

Increase of male impotence

Governmental guidelines may not be necessary for population control. Nature might solve the problem. Overcrowded mice resort to violence to control population. Humans adapt in a more subtle manner. George L. Ginsberg of the New York University School of Medicine and William A. Frosch and Theodore Shapiro of Bellevue Hospital in New York report in the March ARCHIVES OF GENERAL PSYCHIATRY on an increase in complaints of impotence among young men. They say rapid changes in social mores (attitudes toward premarital sex, the availability of contraceptive methods and, most important, an emphasis on equal sexual rights for women) are partially responsible. A disequilibrium has been created that is leaving its mark on the male partners of the sexually free women. Four case studies are presented in which young men became impotent after being confronted by a woman who demanded sexual performance.

The role of the put-upon Victorian woman is now the role of the put-upon man of the 1970's. This, the researchers conclude, "must be seen in an adaptational and social framework rather than as a purely psychological and particularly intrapsychic phenomenon."

Using educational technology

There is a growing demand for change in the present educational system. Reasons include its high and still rising costs, its low productivity and its inability to be fully responsive to identified national needs. One solution, says Lawrence P. Grayson of the Division of Technology Development at the U. S. Office of Education, is the systems approach to instruction. Schools should use educational technology (television, computers, audio-visual aids, etc.) to incorporate specific measurable instructional objectives, diagnostic testing, criteria for student performance and the repeated design of curriculum materials until the criteria are achieved.

"Education, however, has been characterized by a strong resistance to change," he notes in the March 17 SCIENCE. Massive installations of educational technology hardware could end up gathering dust. "If the full potential of technology is to be realized," Grayson concludes, "technology must be viewed and implemented as part of a new system, and not as a supplement to conventional approaches."

Cerebral hemisphere learning

Man is probably the only animal with inherent specialization of the cerebral hemispheres. The right hemisphere (in right-handers) controls perceptual concepts; the left hemisphere controls verbal concepts. But the left hemisphere gets much of the credit for the entire brain's intelligence because it is the brain's mouthpiece (language is stored there). Actually, says Santosh Kumar of the California Institute of Technology, the right hemisphere (though mute) is better at learning non-verbal concepts.

Persons who had had brain surgery (removal of one hemisphere or separation of the hemispheres) were tested verbally and nonverbally. No left hemisphere learning was seen in the nonverbal tests. In the verbal tests all subjects learned better with the left than with the right hemispheres.

Plastics in the sea

Woods Hole Oceanographic Institution researchers have been finding odd manmade things in the oceans for some years, including tar balls from petroleum and Atlantic-wide high concentrations of PCB's and DDT in organisms (SN: 1/8/72, p. 30). Now two of the Woods Hole scientists report they have found widespread plastic particles in the western Sargasso Sea. Some identifiable ones are objects such as syringe needle shields, cigar holders and jewelry; others are small amorphous pieces.

Edward J. Carpenter and K. L. Smith Jr. report in the March 17 SCIENCE that they found brittle pieces of plastic in neuston nets they were using. About 3,500 pieces, or 290 grams, of the plastics were found per square kilometer in pellets from a quarter to a half centimeter in diameter. Occurrence was over a range of about 1,100 kilometers. Some pieces of plastic had hydroids and diatoms growing on their surfaces.

Brittleness of the plastics may be due to leaching out of plasticizers, including PCB's, by seawater, the researchers speculate.

Wastes enter plant life

Some scientists are enthusiastic about proposals to use sewage effluent or sewage sludge as fertilizer, and the Environmental Protection Agency is funding a pilot effluent/fertilizer project in Muskegon County, Mich. At the same time, some scientists and engineers have warned that industrial wastes had better be kept out of municipal sewage systems because of possible harm from toxic substances, either to organisms used in sewage treatment or to plants that would be fertilized with sludge or effluent (SN: 4/24/71, p. 286). Congress has ignored the warnings, and both the House and Senate clean water bills would allow continued industrial use of municipal systems (although they would impose higher fees).

Donald J. Lisk of the Cornell University Pesticide Residue Laboratory reports that otherwise edible plants raised on treated sewage sludge contain heavy metals in amounts that may be toxic to humans. The metals include mercury, cadmium, lead and arsenic. Often from industrial sources, they are transmitted from the sludge. The metals may be toxic to humans and animals who eat the plants even if they are not toxic to the plants.

Shrub may save the sperm whale

Although the United States has halted sperm whale slaughter, other countries continue it, and the sperm is an endangered species. A major reason is that the whale oil is heat-resistant and chemically and physically stable. This makes it useful for lubricating delicate machinery. The only substitute is expensive carnauba wax from the leaves of palm trees that grow only in Brazil.

William G. McGinnies of the University of Arizona and Howard Gentry of the Desert Botanical Garden in Phoenix report that wax from the seeds of the jojoba, an evergreen desert shrub, is nearly as good as carnauba wax. Southwestern Indians have agreed to collect 100,000 pounds of jojoba seeds this summer, the amount necessary for adequate industrial testing and research. If test results are favorable, Indian cooperatives to supply industry with jojoba products would be formed.