people living in the original malarial areas of the world were in areas where the mosquitoes that carry the malarial parasites had been eradicated, or where eradication programs were in progress. Still, malaria continues to be the major parasitic disease of the tropics. Millions of people in Africa and Asia have it (SN: 2/9/74, p. 88). Even if all these people could be treated with drugs, the drugs might not work because the incidence and number of drug-resistant malarial parasitic strains are on the rise.

A new approach to treating patients with malaria is being explored by Michael R. Levy of Southern Illinois University, W. A. Siddiqui of the Uni-

versity of Hawaii and S. C. Chou of the University of Hawaii School of Medicine. It would consist of giving a patient a drug that inhibits proteolytic enzymes in the malarial parasite. The parasite needs these enzymes to break down hemoglobin in the red blood cells of its victim. It presumably also needs these enzymes to break down some of its own cell parts when it gets into the red blood cell of its host. How present drugs kill malarial parasites is uncertain. There is some evidence that the drugs attack the parasites' DNA (genetic material).

Although the new approach probably wouldn't keep malarial parasites from becoming drug-resistant, at least it should give them one more chemical hurdle to overcome. "The more drugs