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A History: When the State Uses People as Guinea Pigs

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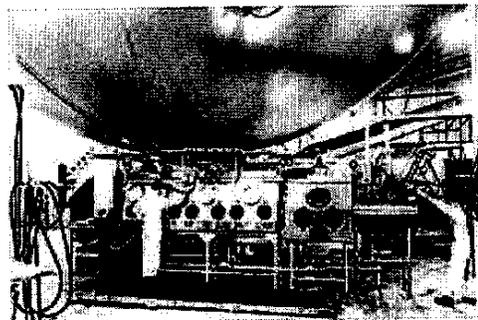
By PHILIP J. HILTS

Scientific experiments in which human subjects are abused are not new. Examples are as old as arrogance and cruelty.

In the 13th century, according to historians, a Mongol commander laying siege to a port city experimented with heaving his diseased, dead soldiers over the walls of the besieged town. The result was victory for the command and the spread of black plague to its first seaport. The commander's action may indeed have been the major event in the great bubonic pandemic.

But something different has been produced in this century, according to John Moreno, director of the Center for Biomedical Ethics at the University of Virginia and the author of "Undue Risk," to be published this fall by W. H. Freeman & Company.

Modern times have seen the growth of systematic, state-sponsored programs of unethical experimentation, and they have occurred in nations as diverse as the United States, Nazi Germany, China, Japan, Iraq and South Africa.



United States Army

A spherical chamber at Fort Detrick, Md., right, was used to test static biological aerosols on volunteers.

Dr. Moreno's book traces the history of secret, state-sponsored experiments in the fields of atomic, chemical and biological warfare

studies from World War II to the present, including the possibility that governments are now experimenting with what he calls "genetic warfare."

Dr. Moreno, who has a Ph.D. in philosophy, was drawn into the subject when he was telephoned by Dr. Ruth Faden of Johns Hopkins University and the leader of the President's Advisory Committee on Human Radiation Experiments, and was asked to become a member.

The committee's task was to reconstruct the story of radiation experiments on humans carried out in the United States from 1944 to 1974. The investigation, believed to be the most thorough historical search of its kind ever done, took almost two years and plumbed millions of pages of documents.

The advisory committee found thousands of human experiments had been conducted with radiation and that many were unethical. About \$5 million in compensation was awarded by the Federal Government to the survivors of a few of the worst experiments.

But the report was finished, Dr. Moreno found his curiosity had only been piqued. What, he asked himself, about the other new technologies in modern warfare and chemical and biological weapons? What experiments had been done with those? He decided to find out.

What made his and the radiation investigations possible was President Clinton's decision to declassify the military records of the secret experiments.

The book based in part on those records consists of a parade of horrors, but it reveals many common features in unethical experiments from nation to nation, experiment to experiment. And while it often chronicles familiar cases, it also describes a few unfamiliar cases, ones that may point to the abuses of the future.

And it finishes with a discussion of the positive consequences of unethical experiments: that ethical standards are being raised.

The committee found that from 1944 to 1974, there were thousands of experiments in the United States using radiation, in projects as diverse as injecting plutonium into the bodies of unsuspecting patients and marching soldiers onto the sites of atom bomb tests just after the blasts.

In Iraq in the 1980's, Dr. Moreno reports, prisoners and captured Kurds were tied to stakes and bombarded with chemical and bacteriological weapons to assess the weapons' effects. The number of victims is not known, but may be in the thousands.

Among the less familiar tales is that of the South African program called Operation Coast, which was unearthed by that nation's Truth and Reconciliation Commission hearings.

Operation Coast consisted of a series of experiments in the 1980's in which biological and chemical weapons were tested, in one case on troops from Mozambique, for use against apartheid opponents.

The commission also found evidence that among the secret medical experiments was an effort to develop infertility drugs that would affect blacks but not whites, Dr. Moreno wrote.

Dr. Moreno says it was unclear whether such drugs were actually tried on humans, but the case raises the possibility of adding a fourth horseman to the atomic, biological and chemical weapons -- "genetic warfare."

"Several classes of weapons could result," Dr. Moreno wrote, "among them microbes genetically engineered to target certain human populations based on a virus's ability to 'recognize' the DNA variations in specific subgroups."

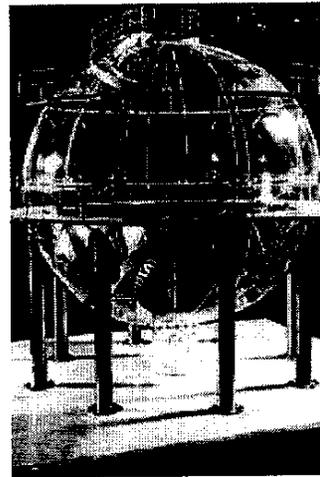
He added that the possibility was credible partly because "people from particular ethnic groups or certain geographic origins have long been noted to be associated with sensitivities to particular foods and drugs." For example, he wrote, since ancient Greek times it has been known that people of African and Middle Eastern origin often get sick after eating fava beans.

Dr. Moreno wrote that the Defense Department already had begun studies to design defenses against "genetic" attack.

Human experiments of some kind will always be necessary in government and military programs, Dr. Moreno wrote, but what is necessary for the future is to guard against abuse of humans.

And, he said, one of the things that surprised him most was that he found the best model for careful, ethical human experimentation in a United States Army chemical and biological warfare program.

He discovered a group of medics called 91 Bravo at Fort Detrick, Md., who are also known as the Medical Research Volunteers or Mervs whose job as soldiers is simply to serve as subjects in medical experiments. They give blood, take experimental vaccines



United States Army

A transparent model of the testing chamber.

and ingest suspect bacteria, and when they become sick they are treated on the spot. They receive special training in experimentation, detailed briefings on each experiment, and have the option of participating in some trials and not others.

In contrast to civilian research on humans, the experiments on "91 Bravo" must be reviewed by multiple boards and officials before proceeding. And the medics themselves sometimes join on the review committees.

Unethical experimentation will always be with us, Dr. Moreno wrote, but if secrecy is limited and good model experimental programs can be developed, the abuses may be limited.



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