

- Biological weapons instead of atomic bombs are more likely to be used in future wars if the annihilation of man is to be avoided.

## THE FUTURE WAR WEAPONS

Bomb construction know-how is now available to make weapons, probably clandestine weapons, but the motivations stemming from nationalism are also present. For example, the West Germans have objected to the nuclear non-proliferation treaty on the grounds that it gives away commercial secrets and that countries not possessing nuclear explosives for engineering purposes will be at a disadvantage. Realistically, we must admit that in view of weapons development in other nations the Germans feel their national interests could best be served if they also had nuclear weapons.

Meanwhile, the French continue with their own nuclear tests, as does Red China. It would do the human race a great disservice to assume that the present non-proliferation treaty and nuclear test ban have brought us nuclear peace. Quite the contrary,

they probably have driven underground some efforts to create nuclear weapons on part of those not now possessing them. Only time will tell if this is true. In the meantime, a gigantic effort must be made by all powers, nuclear and non-nuclear, to bring these weapons under control while man searches for another means to serve national aspirations in international competition.

However, much as we would like to deny it, we now face an entirely new kind of arms race — stemming from research in areas of biochemistry. We may fear the weapon that is invisible and unseeable so much that we try to wish it out of existence, yet such weapons are becoming available for human control. These may be chemicals that could be put into the water systems of cities, or gases that may reduce the will of people to act, that may alter memory, or may

paralyze a large population — not by killing or wounding them, but by rendering them temporarily slaphappy and careless. By such means, in the future, profound changes in human behavior and perhaps reproduction could be obtained. Yet the advantages of such new weapons also should be clear. Since the beginning of history, and therefore of conflict, man has used his weapons to inflict death or severe bodily damage on his opponents. Now research is on the threshold of producing agents that temporarily halt or tranquilize hostile groups without hurting them. For many years we have captured and medically treated wild animals this way — by shooting tranquilizer pellets into them, not bullets. Such agents can now be used to halt criminals. In riots or situations of widespread violence, looting, and burning, violent masses of people can be brought under control without needlessly killing hundreds of innocent bystanders — yet our conventional and unthinking attitudes about the control of be-

havior lead us to reject such chemical methods.

Whether we like the face of the future or not, however, these psychological chemicals will be with us and we had better learn their implications and how to use them for benefit to mankind. As with nuclear explosives, we cannot forget the new is here. We must learn how to control it for the benefit of all. The era of biological weapons brings us to a new threshold in history — one in which the weapons of one nation against others are no longer relevant. For the coming conflict is man against nature, his own proliferation, and the resources of the small earth on which our growing multitudes live.

If we still think of weapons systems today — and we consider the coming generation of drugs and agents that will control mood and behavior — the research behind it is yet more awesome and productive, for it is research into the workings of the human brain, the inner space of the mind. Research into this inner space will probably be far more rewarding

for human life than research into outer space. In future medicine there may be no excuse for people to suffer mental retardation all their lives; we may be able to prevent many of the crippling emotional diseases that today hospitalize millions. We may improve upon the intelligence and memory. But most urgent, we must understand

ourselves sufficiently to control behavior — to prevent violence in a crowded world, and, perhaps most important, to prevent ourselves from abusing and ruining the resources of our environment with pollution and over-population. — *Excerpts of an article by Lt. Gen. James M. Gavin, Saturday Review, August 31, 1968.*

## ADMINISTRATION OF JUSTICE

. . . let the court act, but without incitements to cruelty, without martial laws, without barbarism or clemency. Let it perform its mission quietly, carefully, serenely, like one who is conscious of its power and of its august ministry. It must not go down to the level of vengeance. Examine impartially the facts and when it has to meet out a penalty, be very careful and incline more towards benevolence, for aside from the fact that man is fragile, there is the high political consideration of not revealing racial animosity, inasmuch as the one who has to judge the criminal is of the same color as the deceased. And more than elsewhere judges ought to consider that in the Philippines climate affects passions, that in a state of anemia, owing to the heat, it produces an unbalanced condition which is manifested nervous irritability; that the *hamok* or momentary obfuscation, is a phenomenon observed in the Malay race, sometimes provoked by hunger, heat, etc. — *By Jose Rizal in the Article, "Let Us Be Just", La Solidaridad, 15 April 1896.*