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P R E S S   C O N F E R E N C E

by

THE EARL RUSSELL

at

Caxton Hall, Westminster

on

Saturday, 9th July, 1955



Professor J. ROTBLAT: Ladies and Gentlemen, this conference was called by Lord Bertrand Russell in order to make public a statement signed by a number of scientists on the significance of nuclear warfare. I hope that each of you received a copy of the statement. I am going to call on Lord Russell to give you a short summary of this statement and afterwards it will be open to you to ask questions relating to this topic.

EARL RUSSELL: Ladies and Gentlemen, the purpose of this conference is to bring to your notice, and through you to the notice of the world, a statement signed by eight of the most eminent scientists in the fields cognate to nuclear warfare, about the perils that are involved in nuclear warfare and the absolute necessity therefore of avoiding war.

I will just read you a brief abstract here which I think you already have:

"The accompanying statement which has been signed by some of the most eminent scientific authorities in different parts of the world, deals with the perils of a nuclear war. It makes it clear that neither side can hope for victory in such a war, and that there is a very real danger of the extermination of the human race by dust and rain from radio-active clouds. It suggests that neither the public nor the Governments of the world are adequately aware of the danger. It points out that an agreed prohibition of nuclear weapons, while it might be useful in lessening tension, would not afford a solution, since such weapons would certainly be manufactured and used in a great war in spite of previous agreements to the contrary. The only hope for mankind is the avoidance of war. To call for a way of thinking which shall make such avoidance possible is the purpose of this statement.

The first move came as a collaboration between Einstein and myself, Einstein's signature was given in the last week of his life. Since his death I have approached men of scientific competence both in the East and in the West, for political disagreements should not influence men of science in estimating what is probable, but some of those approached have not yet replied. I am bringing the warning pronounced by the signatories to the notice of all the powerful Governments of the world in the earnest hope that they may agree to allow their citizens to survive."

Now I should like to say just a little about the genesis of this statement. I think it was an outcome of a broadcast which I gave on the 23rd December last year on the B.B.C. on the perils of nuclear war. I had appreciative letters from various people, among others from Professor Julliot-Curie, the eminent French man of science, and I was particularly pleased at getting an appreciative letter from him because of his being a noted Communist.

I thought that one of the purposes that I had in view was to build a bridge between people of opposing political opinions. That is to say, to unite men of science on a statement of facts which would leave out all talk of what people thought in the matter of politics. I wrote to Einstein suggesting that eminent men of science should do something dramatic about nuclear war, and I got a reply from him saying that he agreed with every word. I therefore drew up a draft, after consultation with a certain number of people, which I sent to Einstein and he - being already not in very good health - suggested, I quote his own phrase, that I "should regard myself as dictator of the enterprise" because I think chiefly his health was not equal to doing it. When I sent him the draft he replied, "I am gladly willing to sign your excellent statement." I received this letter on the very day of his death and after I had received news of his death, so that this was, I suppose, about the very last public act of his life.

The aims of drawing up the statement were to keep to what men of science as such can pronounce upon, to avoid politics and thus to get signatures both from the Right and from the Left. Science ought to be impartial, and I thought that one could get a body of agreement among men of differing politics on the importance of avoiding nuclear war, and I think that in that respect this document is fairly successful.

There are, apart from myself, eight signatories of the document. All the eight are exceedingly eminent in the scientific world. Most of them are nuclear physicists, some in a field which is very important in this connection, geneticists, and men who know about mutations caused by radiation, a very important subject which arises when you are considering nuclear warfare. But they were chosen solely and only for their scientific eminence and with no other view.

I applied to eighteen, I think, altogether and of these half, or nearly half, eight in fact, agreed. Some I have not yet heard from for various reasons. In particular, I applied to the most eminent of Chinese physicists, Dr. Li Sze-kuang, and I have not yet had his answer. None of the answers I have received were unsympathetic. Those who did not sign had various good reasons, for instance, that they had official positions or were engaged in some official work which made it difficult, but nobody either of Right or of the Left replied in a manner that was unsympathetic.

I had one signature from Professor Infeld of the University of Warsaw, who was joint author with Einstein of two books. I had not a signature, but a very sympathetic letter, from Skobeltsyn of Moscow. Professor Juliot-Curie was, in the first place, son-in-law of the discoverer of radium, but he does not depend on that for his fame, he is a Nobel prizewinner. He is the sixth of the eight who has got the Nobel Prize for work of scientific character, and the other two I think probably will get the Nobel Prize before very long! That is the order of eminence of these men.

Mr. Juliot-Curie made two reservations, one of which was of some importance the other not so important. I spoke of the necessity for limitations of sovereignty and he wants it added that these limitations are to be agreed by all and in the interests of all, and that is a statement which I entirely agreed to. Then there is another reservation that he made. I say, "Shall we put an end to the human race: or shall mankind renounce war?" and he wants to say, "Shall mankind renounce war as a means of settling differences between states?" With those limitations he agreed to sign the document.

Professor Muller also made a very small reservation that seemed only to be explaining what I had meant.

I will say just a few words about these men, some of whom possibly are not so well known in the journalistic world as they are in the scientific world. They consist of two British scientists, two Americans - Einstein himself, whom I do not reckon among Americans, because Einstein's nationality is somewhat universal - one Pole, one Frenchman and one Japanese. Professor Rotblat I am very happy to have here. He is, as you know, Professor of Physics at St. Bartholomews Hospital in the University of London. He did a very interesting piece of what you might almost call detective work about the Bikini bomb. Those of you who are old enough may possibly remember that in 1945 people were quite shocked by the atom bomb. Well, that seems now ancient history, if you think of the atom bomb as something like bows and arrows.

We advanced from that to the H-bomb which was very much worse than the atom bomb and then it turned out, at first I think through the detective work of Professor Rotblat and afterwards by the admission of the American authorities, that the bomb exploded at Bikini was very much worse than an H-bomb. The H-bomb now is ancient history. You have a

twofold trigger arrangement. You have first uranium 235 to set off the hydrogen. Then you have the hydrogen to set off uranium 238, of which there are vast slag heaps discarded producing uranium 235. Now we use uranium 238 for the purpose, it is very much cheaper to make, the bombs are very much more destructive when they are made, and so you see science advances rapidly. So far the Bikini bomb is the latest thing, but we cannot tell where we are going to come to.

I think that this statement, as I conceive it, is only a first step. It will be necessary to go on to get the men of science to make authoritative pronouncements on the facts and I think that should be followed by an International Congress of men of science from all scientific countries at which the signatories would, I hope, propose some such resolution as I have suggested at the end of this statement. I think resolutions with something of those terms could be suggested at the various national congresses that take place in due time. I think that the men of science should make the public and the governments of the world aware of the facts by means of a widespread popular campaign. You know it is a very difficult thing to get men of science to embark on popular campaigns; they are not used to that sort of thing and it does not come readily to them, but it is their duty, I think, at this time to make the public aware of things; they have to persuade the world to avoid war, at first by whatever expedients may suggest themselves, but ultimately by some international machinery that shall make the avoidance of war not a matter of day-to-day expedients but of world organisation. I think they should emphasise that science, which has come to have a rather sinister meaning in the minds of the general public, I think, if once this question of war were out of the way, would be capable of conferring the most enormous benefits upon mankind and making the world a very much happier place than it has ever been before. I think they should emphasise that as well as the dangers that arise through war.

I am here to answer questions, and I should be very happy to do my best to answer any questions that any of you may wish to ask.

QUESTION: Lord Russell, you say that it is imperative that politics be kept out of this, but is there not a political question bound to arise in the minds of the statesmen? Are they not bound to ask, "Can you envisage a scheme of disarmament and the wiping out of nuclear weapons which would not deliver the free world into the hands of the Communists, as long as men will fight with sticks and stones?" Is not the only answer world government?

EARL RUSSELL: I am entirely in agreement with you; I do not think prohibiting nuclear weapons in itself is the slightest good. You could prohibit them and have a universal agreement to prohibit them, and they would still be used if there was a war. I do not think there is any point whatever in mere prohibition. The only thing that is any use at all is not to have a war and, as I suggested at the tail end of what I was saying, we can avoid war by expedients at the moment, but ultimately we must have some international authority which is able to prevent war. That is the ultimate goal, but it will take some time to reach that goal.

I do say most emphatically that merely to prohibit nuclear weapons will not get you anywhere at all.

QUESTION: Lord Russell, what you said seems to be very much in keeping with pronouncements made by Professor Otto Hahn in Germany recently. Is he amongst those you approached, and has he answered or has he not answered to your appeal?

EARL RUSSELL: He was one of those whom I approached and he did not sign that statement because he said he had his own scheme and he was running that. That was his only reason; he was entirely sympathetic to the point of view.

QUESTION: Lord Russell, do you think the Russian scientists whom you approached and who could not sign that statement because of their

official position might partake in the conference which you envisage?

Earl RUSSELL: I think the answer is certainly, yes they would. When I spoke of those who did not sign because of official positions it was not, in fact, the scientist in Moscow, Skobel'tsyn, that I was thinking of; it was men in the West who refused on that ground. His attitude was sympathetic; he had various reasons for not signing, but they were not reasons of lack of sympathy and I think that indubitably he would be willing and able to attend an International Congress.

QUESTION: Do you think you would be able to prevent this appeal of yours being taken over by a propaganda peace movement such as the Communist peace movement?

Earl RUSSELL: I think the answer is yes, most emphatically. It does not seem to me that it is in line with the specifically Communist propaganda. The specific Communist line is, "Let us prohibit the bomb." That is not my line; I do not want the bomb used but I say it will be used if there is a war. One of the ways of preventing a war is not to prohibit the bomb, but to make it quite clear what would happen if it were used, and that is not the Communist line.

QUESTION: Lord Russell, the previous efforts of outlawing war have been notably unsuccessful. I am thinking of the Kellogg Pact and so on. Do you believe that still as we are today we will now have a chance of succeeding in outlawing war, human beings being what they are?

Earl RUSSELL: I will, of course, admit that human nature is what it is. I think we can try; but I think if it is quite clearly understood by all the great powers that war has no chance of bringing victory to one side or the other, or of bringing anything that anybody desires, it will become possible to create machinery for the avoidance of war.

I did not want to go into all these distant questions which are still Utopian, but of course, I think it is quite clear that the only way you can ultimately prevent war is to have only one army, navy and air force in the world, that being commanded by an international authority and being irresistible. That, I think, is the only ultimate way to prevent war, but that is a rather distant prospect.

QUESTION: Does that not mean you have civil wars instead?

Earl RUSSELL: I do not quite see how you are going to have civil wars in a state of that sort. How can you have civil wars if you only have one army, navy and air force? Mind you, that will not have to be composed of national contingents, contingents contributed by the different nations; then you might get civil war. But you will have to have in each unit a mixture of people of a number of different countries. There will be no unit that will have a national loyalty and therefore the opportunity for civil war will hardly arise.

QUESTION: Your press release here contains a copy of a letter ~~to~~ heads of States. Has this letter, in fact, been sent out to heads of States, and if so to which States in particular?

Earl RUSSELL: This letter has been sent out to the heads of those States that possess, or are about to possess, nuclear weapons, and also to China. It seemed that those who have not yet got nuclear weapons were not so important in this matter, though, of course, now that nuclear weapons are much cheaper than they were, very soon everybody will have them.

QUESTION: When you say to those countries which are soon going to get nuclear weapons, whom do you mean and why will certain countries be getting nuclear weapons soon?

Earl RUSSELL: Our own country is one of those. I do not suppose we yet have very much in the way of nuclear weapons, but we mean to have, and certain countries obviously are in the running for a nuclear war, others are not.

QUESTION: Could you list those States, Sir?

Earl RUSSELL: There are the United States, Russia, England, and China was included, I think Canada but I am not quite sure about that.

QUESTION: Lord Russell, I do not see Professor Juliot-Curie's name on that. Is that because of his reservations or because he signed the letter that is printed?

Earl RUSSELL: It came in too late. I only got his adhesion at one o'clock the night before last and it was too late to be included in this. He did not know whether his reservation would be fatal or not. I had a discussion with a friend of his lasting late into the night as a result of which, with those two reservations, he agreed to sign. That is why his name is not here.

QUESTION: Lord Russell, when you mention China, do you think that China - that is Communist China - will have an atomic bomb, a hydrogen bomb or a nuclear bomb within the immediate future?

Earl RUSSELL: I do not know about the immediate future; I cannot tell you, but it is quite clear they will have one sooner or later. It is quite clear, I think, that China is in the running to being as powerful as anybody at all.

QUESTION: Can you say if your Group is urging that no further H bomb experiments be carried out - I do not see anything in the statement about that - because of the fall-out dangers?

Earl RUSSELL: The Group, as such, does not make any proposals and I thought it was undesirable that they should, because I thought that was outside the special competence of a conference on science. All I want them to do is to say what is likely to happen if it is done. Then it is up to other people to say whether they want to live or die; that is up to them.

QUESTION: Can you state one first step which you think the heads of States could with value take in Geneva?

Earl RUSSELL: I think in Geneva they can only make a beginning. Before you have got anywhere you have got to have what you might call a peaceful atmosphere; that is to say, an atmosphere where people find that there is an area of agreement and not merely areas of disagreement and that the points as to which co-operation is possible are perhaps more important than the points of disagreement. You have got to create a friendly atmosphere before you can get anywhere and that is the best you can hope for from Geneva. If that happens it will have served its purpose; but I do not think you can expect actual concrete measures all at once; that will take time to work out.

QUESTION: I understand that a letter was sent to the Helsinki Conference. Was the fact that Professor Juliot-Curie went to Helsinki one of the reasons why he did not sign your letter, and what was the result of your letter at Helsinki?

Earl RUSSELL: I did not send this letter; I sent a different statement to Helsinki which was read out there and Professor Juliot-Curie was there. That, of course, delayed things also; he has been very ill and his illness has delayed things. I think that does account for the fact that his adhesion came so very late in the day. I was having careful discussion with him about various points and his illness continually delayed the matter, so that combined with Helsinki took a long time.

QUESTION: You refer to a Congress in the statement, could you explain what Congress is meant?

Earl RUSSELL: Yes, the Congress I referred to in the first paragraph of my statement is a Congress which I thought ought to be summoned, a Congress which does not yet exist, but which I hope will exist and in the meantime I think any Congress of scientists in any way concerned with the matter should have some such resolution put up to it that is in the meantime.

QUESTION: Could we get it quite clear, to whom have you sent the letter at the bottom of the first page? To the heads of which States?

Earl RUSSELL: I am not quite sure who they all were, but they were intended to be those who have nuclear weapons or are likely to have them in the very near future; that is to say, America, Russia, England, and China was included because of its importance.

QUESTION: You mentioned Canada before.

Earl RUSSELL: Canada is very much involved in all this and has been from the first very much involved right from the beginning of the whole matter.

QUESTION: Was it a personal letter to Marshal Bulganin, President Eisenhower and Anthony Eden also Mao tse-Tung or have they gone through diplomatic channels?

Earl RUSSELL: The letter is a perfectly formal one saying I am enclosing this statement and bringing it to their notice.

I left out France, France is one of them.

QUESTION: Do we understand that the letter to the head of the British State went to the Queen?

Earl RUSSELL: Oh, no, the Prime Minister. It would not be constitutional for the Queen to say anything about such a matter; it goes to the Prime Minister.

QUESTION: When did you send this letter?

Earl RUSSELL: Today.

QUESTION: Lord Russell, was there not some suggestion a little while ago that the Government of India should be approached in this connection?

Earl RUSSELL: Yes, there was a suggestion to that effect and I had an interview with Nehru. I thought that he was going to do something about it, but in the end he decided that it was better for him not to on the whole. He did not do anything officially, but he is extremely sympathetic to it.

QUESTION: This letter is not going to him? He is not one of the heads of Government to whom it is being sent?

Earl RUSSELL: No, it has not been sent to him, because he has not got any nuclear weapons. It would be very rude to him to suggest it.

QUESTION: Lord Russell, reference was made by a questioner and you yourself referred to your group, you also referred to this possibly forthcoming International Congress. This implies an organisation of some kind. Have you an organisation or a machine in being or do you propose to set one up to implement those proposals?

Earl RUSSELL: I have not yet got an organisation. I propose that it should be created, and I find that there is a very large group of men of science who think that it should be run; but I should prefer to leave the initiative to them I think if possible.

QUESTION: Does this statement mean that your group of scientists dissents from the official reports that have been made that the bomb is not fatally dangerous?

Earl RUSSELL: Yes, I think there have been some statements in America which a good many scientists do not think are quite accurate. They are not accusing the American Government of bad faith, but they do think that the facts are somewhat more grave than some of these statements would lead you to suppose.

QUESTION: May I refer back one second to Canada's part in all this as a Canadian. As Canada is concentrating on the peaceful uses of atomic energy, do you think she has anything useful to contribute to such an enterprise as this?

Earl RUSSELL: I think so. I think Canada can contribute influence in peaceful directions and I hope she will do so. Approaching heads of States in this sense is not a criticism of their Government anyway, it is not meant to be so. It is meant to suggest useful things they can do.

QUESTION: May I pursue the question of the danger. Can you give some examples in which you think the danger is greater than any official publication indicated?

Professor J. ROTBLAT (Whom Earl Russell asked to answer this question): I only refer to the recent statement by Dr. Libby, a member of the Atomic Commission of the United States, he himself indicated the danger in the first report of February.

QUESTION: A French newspaper says this morning that just before his death Einstein wrote to you a letter in which he said that he regretted that he had taken the initiative in promoting the atom bomb and that he had written to Roosevelt during the war about it, is that true?

Earl RUSSELL: Well, he did not send such a letter to me, I believe there was such a letter. I do not know if you know the facts? I believe there was such a letter, but it was not to me.

QUESTION: Is Lord Russell in favour of unilateral renunciation of nuclear weapons on moral grounds?

Earl RUSSELL: Am I in favour of unilateral renunciation? No, most emphatically not. I do not think that is the right way to go about it. I think anything that is done has got to be done by agreement and has got to be done in such a way as not to favour either side from a military point of view.

QUESTION: You said before the only way out of this was to have an irresistible international army, I presume it would be more irresistible if it too employed nuclear weapons?

Earl RUSSELL: That is perfectly true, but I think it could at any rate possess the more primitive form of nuclear weapons, perhaps, but I do not think it ought to possess at all the later forms such as that used at Bikini, because those endanger not only the people against whom they are aimed but the whole world and you do not want a weapon which is just as likely to destroy your friends as your foes, such a weapon really is not much good. So I do not think they ought to possess those weapons, but they ought to have enough weapons to make them irresistible.

QUESTION: Have you any reason to think that the thaw in Russian policy has something to do with the realisation of this weapon, of the dangers?

Earl RUSSELL: I really do not know. I mean, I am not in their

confidence and I am in no better position to judge that than anybody else is, so I really cannot tell you about this; I do not know.

QUESTION: You stated earlier that you were not following the same approach as the Communists were, they wanted to abolish nuclear weapons you wanted to abolish war; but here in the statement on page three it states that "the abolition of thermo-nuclear weapons," and so forth "which at present keeps both sides in a state of nervous apprehension." You welcome some such agreement and the abolition of this weapon is only a first step. Do you not think there is some possibility that the Communists might sort of co-opt this movement and welcome this as a first statement, because it does agree with their line?

Earl RUSSELL: The question I am asked is this, if one agrees, as I do, with that statement that the abolition of thermo-nuclear weapons would be a first step, is there not a danger that it would be a thing the Communists could get advantage out of and take up? I think you have not noticed perhaps that I would welcome it only, as I say there, if it was part of the very general measure of the reduction of armaments, and I think that is quite essential. If you can induce the Communist world to reduce its armaments to a degree that is as important as for us would be the renunciation of thermo-nuclear weapons; then you have got a real step forward. But I do not want to see thermo-nuclear weapons abolished if you are not going to get from the other side a quid pro quo, which is really of equal military importance. I thought I had made that clear in the statement.

QUESTION: What is your interpretation of Professor Juliot-Curie's second reservation, that mankind should renounce war as a means of settling differences between states?

Earl RUSSELL: Well, I do not much like to interpret M. Juliot-Curie, but I think what he would say would be this: he would say the world has at all times been full of injustices of various kinds, which in most countries have been remedied by means of revolutions and those revolutions often involved civil war. Now if you are going to freeze things completely so that there can never be civil war, you will be putting an obstacle in the way of reforms. That is what I think he would say. It is not my opinion, it is his; but I think that is what he would say. The sort of war we ought to prevent is the big war between states where thermo-nuclear weapons would be employed, and the imagined small disturbances within a country would not involve such methods. I think that is the sense of his reservation.

QUESTION: This preoccupation with the theory that if you want to abolish nuclear weapons you might be agreeing with the Communists, do you not think that that point contradicts the whole idea of your movement that you want to get rid of war? If you are going to get rid of war surely you have to be prepared for the West and the Communists to have agreement on some point. How are you going to avoid war unless you do get a measure of agreement?

Earl RUSSELL: The question is, how are you going to avoid war? I think here, as I said earlier, the first step is to create a fairly friendly atmosphere. Now, I think as long as both sides possess the means of completely destroying the other side, it is very difficult to get a friendly atmosphere. Each side is afraid of attacks like Pearl Harbour, each side knows that it is possible, each side knows that an unprovoked attack would give you an immense advantage and that produces mutual suspicion and makes it extremely difficult to negotiate in at all a friendly fashion. But I think there would be, as a proof towards a friendly atmosphere, something gained if you had a general reduction of armaments, involving no military advantage to either party and entailing the difficulty of the completely destructive unprovoked attack. That is the point of that.

Professor ROTBLAT: We may have to finish soon and so we will only allow another three questions.

QUESTION: About the Congress you have in mind, are you going to solve the problem of allegiance for the scientists? They must have an allegiance to science and mankind on the one hand and to their own nation on the other, as long as there are sovereign states. Are you going to give a certain priority to this? Are you going to ask the scientists to stop going forward in making new weapons?

Earl RUSSELL: I think a good many men of great scientific eminence ~~are~~ are not actually engaged by their governments in the making of weapons -- I think those who are actually engaged by their governments have just got to be left out. They are in a position of being official employees of the national government and I do not think they can join in such a movement. But there are a great many not in such ~~a movement~~ and it is those one would appeal to.

*Employment*

QUESTION: Lord Russell, a questioner has referred to the preoccupation of avoiding the support of the Communists in the movement. Surely Communists are one-half of the question and the West the other. You need the support of the Communists for the movement to be completely successful.

Earl RUSSELL: The question is, do we not need the support of the Communists as much as from other people? My answer to that is a most emphatic affirmative. I thought I made that perfectly clear. I sent out my appeal to Communists just as much as to anti Communists. I took a great deal of trouble to get the adhesion of M. Joliot-Curie, who is a noted Communist. I got a signature from Warsaw, I tried to get a signature from Moscow and Pekin; I have done everything I can to get a movement which would embrace everybody equally and it was one of my purposes to find something upon which Communists and anti-Communists could agree.

The question of what is the danger of fall-out, for example, that is not a question which raises the good or evil of Communism. The question of fall-out, whatever the danger of Communism, is exactly the same whatever your view on Communism. So I see no reason why people in the two camps should not agree on matters of that sort, and I want to get as large an area of agreement as I can between the two camps.

QUESTION: Is it not a fact that we have gone quite a long way towards recession of war, although it may not seem so, precisely because of the existence of the terror of the bomb? Is it not a fact that in the last resort the heads of governments decide and therefore as we do not know quite the effects of radiation on mutation and genes is it really necessary to extend the popular campaign, say, in the West, about the terrors of the bomb? And secondly, how are you going to have that popular campaign behind the Iron Curtain, where public opinion is not aware of the fact and probably never will be?

Earl RUSSELL: The question is this, in view of the known dangers is it necessary to have a popular campaign in the West and is it possible to have anything analogous in the East, where public opinion has not the same part to play as it has in the West? As to the first part of that question, I think it is very vital indeed to have a popular campaign. I think that the American Government has already been influenced towards sanity by popular opinion and I think if popular opinion had been a little less impressed with the dangers of war the American Government might have made some very disastrous mistakes in handling the Far Eastern question. That I think is possible, I do not say it is true but I think it is possible that the American public opinion and the public opinion of other countries has had a very salutary effect, that is as far as the West is concerned. As far

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as the East is concerned, there is a very real difficulty which I fully admit. I think that you could only operate in the Eastern countries partly by this method of operating on the scientists, whom you can reach, and partly by directly operating on the heads of state.

Now I had a hope that India would come in and talk to the heads of state on this subject, but I do not think they will do. The methods of approaching the East are not the same as those of approaching the West, but they are equally imperative and must be found.

QUESTION: Just one thing, did Lord Russell say the United States Government had been influenced towards sanity?

Earl RUSSELL: That was the phrase I used.

Professor ROTBLAT: We must close the discussion, Gentlemen, we could go on for a long time but we must leave the hall by eleven. It only remains to thank you very much for coming here and helping in this most interesting discussion.