

A modest proposal for televised violence

The Surgeon General's Scientific Advisory Committee on Television and Social Behavior reported in January (SN: 1/22/72, p. 55) that a modest relationship exists between the viewing of violence and aggressive behavior. The cautiously worded report came under attack last week as Sen. John O. Pastore (D-R.I.), chairman of the communications subcommittee, held hearings on televised violence.

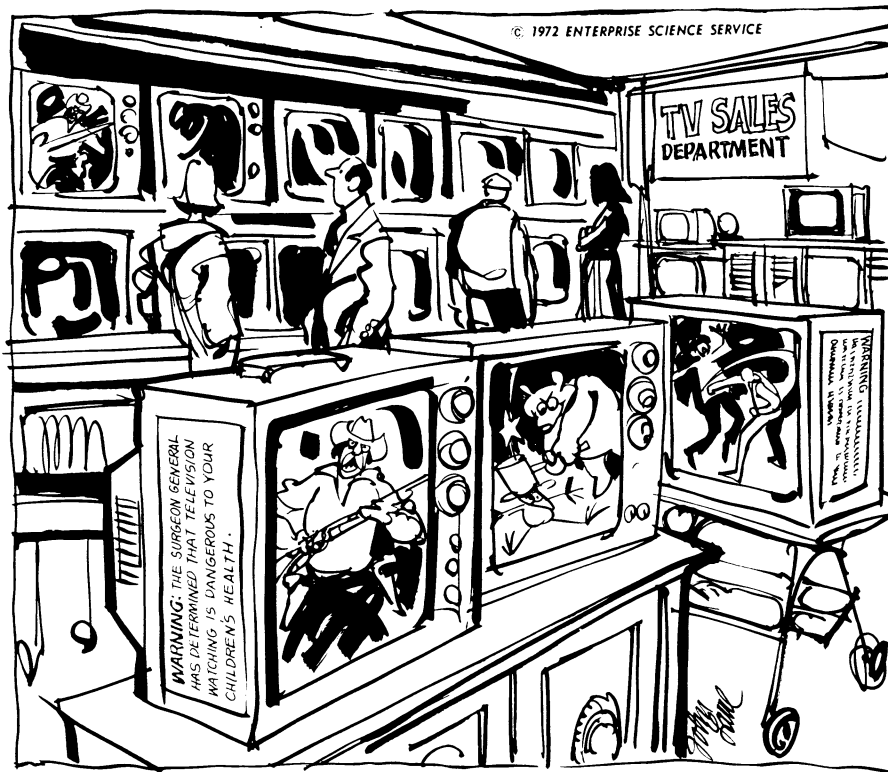
Five volumes of research—the basis for the report—are now available and four social scientists testified that the report itself is only a watered-down version of this research. They complained that the report was prejudiced by network officials who were allowed to veto potential members of the committee. In this way, seven proposed members were actually kept off the Surgeon General's committee, and five of the twelve chosen were industry representatives or industry-connected.

Surgeon General Jesse L. Steinfeld admitted that perhaps the method of selection was improper and said, "A committee such as this, like Caesar's wife, should be above suspicion." Steinfeld also admitted that the modest language of the report was "language acceptable to social scientists." In plainer language he said, "It is clear to me that the causal relationship between televised violence and antisocial behavior by children is sufficient to warrant appropriate and immediate remedial action. . . . My professional response today is that the broadcasters should be put on notice." He proposed a violence-rating system that would help the Federal Communications Commission look at stations in terms of violent content—with an eye to license renewal.

Dean Burch, chairman of the FCC, also testified that something must be done about television's impact on children. But he stressed that television does not exist in isolation. It is only one aspect of the total (often violent) environment. Rather than government action, he proposed that advertisers and industry leaders take the initiative in "the reduction to near-zero of all gratuitous and needless violence in the programming that is specifically directed to children."

The top television industry leaders testified they were aware of the problem and were taking steps to remedy it. Intensified research, diversified programming and additional emphasis on resolving conflict in children's programs through nonviolent means were mentioned specifically.

These self-imposed remedies, however, have failed in the past, said FCC



Commissioner Nicholas Johnson. In a fist-pounding statement (almost as violent as a typical Saturday morning cartoon) Johnson charged the broadcasting industry "with having molested the minds of our nation's children to serve the cause of corporate profit." His proposals to counteract trends in commercial broadcasting were drastic. First, he proposed that the Corporation for Public Broadcasting be funded at no less than \$500 million a year. He noted that CPB's "Sesame Street" cost less than half of one percent of commercial broadcasting's annual revenue. (On the same day the House Commerce Committee authorized \$155 million to run CPB for the next two years.)

Johnson further recommended that the three major networks provide one-third of all prime time on a non-sponsored basis for entertainment, dramas, cultural and public affairs programming. He then called for a reduction by one-half of all commercial time and bunching of commercials on the hour and half-hour. The commercials, he said, should be answered by required counteradvertising. Hearings on this proposal are being held this week by the FCC.

"As for violence," says Johnson, "simply require that two commercial minutes be removed from every half-hour containing violence, and be made available at no cost to responsible professionals to program information to children (and adults) about the adverse consequences of violence."

Sen. Howard Baker (R-Tenn.) was appalled by Johnson's impassioned plea. Sen. Pastore was less dismayed, but could see no practical means of im-

plementing Johnson's proposals. He closed four days of hearings by proposing that the Surgeon General and the FCC assist the department of Health, Education and Welfare in the creation of a violence index to measure the amounts of televised violence entering American homes every year. □

Immigration, planning and population research

Part three of the report of the Commission on Population Growth and the American Future (SN: 3/25/72, p. 198), released last week in Washington, reemphasizes the importance of population stabilization and makes recommendations on immigration, city planning and population research.

The legal rate of immigration into the United States is 400,000 persons a year, but in 1971 more than 420,000 illegal immigrants were located. The commission regards such large-scale illegal entry as a major threat to population stabilization, one that also creates economic and social service problems. Illegal aliens deprive citizens of jobs and depress the wage scale in areas where they are heavily concentrated. They cannot risk discovery by complaining or joining organized labor.

Immigration can also hide the need for developing and promoting domestic talents. For example, there are more than 7,000 registered Filipino doctors and only about 6,000 black doctors practicing in the United States. If immigration were not providing a large proportion of the demand for doctors, medical schools would be under greater

A Coriolis effect for continents

Most theories on the causes of continental drift involve some kind of thermal convection in the mantle. Martin F. Kane of the U.S. Geological Survey has developed an alternative mechanism that links plate movements with known slow changes in the position of the earth's pole of rotation.

The mechanism he describes could be classified as a Coriolis effect. The concept explains the apparent deflection, due to the earth's rotation, of any object in motion. The Coriolis effect plays an important role in the large-scale clockwise or counterclockwise (depending on the hemisphere) circulation of the atmosphere and oceans.

In his concept he envisions, for example, a continent at the equator. As a result of a gradual change in the position of the earth's pole, the continent is at some later time displaced north of the (new) equator. In the latter situation, there will have been a loss of rotational inertia, because the continent is not as far from the axis of rotation as it had been. But the laws of physics say angular momentum is preserved. This is accomplished, he suggests, by a latitudinal (in this case easterly) movement of the continental plate in relation to the surrounding crust.

This type of polar movement could cause the part of a continental plate north of the equator to tend to move east and that part south to move west. The resulting

stresses could, he suggests, cause separation of the plates along existing lines of weakness.

In the March 24 *SCIENCE*, Kane compares the path followed by the north pole over the past 230 million years with the pattern of continental breakup and drift described by Robert S. Dietz and John C. Holden (SN: 10/3/70, p. 293). The continental movements that Kane's model predicts would result from these pole changes is "in reasonably good agreement" with those that actually took place, he says.

Kane points out that his theory also fits well with proposed links between seismic activity and polar wobble (SN: 12/12/70, p. 453). The total annual energy change predicted by Kane's theory as a result of observed annual changes in pole position is approximately equivalent to the amount of energy released annually by earthquakes. Kane suggests that polar wobble creates strain in a plate as it slows down or speeds up and this strain is manifested as earthquakes.

Kane says that though his theory has not been rigorously tested it fits the general patterns of observations and has advantages over thermal mechanisms. The problem with convection cells, he says, is that they are hard to quantify—their dimensions and elements are difficult to define. His model, on the other hand, is a relatively simple mechanical system in which elements can be defined precisely and predictions can be made. "It's a more tractable system," he says.

pressure to expand enrollment and provide educational opportunity for all Americans—particularly minorities and women. The commission recommends aggressive enforcement of immigration laws and civil and criminal sanctions on employers of illegal aliens. But the United States has traditionally said, "Give me your tired, your poor, your huddled masses . . .," and immigration has always supplied needed cultural inputs. With these considerations in mind, the commission says immigration should be kept at the present level.

The United States is becoming an almost totally urban society, and the commission recommends comprehensive planning to improve urban development and eliminate current patterns of racial and economic segregation. This should be done on an over-all metropolitan and regional scale—not through the current, fragmented city and country approach. Specifically, it says action should be taken to "reduce the dependence of local jurisdictions on locally collected property taxes."

Throughout the report, the commission notes that all recommendations are for the present and should be flexible, subject to future research. But, it notes, there is often as much as a two-year delay in the publication of such research. It suggests speeding up and modernizing the processes. The decennial census for instance, should be supplemented by a mid-decade census of the population. Expanded research would be coordinated through a National Institute of Population Sciences

within the National Institutes of Health, an Office of Population Growth and Distribution within the Executive Office of the President and a joint Congressional committee to provide legislative oversight.

Immediate implementation of all recommendations is not expected, but neither is immediate rejection. (The Commission on Marijuana and Drug Abuse recommended decriminalization of Marijuana [SN: 3/25/72, p. 197]. President Nixon rejected that tactic before and after he read the report.) Instead, the population commission hopes to see many of its recommendations turning up in future legislation. Last week, for instance, the Senate passed the Equal Rights Amendment and the Supreme Court ruled that unmarried persons should be allowed to purchase contraceptives. Both were recommendations of the population commission. □

Prostaglandins: Involved in dental disease

Periodontal, or gum disease might well be considered the dental nemesis of all persons age 21 and over. More adult teeth are lost from this disease than from decay, accident or other causes. In fact, thousands of dentists are saddled with the job of annually yanking out millions of perfectly good teeth and replacing them with dentures. The reason is that the bony foundations of the teeth have been eroded by perio-

dontal disease.

True, the removal of plaque, a substance formed by colonies of bacteria that thrive on teeth and gums, may help stave off the disease. More and more dentists are motivating their patients to follow home plaque-removal measures. Warding off a disease, though, is a far cry from curing it once it sets in. Now a San Francisco scientist has laboratory and clinical evidence that both explains the causes of periodontal disease and provides a possible cure for it.

Jo Max Goodson of the University of California Dental School reported last week at a general session of the International Association for Dental Research in Las Vegas that he has found that local application of prostaglandins, secondary hormone messengers present in humans and animals (SN: 10/10/70, p. 306), can destroy the cranial bone of rats within several days' time. The lesions produced were similar to those caused by periodontal disease in alveolar, or teeth bone. Second, Goodson has found that bacteria from the mouth, which are implicated in dental disease, produce prostaglandins. "As far as I know," he says, "this is the first indication that bacterial species may be capable of synthesizing prostaglandins." (Prostaglandins have been discovered in other lower animals recently—in coral—by A. J. Weinheimer of the University of Oklahoma.

Consequently, Goodson is now trying to show that prostaglandins from bacteria actually erode the alveolar