

INTERVIEW WITH DR. SZILARD

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Q Dr. Szilard, what was your attitude back in 1945 on the question of dropping the atomic bomb on Japan? Did you oppose the idea?

A I opposed it really with all my power, but I'm afraid not as effectively as I should have wished.

Q Yet weren't you one of the persons who was instrumental in getting the United States to embark on this project?

A Yes. But what I did at that time -- in the spring of 1939 -- was based on the following premise: I, and many of my friends with me, thought that the Germans were trying to develop a bomb, and the only way to keep them from using the bomb on us was for us to have a bomb ready also. This was our motivation.

Now, by the spring of 1945, Germany was defeated, and at that point, it was certainly clear that Japan could not possibly win the war.

Q Were you privy at all to any of the intelligence we were getting on the state of collapse within the Japanese empire at that time, or was this based on your own deductions from press articles and so forth?

A I had no inside information, but it was quite obvious, it seems to me, Japan alone, after Germany was out of the war, could not have won the war. And it was obvious to me that they must know it also.

And, you see, when the enemy knows it cannot win the

war, then the war can be ended by negotiations.

Q In other words, you felt it might have been need against Germany, but not Japan in its present condition?

A Not after World War II was won.

Q Did many other scientists feel the same way you did?

A Very many other scientists felt this way. In particular, I could say that practically -- with a few notable exceptions, practically all those who were creative, who were creative scientists and not just engineers or chemists, felt this way. And this was particularly clear at Oak Ridge and in Chicago.

I don't think I have any knowledge about how ~~the~~ <sup>the</sup> ~~other~~ scientists felt at Los Alamos.

Q Would you ~~say~~ <sup>say</sup> that at Oak Ridge and Chicago perhaps a majority of scientists shared misgivings?

A I'll say this: Almost without exception, all the creative physicists had misgivings. I would not be able to say the same about the chemists. Now the biologists felt very much like the physicists did.

Q When did these misgivings first arise?

A Well, I started to talk about these things in the spring of '45. But misgivings about our way of conducting ourselves arose when we first learned that we used, on a very large scale, ~~incendiary~~ incendiary bombs against the cities of Japan.



This, of course, was none of our responsibility. There was nothing we could do about it, but I do remember that people in the project were disturbed about it.

Q What about the <sup>scientific</sup> ~~scientist~~ panel, Oppenheimer, Fairmy, Lawrence, and Arthur Compton? Weren't they supposed to represent scientific opinion generally in their reports?

A They were appointed. They were not elected.

Q And you feel that they did not represent the majority opinion of scientists.

A Well, look -- I can say this much about it. The choice of this scientific panel -- Oppenheimer, Compton, Lawrence and Fairmy -- was a logical choice.

But there was one conspicuous omission, and we felt very badly about it. And that was that H. C. Urey would have been an equally logical choice, and we felt that H. C. Urey was omitted because he was the only one among the prominent scientists who could not be counted on to play ball.

Q Do you happen to know who it was in particular who appointed these four men?

A No, but they must have been appointed either <sup>on</sup> ~~by~~ the recommendation of General Groves or on the recommendation of Mortimer Bush. No one else could have recommended them.

Q In retrospect, do you think the views of you and

those who felt like you got a full hearing.

A I'm quite certain that we did not get a full hearing.

Q Why was that? Why do you feel that?

A Well, first of all, at what level can you get a full hearing? The ~~main~~ so-called Interim Committee, before which the scientific panel appeared, was already a rather obviously selected committee.

You see, the most prominent men on this committee had a vested interest that the bomb be used, because it was in a sense their baby and they got credit for having produced the bomb.

So, I think, that in the interim committee the cards were stacked. Now it is quite true that I talked to ~~By~~ Byrnes who was at that time slated to be ~~Secretary~~ Secretary of State, and with me in this conversation was H. C. Urey and Walter Bartki who was the associate director of the project.

Q When was this?

A I think this conversation took place on May 28 --

Q Before the Interim Committee met?

A Just about the time that it first met. And it came about this way -- that I had prepared a memorandum, which I wrote in the spring of '45 in which I tried to develop the points of view which should govern ~~the~~ the using or not using the bomb.

I tried to make it clear that the existence of the bomb would change the world, and that the decision of using the bomb against Japan should be made in the light of how this will effect postwar position.

Did

Q ~~But~~ you advance definite alternatives then to military such as a use of the bomb ~~xxxx~~ demonstration or warning?

A No, I did not, nor was I even enthusiastic about it, even though a demonstration would ~~xxx~~ have been feasible. And, in retrospect, I am even less enthusiastic about a demonstration.

I'll tell you why: You see, I see in retrospect more clearly than I saw at the time that a fundamental mistake was to demand unconditional surrender.

If you insist on unconditional surrender, than you have to end the war ~~it~~ by military means.

Q Did you advance that argument in that specific form back in those days -- as a scientist/ did you point out the problems of unconditional surrender?

A No, I did not. I was not explicit about it. The position I took was that obviously the war was won. The Japanese must know it. Therefore, it should be possible to end the war on the basis of reasonable peace terms.

Now, I must say that a demonstration would have been preferable to Hiroshima, and I must also say that a demonstration would have been feasible -- and we can discuss



this in a moment.

Q You say ~~I~~ you prepared this memorandum. To whom did you deliver this?

A Well, the memorandum was written for Roosevelt, and I had a date with Mrs. Roosevelt who I wanted to give this memorandum for transmission to President Roosevelt.

When I reached this point, then I went to see A. H. Compton, who was director of the project, to tell him that I had ~~wrote~~ written this memorandum. I didn't want to ask his permission to transmit this, but I wanted him to know about it.

And I was a little apprehensive about ~~I~~ how he would react. I was greatly relieved when he read it and then said to me, "I wish you get this to the President, and I wish that this gets attention."

I was greatly relieved and I went back to my office, and I wasn't in my office for five minutes when Dr. Herter, who was at that time assistant to Compton, knocked at the door and opened the door and there was Dr. Norman Hilberry, very pale and he was standing there in the door and he said, <sup>"</sup> We just heard over the radio that Roosevelt has died." And now we had no way to get it to the President.

Q And then what did you do?

A Then we scouted around, trying to find a way to President Truman -- finally we found a way, and I had an appointment

with Truman's executive secretary, Mat Connerly, and I saw Mat Connerly -- Bartki was with me. Connerly read this and he was somewhat prepared though he didn't know what it is -- it would come, but it was not quite unexpected.

And he said, "Well, I see this is serious business, and the President has asked me to put you into touch with Mr. Byrnes. Would you be willing to go down to Spartansburg, South Carolina, and see Mr. Byrnes?" And I said we would be happy to do that, but we would like to take Urey along.

Q This was sometime in late May, was it?

A This was in late May. Connerly said that if we wanted to take along Urey there would be no objection. I phoned Urey and he came to Washington, and then we went down to see Byrnes.

I must say that some of our trouble with Byrnes came that we did not know precisely how Byrnes got into this ~~size~~ picture, because he had not been appointed Secretary of State, he would out of the government, and he was a private citizen. And we didn't know why we were asked to talk to Byrnes.

So, we thought that perhaps the President intended to appoint him to be in charge of the whole uranium war, so we spent half of our time talking about the use of the bomb,

and the other half we talked about something else about which we were concerned, namely, that these projects should not be permitted to fall apart after the war. They should be kept together for the developing the peaceful application.

And, therefore, we were not as effective as we would have been if we ~~had~~ <sup>had</sup> known that he is the next ~~SE~~ Secretary of State and we have to talk to him about the political business.

Q <sup>?</sup> You could have borne down on the political aspects --

A We would have concentrated on that alone and wouldn't have ~~divided~~ <sup>divided</sup> our attention between these two problems -- of how to keep on with this work after the war.

So that was nobody's fault. The President couldn't tell us that ~~Byrnes~~ <sup>Byrnes</sup> would be the Secretary of State and we couldn't have guessed it.

But I must ~~is~~ say that from the very beginning there was just no meeting of the minds with Byrnes. ~~Byrnes~~ <sup>Byrnes</sup> well, when I told Byrnes of my concern of what this will do after the war and said that no doubt Russia will also have the bomb, he said, "Yes, but General Groves tells me that the Russians have no uranium."

And I said that I'm somewhat surprised about that, because the known uranium mines, the known ~~uranium~~ uranium ores were the ores which were originally uranium and which could be mined for the sake of producing radium -- but poor uranium



no one knew where they were. And it was difficult to believe that in the ~~the~~ vast expanse of Russia there could not be poor uranium ores, which are just as good, as far as finding uranium as are the rich ores ~~are~~ too expensive for producing radium, but not too expensive for producing uranium.

So this was a false premise which I could not accept.

Q Did you think then that the Russians probably were working on the bomb, or on atomic power?

A This I have no knowledge of -- I just don't know anything about. But the issue was, should we think in terms of a bomb which will be a monopoly after the war or for the whole predictable future, or is it a short monopoly because Russia also will have bombs.

This issue I couldn't go at all, because I was ~~was~~ caught by the thesis that Russia has no uranium -- we don't have to worry about that," you see

Q Now this meeting with Byrnes took place on May 28, you think?

A The ~~29th~~ 28th, as far as I can remember.

Q After the Interim Committee met and asked the scientific advisory panel to consider the various alternatives, were any of you asked for your opinions ~~by~~ by the panel?

A There was some sort of a poll at the Chicago project, but I thought the questions were badly phrased, and it was

impossible to give a clear answer to the problem because asking the questions <sup>/already/</sup> implied the answer to some extent. It was not a ~~fully~~ carefully drafted poll.

Q There was no discussion with you or others ~~xxx~~ by --

A Oh, there were discussions but only in the project.

Well, let me put it also this way: I think a poll is not very indicative, because this is not an issue where votes should be counted -- this is an issue where opinions should be weighed.

~~xxxxxx~~ The votes mean nothing. It is the ~~xx~~ arguments which are behind the vote.

Q Were you aware around this time that Mr. Bard was having misgivings?

A No. ~~/~~ We did not know it. We were given no information.

Q Nor did you have any knowledge of Mr. Stimson's misgivings.

A I knew that Mr. Stimson was a thoughtful man who must ~~xx~~ give the thing some consideration. He was the most thoughtful man in the Truman cabinet. But, in retrospect, I do not agree with the position that Mr. Stimson has taken, which ~~is recorded~~ <sup>he has put</sup> on record, by writing an article in "Atlantic Monthly."

And you see, there he writes on the issue whether the bomb could have been demonstrated that it couldnot have been demonstrated, because we had only two bombs, and we

couldn't risk, if either of them had been duds -- if both of them had been duds -- we would have lost face.

Now this is a wholly irrelevant argument. It <sup>is</sup> quite true that at that moment we had only two bombs. Mr. Stimson does not say how many weeks it would have been necessary to wait until we had 10. Then the argument won't hold.

Q Do you think you could have had, say, several more in a period of a ~~month~~ month or so or two months?

A Look -- I don't know what the secrecy rules are. I can say that it would not have been necessary to wait long until we ~~had~~ would have had 10.

Q <sup>You weren't then</sup> ~~weren't~~ aware of Bard's attitude or Mr. Strauss' memorandum?

A No.

Q So, in effect, the scientists were working off here somewhere with their misgivings, and other people were ~~scattered~~ scattered around with their misgivings, so there was no concerted --

A So far as I know there was no contact between those two groups.

Q Do you think that was a factor in the failure to get across the idea -- the ~~fact~~ fact that you couldn't get together with various people to work this out?

A Yes, but you see -- perhaps, ~~but~~ I cannot say that,



but it would have been impossible to get together because of the secrecy rules. The Army was already exceedingly excited and thought I committed a breach of secrecy by talking to Byrnes even though I was sent to Byrnes ~~in~~ by the White House -- they still thought this was a breach of secrecy.

Now, I could go where the President sent me -- I couldn't have gone to Strauss.

Q Do you feel that Mr. Truman and those immediately below him in this decision gave full and careful conscientious study to all the alternatives?

A Not at all. I think that they never realized the reason that we may have to end the war by military means was our stipulation of unconditional surrender.

It is not customary to end wars by unconditional surrender. There was no end to do that in the case of Japan. I mean, if we had given <sup>Japan</sup> ~~Japan~~ the peace treaty which we actually gave her -- if we had given her these as the conditions or terms of surrender -- she would have surrendered.

I don't think Japan would have surrendered unconditionally without the use of ~~the~~ force.

Q Do you think that the decision to use the atomic bomb against Japan, the way we reached that decision, points to a fundamental shortcoming ~~of~~ either among those who

made the decision or in America generally? Was there something wrong with the mentality involved in reaching a decision of this kind?

A I think there was, but I think this was due to the wartime setup, the kind of excess <sup>ive</sup> ~~of~~ secrecy which at this point no longer made any sense. You see the cabinet members -- I think this should have been the cabinet's decision.

The whole postwar policy was affected by it.

Q From what you have seen in your travels and what you know of other peoples, would most other nations have done ~~you~~ the same thing we did, confronted with the same opportunity?

A Look, this <sup>would abuse</sup> ~~is pure~~ speculation. I could say this: that by and large, governments are guided by considerations of expediency rather than by moral considerations. And this, I think, is a universal law of how governments act.

Q Would Russia have dropped the bomb, for instance, given the opportunity?

A Well, I would not go beyond this general statement -- that governments are guided by ~~various~~ considerations of expediency .

Q So we're no different from any other in that respect?

A I think we are no different from any others, but, you

see, we had the illusion up to this point that we were different. And it was this illusion that was gone after Hiroshima.

Q Do you think it's gone forever?

A I think it's gone for as long as we remember what we did.

Q Do you think it's a good thing that it is gone?

A Well, it's always better to have no illusions, yes. Look, let me tell you this because I feel strongly about it after Hiroshima.

You see, I was 18 years old and I lived in Hungary at the time when the United States declared war on Germany. And, if you remember, the occasion for declaring war on Germany was the sinking of the Lusitania by German submarines.

The United States gave the reason for declaring war that a submarine which cannot save the passengers of a ship has no right to sink that ship. And this was regarded as such a horrible misdeed that such a nation must be destroyed as a power.

Now even though I was only 18, I was not politically naive. I knew very well that this was not the real reason for going to war, but the reason was that if Germany had won the First World War, she would become so strong that the next war she would have fought against America and



America might not have been able to win it.

I had no illusions. Nevertheless, I thought it was perfectly fitting to use this as an occasion. I thought that this was something rather good even though I was on the other side. I saw the moral value of using this occasion to declare, and in giving this reason for declaring war.

In 1939, you remember perhaps that President Roosevelt warned the belligerents against using bombs against the inhabitants <sup>of</sup> cities, and this I thought was perfectly fitting and natural.

But, when during the war, without any major proclamation, we began to use incendiary bombs against the cities of Japan, it was disturbing to me -- it was disturbing to others.

Q Well, wasn't this the end of the illusion?

A Yes, this was the end of the illusion. But, you see, there was still a difference between using incendiary bombs and using a new force of nature for purposes of destruction. There was still a step here.

Q This is a point which has been brought up quite often: What precisely is the moral difference between ~~xxxx~~ burning 100,000 -- well, we burned 80,000 to death in one night in Tokyo in a fire raid -- and we incinerated, roughly, 100,000 at Hiroshima. Is there a difference in kind or in degree?

A Well, there is a difference, I think, in kind. Fire is an old method to use and atomic energy was something new.

Let me put it this way: It's difficult to say when you have a wave

What is the dividing line? It is not easy to say. But it is easy to say that there is a

Q Would you say, then, that it is a historical dividing line there, that the atomic age was born with a stain of guilt on it?

A I think to have set a precedent for using atomic energy for purposes of destruction was setting a very bad precedent. And I think it has greatly affected the post-war history.

Q Do you think it made people more cynical?

A I won't say cynical -- no. No, I think it made it very difficult for us then to take the position that we want to get rid of atomic bombs, because it would be immoral to use them against a civilian population. We lost the moral argument with which we could have perhaps ~~gone~~ gotten rid of the bomb right after the war.

Q Do you think Russia might have been forced then to go along with proposals that we made

A I think she might not have been forced because you cannot force Russia to anything, but she might have been

quite willing to do that. You see, when we used the bomb on Hiroshima, we frightened her.

Look, since you raise the moral argument, let me say something that is very simple, and about which I have less doubt than any other answers I gave you to your last few questions.

Imagine the following: Suppose Germany had developed two bombs before we had any bombs. And suppose ~~she~~ Germany had dropped one bomb on Russian territory and the other on Buffalo, if you wish. Then she ran out of bombs and lost the war.

Can anyone doubt that we would have defined the ~~act~~ dropping of atomic bombs on cities as a war crime? And that we would have sentenced the Germans who were guilty of this at <sup>Nuremberg</sup> ~~Nuremberg~~ and hanged them. I think there is no possible doubt about this.

This answers your moral argument -- your questions to the moral or to the "morale" or however you want to call it.

Just ask how we would have <sup>felt</sup> ~~felt~~ if we had been on the other side. We would have felt very strongly.

But, again, don't misunderstand me. The only conclusion we can draw is that governments in critical situations are guided by considerations of expediency. Moral considerations carry very little weight in this, and America is no different from any other nation in this respect.



Q You mentioned sometime back that you had some very definite thoughts on the various proposals for demonstration or warning. What were your ideas?

A I did not have very definite thoughts. You see, if you had asked me at the time "How should we produce a demonstration?" I would have said don't try to communicate with the Japanese over the radio. Go through regular diplomatic channels. Go through Switzerland, send them a note and say that it is our intention to demonstrate a new bomb, but we don't want to kill anybody. That we propose the evacuation of one city, say, Hiroshima. Only one single bomber will come and drop only one bomb and return.

Q Well, wouldn't ~~it~~ that have been hazardous for the pilot? Suppose that the Japanese then concentrated their forces against the bomber, or suppose they moved POWs into that area?

A I think the Japanese had no conception our new bomb would be something like Hiroshima -- they would have thought perhaps it is a bomb which is a major blockbuster. They would have been surprised, and I think that if they had accepted it, they would not have shot down the plane. It would have gained them nothing, you know. If they had shot down this plane, the next plane would have come. ~~And~~ We would say, "All right, of course, you may ~~know~~

shoot down the plane, but then we are going to bomb another city without warning and kill a large number of people. Now why should they not co-operate?

They are just as curious about the bomb -- they could be if we had told them there was a new bomb. But look, again I don't believe this is really the right approach to the problem because, in a sense, it is just as immoral to win a war by threatening violence than by using violence. Of course, threatening violence doesn't kill anybody while using violence does.

But ~~structure~~ <sup>as to the</sup> morality, the threat of violence is just as bad as violence. This would ~~not~~ have been necessary if we had been willing to negotiate, because you know that Japan sued for peace. Now this we know only today.

Q Supposing the Japanese had turned down an invitation of this kind? what then should we have done?

A I think that in any case we should have negotiated peace when they sued for peace rather than insist on unconditional surrender.

Q What I'm trying to get at is this: Did you feel at that time that the use of the atomic bomb under any circumstances would be a wrong thing to do?

A Well, you see, I was not faced with the question of using it in regard to any circumstances is wrong. I had no doubt that using an atomic bomb against an inhabited

city at the time the war was won already was wrong. Of this I had no doubt, and no other question existed. There was no need to discuss it or anything else but the actual situation existed.

Q *J* You were not opposed to the idea once every other possible means of negotiation had been exhausted of winning the war --

A I was not faced with that question. That question never ~~was~~ arose.

Q Because the argument is made that the bombing of Hiroshima and Nagasaki averted the million casualties in the landing of Japan --

A This is not so. You see, again, if you assume that you must have unconditional surrender, it's impossible to negotiate peace. Then you must end the war with military means. And *J* perhaps then you have to ~~xxxxx~~ invade Japan, and perhaps then you lose a million men, but this is all based on the false premise that you must have unconditional surrender.

Why should you have unconditional surrender?

Q But suppose a nation is forced to, for its very existence, to use the bomb. Back in 1939 when you were in favor of starting up a program to develop the bomb, did you foresee a situation there ~~xxxxx~~ were we might have to use it?



A Well, all considered at that time ~~that~~<sup>was</sup> the Germans were developing the bomb, and the only way to save our cities is to have bombs also and make a counter-threat.

By the time we had the bomb, Germany had lost the war, so we never faced the question. You see, you may ask the question, "What would I have said if it had been impossible to win the war against Germany?" All right?

I don't know what I would have said, but I think if we had bombs, we could have won the war against Germany by bombing evacuated cities. We could have told the Germans that city and we will be satisfied with demolishing it. Why don't you shoot down the only plane that will come?

But this is all hypothesis. This situation never arose. These questions we never faced -- we never thought about it.

Q Looking back, have your views on this subject changed at all since 1945?

A No, except that I can say much more clearly what I thought now than I was able to say it then -- even though I thought the same thing.

Now I will put the emphasis on the mistake of demanding unconditional surrender. Now I would say that we got into this trouble of having to consider the "force" alternative of invading Japan or using the bomb against her cities

because we'd been thinking in terms of ~~unconditional~~ unconditional surrender, ~~even~~ even though as we now know, Japan had already sued for peace.

Q Have you read Mr. Stimson's and Mr. Grew's memoirs on this subject of Japanese surrender?

A No. I have read Stimson's article in the "Atlantic Monthly." I did not read the memoirs. But I don't know what they can say.

The Japanese wanted to negotiate<sup>?</sup> and we did not negotiate. What can they say?

Q Mr. Grew points out that he and Mr. Stimson prepared a memorandum for Mr. Truman and Mr. Byrnes that we should give a definite statement to Japan to retain their dynasty, which seemed to be the main issue involved in surrender, and this was never incorporated into the Potsdam ultimatum.

A Look, I can accept that, but this doesn't go far enough, I think. The Japanese sued for peace and we should have negotiated<sup>?</sup> not unilaterally announce what we are going to give them, but rather to negotiate as you negotiate a peace after a war is won.

Q You would agree generally, then, with Ralph ~~Bard~~<sup>Bard</sup> Bard's proposal. First of all, he proposed a warning, and then he proposed that we arrange, through neutral intermediaries, a meeting with Japanese emissaries somewhere perhaps on the coast of China and talk about this

and produce some definite talks on surrender.

A Yes, but he still wanted to use the bomb as a threat for surrender. You see, this doesn't go far enough. What I am now saying in retrospect is: The Japanese sued for peace -- you know, the Japanese ambassador went to the Russian government in Moscow and the Russians told us about this at Potsdam -- and the correct answer is to sit down with them and negotiate.

If we had promised them the peace which we actually gave them, the war would have ended then and there.

Q You didn't know that fully at this time -- you only suspected that at this time.

A All I knew at the time was that we had won the war, that Japan had not the ghost of a chance of winning it and that she knew this. I did not know how far gone they were, but it doesn't matter how far gone they were, but it does matter how far gone they are if they cannot win the war then they will lose it in the end. I did not know if the war would last two more years or six months. You see, this I did not know if we tried to push it to unconditional surrender.

So I see today more clearly how this concept of unconditional surrender blocked our thinking of this. I did not see it that clearly then.

Q How would the world of today have been different ~~it~~ if



we had not dropped the atomic bomb on Japan? Would it have been a better world?

A Well, I don't know, but I think if we had not dropped the bomb at that time and then demonstrated the bomb after the war, that if we then had wanted to create a ~~xxxx~~ world without bombs, I think we could have gotten it.

Now, whether this would have been a better world or not, I don't know. But it would have been a world, certainly, very different from what we have now.

Q Do you think it would have bypassed a nuclear arms race? <sup>↑?</sup>

A I think it would avoided the arms race, yes. But, you see, this might still have been a very bad world.

Q Would the Russians have developed the atomic and the hydrogen bombs as quickly if we had not dropped the bomb?

A / Do you think they were ~~xxxx~~ frighened into speeding up their espionage and research by the evidence at Hiroshima?

A There's no doubt that they were speeded up. As a matter of fact, they were foreed to speed up because they could not tolerate that we should have a monopoly of the bomb.

Harry Not only that, but you see if we ~~had~~ <sup>hadn't</sup> dropped the bomb then it wouldn't have been known for a long time -- whether the bomb would work or not. Of course, if this is what we wanted to do, then we would have had to avoid not only the dropping of the bomb, but even the testing

of it. And I discussed this -- I raised the question with Byrnes whether it would not be wiser not to test the bomb. After we tested it, the news that a bomb exists could not have been kept from the world -- it would have leaked out.

Q Even Alamogordo would have leaked out eventually?

A That's what I'm saying, yes. But I raise this basic question: Since we do not know, we have not the foggiest notion, what kind of a world this will be when the bombs are out -- how we are going to cope with the problem the bomb raises -- would it not be good to win time ~~in~~ by not even testing it -- therefore, leaving it undecided whether it works or not.

Now, I think today that probably this would not have worked -- I've completely changed my mind. I think that the secrets would not have been kept even if we had not had Alamogordo. We could have won maybe a year at most.

Q Why was that -- because every advance<sup>d</sup> nation --

A ~~Yes~~ So many people knew about the work and some nation would have

Q Well, of course, <sup>as</sup> it turned out later, the Russians were aware of the work we were doing and had some idea of it.

A Yes. This I did not know at the time, but I would say in retrospect, not testing the bomb probably would not

have gained us very much time.

Q Do you think that the ~~missile~~ "Missile Age" would have come as quickly without the atomic bomb? Did that set in motion a whole chain of events?

A No, the missiles would be completely useless, long-range missiles would become completely useless without the bomb, because they are too expensive .

As long as your rocket carries nothing but 10 pounds of TNT, you know, that is too expensive.

Q Well, what about the space race in general? Has that also been put off into the ~~indefinite~~ ~~indefinite~~ future? Was it missiles that brought on the "Space Age."

A I would think so.

A So that the whole matter of space exploration, missiles, hydrogen bombs, all the rest of it was a natural outgrowth of ~~is~~ the atomic bomb?

A I think so. But you see, I'm in no hurry to get to Mars or Venus, because I don't value space exploration as much maybe as you do.

Q Then what you might have had at most, you think, would have been a conventional arms race with Russia, or perhaps a world-wide atomic control agreed to the major countries.

A Well, I think we could have had world-wide atomic controls. Now you may say that ~~perhaps~~ ~~perhaps~~ in spite of that there would have been a power conflict -- the same power conflict



that you saw in 1946, '47, '48, and this was in itself dangerous. Perhaps this might have led to war. This is possible.

Q Have the Russians ever given any indication in the past that they would have agreed under any conditions to a, say, inspection controls?

A I think <sup>the</sup> Russians -- of course, their position has changed somewhat since Stalin's time -- I think that inspection will be unacceptable to Russia as long as the disarmament situation is such that there are important military secrets left that need to be safeguarded. As long as you have secrets you must safeguard, an inspection is a disagreeable thing to accept.

Q Wouldn't that have been true in 1945. even if we hadn't dropped the atomic bomb? Weren't the Russians then have rejected inspections because they had secrets of their own?

A Yes, except the Russians didn't like the idea of the bomb at all. Now on this I have inside information on. And, you see, I thought at the time the negotiations were started that Russia would not agree and that she would just reject this no matter what kind of proposal we make, because if there are no bombs and <sup>if</sup> there is a war, we can bring the war to Russia's territory through our bases on the ~~European~~ Continent, <sup>but</sup> ~~where~~ she can't bring the war to our territory.

If there are bombs, the situation is more symmetrical. On that basis, I always thought that Russia would not be interested in controlling the bomb.

Later on, I got some inside information to the effect that this was not so. What I was saying was quite logical, but it did not reflect the Russian thinking in '45 and '46. And ~~what~~<sup>what</sup> I was told and what I believe to be true is the following:

That in '45 - '46, Russia was thinking in old fashioned terms about a war. She had won two wars already by retreating, and she thought of the Third World War as something in which she would have all these buffer states across which she can retreat. And she was not sure she could make the bomb.

I now have the impression that if we had proposed something more tenable to Russia than the Baruch Plan, she might have gone along. The Baruch Plan puzzled them.

As a matter of fact, they just did not believe that the Baruch Plan would be acceptable to us. The Russians ~~do~~ did not believe -- Gromyko told someone who I personally knew, I didn't know him then. I met him later.

And Gromyko said to him ~~this~~<sup>that</sup> this was a man who loved Russia who had Gromyko's confidence. And Gromyko said this to him. "Now you have lived among these people longer than I have and you know them. Perhaps you can

~~can't~~ explain them to me. ~~may~~ What I don't understand is why Mr. Baruch propose a plan which you know and I know that Americans will not accept. What is his game?"

They were never convinced that the Baruch Plan was acceptable to America. I think that may be right. It's quite possible that if the Russians had accepted it, the Senate would not have ratified it.

So, I think if I had to bet today, I would bet that had we not threatened Russia by using the bomb against Japan, and had we then proposed something reasonable for the control of these very uncomfortable new weapon, the Russians would have gone along.

~~But~~ Because there are other sources for a power conflict between America and Russia, the agreement finally might have collapsed. If we get into a really serious conflict about other things in the world, we'll find that no agreement in the world can stand up.

So, this might <sup>not</sup> have solved our problem.

Q Do you think Americans have a guilt complex over the bomb?

A I'll tell you what evidence I have here. I wouldn't call it a guilt complex, but you remember perhaps Hershey's "Hiroshima," for which the New York "Herald" emptied a whole issue from ~~many~~ cartoons and stories to print it. "Hiroshima" was regarded as a very great piece of art



and everybody was really impressed. "Hiroshima" in ~~England~~ England was not a success. Why?

Because using the bomb was our ~~first~~ decision, and the English felt it was none of their business. So this indicates that there is some feeling here, some subconscious stake in the bomb, which the English don't have. But I wouldn't call it a guilt complex.

Q It's an uncomfortable consciousness?

A I don't know what word I should use. I don't think it's a guilt complex. I do think that the disillusionment that we used the bomb unnecessarily has shaken the confidence of many scientists in the government's ability to live up to the ~~live up to the~~ obligation to exercise restraint.

You see, great power imposes the obligation of exercising restraint, and this obligation we did not fulfill. I think this affected many of the scientists in the subtle sense that they just had no desire to continue to work on this thing.

Q Do you think that had an effect on our own development of the hydrogen bomb and others?

A I would say it delayed it five years. I think if we'd exercised restraint in this case, the Manhattan Project would have gone right now. *on*

Q Purely as a hypothetical question, do you think that an American government today, confronted with the same

set of choices and approximately the same degree of military intelligence they had then -- do you think an American government today would be more likely to use restraint. Do you think we've ~~learned~~ <sup>learned anything</sup> out of this?

A I think it depends on the person of the President. Truman delegated ~~him~~ essentially ~~him~~ this decision. Truman was never able to understand what was involved.

You could see that from the language he used. Truman announced the bombing of Hiroshima while he was on a boat coming back from Potsdam, and ~~his~~ his announcement contained the phrase -- I quote -- "We gambled 2 billion dollars and we won." End of quote.

Q To put ~~that~~ the atom bomb in terms of having gambled 2 billion dollars and won offended <sup>MP</sup> ~~my~~ sense of proportions, and showed me that Truman did not understand at the time what was involved at all.

Q Do you think that Henry Stimson <sup>f</sup> reflected more accurately the anxieties of a person who is trying to work ~~this~~ <sup>this</sup> ~~out~~ out in his mind?

A I do not know enough. I'm sure that Henry Stimson was a far more thoughtful person than Truman, but I don't really know what is wrong with this man because the reasons he gave are wrong reasons. You see the reasons he gave, ~~why we could~~ <sup>why we could</sup> not put on a demonstration ~~because we only had to burn~~ <sup>TWO BOMBS</sup> and we could not risk to explode something that could

prove<sup>n</sup>) a dud was obviously a false reason, because it would have taken a very short time until we would have had 10 bombs. So I don't know what to think. But, you see, the trouble was that at that time Stimson was a very old and fatigued man -- some days was very good and some days ~~was~~<sup>he</sup> just got tired very fast. He was no longer Stimson at his best.

\* \* \*

A You see at that time, we did discuss demonstrations -- the possibility of a demonstration, and I think it is clear that you can't demonstrate a bomb over an uninhabited island. You have to demolish a city. So a demonstration would have meant approaching Japan through a diplomatic channel, proposing a demonstration, say, over Hiroshima with the inhabitants removed from Hiroshima.

In retrospect, I think that the discussions of the demonstration overemphasized the need for a demonstration. What we did not discuss enough was that since Japan was defeated, the war can be ended by political means and need not be ended by military means.

Q Was that a failure on the part of scientists as well?

A Not really -- in a ~~some~~ sense, we had no business to talk about political things. This was really not our business --

Q But from a practical standpoint, you might have gotten



further if you had.

A It is quite possible that we should have emphasized the need for negotiations. We did emphasize the need of advising the Japanese about the peace terms, of giving them acceptable peace terms -- but this still is not negotiations.

Q One thing that impressed me in reading a dozen or so books on this subject is that, as I mentioned before, you and the Los Alamos people, the Oak Ridge people and a few people in Washington, all of whom had misgivings were more or less scattered. There was never any concentrated strategy worked out.

A The different projects?

Q Between the men who had these misgivings.

A On the different projects -- because Chicago was quite unified. We knew precisely who stood where in Chicago. You know we drafted the petition to the President which was signed by some ~~five~~ 50 or 60 people.

But the contacts with the other projects were difficult. For instance, I sent a text of the petition to be circulated in Los Alamos, and I couldn't get it circulated there. So it was difficult to keep contact with Los Alamos at that time.

Q Do you have any <sup>idea of why</sup> ~~reasons for that~~ you didn't hit it off with Secretary Byrnes?

A Why I think there were two reasons. First, our own confusion as to what his role was so that we didn't concentrate on the single issue, but talked about two different things which confused Byrnes. That is one reason.

But the second is that I think that Byrnes didn't think on the same level on which I was thinking. Take the beginning -- when he said we don't have to worry about Russian bombs because I'm informed they <sup>Russians</sup> have no uranium. This is how it started.

I mean, you start with this premise, which I thought was just utterly wrong, it is very difficult, you know, starting with a wrong premise to reach the right conclusion.

But there was something else there --

Q Personality --

A No, it was not personality -- I can give you details about this.

You see, when I went to Byrnes, what we were disturbed about at this point was that we didn't see at any level of government, higher level, any political considerations of what the bomb meant. Now we didn't we know -- when I went to see Byrnes, I didn't even know of the appointment of the Interim Committee. The Interim Committee had just been appointed.

Now it was rather late in the day to begin to think what to do with the bomb -- at the end of May -- and because

I saw that there was no consideration in the government on the level where it should be, I was very firmly convinced that scientists ought to be heard in this.

I don't think Byrnes liked that so very much. ~~He~~  
He knew that we wanted to be heard. But apart from that, it was really the level of thinking.

For instance, Byrnes was quite willing to examine what would happen if we didn't demonstrate the bomb, if we didn't even test it. He was willing to go along and say, "All right now, suppose we don't test it." Then he said that if you don't test the bomb, you have nothing to show for the 2 billion dollars which you spent. How are you going to justify this to Congress?

Now this again sort of shocked me. But then he said, "Klaus, you seem to be concerned about developing atomic energy, and you will need money from Congress for that. How do you get it unless you have something to show for it."

He had a point there, you know. But then what really shocked me and what really showed we were not thinking in the same terms was the following:

He thought that demonstrating our military might, <sup>s</sup> especially the bomb, would make Russia more manageable. You see, he was concerned about Russia having moved into Hungary, into Rumania, into Poland.

Q He told you this?



A Oh yes. And he thought that if we are strong, but again he saw that Russia could not catch up, Russia will be more manageable.

This <sup>?</sup> shocked me because I thought this was just the wrong psychology -- to think that just because we sit on a bomb which we cannot use against Russia will make Russia more manageable. I thought that was a political naivete which, even I as a physicist would not have committed and it shocked me that Byrnes did it.

And then what even shocked me more was the following: He said, <sup>n</sup> now the Russians have moved into Hungary. Now you must be concerned. You are a Hungarian so you must be concerned about what happens in Hungary. Now how are the Russians ever to be dislodged from Hungary unless by America building up an imposing military might. Now what shock me here, again so far from any sensible proportion, is true that I came from Hungary. I have a perfectly normal concern what happens to Hungary, but what was at stake here was something infinitely large than Hungary.

And at that point, I really shut up. This was an unanswerable argument. If you put on side of the balance the fate of the world and on the other side the fate of Hungary, then further argument is useless, and I really didn't say anything thereafter.

And I remember my feelings when I left Byrnes' house. And this is what I to me that supposing Byrnes had been born in Hungary and become a physicist, and I had been born here and became a politician. How much better off the world would have been on two counts. First, there would be no bomb, and secondly, if there had been a bomb, there would have been some intelligent politicians.

I was really quite dejected and depressed. And also, when I then returned to Chicago, I knew that there would be no reasonable political consideration from the arguments which I heard of this ~~isn~~ issue, and on that ~~point~~ <sup>point</sup> I knew that what scientists can do now is only go on record. And I wanted them to go on record by signing a petition to the President. They can't use this bomb, and wanted that petition to be based only on moral considerations which were unanswerable.

I did not want it to be based on considerations of expediency where you may argue endlessly back and forth. You see, the Frank Report, that was based on considerations of expediency, and I ~~went~~ went along with it. This was perfectly all right, but that was supposed to go to the Secretary of War where considerations of expediency are in order.

I thought the petition to the President should be based on moral considerations, and should serve the primary

purpose for scientists to go unmistakably on record in this issue.

Q Do you think that President Roosevelt would have acted differently?

A I am not convinced of that. I do not know how he would have acted.

I don't think he would have delegated the decision to a committee, and I don't know what he would have done.

Let me say one thing: What's the use of demanding unconditional surrender? You'll see that it has only one use. If you demand unconditional surrender, you don't have to negotiate with your allies, and I think what pushed us into unconditional surrender is our unwillingness, our reluctance to negotiate with your allies -- and not only our own allies. Even Washington ~~is not~~ did not know what peace terms Japan should get.

So first you have to negotiate inside Washington, which is the various government departments -- that is all very annoying -- and after you've done that, then you've got to negotiate with your allies. That is also annoying. It's much ~~more~~ cheaper to drop a bomb, you know.

And I think that once we followed that when we dropped the bomb, simply we followed the line of least resistance.

Let me also say this: It came out particularly badly. The reason is that we did warn 12 cities of Japan that they'd be bombed after the ~~Potsdam~~ Potsdam ~~Declaration~~ Declaration.



Hiroshima was not among them. Well, this is rather understandable because it is the Strategic Air Command ~~in~~ which issued the warning did not know of the atomic bomb.

Q Do you think that our position in the world, our stature and prestige was materially hurt by the use of the bomb?

A I think in the Far East, yes. Probably not in Europe.

Q You think in the Far East there's a very definite <sup>used?</sup> resentment still about the fact that this ~~xxxxxx~~

A I have no doubt about it, and I have no doubt about it that the people in the Far East believe that we would not have used this bomb against white people.


Q So we paid for this, or have paid in some degree.

A Yes, but I think that once you do the right thing because it is the right thing you cannot possibly calculate in advance all the future consequences of your actions. That's impossible

Q So we have paid for this, or have paid in some degree

A Yes, but I think once you do the right thing because it is the right thing, ~~xxxxxxxxxxxx~~ you cannot possible <sup>consequences of</sup> calculate calculate all the future confieene of. your action. But this is impossible.

And this is why we have rules of modern conduct, because the future is so difficult to predict. If we could predict the future, then we could be guided by considerations of expediency. But we can't predict the future, and this is why.



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moral considerations ought to be given a certain amount  
of weight.

(END SZILARD IVU)