



A clockwork orange in a California prison

Ethical debate is brewing over recently revealed experimental brain surgery on prisoners and a possible resurgence in the use of lobotomy and psychosurgery to control violent persons

Photo: Warner Bros.

by Robert J. Trotter

Alex enjoyed his bit of ultra-violence. Rape, mugging and murder were a way of life until he ended up in prison. Up to this point Stanley Kubrick's movie, "A Clockwork Orange," is almost mundane and perfectly acceptable because violence-saturated audiences have come to accept this type of action as entertainment. But the tale takes a Gothic turn when Alex is told he can be released within two weeks. All he has to do is submit to some government-sponsored experiments that will cure him of his penchant for violence.

Psychological and chemical methods of behavior modification were then used to make Alex violently ill at the mere thought of any kind of violence. On release he was not an uncontrollable Frankenstein monster but an over-controlled helpless human at the mercy of every violent element in his society. In other words, he was as queer as a clockwork orange or a three-dollar bill.

Fortunately for Alex, if not for his society, the chemicals and the mind conditioning wore off after some severe beatings and a suicide attempt. He was free again.

The fictional adventures of Alex were told by Anthony Burgess in 1962. They took place in a London of the near future. This fictional future, however, seems to show some strong resemblances to a set of events that have come to public knowledge recently in California. The California prison system consists of prisons within prisons. The toughest, most violent prisoners are often sent to prison adjustment centers for special attention, but a super adjustment center was set up at the Vacaville prison. Called the Maximum Psychiatric Diagnostic Unit, it is intended for diagnosis, treatment and research on prisoner volunteers from all the adjustment centers. (The California Department of Corrections an-

nual research report for 1970 describes prison research for the U.S. Army on diseases endemic to Vietnam, on a vaccine for the plague and on the toxicity of DDT, organic phosphates and various other chemicals.)

In addition to the ongoing research, the California Department of Corrections has made a proposal to seek funding for experimentation involving a complex neurosurgical evaluation and treatment program for the violent inmate. Surgical and diagnostic procedures would be performed to locate centers in the brain that may have been previously damaged and that could serve as the focus for episodes of violent behavior. If these areas were located and it was verified that they were the source of aggressive behavior, neurosurgery would be performed.

Last November Edward Opton Jr., senior research psychologist at the Wright Institute in Berkeley, Calif., was asked to sit in on a discussion of the proposal. He learned that the request was for \$300,000 from the U.S. Department of Justice's Law Enforcement Assistance Administration and for \$189,000 from the state of California. He objected when he found that the proposal called for experimentation on prisoners (including a mention of chemical castration of aggressive persons). It was later discovered that in February 1968 three Vacaville prisoners actually did undergo brain surgery to have violent seizures controlled. The results were mixed. "The proposal to continue this work has been shelved for the time being," says Opton, "probably because of the publicity stink that followed the hearings."

The revelation of the California proposal and the Vacaville brain surgery may have been shocking, but according to Washington, D.C., psychiatrist Peter R. Breggin, "We are actually in the midst of a resurgence of the old lobotomy technique."

This particular type of brain surgery started in Portugal in 1936. A researcher discovered that removal of parts of the brain could relieve anxiety. After the operation the patient was described as a buffoon or clown but he was no longer bothered by anxieties or fears. The surgeon who initiated the technique performed only 20 such operations before the Portuguese Government outlawed lobotomies.

Six months later the operation was being performed in the United States. Breggin describes these first operations as "swishing an ice pick around behind the eyeballs to destroy portions of the brain's frontal lobe." The father of this type of surgery in America, says Breggin, was Walter Freeman. He performed 4,000 such operations. Finally William Allison White, at St. Elizabeth's Hospital in Washington, prohibited Freeman from operating there on the grounds that he was not a surgeon and that the operation was a mutilation. Breggin says that Freeman then began preaching his technique at various state mental institutions and probably stimulated 20,000 more lobotomies in those institutions. "Follow-up on these patients," says Breggin, "showed that they were not helped at all. All were severely brain damaged, there was a high mortality rate and chronic brain disease."

After perhaps 50,000 lobotomies in the United States, and 15,000 in England, the fad died down in the 1950's, probably because of developments in electroshock and drug therapy. Now there may be a resurgence, and Breggin has been working for eight months to document it.

In a paper titled "The Return of Lobotomy and Psychosurgery" Breggin describes (with 98 entries in his bibliography) the state of the art in the United States and abroad. The current estimate is 400 to 600 cases per year in America and, "every psychosurgeon

agrees that we are just beginning to witness a massive increase in psychosurgery," says Breggin.

The term presently being used to describe the procedure is sedative neurosurgery because the patient is made quiet and manageable by an operation. Variations on the classical prefrontal lobotomy include cingulotomy (the creation of precisely placed lesions in the cingulum of the frontal lobe), amygdalotomy (the technique used in California), and hypothalamotomy. The lesions are made with a knife, ultrasonic energy, radiation or electricity. Diathermy or injections of foreign matter (such as olive oil) are also used to destroy parts of the brain.

Justifications given for the operation are the relief of a variety of emotional problems, including homosexual tendencies, frigidity, agoraphobia, compulsive gambling, depression, anxiety, neurosis, schizophrenia, delusions, criminal behavior, and alcohol and drug addiction. In Mississippi, a professor at the University of Mississippi School of Medicine, O. J. Andy, is using the technique on children to reduce hyperactivity to manageable levels, says Breggin. The techniques do provide relief from these symptoms and can aid in controlling agonizing pain due to brain diseases such as epilepsy.

The problem with such surgery, says Breggin, is that "destruction of frontal lobe tissue is immediately reflected in a progressive loss of all those human functions related to the frontal lobes—insight, empathy, sensitivity, self awareness, judgment, emotional responsiveness, and so on."

José M. R. Delgado at Yale University is developing methods of mind control that would not necessarily destroy brain tissue. He uses implanted electrodes to stimulate various pleasure (and pain) centers in the brain (SN: 10/23/71, p. 276). The electrodes can be self-activated by the patient, but they can also be activated remotely by a therapist or by a computer. "Delgado is working on the ultimate lobotomy," says Breggin, "—direct long-term physical control of human beings."

Breggin considers this type of research leading to a technologic totalitarianism of the future and believes strongly that something must be done to avert it. His article has been submitted to various medical journals but so far, because of its impassioned non-objectivity, only one of them has decided to publish it. It will appear in the March MEDICAL OPINION AND REVIEW. In addition, Breggin will speak at the International Congress on Social Psychiatry in May and, after threatening to hold news conferences, he was given a seat on the Psychosurgery Panel of the Houston Neurological Symposium being held late this week.

But Breggin wants more than to be heard. Lobotomy and psychosurgery were outlawed in Russia in 1951 and Breggin wants to see them outlawed in the United States. He has taken his findings to Rep. Cornelius E. Gallagher (D-N.J.), who has been critical of the use of Federal funds for behaviorist B. F. Skinner and the use of amphetamines to control hyperactive children (SN: 12/25/71, p. 420). Unlike chemical and psychological mind control, however, psychosurgery is permanent. "Shocking and frightening are too mild to describe my reaction to this material," Gallagher said. He then had Breggin's paper published in the Feb. 24 CONGRESSIONAL RECORD.

Gallagher is not the only one interested in the ethical problems of psychosurgery. Ellis Mottur in the office

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of Sen. Edward Kennedy (D-Mass.) says the Senate Committee on Labor and Public Welfare is following developments in the California case with great interest. Leon R. Kass, executive secretary of the Committee on Life Sciences and Social Policy at the National Academy of Sciences, says a NAS group hopes to have something to say on the subject this summer.

The Institute of Society, Ethics and the Life Sciences at the Hastings Center in Hastings-on-Hudson, N.Y., has a program in the ethical, social and legal issues of behavior control. Herbert G. Vaughan Jr. of the Neurosurgery Department at Albert Einstein College of Medicine in New York City is a member of the Hastings task force on behavior control. He was somewhat surprised by the happenings in California but says "there is a fair amount of activity in this area now." Stereotactic and psychiatric surgery techniques, he goes on, "are so perfected that almost any part of the brain can be approached. Some of the surgeons who are interested in doing this are putting lesions all over the brain." But it is difficult, he notes, to get detailed information on the reasons for the surgery, the procedures, and the results because they are not necessarily published in the medical literature.

One project he does know about, in Boston, is getting about \$2 million annually from the National Institute of Mental Health and the Department of

Justice. The research is being done by neurosurgeons William H. Sweet and Vernon H. Mark and psychiatrist Frank R. Ervin (SN: 7/27/68, p. 91; 12/18/71, p. 403). "They are exploring the relationships between what they consider to be brain dysfunction and violent behavior," Vaughan explains. One aspect of the program does involve prison populations but not operations on prisoners. Nor are the surgeons operating on anyone who does not have definite evidence of organic brain disease (such as epileptics). "Even so," says Vaughan, "this is an extremely controversial issue."

The controversy, however, may be out of proportion. Breggin's charges, says Ervin, are reckless, and some of his conclusions are distorted. For example, the few hyperactive children who have been operated on were not just overactive children. They were terribly brain-damaged patients from the back wards of state hospitals who could not be helped by medication. He maintains the operations were simple, safe, creative procedures to help get the patients back into the community. But, says Ervin, the developments and the issues must be kept before the public because there is always the possibility that scientific advances can be perverted. Therefore Breggin's shock tactics and therefore the controversy.

The controversy surfaced at Massachusetts General Hospital. One of the grants from NIMH was originally requested with MGH as a participating hospital, but the grant was awarded to the Neurosciences Research Program (a private group of which Sweet is a trustee). Seymour S. Kety, chairman of the MGH committee on research says the \$500,000 grant was from NIMH at the specific request of a Congressional subcommittee. After an extensive review of the proposal John Knowles (then director of MGH) decided the hospital would not participate in the project.

Breggin is hoping his work will bring about more decisions like the one at MGH. That is one reason he words his statements so strongly. When asked if he was being one-sided or lacking in objectivity, he replied: "I don't feel that I am being one-sided at all any more than to be against Nazi experimentation is to be one-sided. I really feel very strongly. These people are destroying normal brain tissue and to destroy normal brain tissue is to cause damage to the human personality. The Russians outlawed it because you cannot possibly help someone by giving him a defect in his personality and these operations—one and all—produce defects in the personality. The continuation of an atrocity is not objectivity!" □