

Is aggression learned or inherited?

Anthropologist Louis S. B. Leakey believes intra-species aggression was foreign to man's primate ancestors. They learned it, he feels, only 40,000 years ago after they began living together in small groups. Harry F. Harlow (SN: 5/22/71, p. 354) of the Regional Primate Research Center at the University of Wisconsin has a different view. He and Allyn C. Deets of the University of Pittsburgh Laboratory of Clinical Science contended at the meeting of the American Association for the Advancement of Science in Philadelphia that, "Aggression most likely remains in man as a solid component of his biological heritage as a primate."

This is based on their experiments with monkeys isolated since birth. The animals, after being threatened by experimenters, began showing hostility toward humans and finally toward the only available target—their own bodies—by biting themselves and by throwing themselves against the cages. These monkeys, the researchers say, never had a chance to be taught aggression; they inherited it.

Crowding and aggression

Aggression does exist—whether it is learned or inherited—and another group at the Regional Primate Research Center is studying conditions that cause increased aggression. John Emmerick presented the group's findings at the AAAS meeting.

Four monkeys were kept in cages that normally house only one animal. Biochemical measurements showed that the animals were under unusual stress. The rates of aggression became alarmingly high. One group of four monkeys had to be replaced when it became apparent that one of the four would be killed by the aggression of its cagemates.

Four monkeys kept together in larger cages showed less aggression toward their fellows. When aggression did occur, the victim had a better chance of escape. Emmerick feels that many prisons are similar to the overcrowded cages of monkeys in this study. As long as human prisoners are kept in highly crowded facilities, he feels, there is little chance that they will learn to behave normally or adjust to living outside the prison.

The undermedicated patient

Participants in the AAAS symposium on the overmedicated society (SN: 1/1/72, p. 7) concluded that the flagrant overuse of prescription and nonprescription drugs is a major factor in the over-all drug abuse problem. Nathan S. Kline of the Rockland State Hospital Research Center in Orangeburg, N.Y., argues that "drug abuse is only one small part, a consequence and not a cause, of the upheaval in our society."

Speaking at the AAAS symposium, in behalf of the undermedicated patient, he warned that propaganda against drug use can do more harm than good since desperately ill patients may deny themselves needed treatment. Drugs, like fire or atomic power, have vital uses, and a distinction between constructive and destructive application is crucial. Like Kenneth B. Clark (SN: 9/11/71, p. 116), Kline concludes that, "it is even possible that drugs may contribute positively to the solution of the problems that have led to their occasional abuse."

Crown of Thorns solution?

A Japanese scientist, basing his recommendation on shallow water research, has proposed to the Queensland, Australia, government that it adopt his "chemical fence" method to deal with the incursion of Crown of Thorns starfish on the Great Barrier Reef.

As in other South Pacific areas, the Crown of Thorns starfish is proliferating on the reef, destroying the highly productive corals on which it is a predator (SN: 9/13/69, p. 219). Some scientists speculate the starfish plague may be due to the wanton collection by humans of the Giant Triton—a shellfish that eats the starfish.

Yasuo Suyehiro, general director of the Keikyu Aburatsubo Marine Park in Japan, proposes laying "fences" of inch-thick plastic piping filled with a mixture of gelatin and copper sulfate which is ejected through small holes. The copper sulfate effectively kills starfish that venture near the pipe, he says.

Australian officials plan to set aside a small portion of the Great Barrier Reef for testing of Suyehiro's proposal.

Jet noise in Los Angeles

About a million Los Angeles area residents living under jet aircraft take-off-and-landing corridors are exposed to jet aircraft noise 10 to 10,000 times greater than normal background noise, says a research team from the University of California at Los Angeles.

William C. Meecham, UCLA engineering professor, and two graduate students set up sound meters in Pacific Palisades, Santa Monica, Beverly Hills, Culver City, Huntington Park, South Gate, Inglewood and Redondo Beach.

Inglewood, nearest the airport, showed noise levels as high as 90 decibels. Because decibel gradients are expressed geometrically rather than linearly this is 10,000 times the 50-decibel background level and is considered to be hazardous to health.

Levels in some more distant communities were as high as 75 decibels, the researchers reported.

Streams survive organic pollution

A major environmental battle this year undoubtedly will be a three-cornered one between the House, Senate and Administration over Sen. Edmund Muskie's insistence that all discharges of pollutants into waterways be halted by 1985. The Administration is holding out for a more lenient water pollution bill, claiming the no-discharge provision will be unnecessary and prohibitively costly.

Kenneth W. Cummins, freshwater ecologist at Michigan State University, says a team he headed at MSU has demonstrated that levels of organic materials 10 times higher than natural would do no permanent harm to high-quality streams. Among the materials were organic acids, cellulose, phenolic compounds and tannic acid. In the simulated streams used by the researchers, oxygen did become depleted, as expected, but turbulence restored the lost oxygen sufficiently to keep organisms alive. The streams quickly returned to normal when the pollution was halted.

Cummins says far more studies will have to be made before the findings can be applied to sewage, farm runoff and other kinds of organic pollution, however.