Cincinnati speech

LEO SZILARD January 10, 1947

Mr. Chairman, Ladies and Gentlemen:

It seems that the privilege of speaking here tonight was accorded to me because I am suspected of being a member of a conspiracy which produced the atomic bomb. Mass murderers have always commanded the attention of the public, and atomic scientists are no exception to this rule. Let me tell you, however, that I intend to plead "not guilty" in the heavenly court of justice, even though tonight in view of the circumstantial evidence I shall merely enter a plea of "nolo contendere." As far as I can see, I have no particular qualifications for speaking here tonight. I am a scientist, but science which has created the bomb and by doing so has created a problem is not capable of providing a solution for that problem. And as a scientist I am not particularly qualified to speak about foreign policy.

But perhaps some of you will agree with me if I say that the problem of peace cannot be solved on the level of foreign policy. The solution of the problem of peace must rather be sought one floor above the level of foreign policy. And thus, a scientist may perhaps be permitted to speak on the problem of peace, not because he knows more about it than others do, but rather because no one knows about it very much.

Some of us physicists tend to take a rather gloomy view of the present world situation. We know that Nagasaki-type bombs could be produced in large quantities, and we know that the United States would be in a very dangerous position if large stockpiles of such bombs were available to an enemy at the outbreak of war. Moreover, when we think of a war that may come perhaps ten or fifteen years from now, we do not think of it in terms of Nagasaki-bombs at all. Nagasaki-bombs destroy cities by the blast which they cause. But ten or fifteen years from now giant bombs which disperse

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Some of us physicists tend to take a rather gloomy view of the present world situation. We know that Nagasaki-type bombs could be produced in large quantities, and we know that the United States would be in a very dangerous position if large stockpiles of such bombs were available to an enemy at the outbreak of war. Moreover, when we think of a war that may come perhaps ten or fifteen years from now, we do not think of it in terms of Nagasaki-bombs at all. Nagasaki-bombs destroy cities by the blast which they cause. But ten or fifteen years from now giant bombs which disperse radioactive substances in the air may be set off far away from our cities. If such giant bombs were used against us, the buildings of our cities would remain undamaged but the people inside of the cities would not remain alive. From the vantage point of the physicist it is gradually becoming visible what kind of a war we might have, if we have a late rather than an early war, and in our minds such a war takes on more and more the shape of a catastrophe for which there is no precedent in the history of mankind. Some of us might gradually become reconciled to the thought that our cities may be destroyed by Nagasaki-type bombs but none of us can get reconciled to the thought of a war which may be fought with these weapons of the future.

The legitimate aim of foreign policy is to prolong the peace, i.e., to lengthen the interval between two wars. But we physicists find it difficult to get enthusiastic about such an objective. If we accepted the view that the world has to go through another war before it shall arrive at a state of permanent peace, we would pray for an early rather than a late war. The objective of lengthening the interval between two wars is hardly a worthwhile objective when we know that the war will be all the more terrible the later it will come and as I see it, the issue is not whether we can have a good foreign policy, but rather whether we can establish permanent peace without first going through another world war.

Collective security might very well have solved the problem which faced the world in 1919. Under conditions different from those which prevail today, perhaps it could have been made to work assuming American participation. But the ills of 1946 cannot be cured with the remedies of 1919. With the United States and Russia far outranking in military power all other nations, there is no combination of nations which could restrain from illegal action either Russia or the United States short of war.

Moreover, between the Russian government and the government of the United States there has arisen a rather peculiar situation. Because war between them is a potential possibility, these two governments consider it their duty to put their countries into the position of winning that war if war should come. But the problem thus formulated is obviously not capable of a solution satisfactory to both parties, and the pursuit of this non-existent solution keeps Russia and the United States caught in a vicious circle of never ending difficulties. The more Russia and the United States allow their policy to be guided by such considerations, the more rigidly their course of action will be determined and the less freedom of action they will retain for working towards the permanent establishment of peace. As soon as Russia and the United States will be willing to relax on this single issue, and no sooner, will they be able to break out of the vicious circle and will they be free to move towards a permanent structure of established peace. Is it possible to break this vicious circle? And if it is broken, does the world have a chance to reach fast enough the haven of permanent peace?

Most of us physicists believe that nothing short of a miracle will bring about such a solution. But a miracle has been once defined by Mr. Fermi as an event which has a probability of less than ten per cent of occurring. I am inclined to share Fermi's view and to say that there is a general tendency to underestimate the probability of improbable events. And if we have one chance in ten of finding the right road and moving along it fast enough to escape the approaching catastrophe, then I say let us focus our attention on this narrow margin of hope, for another choice we do not have.

LIMITED WORLD GOVERNMENT

It is easy to agree that permanent peace cannot be established without a world government. But agreement on this point does not indicate along what path that ultimate goal can be approached, and not only approached but also reached in time to avert another world war.

Since our desire for security is the main reason for wishing to set up a world government, it may seem logical to propose that we set up at once a limited world government. A limited world government would deal only with the problem of security and the settlement of conflicts between nations, but would have practically unlimited authority within that narrow scope. Logical though this may seem, I wonder whether such a frontal attack on the problem of security is a promising approach. I personally doubt that it is possible to achieve security by pursuing security.

After difficult negotiations and many vicissitudes we may perhaps arrive in the next years at an agreement providing for general disarmament. And within the framework of such an agreement it should be possible to provide for the control of atomic energy along the lines of the Lilienthal Report. This would mean that we set up an Atomic Development Authority which is in charge of mining and manufacturing of fissionable materials all over the world. But if this Authority lives up to its obligations, ten or fifteen years from now a number of atomic energy plants should be in operation all over the world -- many of them in the territory of Russia. Should these power plants be distributed between various nations according to economic needs? Or should they be distributed on the basis of military considerations? Is it possible to safeguard plants which are located on the territory of one of the major nations against seizure by the government of that nation? And if this cannot be done effectively, shall the United States exert her influence to keep the absolute number of these plants as low as possible while the relative number of these plants may be fixed by some sort of a quota agreement?

I believe the longer you think about the problems which would arise from such a situation, the more difficulties you will discover. As long as you have to go on the assumption that considerations of relative military strength will remain the predominant considerations it will not be possible to resolve these difficulties. Clearly, as far as the United States and Russia are concerned any agreements in this field will have to be regarded more as voluntary arrangement than as an enforceable obligation. There will be no overwhelming force under the United Nations in the foreseeable future which could compell, short of war, the observance of any such obligation against Russia or the United States.

Under such circumstances, the question of incentives becomes the predominant question -- that is, the question what incentives will Russia have for wishing to keep such an arrangement in force, and what incentives will she have for wishing to abrogate it. The problem is to find conditions under which the incentives will be overwhelmingly in favor of continued cooperation rather than abrogation. It seems to me that only within the framework of a world community could this requirement be satisfied. Only within the framework of a world community would the arrangements be maintained long enough to give the world a chance to work out its salvation.

Perhaps if the United States were to take the lead and if she were willing to mobilize for this purpose, her great material resources a world community might become a reality fast enough to enable us to pass without a major accident through the transition period. A world community would require the setting up of a number of world agencies and perhaps also some special agency to coordinate activities. What should be the function of these agencies and what should be their scope and scale of operation if we wish them to become the skeleton of a community which may be capable of transforming within one or two generations into a genuine world government? Some of these agencies would have to deal with the redistribution of goods and services, but the others would fulfill a different function. Such agencies ought to be evaluated chiefly from the point of view to what extent they would affect our lives, and by affecting our lives, affect our loyalties. For unless we can bring about a rapid shift in our present pattern of loyalties, world community will not become a reality fast enough to save us from destruction.

Groping in the dark, I have made a feeble attempt to outline seven such agencies which might form the backbone of a world community. Each of these agencies would have its functions clearly defined by its charter, and all of these charters together would represent the world laws as soon as they are ratified by the United States, England, and Russia, as well as a certain number of other nations. The more precisely the operation of such an agency is defined by its charter, the less need there will be for more or less arbitrary political decisions later. I see no reason why under such a setup Russia, England and the United States could not agree with each other and with other nations on what the world laws should be.

The agencies which I have contemplated would operate on a budget of about twenty billion dollars per year.

They might move, for the next twenty-five years, farm products from the United States to countries like England, Germany, and Belgium, in amounts of two to four billion dollars per year.

They might undertake the building up of a vast consumer's goods industry in a number of European countries, including Russia.

They might tend to stabilize economic conditions in the United States by keeping the export of the United States at a high level during depressions.

They might give economic security to nations which are exposed to the repercussions of booms and depressions that hit the United States. They might do this by purchasing large quantities of raw materials from these nations when importation of these materials into this country is at a low, that is during a depression. And they could, during the following boom, sell these materials from stock to importers in the United States.

They might provide for the supervision of general disarmament and an Atomic Development Authority along the lines of the Lilienthal Report.

They might provide for redistribution of strategic raw materials and other scarce raw materials which might be monopolized by certain nations, but they need not go quite as far in this respect as in the case of uranium and thorium.

They might give access to information to everyone everywhere in the world, and at least the first steps could be taken towards a universal bill of rights in a manner acceptable to all the major nations.

They might profoundly affect the loyalties of the future crops of college graduates all over the world. Out of this class come those men who, by writing and speaking, transmit their set of values to the community. Their pattern of loyalties may be changed by providing for large-scale student migration and the settling of an appreciable fraction of the foreign college students in the countries where they graduate. High school students all over the world might then look upon the United States and other major countries as potential places of study, and all the foreign college students might look upon the countries where they study as potential places of residence.

The agencies might eliminate resistance to the measures which they take by generously compensating the professional men and the industries who have real or imaginary grievances arising from activities of these agencies.

LIMITATIONS

I did not contemplate to give to such agencies the responsibility of maintaining full employment throughout the world because the United States, as well as other nations, are internally split on the methods which might be acceptable to them for achieving this end. Nor did I contemplate that these agencies may cope in the next twenty-five years with raising the standard of living everywhere in the world. The high birth rate of India and China makes it impossible to attack this problem on a world-wide scale by purely economic methods. And finally, in view of the present pattern of loyalties, it did not seem advisable to attempt to delegate to such agencies the right of opening the door for large-scale migration by removing immigration barriers.

There are a number of international agencies in existence today and it might be possible to add new ones to their number and increase the scale of their operations. But to me, it seems very likely that if progress were attempted on such a piecemeal basis and without having put the problem before the American people, such an attempt would be resisted. It would be resisted and with a few exceptions it would be defeated. To me it seems that the hope of smuggling 130 million people of this country through the gates of Paradise while most of them happen to look the other way is a futile hope and that only a full understanding of what is being attempted would have some chance of success, small though that chance may be. The problem which faces the world can be solved only by the American people and it can be solved only if they understand their own position in the world and if they give their government a clear mandate to take the leadership for the creation of a world community. The first step in this direction is to put the problem squarely before the American people and to put the emphasis where it belongs.

The American people are faced with a crucial decision. This decision is not so much what amount of sovereignty they are willing to give up. Undoubtedly more and more sovereignty will have to be given up as time goes on, but the main issue is not the issue of sovereignty. The main issue is whether we are willing to base our national policy on those higher loyalties which exist in the hearts of the individuals who form the population of this country but which do not find expression at present in our national policy. The issue is whether we are willing to assume our share of responsibility in the creation of a world community. If we are willing to do this, we should be willing to mobilize our material resources for this purpose on an adequate scale. We should think of our contribution as something like ten per cent of our average national income, i.e., about 15 billion dollars per year. Fifteen billion dollars, if spent for this purpose, would, of course, mean a surplus export of approximately the same amount. This could easily double and treble the rate at which industrialization proceeds in the world outside of the United States.

Once reconversion is completed, we could assume such an obligation without any reduction in our standard of living. At this particular juncture we have a unique opportunity. Sixty per cent of our manpower was tied up in war production up to a short while ago. Assuming that we could maintain a high level of employment, we could expect an enormous increase in our standard of living. We could take on our share of the burden and still have an appreciable increase in our standard of living and moreover, a somewhat better chance of actually maintaining a high level of employment.

Let us not attempt to maintain the illusion that the rest of the world can repay us at any time in the form of material goods. The productive capacity of this country is enormous. If a high level of employment can be maintained our standard of living will rise rapidly and the working hours will fall rapidly to the point where the problem of disposing of leisure may come into the foreground of public attention. There will be no need and no occasion, unless time should go into reverse, for our asking or receiving repayment in goods. This does not mean that the countries who may receive help in the next ten, fifteen, or twenty-five years shall receive gifts without assuming obligations. These countries should have precisely the same obligations as the United States to contribute to the development of the world up to ten per cent of their national income. Their actual contribution ought to be determined by objective needs and on the basis of available resources. However, on this basis most of these countries will probably be free from any but rather small contributions for a number of years. Gradually more and more of them will come into play, and twenty years from now the productive capacity of Russia may very well be drawn upon in the early phases of the industrialization of China and India.

There is little reason for expecting any of the countries who would receive help to display gratitude. Nor is there much reason for looking upon our own contribution as anything but evidence that at last we have made up our minds to do our duty by the world. Raising the standard of living in certain countries or throughout the world in general will not in itself make the world more peaceful. A higher standard of living does not automatically promote or favor higher loyalties. But such higher loyalties will be encouraged and developed if the world agencies will affect the lives of the individuals, and by affecting his life, will affect his loyalties. And above all the very fact that the people of this country should have voluntarily assumed their share of responsibility would be regarded every-where as a token of our facing not towards war but towards peace. Within such a framework Russia might receive on the basis of objective needs and available resources perhaps five billion dollars per year. No sane person can believe that we are chiefly concerned with winning the next war if we are spending a substantial fraction of our national income for the welfare of those countries who would most likely be our enemies in case of war. In such circumstances we might even maintain a considerable military establishment and continue to spend billions of dollars for defense, and yet find that other nations consider such action on our part as foolish and extravagant behavior rather than a threat to their security. All this presupposes, of course, that we are really making the building up of a world community the cornerstone of our national policy, and that the world could count on the continuity of such a policy. This probably cannot be achieved without amending the Constitution. The constitution was twice amended in this century over the issues of prohibition, And if we were willing to go out of our way for the sake of being permitted to drink or for the sake of preventing others from drinking, maybe we shall be willing to go out of our way for the sake of remaining alive.

Perhaps you think it Utopian to suggest that this country should commit herself to contributions up to ten per cent of her national income. Perhaps you will ask why not be satisfied with making progress as fast as we can? Why not propose large-scale loans which the United States might make to other nations directly or through the medium of international agencies? To me it seems that this more modest objective would be neither adequate for the purpose nor would it be very much easier to achieve. Certainly, we could make loans to other nations on a large scale and actually receive repayment in goods if we were willing to make this possible by our tariff policy. But we are not willing to do this either. The point I am trying to make is this: that nothing much can be achieved now, and until such time as the people of this country understand what is at stake. As far as the bomb is concerned, the people have not been told the whole story, nor did they fully understand so far what they have been told. But when the people of this country will at last understand their position in the world they might be willing to do whatever is necessary and possible to do. We may have one chance in ten of reaching safely the haven of peace, and maybe God will work a Miracle — if He gets a little help from all of us.

The enclosed address was made to the Foreign Policy Association at Cincinnati on the 13th of January, 1947. The Cincinnati Enquirer, which co-sponsored the meeting, naturally reported in extenso, and this is of no further interest.

More interesting is the reaction of the Times-Star, which is owned by the family of Robert Taft and which is on the farthest right of the Cincinnati papers. This paper published the following editorial:

"INCENTIVE OR PUNISHMENT?"

> "The Foreign Policy Association forum on atomic energy is a witness to the anxiety of scientists to control the deadly force which, for what seemed adequate reasons, they loosed upon the world. Monday night's meeting brought here two eminent and very much worried scientists, Professors Thorfin Hogness and Leo Szilard, of the University of Chicago.
>
> Dr. Szilard, who brought to President Roosevelt the proposals that led to establishment of the Manhattan Project, has a novel plan for control. He believes that the UN cannot hope to restrain atomic aggression through fear of punishment. No world police force today could subdue either of the two most powerful nations, the United States and Soviet Russia, short of a general war. Instead, he advocates restraining aggression through incentives, such as participation in a world economic community to meet the basic needs of all peoples. The United States, as the richest power, would be expected to contribute the most to this set-up.
>
> The obvious retort to this suggestion, that it would be an attempt to buy peace, does less than justice to Dr. Szilard's thinking. He does not propose to bribe any nation, but to relieve international fears and suspicions, based on economic lacks, through a broad scheme for world prosperity.
>
> There is, unfortunately, a larger objection to the plan. It rests upon a conviction that wars are planned and started only by "have-not" nations. There are too many cases in history in which this was not true. Though national leaders may talk about being "have-nots", recent wars have been due much more to ideologies than shortages.
>
> Russia today is clearly the chief obstacle to world atomic control. Yet Russia is potentially richer even than the United States. Either because her leaders want to spread Communism like a materialistic gospel or because they can see security only in a communized world, Russia today seems to have her own plan of world economy.
>
> It is, to put it mildly, hard to imagine a country which now strenuously opposes punishment of atomic control violators, embracing a world economic scheme, financed chiefly by the United States, to relieve the needs of backward nations."