

P. O. BOX 1663
SANTA FE, NEW MEXICO.

December 8, 1945

Messrs. Balderston, Wehmeyer,
McLean and Gruen
259 Corning Hall
Oak Ridge, Tennessee

Gentlemen:

I have your letter of November 22. I am afraid that you consider me a much greater expert than I am on matters of world government. I share what seems to be a rather widespread opinion among scientists that some form of international control of the new weapons is a very desirable goal to work for, but I see, as you do, great difficulties for achieving this purpose.

There is one point on which I feel rather strongly. I consider that it would be very dangerous to participate in a weak international agreement. I believe that this country would be better off with no agreement than with one that could be violated easily by some of its participants.

Sincerely yours,


E. Fermi

December 3rd, 1945

Mr. John L. Balderston, Jr.
259 Corning Hall
Oak Ridge, Tenn.

Dear Mr. Balderstone and dear Colleagues:

I hasten to answer your letter of the 28th of November. As to the question whether the formation of a world-state is possible under the present economic, political and psychological conditions it is essential to decide how far the national states must first renounce their sovereignty to avoid the danger of an imminent new war. On this point I believe that in the second paragraph of your letter you have asked more than is necessary. I think it is not necessary, at first, for the single states to subordinate themselves to a world-state in the fields of customs and immigration laws. In my view the world-state need only be the sole repository of military power, so that no single state shall be in a position de facto to use ~~ix~~ on its own motion the military resources and troops stationed in its territory; this could be secured with reasonable certainty by a thoroughgoing international exchange of officers and men.

In order that the world-state may not overstep its mandate, which at first has reference only to the avoidance of war and to such developments inside single states as indicate a danger of war, there must be a permanent world-court. Such a court would be on its guard against the infringement of the articles of the world-state by its administration. Each single state must have the right to summon the court when it considers itself to have legal cause of complaint. The basis for the decisions of this court of justice must be a carefully framed constitution accepted by the participating states which lays down as precisely as possible the duties and powers of the administration of the world-state.

The freedom of development of the single states in economic, cultural and political matters must be guaranteed from the start- in so far as this development does not involve danger to the security of the states (Argentina, Hitler Germany). Each state shall be free to make its own disposition as to customs and immigration laws (Not that I consider such freedom desirable, but I believe that the main goal of military security can first be attained without infringing on the "freedom" of the single states in these fields).

-2- Mr. John L. Balderston, Oak Ridge, Tenn.

I hardly think that UNO, as it is today, can be used advantageously as the machinery for building up a world state. The immediate and ~~is~~ essential thing is the agreement of the chief military powers to form a central government. The rest is a mere matter of formality.

Very sincerely yours,

A. Einstein.

Albert Einstein.

UNIVERSITY OF CALIFORNIA

RADIATION LABORATORY
BERKELEY 4, CALIFORNIA

December 4, 1945

Mr. John L. Balderston, Jr.
259 Corning Hall
Oak Ridge, Tennessee

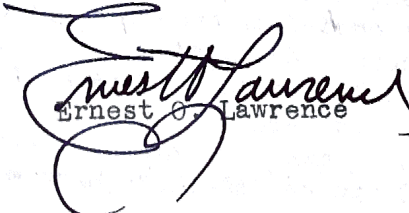
Dear Mr. Balderston:

I am afraid I can't be of much help to you in discussing the profound political questions raised in your letter of November 22nd. I know that our government is well aware of them and is doing everything possible to deal with them successfully in the interests of our nation and the world. Surely they can't be solved overnight.

In my humble opinion, I think that in the next few years the people of the world will gradually realize fully that there must never be another major war, but how this is to be accomplished I am sure is a question that involves many factors and considerations unknown to us.

It seems to me it is the primary duty of the scientist to make sure that his government understands clearly the true scientific and technical facts and implications of atomic energy and, indeed, all scientific progress. At the present time I feel confident that our government understands the present scientific position in the matter and I am inclined to the view that the best thing we scientists can do at the moment is to be devoting ourselves to scientific problems.

Sincerely yours,


Ernest O. Lawrence

EOL:EI

WASHINGTON
Grosvenor Lodge,
Babraham Road,
CAMBRIDGE.

10th January, 1946.

John L. Balderston, Esq., Jr.,
259, Corning Hall,
Oak Ridge,
Tenn.,
U.S.A.

Dear Mr. Balderston,

Thank you for your letter of December 24th. I am much interested to know that you sent letters to 150 prominent people. The matter is obviously the most important that is at present before mankind, and I have a very strong desire to take an active part, first in determining what we ought to do and then in doing it. I think that those of us who feel the urgency of the matter ought to try to come to some agreement as to the best method of propoganda and as to the programme that we should advocate.

I should, for my part, be glad of an opportunity for the publication of a serious article in America, but I should wish to have some idea as to the opinions of others with whom I might hope to be in general agreement. I shall, therefore, be grateful if you will keep in touch with me and give me any useful information that comes your way.

I have decided not to publish the article I sent you as it stands, but I have no objection to your showing it to anyone who may be interested.

Yours sincerely,

Bertrand Russell.

Material on the control of atomic power.

THE ATOMIC BOMB AND THE PREVENTION OF WAR

An Unpublished Article --

by

BERTRAND RUSSELL

(Reprinted for distribution to members of
the Oak Ridge Engineers and Scientists by
kind permission of the author.)

SPECIAL BULLETIN 2.

ORES Publications Committee

February 26 1946

The Atomic Bomb and the Prevention of War

by

Bertrand Russell

The atomic bomb has set a problem to mankind which must be solved if any tolerable existence is to be possible for the human race. The problem is that of abolishing large-scale war, not at some distant future date, but quickly, before there has been time for another vast conflict to break out.

If the next great war were to occur within the next two or three years, it would probably lead to quick victory for the United States and its allies, since no other power would have atomic bombs. But it is fairly certain that there will not be a new war in the near future. I shall assume that peace will last until there has been time for Russia to manufacture atomic bombs - and not only Russia, but many other nations, great and small. It must be assumed that bombs will soon become much cheaper and much more destructive than those dropped on the Japanese. In addition to bombs there is the possibility of spraying large regions with radioactive substances which will exterminate all life in their neighborhood. Given a little carelessness, life on this planet may be made impossible.

It is to be expected that, if war comes, it will begin with a surprise attack in the style of Pearl Harbour. The aggressor will hope for a knock-out blow so severe as to make retaliation impossible. For purposes of illustration, let us suppose the attack directed against the United States. In the first twenty-four hours, New York, Washington, Chicago, and all the main centers of population will cease to exist; President and Congress will have undergone a diabolic alchemy, and a considerable percentage of the inhabitants of the United States, including most of those who are important in industry, will perish. The bombs will be borne by rockets, and it will be a matter of guess-work to infer what government is responsible. Some of the survivors will clamour for peace at any price, while others will proclaim that they would rather die than submit to so foul a blow. If the nation's store of atomic bombs has been successfully safeguarded, probably the resistors will prevail; there will be fierce revenge, many nations will be drawn in, and destruction will continue until disorganization makes the further manufacture of atomic bombs impossible.

Let us consider for a moment what will be involved in safeguarding atomic bombs and rockets. It will be necessary to keep their location secret, which will mean virtually a prison camp for those who work in connection with them. It will involve a constant suspicion of treachery, leading to a prohibition of foreign travel for all but the most highly trusted public servants, as already in Russia. It will involve a complete cessation of freedom for all scientific workers whose activities have any bearing on the warlike utilization of atomic energy. It will require apparatus and crews always ready, day and night, to retaliate upon whoever is considered the most probably enemy, as soon as there is a report of an atomic bomb being dropped. These crews must be told that, in a crisis, they are not to wait for orders, since the statesmen and the higher command will probably be wiped out. In the atmosphere of mutual suspicion thus generated diplomats will meet to discuss such important questions as who is to have the oil of Persia or the tin of Malaya, they will be wondering, will get in first with its Pearl Harbour. Sooner or later, nerves will give way, and the explosion will occur.

If utter and complete disaster is to be avoided, there must never again be a great war. Is it possible to establish a system which will secure this result before we suffer the penalty of our folly and our cleverness?

It is entirely clear that there is only one way in which great wars can be prevented, and that is the establishment of an international government with a monopoly of serious armed force. When I speak of an international government, I mean one that really governs, not an amiable facade like the League of Nations, or a pretentious sham like the United Nations under its present constitution. An international government, if it is to be able to preserve peace, must have the only atomic bombs, the only plant for producing them, the only air force, the only battleships, and, generally, whatever is necessary to make it irresistible. Its atomic staff, its air squadrons, the crews of its battleships, and its infantry regiments must each severally be composed of men of many different nations; there must be no possibility of the development of national feeling in any unit larger than a company. Every member of the international armed force should be carefully trained in loyalty to the international government.

The monopoly of armed force is the most necessary attribute of the international government, but it will, of course, have to exercise various governmental functions. It will have to decide all disputes between different nations, and will have to possess the right to revise treaties. It will have to be bound by its constitution to intervene by force of arms against any nation that refuses to submit to its arbitration. Given its monopoly of armed force, such intervention will be seldom necessary and quickly successful. I will not stay to consider what further powers the international government might profitably possess, since those that I have mentioned would suffice to prevent serious wars.

There is one other method by which, in theory, the peace of the world could be secured, and that is the supremacy of one nation or of one closely allied group of nations. By this method Rome secured the peace of the Mediterranean area for several centuries. America at this moment, if it were bellicose and imperialistic, could compel the rest of the world to disarm, and establish a world-wide monopoly of American armed force. But the country has no wish for such enterprises, and in a few years the opportunity will be gone. Plans for world peace, therefore, must reckon with Russia and America as roughly equal powers, and must aim at an international government established by agreement rather than by force.

Short of actual force, however, the government of the United States, with the support of Great Britain and a number of other Powers, could do a great deal towards the creation of an international government. An alliance could be formed, consisting in the first place of all North and South America, the British Commonwealth, France, Belgium, Holland, Scandinavia, and Spain (after dealing with Franco). This alliance should proclaim certain international purposes, and declare its willingness to be joined by any Power that subscribed to these purposes. There should be both military and economic inducements to join the alliance: military in that the alliance would as a whole undertake the defence of all its members; economic, in a lower tariff for trade with the alliance than for trade with nations outside it, and also in advantages as regards loans and access to raw materials. There should be a gradual increase in the closeness of the alliance, and a continually greater amalgamation of military resources. Every possible effort should be made to induce Russia to become a member of the alliance. In this way international government might grow up gradually.

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It seems, however, that the United States, Great Britain, and Canada have decided on a different course. Instead of trying to create a strong organization which would at first not include Russia, they prefer a weak organization, the United Nations, of which Russia is already a member. In view of the danger of Russian suspicions, this may have been the right decision; in any case it has been made and must be accepted. But it must be supplemented by a vigorous attempt to alter the constitution of the United Nations. At present there is machinery for preventing Finland from attacking Russia, but none for preventing Russia from attacking Finland. There is, in fact, nothing to hinder a great Power from waging aggressive war, whether against another Great Power or against a small defenceless neighbor. The only wars prevented by the organization of the United Nations are those that are not at all likely to occur.

If the United Nations Organization is to serve any useful purpose, three successive reforms are necessary. First, the veto of the Great Powers must be abolished, and majorities must be declared competent to decide on all questions that come before the organization; second, the contingents of the various Powers to the armed forces of the organization must be increased until they become collectively stronger than any national armed forces; third, the contingents, instead of remaining national blocks, must be distributed so that no considerable unit retains any national feeling or national cohesion. When all these things have been done, but not before, the United Nations Organization may become a means of averting great wars.

All this may seem Utopian, and perhaps it is. Politicians and diplomats are trained in evasion and ambiguity; they will offer a sham which can be obtained with little effort rather than an effective measure that is sure to encounter strenuous opposition, but they will dress up the sham so skillfully that many people will be deceived. Nevertheless, those to whom the survival of mankind is more important than victory in the next election must strive to enlighten the public while there is still time, and perhaps we can succeed.

The men of science, to whom politics is an alien art, find themselves suddenly faced with great responsibilities which they do not know how to fulfill. By their discoveries they have put immense powers, for good or evil, into the hands of ordinary men who have not the training required for a rapid change in age-old mental habits. The political world is complex, and understanding nuclei is no help in understanding diplomacy. But the same intelligence which has enabled physicists to understand nuclei will enable them to understand politics, provided they realize that the problems are complex and that slap-dash solutions will not work.

Although people speak of the "Big Three" or the "Big Five", there are in fact two powers, the United States and the U.S.S. . which far surpass all others in strength. Other Powers are, some of them, satellites of the one, some of the other, some hesitantly neutral. All other important Powers, including Great Britain, are, I think, prepared to acquiesce in the limitations of national sovereignty that are called for by the atomic bomb. This is not owing to any superior wisdom, but because their national sovereignty is already at the mercy of the Big Two. (E.g. the British have to submit to Bretton Woods and the Chinese to the loss of Port Arthur and the South Manchurian Railway.) The problem of establishing an international authority is therefore a problem of which the solution rests with America and Russia.

Russia, since it is a dictatorship in which public opinion has no free means of expression, can only be dealt with on the governmental level. Stalin and Molotov, or their successors, will have to be persuaded that it is to the national interest of Russia to permit the creation of an international government. I do not think the necessary persuasion can be effected except by governments, especially the government of the United States. Nor do I think that the persuasion can be effected by arguments of principle. The only possible way, in my opinion, is by a mixture of cajolery and threat, making it plain to the Soviet authorities that refusal will entail disaster, while acceptance will not.

Persuasion in the United States, where there is freedom of propaganda, is a different matter. If things do not go as we might wish, the fault is not usually with the politicians, though they get the blame; the fault is with public opinion to which the politicians, as democrats, quite legitimately give way. What is needed is an immense campaign of public education. The average American voter, very naturally, is annoyed by the way in which the follies of Europe and Asia compel America to go to war; in his emotions he is an isolationist, even when hard facts have convinced his reason that isolationism is no longer practicable. He wishes the Atlantic were still as wide as in Washington's day, and is apt to forget the arguments against isolationism whenever business is prosperous.

To meet this difficulty it is necessary to bring home, not only to administrators or Congressmen, but to the average American citizen, the dangers to which, within a few years, America will be exposed, and the impossibility of warding off the dangers except by a partial surrender of sovereignty. The first reaction of nine people out of ten will be to urge that America should have more bombs than any one else, so that an attack by any other nations would be obvious folly. The fallacy in this point of view must be made plain to all and sundry. It must be pointed out that America has already been involved in two world wars as a direct result of the fear of being involved: both in 1914 and in 1939, Germany would not have gone to war if America had pronounced in advance against neutrality. It must be made clear that the same thing would inevitably happen again: a war between Russia and China, or between Russia and Great Britain, would be sure to involve the United States. Next, the utter disaster of an atomic war must be made clear, and it must be demonstrated that there is no defence against a surprise attack. Finally it must be proved that there is no hope in Kellogg pacts; declarations of universal good will, alliances or paper prohibitions of the use of atomic bombs. All this must be set forth in speech and in writing throughout the length and breadth of the land, by men having no motive except public spirit and the hope that the world in which they have lived may still exist in their children's time.

If such a campaign is to succeed, it requires three things: a definite program, an organization, and the enthusiasm of a great moral crusade. Without this last nothing can be achieved, for although, from a purely rational point of view, self-preservation is a sufficient motive for all that needs to be done, self-preservation alone will not overcome the obstacles to rational thinking that are presented by ancient habits of hatred, suspicion, and envy. We shall have to realize that what injures a foreign nation does not necessarily benefit our own. We shall have to learn to feel a little uncomfortable if we wallow in plenty while millions die of hunger and cold as a result of our actions. We shall have to feel that domination brings less happiness than cooperation. We shall have to acquiesce in the painful truth that mutual hostility, which was always wicked, has now become suicidal folly, and that henceforth the nations must all prosper together or all perish together.

But I would not have it thought that our campaign should be mainly negative, or based entirely upon an appeal to fear. The appeal to fear has its function, especially in providing an initial shock which may compel attention. But the ultimate and most valid appeal should be to hope. There is no need of great wars, no need of the horror of populations reduced to utter misery, harried and starved in a vast campaign of retribution. There is no reason why poverty and want should continue anywhere in the world. There is no reason why national education, in almost every country, should encourage false beliefs which promote warlike feeling. There is no reason why increase in the efficiency of production should be used, not to raise the standard of life, but to increase the proportion of human effort that is devoted to mutual extermination. All these evils depend for their continued existence upon war, and the national hostilities bred by the fear of war. If once the fear of war were removed, the whole human race could quickly attain a level of happiness and well-being surpassing that of the most fortunate in any earlier time. If the atomic bomb shocks the nations into acquiescence in a system making great wars impossible, it will have been one of the greatest boons ever conferred by science.

But it is time to return from high hopes to the very different world in which for the present we have to live. I shall assume that such a campaign as I have indicated has had a considerable measure of success in America and Great Britain (It will encounter less opposition in Great Britain, because the British realize that Great Britain will be wiped out in the next great war, if it occurs.) It remains to ask ourselves what, in that case, we ought to do about Russia.

The policy most likely to lead to peace is not one of unadulterated pacifism. A complete pacifist might say: "Peace with Russia can always be preserved by yielding to every Russian demand". This is the policy of appeasement, pursued, with disastrous results, by the British and French governments in the years before the war that is now ended. I myself supported this policy on pacifist grounds, but I now hold that I was mistaken. Such a policy encourages continually greater demands on the part of the Power to be appeased, until at last some demand is made which is felt to be intolerable, and the whole trend is suddenly reversed. It is not by giving the appearance of cowardice or unworthy submission that the peace of the world can be secured.

In dealing with the Soviet Government, what is most needed is definiteness. The American and British governments should state what issues they consider vital, and on other issues they should allow Russia a free hand. Within this framework they should be as conciliatory as possible. They should make it clear that genuine international cooperation is what they most desire. But although peace should be their goal, they should not let it appear that they are for peace at any price. At a certain stage, when their plans for an international government are ripe, they should offer them to the world, and enlist the greatest possible amount of support; I think they should offer them through the medium of the United Nations. If Russia acquiesced willingly, all would be well. If not, it would be necessary to bring pressure to bear, even to extent of risking war, for in that case it is pretty certain that Russia would agree. If Russia does not agree to join in forming an international government, there will be war sooner or later; it is therefore wise to use any degree of pressure that may be necessary. But pressure should not be applied until every possible conciliatory approach has been tried and has failed. I have little doubt that such a policy, vigorously pursued, would in the end secure Russian acquiescence.

The issue is the most momentous with which mankind has ever been faced. If it is not solved, war will exterminate the civilized portion of mankind; except for such remnants as may have been engaged in exploring the Antartic Continent or investigating the theology of Tibetan Lamas. These will be too few to reestablish civilized communities. If mankind, in the course of a millennium or two, slowly climbs back to its present intellectual level, it is to be presumed that it will again inflict a similar catastrophe upon itself. If any of the things we value are to survive, the problem must be solved. How it can be solved, is clear; the difficulty is to persuade the human race to acquiesce in its own survival. I cannot believe that this task is impossible.

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Spencer - Vol. 3 - R

I'M A CRICHTEN

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Metallurgical Laboratory

P.O. BOX 5207
CHICAGO 80, ILLINOIS

BUTTERFIELD 4300

December 10, 1945

Dr. John L. Balderston, Jr.
259 Corning Hall
Oak Ridge, Tennessee

Dear Doctor Balderston:

I have just returned to Chicago and wish to answer the letter signed by yourself, Dieter M. Gruen, David B. Wehmeyer and W. J. McLean. Your letter gives point to a matter which I have been discussing with several people recently. The atomic scientists have now impressed people with the magnitude and danger of the bomb. That job must be continued. In the second place, we have emphasized that there is no defense against it, and this must be continued. We have discussed the technical feasibility of inspection and this must be continued. We must study and be ready to discuss the problem; namely, the political implementation of our ideas. I feel that none of the physical scientists understand this problem well, or at least that only a few understand it. I have been suggesting that we get lecturers from people who have been studying the problem of inter-nation organization for years - these should be presented to the physical scientists at Chicago, New York, Clinton Laboratories, Los Alamos, etc. After a series of such lectures we will all be better informed than we are now.

In the second paragraph of your letter, my own personal idea would be that we limit our present efforts to the problem of war and nothing else. This means that we must have a legislative body to make laws - it may ^{not} be a full-fledged legislature but it must have that function. We must have an ~~execut~~ ^{executive} function in our policy and inspection service; and we must have a judiciary function in order to try offenders.

We must recognize also that the sovereignty of a world government must reside in the people and that world government must make laws for its citizens, not for the states. These are my present ideas and they are only tentative.

Can you men tell me how it would be possible to bring lecturers to Oak Ridge to present views of this kind, or any others which bear on this problem?

Very sincerely yours,

Harold C. Urey

Harold C. Urey

HCU:bm