

The Earl Russell (Great Britain)
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Pugwash Conference of International Scientists
on Biological and Chemical Warfare

OPENING ADDRESS

I very much regret that I could not come to Pugwash to open your meeting in person, but I am glad to be able, through this medium, to greet you and to say a few words of welcome.

The present meeting, the fifth in the series of Pugwash Conferences, is different in some ways from the others. At previous meetings our main concern was the dangerous situation that has arisen from the development of nuclear weapons, and most of the participants were therefore nuclear physicists. Your meeting deals with a biological subject, and most of you are specialists in the live sciences. Despite, however, the difference in topic, the spirit of Pugwash remains the same.

You will recollect that the Pugwash movement originated from a letter signed by the late Albert Einstein, nine other scientists and myself, in which we drew attention to the dangers which would face humanity if another world war were to break out. This letter stressed the need for competent scientists, representing a wide range of opinion, to assemble in conference and to make a true assessment of the dangers.

The first Conference, which was made possible thanks to the generosity of your host, Mr. Cyrus Eaton, took place in the very town in which you are now, Pugwash, Mr. Eaton's birthplace. This first Conference has not only fulfilled all its objectives, but has also laid the foundations for the Pugwash movement; a movement which has become the symbol of the scientists' conscience, of the realization of his responsibility towards mankind; a movement which has received a wide measure of support from the scientific community all over the world.

The principal aim of the first meeting was to make an independent and objective assessment of the dangers arising from the existence of nuclear weapons. Since then the nature and extent of these dangers, both from a full scale war and from test explosions, have been generally recognized and appreciated by the governments concerned. The next task for scientists was to try to make a contribution towards diminishing these dangers, and this preoccupied us during the three following Conferences, at Lac Beauport, at Kitzbuhel and, very recently, at Baden.

But although nuclear warfare represents the most acute danger facing the world at present, it is by no means the only danger. Almost any discovery in science can be used for destructive purposes, and in this respect the biological and medical sciences are no exception. During the Kitzbuhel Conference several speakers drew attention to the rapid development of biological and chemical weapons and to the magnitude of disaster which might follow from their use in war. It is in the spirit of Pugwash to assemble scientists competent in these subjects to assess the danger.

Should the danger of biological warfare indeed be as great as it has been described, then this factor must surely be taken into account in all disarmament talks, and suitable provision made in any international agreements to ensure peace. But, even if these claims turn out to be exaggerated, biological warfare might still represent a threat to world security because of the possibility of smaller nations resorting to the use of such weapons, owing to their cheapness and ease of production.

It is a general feature of the progress of science and technology that it makes easier both living and dying; it brings about an improvement of means of production and a lowering of prices of commodities, but it also lowers the price of death. In the last war the cost of killing one person by military weapons amounted on the average to some thousands of pounds. After the development of the atom bomb, the cost of extermination fell to a few pounds per head; the hydrogen bomb has brought it down much further and the cost is now reckoned in pennies. And now we are told that killing by means of biological weapons may be even cheaper.

This may be true or not, but it is a fact that a great deal of research has been going on in utmost secrecy on the development of biological and chemical weapons, and that many attempts have been made to justify the use of such weapons. In a speech I made at Vienna after the Kitzbuhel Conference, I said that should a sudden outbreak of rabies occur, say in Berlin, it would be absurd to think that the Eastern and Western authorities would not instantly combine to find measures of extirpating the mad dogs. However, after reading the statements which have recently been made by some generals, I am not so sure about this.

General Creasy, the retired head of the U. S. Army's Chemical Warfare Service, has been reported to have advocated before a Congressional Committee to put chemical and biological warfare in the same category as the atom bomb. He is reported to have said, "We would use them when we damn well see fit in the interests of the United States and its allies," and he went on to justify these weapons as humane. It is curious that the advocates of the most horrible weapons of mass destruction always appear to be motivated by merciful reasons. Admiral Strauss, when Chairman of the United States Atomic Energy Commission, referred to the "clean" hydrogen bomb as the "humanitarian bomb."

It is of course a matter of great regret that science--particularly the medical and biological sciences--should be debased and developed in a spirit contrary to everything it stands for. It is even more distressing that a situation should have developed in which scientists find it possible and indeed desirable to pursue such research. We have to accept this situation as a reality, however distasteful, but at least we must make an effort to try to diminish the dangers which may arise from it. It is the duty of scientists knowledgeable in their subjects to see to it that other scientists and the general public are kept fully informed about the possibilities of biological and chemical warfare.

You are a group of eminent scientists, specialists in the various fields associated with this type of warfare, and you should be in a position to make an assessment of the present situation and of the dangers which lie ahead. If you find that your conclusions