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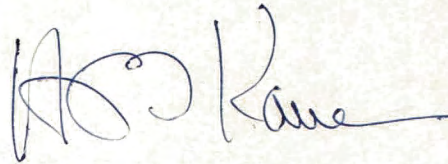
July 2, 1958

Dear Dr. Szilard:

Herewith the first typed draft from the tape made at Endicott House. As you will see, it leaves much to be desired, but at least it's a start.

A copy is in the hands of Dr. Levinthal for the purpose of identifying the speakers in the discussion period.

Sincerely,

A handwritten signature in blue ink, appearing to read "H. B. Kane". The signature is fluid and cursive, with the first letters of the first and last names being capitalized and prominent.

Henry B. Kane

hbk/efl

Dr. Leo Szilard
Dept. of Biophysics
University of Chicago
Chicago, Illinois

This is usually the most delightful institution of lecture-ship and experience because you are permitted to talk about what happens to be on your mind at the time. There is a story about . . . , you know, the . . . of Gottingham, that he came late into seminar in the Institute and sat through a presentation of a younger member of the staff on a paper which visibly bored him, and finally he said, "Well, it was not a bad paper, but I was just not interested in the subject. Whose paper was it?" And he was told, "You wrote it, Herr . . . about three years ago."

Well, a friend of mine, Count Friedrich *Bonifazi*, a physical chemist, once talked to me in 1924, and he said, "You know, yesterday I was at a dinner party, and next to me sat one of Berlin's outstanding lawyers. And he asked me, 'Is there much progress made in physics?' And I said, 'Yes, very much progress. Great discoveries are made.' And the lawyer said, 'Well, tell me in five minutes what these great discoveries are ~~xxxxxxxxxx~~.' And... *Bonifazi* ? said, 'I couldn't tell you in five minutes; I could tell you if I had three or four hours to tell you about it.' And the lawyer said, 'I'M not interested. Anything that you cannot explain in five minutes cannot possibly be a great discovery.'" You remember this was in 1924, and I think the lawyer was right.

May I ask myself this question? I want to talk to you about the solution to the problem which the bomb poses to the world, and I ask myself could I conceivably say what one ought to do about it in five minutes?

minutes? And I think that perhaps I could, but I don't think I could sell it to you in five minutes. I might be able to sell it to you in two or three hours, but I don't have two or three hours. And the most difficult thing is *23* *talkin*g... about this subject if ~~I~~ ^{one} want^s to talk for about an hour.

Now let us start with the controversy on whether or not we should stop bomb tests. Now you know there is a group of people who say we should stop testing bombs. And while they usually justify this by talking about radioactive fall-out, this is not really what is on their minds. They really want to stop the testing of bombs as a first step in a direction in which they think we ~~are~~ ^{ought} to go. Now it seems to me that it is conceivable that Russia and America would agree to stop tests. It also is conceivable that after both Russia and America have enough bombs stockpiled to destroy each other to any desired degree that they might then agree to stop ^{the} manufacturing of bombs. But if you believe that the solution to the problem which the bomb poses to the world lies in getting rid of the bomb, that is, lies in far-reaching disarmament, then clearly nothing that stops short of eliminating the bombs, of removing the stockpiles, can be regarded as an adequate solution. Now the question is, will this crucial step of getting rid of the stockpiles be made, can it be made, in the near future? I will not argue this here, but I think that it would be a great mistake to place all our hope on being able to make this step. And if this step cannot be made in the near future, then the question arises ~~x~~ (and this is the only question I want to discuss here) whether the kind of strategic stalemate, the kind of stalemate between the strategic striking forces of Russia and America towards which we are moving, whether such a stalemate could be made stable; that is, can we create a situation in which there may be essentially no danger that out of such a stalemate would arise an all-out atomic war that neither Russia nor America wants?

Now I believe that most of us who had something to do with the bomb and many of us who didn't realized in 1945 that we had gotten the world into a mess by producing the bomb. In the past twelve years most of us thought that the way to get the world out of this mess may lie in turning the clock back by getting rid of the bomb. I believe that perhaps the time has not come to ask whether we were right and whether it might perhaps not be easier to get the world out of its present predicament not by attempting to turn the clock back, which might be impossible, but by doing just the opposite, that is, by advancing the clock just as fast as we can. Now I think that the following is true. Well, let me say this. You could conceive of three solutions. One is getting rid of the bomb; one is the solution which ^{teller} ~~Turner~~ advocates, just to keep ahead in the arms race; and the third solution is to stop the arms race at some point, but not just at the point where we are now, and see if we can get a stable stalemate. I think that I have probably covered the three possibilities, and I will talk only about one of these three, namely, the issue of *can we have ~~a~~ a* stable stalemate. This issue has not only military aspects; it has also political aspects, and I have to talk about the political aspects also. Now I spent twelve days in Quebec at a conference where there were a number of Russians ^{and} ~~x~~ a number of Americans ~~x~~ and where we spent much time in private discussion and comparatively little time in the official meetings. After I clarified my thoughts by talking and thinking constantly about these problems for twelve days and also by learning a little bit how one must express oneself to get the Russians to listen rather than to shut their ears, I spent two weeks writing a paper which has the title, ⁶⁹ On the Possibility of a Pax Russo-Americana in a stable Atomic stalemate. It is twelve thousand words long. I am working very hard to cut it down, but each time I cut it down, it gets longer. Now this paper I have

written, of which I only have the rough first draft which I don't dare to show anybody, was written with this thought in mind ~~that~~ that I want to have it published in both America and Russia; and many of the examples which I chose have been chosen with this thought in mind. I will not read you this paper--it is too long--but occasionally I will use it as a crutch and read certain passages out of this paper.

Now let me make a few technical remarks. We are now moving to what I would call the first stage of the stalemate. We have not quite reached the first stage yet, but when we have reached the first stage, the situation will be as follows: America and Russia can destroy each other to any desired degree by using jet bombers and ~~dirty~~ hydrogen bombs of great power. Such a stalemate would be inherently instable if it were possible for one of these two nations in one certain attack to destroy the capability of the other nation to strike back. I'm not saying that if the stalemate were inherently instable, that the next day Russia would attack us or we would attack Russia, but ~~nevertheless~~ ^{nevertheless}, I think the stalemate should be considered inherently instable if it has this property. Now the present stalemate (or we are not entirely in it yet) is not inherently instable, but it has certain elements of this kind of instability. The stalemate is changing rapidly, and we are going through transitional phases. There might be a time when America might rely partially on low-flying piloted bombers. There might be a time when we would rely on intermediate range liquid-fuel rockets. I will not discuss what the policy should be in the present stage of the stalemate or during these intermediate stages ~~because~~ because it is much more interesting to look a little in the future, seeing what form this stalemate may take ~~say~~ ^{to} say five years from now ~~and~~ and discuss what policy ought to be when this second stage of the stalemate is reached. During the second stage of the stalemate, both Russia and America will have

clean hydrogen bombs of high power, which can be carried by solid-fuel rockets which could be launched from invulnerable bases either inside America or Russia or which could be launched from submarines which can move along and therefore are invulnerable because their position is not known. But when that stage of the stalemate is reached, the present policy of an instant retaliation will no longer be important. If you have to retaliate, you don't have to do it immediately; you can wait a day or two week days or maybe a week. And that kind of inherent instability which we still have in the present stalemate while we must think of instant retaliation will then disappear in the second stage.

The second stage of the stalemate is a kind of stalemate which I believe could be stabilized, and I will talk much about this second stage. But we also must be concerned ~~with~~ ^{of} whether this second stage can last. The second stage of the stalemate cannot last if we get into what we might regard as the third ~~stage~~ ^{phase} of the arms race. In this third stage of the arms race, we might develop methods which would enable us to destroy rockets in flight, and these methods might be first very ineffective. You might shoot down rockets, such rockets with a few per cent probability, and later on as this arms race continues, maybe it will be 10 per cent, maybe 25 per cent, maybe 50 per cent. But this is a limitless arms race because, as the method to destroy long~~x~~range rockets improves, there is a strong incentive to build more long~~x~~range rockets to overcome, to make up for, the rockets which are destroyed in flight, and if we get into the third stage of the arms race, then I think it will be completely impossible to limit the number of bombs which Russia and America want to keep in the stockpile, and I will spend some time in discussing how could we avoid getting into this third stage, which I will discuss towards the end of this discussion.

Now what I would like to do now is the following. Let us assume we have the second stage of the stalemate right now (and we have it very

soon), and let's begin to see what kind of a military policy America might adopt which would fit with the second stage of the stalemate. And I will try to show you that none of the military policies so far discussed can be really justified in the stalemate, that they would break down. Now right now, of course, we have no military policy, and we make virtue out of necessity by saying that this is very good because if we don't know what we would do, the Russians don't know what we would do~~X~~; so we keep them guessing, and this is excellent. I cannot share any enthusiasm for this state of affairs. We no longer talk of massive retaliation; this massive retaliation today would really be a threat of murder and suicide, and such a threat is not believable and therefore is not an effective threat. I think the last thing that was ever said about our military policy was "selective retaliation" I think it was called, and I will not discuss this either, but rather I will discuss, assuming the second stage of the stalemate, whether the kind of policy which *Teller* advocates and which some people in the army advocate, to what extent this would be feasible and to what extent it would break down. Now as you know, this policy is based on the following consideration: We say that there are regions in the world which are very close to Russia and that America has commitments. How could America ever live up to those commitments when the fighting would have to take place in an area where Russia is naturally very strong in armies which could ~~be~~ move in there and which could be armed with conventional tanks? So ¹⁴⁰ *Teller...* it also seems like *Teller* says, "Well the answer is that we must have superiority in atomic weapons. We can then fight a local war in the proximity of Russia; we can use those atomic bombs (and these would be small atomic bombs) in combat against troops; and we can use them a few hundred miles beyond the ~~pre-war~~ ^{prewar} boundary for disrupting ~~communications~~ and against supply and air bases. And if we keep

up the arms race, we can remain superior to Russia for a long time to come, and we will be able, therefore, to protect those territories even without war because Russia would ^{not} start any trouble ^{there} if we have this kind of superiority.))

Now I would like to examine this very ^{carefully} ~~carefully~~ because much of what I will say later is based on the criticism of this policy, and I am smuggling in a thought which might be acceptable ^{to you} in this form where it might not be acceptable if I just came out with it, not in this context but in some other context. So let's assume now we have the second stage of the stalemate, and let's assume we have adopted the policy advocated by Teller and part of the army, and we have ~~been~~ elected to fight a local war with atomic weapons in some territory which is in the proximity of Russia. And let's further assume we have superiority in small atomic weapons. And now, if I may, I will read you off a few passages here which are put in an exceedingly crude form, which I regret, but the crudity makes it possible ^{I think,} to use a simpler language and to avoid using abstractions. # Now first of all, I think it is quite clear that in the atomic stalemate in the second stage of the stalemate when Russia and we can destroy each other by means of clean hydrogen bombs to any desired degree, any commitment ~~which~~ ^{that} Russia or America ~~can~~ ^{may} assume for protecting certain areas of the world, ^{will turn out} ~~be it or not,~~ when the chips are down, ~~it will be~~ ^{to} of necessity limited commitments. America may be willing to pay a certain price to keep Russian-supported invasion out of such an area, and Russia may be willing to pay a certain price to keep an American-supported invasion out of such an area. ~~165...~~ to the limited extent to which America may be willing to pay a price, she may also exact a price from Russia and vice-versa, and because of this, both America and Russia can exert a limited deterrent effect. Now if we keep this concept of reciprocal limited prices in mind, we may now ask the following question, which is pertinent: what may

actually happen in the second stage of the stalemate if there is an armed conflict in an area in which both America and Russia have a vital interest which causes them to intervene on opposite sides? Now *Teller* believes that ~~if~~ ^{in case} this ~~stage~~ the war will be decided in the local areas. He thinks that the large bombs cannot be used by either America or Russia against each other's territory because this will lead to an all-out ~~atomic~~ war, which neither Russia nor America wants, and therefore, the cause of the war and its outcome ~~will be~~ can be discussed as if the powerful bombs did not exist at all because they cannot be used without causing an all-out war. And I think this premise of the policy which *Teller* and part of the army advocate is wrong, and I would like to demonstrate to you on hand an example why this premise is wrong.

Now according to this concept of *Teller*'s, America could fight a local war with atomic weapons in an area which is in the proximity of Russia, use these bombs in combat against troops and perhaps within a zone of several hundred miles beyond the ~~pre-war~~ ^{pre-war} boundary to destroy supply bases and air bases. It is my contention that Russia must not accept the battle on these terms and that she could at least in some other foreseeable contingencies follow an entirely different ~~plan~~ ^{tactic}. So let me assume, to take a concrete example, that Turkey feels menace^d by the growing power of the Arab states and the Turkish troops invade Syria. Under Paragraph 51 of the United Nations Charter, which allows for collective defense in case of an armed attack against a member of the United Nations, Russia would be within her legal rights to take armed action against Turkey. But in accordance with the pattern established in ~~post-war~~ ^{post-war} years, she might perhaps prefer to let an army of volunteers invade Turkey. But if the Turkish armies are in danger of being defeated, America might, disregarding the letter of the law, intervene in order to save her ally from being militarily defeated. Let me now further

assume that America would either plan to supply the Turkish army with atomic weapons or that American ~~Troops~~ ^{troops} would actually land in Turkey and begin to fight the Russian volunteers with atomic weapons. Assuming that America has superiority in atomic weapons, she could not only push back the volunteers within Turkey, but she could use atomic weapons beyond the ~~pre-war~~ ^{prewar} boundary in a zone of perhaps a few hundred miles of depth within Russia proper ~~and~~ ^{to} disrupt communications and destroy air-fields. Now if such a turn in the war was impending, ~~Russia~~ it might be logical for Russia to send a note to America, advising her that if America were to fight with atomic weapons or if she were to supply atomic weapons to Turkey, Russia would demolish one of ten American cities listed in the note. These cities ~~would~~ ^{might} be of a size ranging from one-half million to one million inhabitants, and Russia might assure America that if on deciding which one of the ten cities she is going to demolish, she would give the selected city four weeks' warning in order to permit an orderly ~~evacuation~~ ^{evacuation} of the city and to enable the ~~government~~ ^{American} government to provide for the housing and feeding of the refugees. Russia might further make it clear in her note that acting on advice of the newly formed Science Advisory Committee of the Communist Party of the Soviet Union, she would be willing to tolerate American's demolishing one Russian city of equal size which America might select and which Russia would expect of course to be given four weeks of warning. To this the American Secretary of State might of course reply with a note threatening that America would demolish two cities in Russia for each city which Russia might demolish in America. Russia could ~~however~~ ^{however} answer to such a threat by speaking as follows: The Russian government has adopted upon the advice of her scientists the principle of tolerating the destruction of one of her cities for one American city which she may demolish. She is determined to adhere to this principle of one for one. Therefore, if America should ~~demolish~~ demolish two Russian cities in exchange for the

first American city demolished by Russia, then Russia will have to demolish one additional American city for the additional Russian city demolished. If America should retaliate as she threatens to by demolishing ~~two~~ further cities in Russia, Russia would again demolish one American city for each of these two Russian cities destroyed. I think it would be quite obvious ~~the~~ Russian ~~...~~ ^{even if} 227 that if America adheres to the principle of two for one where Russia sticks to the principle of one for one, ^{in time} ~~all~~ all American cities and all Russian cities would be demolished. Because the Russian government has no reason to assume that the American government has gone insane or that if it were insane that the American people would tolerate such a government to remain in office for long, she ~~could~~ ~~possibly~~ safely disregard the threat of two for one and could if necessary go through with her threat to demolish one American city. I believe ~~that~~ ^{that in} that this example demonstrates ^{the} the second stage of the stalemate, Russia could invoke the clean hydrogen bombs of high power, threaten to use them, and conceivably actually use them without risking an all-out atomic war. Therefore, it would not lie with ⁻ⁱⁿ the choice of America alone to decide whether local conflict may or may not be decided by fighting locally with small atomic bombs. Now the assumption that this lies in America's choice is a basic premise of the policy advocated by Teller, and I have ~~tried~~ ^{even} tried to show that at least in the second stage of the stalemate and possibly ⁱⁿ in the third stage of the stalemate, this premise will be invalid.

Now I will at the moment, still talking about the second stage of the stalemate ... ~~the~~ ²⁴² military ... political matters. I think that in the atomic stalemate, certainly in the ~~the~~ second stage, the probability that an all-out atomic war might break out as ~~a~~ a result of an accident or a serious error of judgment cannot be completely ruled out. However, it appears very unlikely that such a war would break out

as a result of a wanton attack by the American Strategic Air Force against Russian cities or as the result of a wanton attack by the Russian Strategic Air Force against American cities. Therefore, in this stalemate the greatest danger for the outbreak of an all-out atomic war lies in the possibility of a local conflict which leads to armed action, American and Russian military intervention on opposite sides, and the use of atomic weapons in such a war, which would arouse emotions that may make it impossible to localize the conflict. From this point of view it would seem important for Russia and America to reach as soon as practicable a political settlement which will make it reasonably sure that there will not occur in any of the foreseeable contingencies an armed conflict in which America and Russia may intervene on opposite sides.

The closer we come to the second stage of the strategic stalemate, the less important become the controversial issues which have ~~characterized~~³ arisen in the ~~post-war~~ period ~~in the post-war period~~^{postwar} between America and Russia. Most of these issues have some strategic ~~importance~~ relevance, and they are not negotiable in the post-war period because, had they been settled one way, the settlement would have increased America's chance of winning the next war, and had they been settled the other way, it would have increased Russia's chance, to win the next war. Now clearly the issue of who is going to win the next war is not ^{an} issue on which compromise is possible, and therefore, most of these issues have to remain unsettled. There is a vicious circle operating in a power conflict of this type, (For ~~a~~ few of the conflicts which have strategic significance can be settled. New such conflicts arise from time, and thus conflicts which cannot be resolved accumulate, and as time goes on war appears to be more and more probable. This in turn ~~it~~ makes it more and more difficult to settle any more of these conflicts. And such a vicious circle is set up which operates in

~~this~~ this kind of a power conflict. I think this kind of a power conflict which existed ~~in~~ between Russia and America after the first world war resembles very strongly the power conflict ~~between~~ which existed between Sparta and Athens just prior to the Philo^{SP}ponesian War. Now when we have a strategic stalemate towards which we are now moving, particularly ~~through~~ ^{if we approach the} second stage, none of these controversial issues can any longer have bearing upon the issue of who is going to win the war. When Russia and America can destroy each other to any desir^e degree, the overriding issue becomes the stability of the stalemate, and on this issue Russia's and America's interests coincide. This is the reason why ⁱⁿ the strategic stalemate it becomes less important whether any one of these old controversial issues is settled one way or whether it is settled the other way. What is important is only that it be settled one way or another. Now what kind of political settlement between Russia and America would be needed ~~to~~ politically to stabilize the strategic stalemate? America and Russia may recognize a few areas as lying in each other's field of influence in the sense that either America or Russia may be willing alone to assume the responsibility for preserving the peace within those areas. These areas are, however, few, and they are not ^{even} very important. But there are some other areas in which it might be possible to freeze the status quo by setting up a regional intergovernmental armed force with the consent and approval of Russia and America as well as the other major nations which are involved. Whether or not these intergovernmental armed forces should operate under the auspices of the United Nations, I'm going to discuss in a few minutes. In any case, the sole function of such regional armed forces would be to prevent any nation of the area from violating the territorial integrity of another nation, and it should not be the function of these forces to prevent governmental changes in a country by internal revolution as long as no military forces cross the country's

~~frontiers~~. The regional intergovernment armed forces should not be equipped with atomic weapons, ^{but} they could be highly mobile and could be equipped with high-fire power so that the ~~the~~^y might be militarily stronger than any of the nations within the area, particularly if the arms level of the nations within the area is kept low. In those areas where the status quo can be frozen in this manner, the nations of the area may thus be given the security which they need so that it will not be necessary for them to divert a substantial fraction of their ~~economic~~ economic resources into military expenditures. ~~Now~~ I come to the question whether it would be desired to set up these regional armed forces under the sponsorship of the United Nations. At the end of the last war (I am reading a paragraph ~~now,~~ and I would like to mention to you Russia's reaction to this paragraph in a moment. You see, I tried out some of these things on the Russians in Quebec.) ~~At the end of the last war~~ it was generally believed that as long as the great powers act in consent with each other, the United Nations organization may be able to guarantee the security of the smaller nations and may make it unnecessary as well as impossible for them to go to war with each other. Attempts made in the past ten years to use the United Nations for purposes other than those for which it was designed have weakened this organization, and it remains to be seen whether they have damaged it beyond repair. Only if it were possible to restore the United Nations to its original function, would it be able to serve as an ~~agency~~^{to} agency ~~through~~ which the organization of the regional intergovernment armed forces might be entrusted.

In # 316 I had a somewhat similar paragraph in one of the numerous ✓ documents which I distributed, and one of these documents was read in silence during a meeting. It was faster to read it. And when the meeting was over, 320 came to me and squeezed my arm, and he pointed to this paragraph and said to me, "You are a great fighter for

peace and freedom." This touches upon a point about which the Russians are ~~extremely~~ exceedingly sensitive. ⁴ Now there are other important areas of the world where it may not be possible to protect the status quo by maintaining an intergovernmental armed force, and perhaps one of the most important areas of this kind may be the continent of Europe. It is almost self-evident that it would be impracticable to freeze by such means the status quo ~~in~~ ⁱⁿ Europe in the absence of a political settlement, which is as satisfactory to America and Russia as it is to the nations of Europe. But even if such a political settlement may be achieved, the maintaining of an intergovernmental armed force would remain an ~~integral~~ ^{inappropriate} way of dealing with the problem of European security. I have a separate chapter which deals and which I am not going to read on this occasion with the problem of the security of Europe, and it is connected with the so-called ⁽⁵⁰⁾ -nth power problem, that is, with the problem of having a fourth, a fifth, a sixth nation be able to have available to it atomic bombs. ~~It~~ It is a very important issue, but we will have no time to go into it.

Now I will come now to discuss the possibility of stabilizing this stalemate in the second stage. Now in the setting of the stalemate I believe that the power conflict in which Russia and America found themselves caught in the ~~postwar~~ ^{postwar} years will rather fast completely disappear. While America and Russia may each still desire to bring about certain changes in the status quo, neither of them may be willing to make substantial economic sacrifices in order to bring about forcibly any of these changes. Therefore, they may both be content with modifying the status quo while this is desirable only ~~by~~ ^{with} the approval and consent of both America and Russia as well as with the consent of the other major powers involved. My main point is this: that in the setting of the second stage of the stalemate, America's and Russia's real interests

will closely coincide. These will consist in preserving status quo, eliminating all risk of an atomic war, and maintaining economic prosperity or achieving economic prosperity. However, even though it may be true that ⁱⁿ this stage of the stalemate Russia and America will have nothing to fear from each other, there will still remain fear to be feared. And such fear must necessarily be engendered by the existence of ~~a~~ large stockpiles of clean hydrogen bombs of high power, ^{at} ~~at~~ least ^{the absence} in ~~the absence~~ of a satisfactory philosophy as to how ^{such} ~~such~~ bombs might be employed in any hypothetical and be it ever so unlikely eventuality.

4 So I am not turning to the question of whether this fear could be removed--not the bombs but the fear could be removed by the adoption of some code of behavior which either Russia or America ^{as} could *unilaterally* adopt. And ~~that~~ you will see throughout this paper, I will not ever assume that Russia is doing anything illegal, and I will assume that all the ~~proposals~~ proposals will come from her. I have in this respect a rather interesting experience. Perhaps I should say this. Since I was anxious to make myself clear, I operated in Quebec by using examples. And I started out one example by saying, "Let's assume there is a Communist revolution in Mexico." And immediately ³⁷⁰ ~~topher~~ said, "Russia would not institute a a Communist revolution in Mexico!" and I said that I would suggest that Mr. ^{some} ~~some~~ agree for the sake of the argument of the thesis that a Communist revolution could occur in a country even if Russia does not instigate such a revolution. And ^{then} ~~he~~ accepted this, and then I went to proceed to say that there is ~~such~~ much unrest about this, much ~~a~~ strong popular demand in the United States for American military intervention against the legally elected Communist government in Mexico and that the ~~United States~~ ^{American government} yields to this pressure, and in violation of the United Nations charter, moves into Mexico. And then I said, "Now let us assume that Russia has a commitment to protect the legally elected government in Mexico," and then I went on discussing

on the basis of this assumption what Russia might do, ~~anything~~ ^{Really} anything ✓
 which Russia might do will cost her something), and when the meeting
 was over, one of the Russians ~~was~~ with whom by then I was very friendly
 came to me and said to me essentially I made a ~~faux pas~~ ^{faux pas}. Well, I tried
 not to make a ~~faux pas~~ ^{faux pas}, so I said, "What was this?" "You made an
 assumption which was offensive to us," he said. I said, "What was
 the assumption?" "Well," he said, "~~an~~ ^{the} assumption is that Russia
 would go to considerable economic sacrifice to protect Mexico when
 obviously nothing ~~would~~ that happens in Mexico could possibly affect
 Russia's security. And I said, "Well, I accept that, and next time
 I shall use a different example." And you saw that in my example I
 used ~~an~~ an invasion of Syria by Turkey, which being closer to
 Russia, could affect Russia's security. ⁴ So I'm now discussing the
 stalemate, the second stage of the stalemate, and I say, "Is there any
 code of behavior ~~which~~ ^a which Russia could proclaim by universal ^a declaration
 or which America could ~~proclaim~~ proclaim, and which once it is proclaimed,
 it would be in the interest of the other party to accept?" We will
 not assume any government will do anything for any other reason except
 that it is in her interest ~~to~~ to do so. So I give you now an example
 for a Russian proclamation which could ^{conceivably} occur during this stalemate
 and which would read as follows: "There are certain areas in the
 world which Russia is committed to protect from armed action directed
 against the area. In the atomic stalemate any such commitment must
~~of necessity~~ ^{of necessity} be a limited commitment. Russia and America are in a
 position to destroy each other to any desired degree, and Russia cannot
 be expected to entire into ^a commitment which would involve her total
 destruction. Russia is in a position, however, to live up to a limited
 commitment and yet to extend effective protection because she is willing
 to pay a reasonable price in economic sacrifice and is able therefore
 to exact a similar price in economic sacrifice from America. Moreover,

Russia can do this without resorting to atomic war, and she is renouncing such a war as a means of fulfilling her commitments. Russia will not use atomic or hydrogen bombs against soldiers in combat or as a means to crush the civilian population by dropping bombs on non-evacuated cities. But she may use clean hydrogen bombs if need be for the purpose of demolishing American cities. Any such city singled out for destruction would be given four weeks' warning ~~in~~ in order to permit an orderly evacuation of the population and in order to ~~permit~~ allow the American government to make provisions for housing and feeding of the refugees. Accordingly, Russia is issuing a price list, and for each area under her protection she will specify a minimum as well as a maximum price in terms of the number and size of the American cities to be demolished. Attached to the price list is a list of the American cities divided into ten different categories according to size as represented by the number of inhabitants. They shall in no circumstances exact a price in excess of the maximum price specified. She has carefully appraised what prices America may be willing or unwilling to pay, and she believes that she has set the prices high enough ~~to provide~~ for the adequate protection of all the areas listed. Should subsequent events, however, prove that her appraisal ~~was~~ of America's unwillingness to pay the specified price was wrong, Russia may ^{the n} issue a new price list in which she may revise upward the prices of the old list. Russia realizes that ^{it} is necessary to render the stalemate stable, and she knows that this requires her to enforce certain restraints on herself. Therefore, Russia adopts the principle of one for one, and accordingly, if she is forced to demolish a number of American cities of certain size categories, she will tolerate ~~the~~ ^{Americans} demolishing an equal number of Russian cities of the same size category. For any additional city which America might demolish in Russia, Russia would demolish according to principle of one for one, one American city of the same

size category. Russia has no intention to take armed action or to support anyone else's armed action directed against a territory to which America is committed to protect, but there might be unforeseeable contingencies where Russia might have to take such action. For this reason Russia would welcome if America were to issue a price list similar to the one issued by herself covering all areas which America is committed to protect, ~~especially~~ and specifying the price for each area in terms of a minimum and maximum number of ~~size~~ number and size categories of Russian cities that America would want demolished. Russia would expect America to give four weeks' notice to the Russian cities which she might single out for destruction, and naturally Russia would demolish according to the principle of one for one, one American city of the same size category for each Russian city destroyed by America after having given four weeks' notice. Russia believes that this matter might be perfectly well handled by means of unilateral declarations and sees no reason for proposing that America and Russia enter into an agreement in regard to it. Wholly for the sake of the stability of the stalemate ~~stalemate~~, which to maintain is as much to the interest of America as ^{it is in} ~~the~~ the interest of Russia, Russia proposes to reach an amicable understanding with America ~~on~~ on the division of ^{the} Russian and American cities ~~and~~ into ~~equal~~ ^{equal} in size categories. This should be done to avoid the danger that a dispute may arise over the size category ~~to~~ to which a city that is to be demolished belongs. Clearly such dispute might endanger the stability of the atomic ~~stalemate~~ stalemate. || Russia knows that the American people would not particularly cherish losing any of their cities, and she proposes therefore ~~that~~ should a conflict arise ~~that~~ that threatens to engulf an area that is protected by Russia, to name several American cities from among which the city singled out for destruction will be selected. In this manner the inhabitants of all these several cities

named by Russia will have an opportunity to make known to their government what they think of the merits of America getting involved in the conflict that has arisen. Russia is not prepared to divert an appreciable fraction of her natural income into arms expenditure, and she is greatly reducing her army, navy, and air force with the exception of submarines which she needs for launching sites for solid-fuel long-range rockets. Russia may therefore not be in a position to protect an area she is committed to protect by fighting a war in the ordinary sense of the term. Accordingly, all that Russia may ~~commit~~ ~~commit~~ herself to do is to exact from America a reasonable price for which Russia in turn is willing to pay an equal price. In these circumstances America could, if indeed she were willing to pay the specified price, conquer or have an ally of hers conquer some specific area which is ~~is~~ under Russian protection. America and Russia would ~~then~~ both lose an equal number of cities, ~~but~~ but America would derive no benefit from having demolished cities in Russia, and therefore America would have to balance the ~~gaining~~ of the conquest of the given area against the loss she would incur by having a certain number of her cities demolished. Russia does not believe that America has an interest in any of these areas listed by Russia which is sufficiently great to justify her taking ~~the~~ the loss of even one city of half a million inhabitants for the ~~sake~~ sake of gaining possession or of having an ally of hers gain possession of an area which is under Russian protection. For this reason Russia believes that the price list proclaimed by her affords adequate protection to all the areas listed.

A Now if Russia were to issue a proclamation of this sort, it would be to America's interest to adopt the same philosophy concerning the potential use of her clean hydrogen bombs of high power. Evidently if both America and Russia adopt this philosophy, the stalemate will be stable at least in the sense that no initial disturbance will lead to

a chain of ever-increasing destruction. Moreover, it would be very unlikely that any city would ever be demolished if this philosophy were adopted. ^{Quite} Similarly, if America were to issue a proclamation of this sort, it would be to the interest of Russia to embrace the same philosophy. It is my contention that in the second ^{stage} ~~phase~~ of the stalemate, even in the absence of any limitation of the number of bombs available to America and Russia that could be verified, the stalemate could remain stable. ^{At} This point you might want to know what assurance we would have that Russia would not resort to the dropping of hydrogen bombs on cities that have not been evacuated in deviation from her proclaimed intentions. But let's ask ourselves what interest ~~what~~ would Russia have to do such a thing. Leaving aside the condemnation of the whole world which it would incur and leaving out of consideration the possibility that America might retaliate in kind, Russia could be assumed to be aware of the following fact. If Russia were to drop hydrogen bombs on a few American cities without warning, not only demolishing the city but also killing the inhabitants, she would thereby not create as much trouble for the American government as she ~~would~~ were to demolish the same cities without killing the inhabitants. Just imagine the position facing the American government if a few large cities were demolished and the government would have to house and feed millions ~~of~~ of refugees. Why should the Russian government oblige the American government by sparing her ^{the coping} ~~her~~ with such a calamity? My newly acquired Russian friends at Quebec told me that they believe that if the Russian government were to issue the kind of proclamation I described, the American government would revise its position on disarmament and would prefer to reach an agreement with Russia ridding the world of the bombs. Whether this would happen or not, I cannot say. All I can say with reasonable assurance is that the choice lies with ridding the world of the bombs and

rendering the atomic stalemate unstable. ~~Now~~ Now the rule of conduct which I have presented here would, I believe, assuming other political conditions which have to be met, render the stalemate stable and at the same time eliminate atomic war as a means of resolving conflicts. This rule of conduct also suffers from a serious defect. It is unprecedented. But of course, so is the atomic stalemate, and if you ~~were~~ were to ask me to propose a rule of conduct which would not suffer from this defect of ~~being~~ ^{being} unprecedented and would yet solve the problem that the bomb poses to the world, I would have to reply, "I regret, I am not able to oblige." Now a proposal that is unprecedented is of course not easy to accept. And the rule of conduct must be politically acceptable if it is to be adopted by the government. But fortunately measures that may be not acceptable to the people today may become acceptable to them tomorrow when they have had enough time to see the necessity of these measures. The thought that cities might be demolished is of course hard to take. And it will not be easy to explain to the public, and it might be perhaps even harder to explain to the statesmen, that actually no city needs ^{to} ~~be~~ demolished if the ⁵¹⁷ rule of conduct ~~we~~ ^{we} propose ~~were~~ ^{were} adopted. The stability of the mechanical system which is subject to certain constraints is determined by the conceivable [?] ~~emotions~~ ⁵¹⁸ which are permitted by these constraints. But if the system is fairly stable, or if it is stable, it remains at rest, and the conceivable [?] ~~emotions~~ do not actually take place. This ~~is~~ ^{is} of course something that the physicist learns in a freshman course. But will the physicist be able to explain to the statesman that in a stable stalemate cities might conceivably be demolished but that no city need be actually demolished? Well let me not argue whether it is possible to explain this or whether to understand it. But let me now for the sake of argument simply assume that by this or some other rule of conduct we have succeeded in rendering the stalemate stable, then try

to discuss what kind of a world this would be where we have a stable stalemate. Clearly it wouldn't be long until Russia and America would discover that even though they ^{would} / remain free to maintain an air force, an army, and a navy, these would not add appreciably to their security; rather they would add appreciably to their military expenditure. Before long America and Russia could then be expected to reduce these forces, and if the second stage of the stalemate continues in existence for an appreciable period of time and it is a big if as you will see, the arms expenditure of these two nations should fall to a small fraction of its present status. Clearly it is much cheaper to maintain say five hundred solid-fuel long-range rockets than to maintain the present military establishment. ¶ Now let us compare for a moment this stable form of atomic stalemate with the situation that would prevail in the world if America and Russia were to agree to rid the world of bombs at an early date. It is my contention ~~xxxxxxxxxxxx~~ ^{that unless} in addition to doing away with the bomb, the world would somehow also succeed in forgetting how bombs were made should there be another war for any reason, it would be fought after a comparatively short period of conventional warfare with atomic bombs. In the absence of general principles universally acceptable to all nations, it is not possible to adjudicate conflicts between nations, and it is not even possible to put forth reasonable arguments that may appeal uniformly to the sense of justice of people of all nations. Suppose we got rid of the bomb, what would then prevent nations from attempting once more to settle their conflicts by resorting to arms except perhaps the memory of the bomb? And would the memory of the bomb be strong enough, and just how long could this memory be kept alive? It is true that the great powers, if they act in consent with one another, might use something like the machinery of the United Nations organization for preventing the smaller powers from destroying the peace. But the United Nations organization cannot keep the peace among the great

powers. For the time being at least, Russia and America could perhaps protect their possessions even without atomic bombs without having to resort to arms. But England and France just recently resorted to the use of force against Egypt in order to protect what they regarded as ^{ed} ~~as~~ ^{their} vital interest. Is it not likely that if the bomb is abolished, armed conflicts may continue to occur against nations where such armed conflicts may threaten to change the power balance adversely as from the point of view of Russia or from the point of view of America and that these two nations might then be drawn into the conflict? If this should happen before long, atomic bombs would reappear on the scene, and at that point all hell might break loose. ~~¶~~ In this century America entered the war twice against Germany, not ⁱⁿ order to make the world safe for democracy ~~nor~~ in order to establish the four freedoms in the world as some might choose to believe, but mainly for the purpose of preventing a German victory. The United States was forced to enter the war for this reason: that a German victory would have produced a major shift in the power balance, and this shift could have threatened America's security. Indeed, had Germany won either the first or the second world war, she might have become militarily so strong as to be able to vanquish the United States if no atomic bombs existed in the event of another ^{world} /war. Similarly, Russia was impelled to go to war against Finland just prior to the onset of the second world war in order to improve her strategic position in the next war, the war with Germany. ~~¶~~ If Russia and America are able to maintain the atomic stalemate in stable form, then neither of them need to be concerned about the ^{ir} /security ~~or~~ [?] or fight ~~a~~ ^a preventive war again for the sake of their security. China might be a great industrial power; Germany might become economically far stronger than England or any other nation on the continent of Europe; Japan might become a great industrial nation with an ~~orientation~~ ^{orientation} of her trade ~~with~~ ^{towards} China. But none of these need to concern either Russia or America from

the point of view of ~~her~~ security. In the setting of a stable atomic stalemate, an increase in the so-called war potential of any nation or combination of nations resulting from the industrialization and ~~the~~ accompanied perhaps by a conspicuous rise in the production of steel, coal, and oil becomes irrelevant from the point of view of the security of Russia and America, and such other nations which in time might acquire a position similar to that of Russia and America in the setting of the second stage of the stalemate. # Now I am almost through, and I just would mention chapters which I will not read here and not even discuss here. Well the next chapter deals with ^{how} ~~what~~ would the problem of European security look in the second stage of the stalemate, and you will see that while the trouble at the moment is that Russia and America have vital interests in Europe, and therefore no change in Europe is possible. The trouble in the second stage of the stalemate after a while will be that neither of them are sufficiently interested in Europe to be willing to lift even a finger to prevent changes on the continent of Europe. I will discuss this and say what might be the solution to the problem of ~~maintaining~~ European security, certainly not maintaining an intergovernmental armed force in Europe. # Now we also saw that if we want to preserve the second stage of the stalemate, it is necessary to prevent the arms race from entering into the ~~the~~ third phase in which Russia and America would improve methods for destroying rockets in flight and to overcome these ~~...~~ methods we ✓ would have to build more and more rockets because a number of them will be shot down. This arms race I think is a limitless arms race. It would be very dangerous to get into it; it might render the stalemate again unstable, because if there is a technological breakthrough in either Russia or America, and if either of them gets close to a tight defense against long range rockets, the stalemate might become inherently unstable. Now the question is, can one prevent the armistice from reading

that stage? Now clearly it can be prevented only if ~~the~~ America and Russia agree not to enter that phase, and then the problem arises, can ~~we~~ ^{we} have ^{an} inspection which would give us and give Russia assurance that there are no secret violations? You see at that point you want to stop research and development aimed at destroying rockets in flight. You also want to stop at ~~that~~ ^{that} time the manufacture of further bombs. I will not discuss how this can be done, but I would like to give here a point of view ~~expressing~~ from which this problem ~~might~~ ought to be approached in my opinion, so I will just read you a few lines which will explain this point of view.

If American and Russia were to conclude an agreement to this end, namely, to avoid the third stage of the arms race, what kind of an inspection system would give them adequate ^{as-} assurance that there are no major secret violations of the limitations provided for ~~by~~ ^{by the} agreement? I believe that the right approach to these problems may be found if we remember that an agreement of this sort is not ~~enforceable~~ enforceable, and therefore, it will remain only in force as long as America and Russia wish to keep it in force. It might therefore be best if such an agreement were to provide that both America and Russia have the legal right ~~to~~ ^{to openly} ^{to} abrogate the agreement at any time. ^{632 Whether we are right or wrong,} suspect that major secret violations have remained undetected. If one approaches the problem in this manner, then it may be seen that the pertinent question is not what kind of an inspection system the agreement may specify, but rather the important question becomes this: by what means could America and Russia convince each other that there are no major secret violations of agreement occurring? For clearly unless we are able to accomplish this, one or the other of them will be forced to ^{abrogate} the agreement, and neither Russia nor America wants this to happen.

Now this is I think the point of view from which you should approach it, and if you assume that America and Russia have both the right openly to

abrogate the agreement, then it becomes far more difficult for either the Russian government or the American government to go to its own scientists and ask them to begin to do things secretly which the agreement prohibits. ~~I~~ I again would like to tell you a little incident here which occurred at Quebec. I said and I will save my reasons later. ✓ I took in Quebec the position, the same position that I took in ⁶⁵⁶ *agreed* that I am not in favor of stopping ~~the~~ bomb tests. But I also said that my reasons have nothing to do with the difficulty of inspecting; as a matter of fact, I said, "Let's assume that there is no inspection system, that Russia and America both openly agree to stop tests. I think it would be terribly difficult and embarrassing for Straus ^(Sp) to go ² even to Teller and say that we have agreed to this but now we have changed our mind, we do not want to openly *abrogate* _a this agreement even though we could. Will you please do me ~~the~~ favor and start testing secretly. I think Teller would not do it. There might be others who might be willing to do it, but I think they would do it without any zest for it, and I think that really Mr. Straus ^(Sp) would have to carry on the development himself. And at this point I turned to the Russians, and I asked them, "Tell us frankly, how would this ^{thing} be in Russia? Suppose Russia, having made all this noise about stopping ~~the~~ tests (and assume America now agrees), could the Russian government now go to the Russian scientist and say, 'Look, we ^{have} now to continue testing in secret.'" Now *topchev* ^(Sp) said this. He didn't say this ✓ would be possible, ^{but} he said this would be terribly embarrassing for Russia. He ^{really} didn't see how they could do it. He did not want to say that it was impossible. You see he said, "Well, this would be terribly ~~the~~ difficult." You see, something of this sort--I forgot the words. And I think that the so-call/realists--you ^{-ed} ~~see~~ we must be realists-- ^{see we say} their reality I think has very little to do with reality. They oversimplify things to the extent that they ruin all resemblance to reality.

Now this is a very important question, could Russia and America convince each other that there are no secret violations, there is no secret manufacturing, and there is no secret research and development; and I will not go into it because it clearly is a big subject. However, I would like to inject one point of view here. You see, the Russians always emphasized the need for trust, and finally I said to them, "Well, what do you mean by trust?" If you mean that you want the American people to trust the Russian government, then I am forced at this point to disclose a secret. The American people do not trust their own government, and how can you expect them to trust someone else's government. Trust is a relationship between human beings. Governments are not human beings, and you cannot expect governments to trust each other, and in fact, they very rarely do. However, I believe it is possible to build up a relationship of trust between individual Russian and American scientists, and that this is possible I saw at Quebec. Now this could become, in the long run, if we are able to build on this and go ~~and~~ a ~~x~~ long way. Of course, with the long way it could ^{be} develop ^{ed} into an asset, ~~and it would be an asset both for~~ the Russian government and for the American government because if these relationships of trust were ~~really~~ ^{really} developed between individuals, it would be very difficult ~~to~~ secretly to do something and expect the scientists to betray each other. I will not go deeply into this because this requires really very careful discussion.

But now let me go back to the question of tests. Well, if one thinks...you see, those who are opposed, or most of those who want tests stopped ~~we~~ want them stopped because they believe ~~we~~ ^{we} can get rid of the bomb, and let's make the first step in that direction. Those who, like Teller, want to keep on testing, want to keep on testing because they want to keep ahead in the arms race. I think the arms race will go indefinitely. ~~I~~ ^I think the arms race will go on indefinitely--

we must keep ahead; therefore, let's keep testing. Now there is a third position which I am trying to occupy here which says the following: We have to stabilize the stalemate at some point. We can stabilize it only really well in the second stage, and we can do it only if we have clean hydrogen bombs of great power which are compact enough and small enough to be carried by solid-fuel rockets. I'm not satisfied that our development has reached this stage. The government has said that we can make hydrogen bombs which are 96 per cent pure--clean--and this is clean enough. I don't see that there is much point in making cleaner. These are large bombs of course, powerful bombs. Whether it is 96 or 99 per cent, I don't think makes much difference, but I have not said that we can make them ~~as compact~~ ^{as compact} and as light as our dirty hydrogen bombs of great power are. Now I think it would be very important for Russia and America to be able to replace in the stockpile the dirty hydrogen bombs by clean hydrogen bombs. Even if they keep the dirty ^{bombs}, it will be very important for them to be in a position where we'll never have to use the dirty bombs nor threaten to use them. And if our bomb tests have not reached that stage, I am very much against stopping them. Of course, the only consistent position then to take is this: ~~by~~ by all means let's keep testing for this purpose, but whatever we learn we should tell the Russians because ^{it is} ~~it is~~ in our interest/~~and in~~ ^{as much as in} Russia's interest ^{government} that neither/shall be forced to lean on the dirty hydrogen bombs of great power. I think we ought to demand that this knowledge be shared by the Russians if we demand that the tests be continued, and if the government does not listen to us, we should get behind the churches and ask them to organize prayer meetings in which we all will pray, "Let there be a ⁷⁴⁰ traitor who will tell the Russians how to make clean hydrogen bombs." Now this ends my little speech.

DISCUSSION

I'm a little concerned on the technological side. You mention that the second phase of the stalemate might be reached in five years, and you are very much concerned that we should not enter the third stage. Technological progress goes on in the current period, and the question is whether in the next five years one side or the other won't be sufficiently advanced in the direction of the third phase so that the kind of agreement that you propose would be a very remote possibility. This fact that one side or the other feels it has an advantage is a very important element of the dynamics of the situation generally, and the whole question of the arms race is tied up with this feeling that one side or the other has an advantage; and you suggest a sort of asymptotic approach to the second phase of the stalemate, and I'm wondering whether the ingredients of the third phase may not already be present in the situation and whether in the next several years there may not be the same sort of difficulties on this account that we have faced earlier in regard to the other aspects of military relations.

Well I think this is also a meeting of the mind. You see, as soon as we can sell the whole idea of stabilizing the second stage, and this might take years, then there could be a meeting of the mind with the Russians that we do want to stop the third phase. Now I don't know this, but I doubt that within five

years we will be able to shoot to destroy half of the incoming rockets, but if you just destroy half, this is not a very effective defense. It is very easy to have twice as many rockets.

Mr. Szilard, I've been trying to place myself squarely inside your frame of reference and to accept your premises. From that point of view, if I understand you correctly, if I can fit within that frame of reference and with those premises, it seems to me that your entire thesis ultimately rests on two or three assumptions, and I would like to bring those assumptions to surface and see whether I correctly understand them and what you think of them. It seems to me your first assumption is that it's possible for the United States and the Soviet Union to agree not only to accept the status quo throughout the world but to insist that the status quo shall be maintained throughout the world except insofar as any change might occur which they are both prepared to agree shall be permitted. The second assumption, which is perhaps related to the first--in certain respects it obviously is in the world of action--is that if and when other nations should arrive at a significant thermo-nuclear capability, that it will be possible to accommodate them both within this assumption of an enforced maintenance of the status quo and within your resumption of an exchange of stable mutual threat without getting your geometry so complicated that the thing becomes quite unworkable. Now the two assumptions are obviously interrelated, since one way of solving the second

problem would be possibly for the United States and the Soviet Union to agree that nobody else should be permitted to develop an atomic capability. Now do I correctly understand your thesis? If so, do you feel that these assumptions are assumptions which have any real validity in the world of life and people?

SZILARD:

I'm not in favor of Russia and America making an agreement that no one else should have any atomic capability.

But the other two assumptions?

SZILARD:

But the other two assumptions, yes. You see I really believe that we have in the atomic stalemate an unprecedented world situation in which the old plans of foreign policy will no longer hold, that Russia and America cannot be vanquished-- if they can/second stage maintain the of the stalemate--there is nothing to fear. And they have very strong common interests and almost no conflict in interest. They are not rivals in trade. There are no longer theories for which they must compete, and I really couldn't think of anything where their interests did not coincide, assuming that the power conflict which we had after the war is resolved by the atomic stalemate.

May I test your own answer in your own ~~words~~^{way} by putting

to you one of your concrete examples? Let's assume that Russia and the United States have accepted the Szilard thesis--they've agreed to it, they've put it into effect. Following that, China or Japan, as the case may be, undertakes to attack the other and subdue it. Are you prepared to assume that Russia and the United States then would both agree either that they don't give a damn, or alternately that they will agree to intervene on one side or the other so as to restore the status quo?

SZILARD:

I have an answer to this. A whole chapter is about this
 Could I defer that?
 problem. / (May I read you this chapter) / You see this is a chapter which I did not mention which says Britain is the -nth power power problem in the security of the European continent. I use these examples to give the answer to these questions. I If China and Japan are both atomic powers with hydrogen bombs, Russia and America will simply say, "We will enter into no commitment; neither of us will enter into any commitment ^{to protect} / ~~with~~ either Japan or China. It is too complicated. I really don't care what happens to them." America and Russia will be able to protect only ~~these~~ ^{close} areas and against such powers as have no atomic bombs; otherwise, they will not maintain a status quo. They will follow this policy because it does not touch upon their interest whether China conquers Japan or Japan conquers China. From the point of view of the security of Russia and America in the atomic stalemate is settled. And perhaps I should say this: there is one thing which is not tolerable ^{ble from} ~~in~~ the American and Russian point of view is a nation which has hydrogen bombs and which wants to use this for a threat of murder and suicide. This is dangerous for both of them, and on this I think they

will use all pressures they can to prevent such nations to acquire atomic bombs. These are more likely to be the smaller nations under some mad dictator than any of the great powers. By and large the governments of the great powers are guided by rational considerations. They do not want to commit suicide.

I would like to ask at this point, is it really true, I don't know the answer--it is not as obvious as you said--is it really true that major wars are started in this rational and balanced fashion; or is it true that when a major war starts, the mechanism is that which operates when nearly uncontrollable aggression operates in the individual--it contains a self-destructive element? There is no deterrent. The only deterrent to uncontrollable aggression is an object against which you cannot have aggression. Thank God Almighty or the police or ... or whatever it is--not four ribs for three if you *break the other guy.*

SZILARD:

Now let's look at these major wars, the first and the second world wars. The First World War I lived through it and I knew how it came about. The First World War was a preventive war fought by Germany on the following assumption: that there is a power conflict which will sooner or later lead to war. Germany was dependent on food supply. If Germany determined the timing of the war by fighting it in years when the harvest was good because Germany assumed that the war would be over within a year, ⁴she could live through it without starvation. Nineteen-fourteen was a bumper harvest in Hungary and Germany,

war was inevitable they wanted it in 1914. and the Germans decided that because ~~the~~ The Germans knew what they were doing, and this was known. In Hungary it was not, but this was the reason why Germany was favorably inclined to let Austria go ahead... ^{They wanted the war in a time of good harvest and} ~~They~~ thought that the war would be over probably within a year. They hoped it would be over within four or five months. As a matter of fact, there was a famous saying of the Kaiser that the troops, German troops, would be back by Christmas. They also, because the English played a guessing game with ^{special} the French and the Germans, ~~the~~ French assumed that England would enter the war; the Germans assumed that she would not. When ^{the} started many ~~countries~~ the war she saw that England wouldn't stay out ^{There were these kinds of possibilities} but it was a rational consideration of having the war at a time when they had a good chance to win it because they thought in the end it ^{was} ~~is~~ not avoidable. It was somewhat a power conflict again like the conflict which has started where world war seems unavoidable. Now if you look at the second world war, you see if even clearer. Hitler wanted to destroy the military power of France and he wanted to make Germany the dominant power on the continent. He said at that time that he wrote the book the Germany doesn't want to be in a position ever to fight a ... war again. I know of no major nation who went into the war just by temperament or whatever you want to call it. The

.....

You really feel that German facism would not have gone to war within a decade if that calculus had come out some other way?

Szilard:

Yes. I mean Hitler was mad, but he was not that mad.

Well it's a question of whether his mentality and state of mind didn't distort the calculus. In other words, would a rational man have come to the same conclusion from the same facts?

SZILARD:

I think Hitler had wrong premises, but I think that his premises were no wronger than Roosevelt's and Churchill's. You see Hitler thought that Russia can be knocked out of the war in three or four months. So did Roosevelt, and so did Churchill. He made wrong assumptions, but he was logical. And in the wrong assumptions, he was not sure himself.

Having had the privilege of debating some of these arguments earlier, I shall not raise any point that I did before, but I should like to point out that in their kind of amateur way, the politicians of the world, have created in fact the framework for a stalemate in postwar years which in one sense gives a rationale to the Teller position as you defined it tonight. What's happened in postwar years is that we have in fact laid out a line around which a certain degree of stability exists and a common law to protect that line. The line consists of positions won or crystallized after the second world war. Now there are certain fuzzy places in that line which have been

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 cleared up in ~~sixth~~ China and Greece, and so on, but the nature of the common law that exists in the world should be made explicit because I suspect it gives us a better basis for such stability as we have in the world than an attempt to create a new one. The nature of the common law is that it's fair to play on the other fellow's side in South Asia, in Greece, or in the Berlin blockade. But if the other fellow reacts fully to protect the status quo on his side of the line, it is illegitimate to regard his efforts as a compass for enlarging your effort.

Now that is the rough~~x~~ rule of ... by which we have lived through the Berlin blockade, ~~the~~ the Greek civil war, and the threats to Turkey, Korea, and where there is no such position in the end through what sort of ~~the~~ affair we made a line in China. The one ~~the~~ violation of this that has taken place on the rather ambiguous positions filled up in recent years in Syria and Egypt by the Russians, I think somewhat to their surprise in the face of the fact that the first effort to define the reality ^{of} ~~the~~ that line took place in the Middle East by Truman's ^{and} ~~the~~ *Dean* ~~the~~ *Dean* Now this kind of very crude common law arrangement in the world and the ~~as~~ymetry which is assumed to operate on both sides of the line which we had to swallow in ~~the~~ ^{...} and the East Germany revolt and the Budapest affair. It seems to me a much more real thing to hold on to than this rather more technocratic arrangement with solid-fuel missiles which you describe, and the reason that I believe it's a more solid basis is this: that I would not accept, as we had occasion to discuss, the assumption that this is a symmetrical struggle between equivalent ~~two~~ nations which have/problems of military threat and protection. If it were that kind of a problem, if in other words,

your basic assumption were correct, between 1945 and the present there would have been many occasions to find ^a formula in Germany Eastern Europe, the arms race which would settle all this. The real problem, let me remind you, ~~lies~~ in the Russians accepting the very assumption with which you start, namely that their problem in the world is a military problem. If they were to accept the fact that they were simply a nation state with normal nation state's problems, easy formulae could be found given American interests and in many places I think you would find you were correct if your assumption were right, that there is a great convergence between Russian ^{and use the word Russian} national interests and American national interests. The deeper problem is simply that the acceptance of that assumption violates the fundamental structure of Communist rule over Russia and Communist relationships with the satellites in Eastern Europe and the communist relationship and posture towards China and the rest of the world. Because ~~x~~ if they accept that assumption, they therefore must drop the case for the secret police inside Russia, the case for the oppressed standard of living within Russia. The case for the secret police in Russia ... has always been based from the very beginning on the ~~exist~~ ^{chronic} threat from abroad. This was the foundation immediately after the revolution for the recreation of the ... and it remains that rationale at the present. In other words I would say simply that if your assumption were correct, there would be no reason why the Russians could not go on, not simply to a game with solid-fuel missile stalemate but go on with the inspection and destruction of bombs system. As between the recreation of a new line for a duopolistic equilibrium which ^{you offer in} ~~is~~ and the maintenance of the one we have

which we rarely articulate. I think there is a strong case for staying with the one we have which is now defin^eable in terms of physical boundaries where there is an accepted common law ruling that if it is violated on either side, it is fair for the party violat^{ed}~~ing~~ to use whatever force he chooses to bear and whatever cost this may involve, as for example the Budapest affair involved cost to the Russians, but it is unfair for the other party to use that as an occasion to enlarge the area of conflict.

Isn't there an implicit assumption in what ~~you're~~^{you're} saying, too, which is against the basis of the quote concerned here, ~~namely~~, you must be making an implicit assumption that the arms race that is now going on is stable in the sense that the world ~~is provided~~ will survive it without the kind of thing we are fearing happening. I think if we had any certainty of that we might be prepared to swallow the economic cost which I think will get increasingly greater too. It seems to me that the whole issue is can we on both sides survive in this kind of a situation. And you seem to be making the assumption that we can.

My assumption ~~that~~^{would be} that I think that in the face of the combination of the persistence in the arms race and a number of other issues and the changes in Soviet society that you may really get an acceptance in the end is the assumption with which Szil~~l~~ard starts. If you've got that assumption made a reality, then I think you can make any number of settlements, but I think

one should not start with the assumption, because if this were
 had a
 in fact the reality we would have/settled ~~in~~ long ago.

SZILARD:

I don't quite understand ~~it~~. If you agree with me that
 the big bombs will be around, all right, what kind of a philosophy
 should we adopt...?

I will not accept that they will ~~not~~ be around if your
 initial assumption were valid.

SZILARD:

No, but suppose my initial assumption is not valid. I must
 still ask you if these bombs are around, what kind of philosophy
 should we adopt or should Russia adopt concerning the hypotheti-
 cal use. The bombs, without a philosophy of what to do with
 them, will be a danger because they will be used on the spur
 of the moment by somebody making a decision. I'm asking what
 should be the philosophy of using these bombs, ~~if~~ ^{if} the hypothetical
 use if they are around, as I believe they will be around. Whetehr
 my ~~basic~~ ^{basic} assumption is right or wrong, they will be around is the
 way it looks now. Now I just do not believe these bombs will
 be around and yet the wars will be fought by the old means of
 a local war just fought a little bit to the south of Moscow.
 You see ~~it~~ it almost reminds me of the story about Newton
 who had two cats, a small cat and a large cat. Both slept in
 his bedroom, and in the morning they scratched on the door to
 go out and woke up poor Newton. So one day he thought of a
 solution and he made two holes in the door, a small hole for

the small cat and a big hole for the big cat. I think for sure the big bombs will be around whatsoever. This is I believe a false assumption, and it is this point which I...

Let's follow this one stage longer, and then I'll subside. I agree with your insight that the rational area for limited war is a somewhat narrower area than many of the abstract discussions of limited war would make out. But it is a much more complex problem, ^{and the} ~~the~~ problems of limitations in weapons, objectives and terrain limit the possibilities to a very few cases where both the Russians and Americans keep quite distant. In other words, look at it another way. I think the possibilities of war lie at the lower spectrum of force rather than the higher spectrum of force where as you move up it gets dangerous. I think that the very fact that so great an emphasis is being placed by the Soviet Union at the present time on the nonmilitary kind of offensive being ^{mounted} ~~made~~ in Asia, the Middle East, and Africa, is evidence of their appreciation of the narrow limits of the use of force, so that my prescription would be in the face of this that we should indeed seek if we can rational means for testing their intentions for nailing down, if there are formula for nailing them down, limitations which we can trust on the use of nuclear weapons. But in the end the problem is not the problem of finding a suitable stalemate which will give equivalent degrees of stability with arms and a status quo to both Russia and America, but the real variable here is the one you assumed fully at the beginning--it is the nature of the problem of acceptance of the status quo by the Soviet Union, and that

lies in the relation between the posture of the Soviet dictatorship towards the Russian people and its satellites.

May I ask you to come back to the many country problem. I didn't understand, and could we take another example. Suppose Syria and Turkey get into a ~~war~~ ^{war in which} they want to use atomic weapons on each other. How did this fit into your...

SZILARD:

If we want to go into this, I would like to go into it fully because it is a difficult problem, isn't it? We could postpone it and I will come back to it later.

I would like to say one thing about the stable stalemate before we get away from it ~~entirely~~. I myself don't understand fully the concept of the stable stalemate in a situation where you don't have greater agreements because sometimes I think that there is more security in the uncertainties of some of the situations that we live in than in the certainty of a very well-defined military system when the enemy is still given a degree of freedom to try to overcome this, you see?

SZILARD:

What are these other means?

I don't know. But you haven't stopped technology, and you make the assumption that on a given day that there is such a

invulnerable military system, missile system. Well maybe there is and maybe there isn't. In other words, what's invulnerable today is often defined as invulnerable ^{attack by} to/ballastic missiles or the best kind you can make. But you haven't assured me that there aren't several other ways to attack this which are not missiles and which I could invent. Now I'M not saying you can do this, but I have a gnawing fear about this particular situation. In other words ^{that} one has to go in agreement ^{just} considerably further than ^{this} particular frozen situation.

Dick:

Sir, I think your point is valid that a retaliatory deterrent is not self-stabilizing, but I think that Dr. Szilard implied this; he didn't elaborate on this point, but I think he implied ~~that~~ in a number of statements that he would go further to introduce some arms controls to help stabilize this technological plateau that is coming up. But I would like to ask him whether my interpretation is correct. Dr. Szilard, do you feel that we must introduce some arms controls to help with this?

SZILARD:

Yes, a whole chapter is devoted to this. It is called "Halting the Arms Race at What Point and How."

Maybe you should just read to us for awhile, or would you rather have someone else read? *... whatever the majority wants...*

~~SZILARD:~~


Could I speak about the stalemate for just a moment more?

It seems to me that liable in discussing the type of activation, the ^{amount} ~~index~~ of active energy and the type of activation that will suffice in getting over a certain form into a type of irreversible state which may be thought of as downhill, since it is automatic from that point on, and it seems that ~~there is~~ ~~that~~ that there is a conflict in speaking of the common law of ~~the~~ the stalemate that has existed in the smaller matters in recent years. You are essentially accepting the idea that they are controlled by ~~a~~ emotional and intuitive factors that it doesn't pay to go beyond a certain distance.so close to the brink of war ... Dr. Szilard is attempting to make these concrete and logical, and I am willing to suppose that there is merit in his way of estimating ~~that~~ that these intuitive factors are more or less approximate evaluations of what is the actual and logical and economic and concrete objective situation at a given point. In other words one feels intuitively that it doesn't pay now because these concrete factors are on one side, but it ~~is not~~ the merits of the case, not ~~and wrong~~ and wrong virtue and right ~~and~~ justice which determine ^h whether we are willing to go farther or not, but how well we are able now can choose and make no other choice now because this the only time at which more ... the basic assumption which we have referred to already that our concrete separations between the second phase of the stalemate phase and the third, these are exceptionally well-defined in terms of the principles involved, but I don't know if there is any inherent logic that they are not running concurrently as ... Really, just because we can isolate ~~them~~ ^{them in our} minds, we should examine very very carefully whether the third phase isn't almost concurrent with the other, and maybe even necessarily so because it seems to be the usual thinking when we have ^{an} ~~a~~ offensive weapon ~~which is~~ immediately

to design a defensive weapon and vice versa. These too become automatic processes that can't be stopped.

I think, D.r Szilard, that the whole model that you suggest for us to think about is a model that has a certain very desirable combination of rationality and information, and it seems to me that if either of those assumptions is not quite fulfilled, it means a ~~reduction~~ ^{...} of the ~~level~~ ^{lack} of fulfillment may be very disastrous. And it seems to me that basically the agreement is based on the fact that you have both countries and many countries agree to a multi-dimensional evaluation of both what is a rational way ~~to behave~~ to behave and also what is the right amount of information that makes this thing rational. And I think it is the interaction between these two sets of variables comes in that your particular model is quite vulnerable. This I don't think should be considered as simply saying, "Well, this is not realistic!" I don't think that this is the argument that I would bring up, but the fact that this particular kind of a model has almost to be put up like a model in the physical sciences in order to be able to test it ~~adequately~~ ^{adequately}, and as long as you don't have the same tests on both sides, it is very difficult to see how you are going to keep this on. And I think that the point that ~~is~~ is just being made, namely, ~~that~~ the second and third stage and where you think you are with respect to this is just one of these problems of the interaction between rationality and information.

I would just like to raise a question on whether the use

of limited retaliation adds a stabilizing factor over the use of massive retaliation because as I gather your proposal for limited retaliation never envisages the use of it because it would be so potentially incomprehensible to use this kind of retaliation that ~~neither~~ neither nation would engage in it. But wouldn't it in this sense be even more incomprehensible to use massive retaliation so that this would be ^{an} even more effective ~~deterrent~~ deterrent than the limited.

SZILARD:

Well, massive retaliation would mean murder and suicide today, isn't it? Now such a threat is not believable and therefore there is no deterrent in it whatsoever.

I object to that. I think what has held the world together to date is the assumption that the United States would rather die than see Western Germany go to Russia and that Russia would rather die than see, let's say Poland and Hungary go to America.

SZILARD:

Certainly in Western Germany no one ... Nobody!

I think many people here find it hard to believe that you could take seriously a Russian belief in a city for city or two cities or our statement of the same principle.

*I think it can be taken
more seriously than
~~the~~ massive retaliation,*

Well it seems to me that ^{there is} ~~is~~ a real problem here in just the question of stability ⁱⁿ ~~in~~ which you make a strong point; that is, if you could arrive at such a situation where both sides were fully appraised of the consequences and ~~the~~ the ... that this would be stable, but then, on the other hand, we should make the point that this is not really stable because in the end each nation would without further agreement look for technological breakthroughs ~~upon~~ upon which they could ... with themselves a real advantage. So in the end, after you have established this so-called ~~stable~~ stable situation, you've got to come to a real agreement on what arms for protection.

SZILARD:

Yes, you have to.

(2.) Well, in the end you've got to come to a real agreement on ... at a stage at which both should see it is quite obvious that any kind of a war means mutual destruction, and even though they speak ~~about~~ about this price list, nobody is really thinking that it will ever be used, then I don't see why the logic of this situation doesn't ... of the fact that in the end you've got to come to an arms limitation where both nations agree effectively that war is an instrument of power in the atomic armament system ~~an~~ an instrument of ^{war} fighting ~~is~~ is impossible in the world as it exists today and couldn't possibly be used. If you've got to come to a far-reaching agreement to stop even trying to make a technological breakthrough, which itself is a position of advantage, and to accept the status quo is to accept the concept that war is not possible in any logical sense,

then. ~~xxx~~ I think after we've gone that far it doesn't seem to me to be many steps further or much of a step further to come to a much more far-reaching agreement.

SZILARD:

Meaning get rid of the bomb.

Not only get rid of the bomb but get rid of war as an instrumentality of ...

If you are in a state of mind ^{where} ~~that~~ you are not quite prepared to believe that you trust the other fellow well enough to do that, a stalemate if you could create one, assuming that Walt is wrong for a moment ^{and} that the threat of war is a major tension and that therefore on both sides you desire to get rid of it, your first problem is to arrest the arms race without changing the feeling of security on each side. Once you've accomplished that for even a short period, you can ^{pass the buck} ~~ask about~~ _{ask about} going further. But you've got the problem of turning around. P

Well, if you want a breather, there are many ways of getting a breather, one of which is to turn the clock back.

... I mean the question of can you turn the clock back. You see, the virtue ^{it} if you can in fact create of an invulnerable deterrent system on each side is that you are ^{n't} asking the question

"Has this guy smuggled away ^{two hundred} ~~two~~ bombs that I don't know about or has he got some hidden missiles?" Those questions don't matter at the moment. The fact is that you think you've protected yourself because you think you have this stable deterrent system. Now during this period you begin to talk about other ... and begin to negotiate ~~slowly~~ and make your way slowly out of other situations. ~~It~~ I think turning the clock back is much tougher than ...

Essentially a stalemate in some senses is a desirable state because you don't really have to move on the operating characteristic very far. You know where you are.

Leo
 with that ~~Leo~~ keeps talking about
 You see/the Russian/~~keeps talking about~~ Topchev, kept talking about well you have to establish trust, and those of us from the west kept trying to pin him down and discover just what he mean by this, and well what he was really trying to say I think is was that you have to create a situation in the world where you can begin working away from our present situation. He would do it by some such magic which I never quite understood. I don't think you can do it that way, and I also don't think you can achieve what you're talking about without first starting a slowdown of the present situation with both sides fearful, which I think we ~~cannot~~ ...

I don't think that this debate should lose that point in your argument and in Szilard's which is very important, whatever we think about the broader issues, namely, that the mobile

solid-fuel missile does ~~provide~~ ^{give you} degrees of time and degrees of security which you don't have with hard bases, and you don't have with liquid-fuel missiles. If you restrict the minimum cases with that, I think that there is something important being said; I don't think it adds up to a philosophy of a dynamic ... in itself.

I am not clear about the virtue of the clean bombs ~~actually~~ ^{actually}. If the ^{big} bombs are going to be used, well why isn't the side that uses them going to use the dirty ones which will be much more devastating and a lot more effective.

Well his argument here is that you deliberately behave in such a way that you don't kill anyone.

SZILARD:

How can you embarrass America more than by making ten million people without shelter? Killing them is much less embarrassing for the government.

I should like to ask a question. Do you want to say anything about whether you have in mind a, if not ultimate solution, but a long-range development. You see, at one or two points ~~me~~ you said things which I try to touch upon. For example, you said that there would be a reaction from world opinion, and you also implied that people will in some sense keep their word other than the detailed balance of whether it is at the moment

in their immediate direct interest to do so. Well it means without implying any principles here that ~~we~~ ultimately these things are stabilized tremendously by having ~~the~~ ^a system against which you don't get angry, so to speak, ^{which is} outside of just this pair of powers which are trying to reach a balance. You've quoted world opinions, and I said that ⁱⁿ some periods in history religion was useful for that. Now it has been proposed at various times ~~that~~ to create ² a world police which would be something which explicitly physically so powerful. I'm not so sure that a vestal virgin wouldn't do just as well, I mean I'm not so sure whether the actual physical power is the important thing, but I would still like to ask whether you feel ~~that~~ first of all that something like this ~~is~~ is needed ultimately if you want to stabilize a system beyond the passing technological first phase and second, ^{first of all} whether/if you think ~~if~~ ^{that} this would work, and secondly, if you think that anything else would work in the very long run.

SZIIARD:

No, I think if we could have a stable stalemate for a hundred years, then during that time one could build up some award community in which force would no longer be needed to prevent changes. This idea would be forgotten that you can use force to change a boundary. I think this is a ... world police, anyway in the foreseeable future a world police which could ~~it~~ enforce something against Russia ~~and~~ America is unthinkable. You see, this would be something in a vacuum.

May I ask you a question? Really, this is not designed as

stacked question, but if in this kind of a situation Admiral ²
 brought together a number of very bright and very ingenious
 scientists, physicists, and weapons people and were able to
 say, "Can you design some kind of a weapon system, the design
 of which would give us enough of a time advantage over the
 Russians so that by the time it became clear that we were
 trying to design ~~the~~ a system which would break out of the
~~market~~ ... which required this ~~market~~ exclusive reliance on
 these ~~rockets~~ ^{...} solid-fuel ... Is the only mechanism on which
 you rely to avoid this happening within eighteen months, two
 years, two and a half years the fact that scientists, physi-
 cists, Mr. Teller, would find this very embarrassing? What is
 the timing of being able to design some kind of a weapon system
 which would permit you to in effect gain a major advantage...

SZILARD:

...by destroying rockets in flight.

Let's say by ~~we~~ getting 95 per cent saturation or whatever
 per cent...

SZILARD:

Destroying 95 per cent of the rockets alone is not a
 complete advantage. You also have to manufacture a very large
 number of anti-rocket bombs, and an inspection system would
 detect if ~~a~~ major bomb manufacturing goes on at a time when
 Russia and we have agreed to freeze our stockpiles.

I see, and
~~are~~ you suggesting that as soon as the country the country
 re
 moves into the manufacturing stage even though it has a substan-
 tial time advantage the threat, you know, how does the other
 side react? The Russians have discovered that we have done
 this.

SZILARD:

I think probably they would react by threatening immediately
 to five demolish cities if we don't stop. This would be, I think,
 the reaction, because it is so dangerous for them that they ~~would~~
 should
 be willing to lose five cities for the sake of stopping us.
 And this, I think, will stop us.

I think one thing is fairly clear, that is, that the main
 points we're questioning Szilard on are the chapters that he
 hasn't read.

I would like to say ^{just} one thing about this question of whether
 you can get people to work or not, I mean ~~there~~^{it} is the simple
 expedient of just showing some people some secret intelligence
 which demonstrated that the other side was doing this would
 bring ... number of people to work, wouldn't it?

SZILARD:

They would say, "Why don't we abrogate?"

They might and they might not. I think ~~we~~^{you greatly} oversimplify this

question of what people will do when asked to do it for their nation.

SZILARD:

Well, this is my last chapter.

Can we talk about inspection before we go on with this?²
 I mean the old system of trust has been outlined by Eisenhower as one of inspection, as inspection of Russia, and recently of the Arctic areas. Now is this a lot of nonsense? ~~Is~~ ^{Does} ~~this~~ ^{make} any sense at all? You pointed out that the Russians don't want to do this.

SZILARD:

An inspection of the Arctic area?

Yes. I mean, why is it that the Russians are not interested in inspection?

SZILARD:

Now look. Let's talk for a moment about the American proposal to inspect the Arctic areas. All right. For two weeks we have been ^(telling the Russians that there are) ... is really safe, that there is no danger that we will attack Russia by mistake, and clearly we don't intend to attack. Having sold successfully Russia that there is no danger, then we ~~said~~ ^{said,} "Let's have an Arctic inspection to diminish the danger." Why on earth would Russia agree to this?

I mean, we propose something which in no way is in Russia's interest.

Dr. Szilard, this is a political thing...Why is it the Russians will not come ahead and go along with us on the inspection plan, either in a limited area like the Arctic or in a nationwide or international zone, such as over in this country and over in Russia. Why are they so dead set against this?

SZILARD:

Because what Russian interest demands it? Why do we expect the Russians to accept something which is not in their interests?

They're smart enough not to believe us, that we're confident that we won't ~~make a mistake~~ make a mistake.

SZILARD:

Well, an Arctic inspection will not phase ^(?) this.

change?

What evidence do you have that the Soviets will not accept a workable inspection system of a bigger kind? The Russians have made very very specific/and concrete proposals that we back away from too for our own reasons.

maneuvers

The ~~at~~ at the moment are in a very complicated state. There are a lot of chessmen on the board, and they are being moved around by both sides so that slowly they are approaching up to this question of whether or not there can or cannot be any serious negotiations in this area. And at a time like this I'm afraid you can't take any single maneuver such as the Russian rejection of the Arctic plan or our proposal of it by itself because it's just like any other negotiation with a whole lot of factors involved; you can't yet tell where the cards lie and who's maneuvering for what at the moment. In all probability, the proposal and the rejection of the Arctic plan were merely minor episodes in the slow meshing of ~~the~~ forces that are leading up to this new series of negotiations that are coming up now.

SZILARD:

Well is it yet or was this proposal/^{which we made} simply a kind of diplomatic battle which ~~would~~ ^{like} we ~~try~~ to fight and like to win even though it gets us nowhere. We can keep on winning these battles and go from victory to victory to ultimate defeat.

No, but let's assume this was not, that the Eisenhower proposal is not a diplomatic maneuver.

SZILARD:

Well then it ~~would~~ ^{would} not ~~be~~ have been made *A... to provoke a* Russian veto.

Let's assume it was ~~xxx~~ sincere. *Let's assume that this*

is an attempt to break through a deadlock.

SZILARD:

How would you? By provoking a Russian veto, you certainly cannot break through a deadlock. If you want really to negotiate something, you do it by private negotiation, not by ...

No
~~xxx~~, but they brought against us a very serious charge.

Well ~~that's all right~~ let's also assume that the Russians ^{were} ~~were~~ sincere in stopping bomb tests.

We gave them an opportunity to "put up or shut up" in common language. In other words, if they really were worried about this, here was the chance to come up and inspect it and to insure their safety by inspection ...

SZILARD:

Well how would ^{their safety} ~~they~~ be ~~sure~~ ^{assured} by an Arctic inspection? Can you explain this to me?

Well this is the thing that I am asking you really. I mean I asked this in my original question. Is an Arctic inspection nonsense, or is there something really to it?

SZIIA RD:

Frankly I think it's nonsense.

You see this is a different thing than people have been talking about with inspection. When we have been talking about inspection which would safeguard test agreements, we're talking about an inspection system which would detect violations of an agreement not to test either missiles or nuclear weapons. That's a very different thing than the kind of thing which is proposed here and very different from the Russian proposals they made in the London conference which involved sights inside of Russia and so on. This was a group of airplanes which at most would give each side a few additional hours of warning against a massive attack, if I understood correctly the proposal. It's a very different thing than an inspection system that insures ~~us~~ that weapon development has stopped. and actually to the Russians may mean very little. They may have a good enough radar warning system on the boundaries of their country so that don't care.

~~XXXXXXXX~~

May I ask you, did you listen to the Security Council proceedings on the Russian accusation, OR DID you read them in some detail because I happened to listen to them on the radio, and it seems to me, -I don't know how others feel-- it was just absolutely clear that this was like reading something in ~~a congressional letter~~ the Congressional Record and that there ~~was~~ was no intention of anybody ~~x~~ influencing anybody. People got up and rattled off what is essentially elementary book moves, and then they

they were put on the record and then somebody else got up and made the appropriate speech that had nothing to do with anything...

...why they did it.

I don't know why they did it. I suppose they had a reason, but it was certainly not the kind ^{of} ~~xx~~ real action we think of.

While we're still on inspection, somebody ought to add a footnote and run up a flag and fire off a salute of several guns, it seems to me, at the new breakthrough that has been proposed this evening in the area of inspection, something which I certainly never heard of which might be defined as "mutual access of scientists to scientists."

SZILARD:

In this we have to go a long way before this can be regarded as an asset. We are in the very beginning, and we don't know whether we can go a long way.

Well, shall I read about the -nth power problem, because this is...

Why don't you read all the possible chapters...

SZILARD:

We have so far not discussed the effect on the stalemate

of nations other than America and Russia which may have available clean hydrogen bombs of high power/~~xxx~~ or require ~~xxxxxxx~~ such bombs in the/~~xxxx~~ foreseeable future. In polite diplomatic language, this problem is sometimes referred to as the -nth power problem. At the moment, ^{the only power} falling into this category is Great Britain. In the recent ^{white paper?} ... the British government has indicated that in case of a major war in which Russia is involved, England would use hydrogen bombs against Russia, presumably dropping them on Russian cities and killing millions of civilians, men women and children, even if Russia were willing to fight the war with conventional methods. Since there is no reason why England should not expect Russia to retaliate in kind, the statement of the British ... does amount to a threat of murder and suicide. The threat of murder and suicide might or might not be ~~xxx~~ believed, and such a threat ~~xxxxxxx~~ can therefore not serve the purpose of stabilizing the stalemate. This does not mean, however, that England would have to deprive herself of the protection which the possession of clean hydrogen bombs of high power and solid-fuel long range rockets might afford her. England might well ^{retain the bomb as} ~~xxxxx~~ ~~xxxxxxx~~ an instrument of power if she adopts the same rule of behavior concerning the hypothetical of her bombs as Russia and America. England might well proclaim a price list and set a reasonable price on each of her territories which she is committed to defend. It is true that a loss of a city of half a million inhabitants will be a far greater loss to Great Britain than say for Russia, but on the other hand, it is also true that being deprived of the possession of some of her colonies would be ^{far} a/greater loss to Britain than would be the gain that the acquisition of such a colony would present for Russia, and I ^{'m adopting} ~~don't think~~ for the

sake of argument that manifestly upset premise that some of the British colonies may be seriously coveted by Russia. Perhaps Britain, by threatening murder and suicide in the recent ... has rendered a service to the world, for by doing so, she drew attention to the danger that still lies in the future but nevertheless may require watchfulness and early action on the part of the great powers. Britain did not threaten murder and suicide for the purpose of acquiring new possessions. She has used this threat only for the sake of preserving what she now possesses. But why shouldn't in the future some smaller nation under a government more irresponsible than that of Britain and perhaps ruled by a dictator about whose mad consensus of the world may have led it to many doubts use the threat of murder and suicide for the purpose of acquiring a coveted possession of some other nation?

I have discussed the probability that in some nations of the world (I have something missing here)--and I would like to say that this is a threat against which I think the great powers must take action, and it is, if they act in consent with each other, they have the means of bringing pressure on any small nations to dissuade a small nation of acquiring bombs. The economic interdependence is such that it is possible to bring economic pressure which no nation can withstand, and if any small nation wanted to have hydrogen bombs for purposes of blackmail (and really a small nation would not need hydrogen bombs for any other purpose), I think there would be means of bringing such pressure. But this does not hold, I believe, just

for foreign nations. I think that some nations could have hydrogen bombs and would not present any greater danger than America or Russia. So I will go on.

I have discussed the problem that in some regions of the world the status quo may be preserved by maintaining an inter-governmental armed force ... The nations located in such areas do not need atomic or hydrogen bombs for their security, and the great powers have the means to bring in such circumstances pressure on such nations ... the possession of atomic bombs. But what about the nations of Europe such as France or Germany? If any of these need hydrogen bombs for their security or if they have some other strong incentive for having such bombs available to them, it will be very difficult and perhaps in the long run impossible to prevent them from acquiring such bombs.

Now prior to the atomic stalemate both Russia and America had vital and opposite interests in the distribution of military power on the continent of Europe. This made it impossible to bring about in the postwar period any changes in Europe with the consent and approval of both America and Russia. At the same time, the nations in Europe did not lack security, for the map of Europe was frozen just because Russia and America had vital and opposite interests. In the atomic stalemate, and particularly as the second stage of the stalemate approaches, America and Russia are going to be increasingly indifferent to any of the changes that might take place on the continent of Europe. In this stage of the stalemate there is no important reason why the United States should wish to maintain any military

bases on foreign soil, and the military alliance with the nations of western Europe will no longer add much to the security of the United States. The United States may continue to maintain her alliances with the nations of western Europe, but she will increasingly regard these alliances as expendable. Similarly Russia may become increasingly indifferent to what happens in Europe. At this point it may become possible to bring about changes in Europe with the consent and approval of both Russia and America as well as the nations directly involved. What might these changes be? One of the hopes which stand in Europe at the moment is a moving of western Europe towards a customs union. The present movement towards an economically united western Europe would probably be severely disturbed if a united ... Germany were created while France remained armed and her ally was the United States. The French military needs are closely tied to her African possessions, to Algiers; and it is considered that if the Algerian war is brought to an end, most of the continent of Europe might become an area in which arms may be maintained at a low level. If it were possible to accomplish this, Europe could reach an unprecedented level of prosperity very fast. If a nation can divert 10 per cent of its national income for military expenditure to the increase of its production capacity, this shift will only result in a 3 per cent increase in their annual national products ... a situation which is politically stable. Only in that case will it be possible to free the status quo without having to lean on force or the threat of force. Perhaps it might be possible to provide Poland with an adequate compensation to induce her

to agree to the return of former German territories, possibly according to some gradual and fixed schedule. If this could be done, then one of the very reasons for maintaining Germany divided would disappear, but there would still remain a major difficulty. Russia can agree to the unification of Germany only when she is ready to ~~abandon~~ her political friends in Eastern Germany who could not be expected to retain political office if Germany were united. The winner of the political party at present in power in western Germany would presumably not remain in office either if Germany were united, but whether Russia would or should regard the replacement of ... party by the German Social Democrat party as a major change for the better is by no means clear. [?] Should a political settlement be obtainable on the continent of Europe which is satisfactory to all nations in that area, then the security of the nations which make up the continent of Europe may perhaps not present a major problem. But if no ~~xxxxxxxx~~ ^{fully satisfactory?} settlement can be achieved, then inter-European security might well present a serious problem. There are two different approaches to the solution of this problem. Both of these approaches are based on the premise that in the second stage of the stalemate neither Russia nor America can be expected to take any action at an appreciable cost to themselves for the sake of preventing changes in Europe which may come about through one nation in Europe taking armed action against another nation in Europe. One of the two possible approaches to the problem of freezing the map of the continent of Europe would consist in providing the nations of Europe, or at least some of these nations, with a limited number of hydrogen bombs of high power. The map of Europe

would then be stabilized/~~xx~~ through exactly the same kind of mechanism through which Russia and America may protect in the second stage of the stalemate those areas of the world in which they had a vital interest. Because in the second stage of the stalemate America and Russia may have only a very limited interest in the distribution of power in Europe, neither of them can be very well expected to protect any nation in Europe against any other nation in Europe which has clean hydrogen bombs of high power available and solid-fuel long range rockets which can hit either America or Russia. It might very well be, of course, that the nations of Europe would prefer another approach to the problem of inter-European security and that they would want no hydrogen bombs available to any of the nations of the continent of Europe. In this case America and Russia, acting in consent with each other, could enter into a commitment to protect the nations on the continent of Europe against each other. Clearly no nation on the continent of Europe is going to accept the loss of an appreciable fraction of her cities for the sake of achieving any ~~xxxxxxxxxxxx~~ predatorial ambitions that she may have in Europe. Therefore, Russia and America would effectively threaten to do just that provided that the offending nation is in no position to exact from America and Russia the same price. If this approach to the problem of inter-European security were preferred by the nations of Europe, then Europe would become part of the seclusion system based on a pax Russo-American[?]a. This is what I consider a three-[?]power problem. I think that there are some types of nations

who may threaten murder and suicide, and these represent a common danger to all other nations, and great pressure must be brought upon them to renounce/~~the possession~~ their possession of bombs. But I don't think the nations of Europe are in this category. I think that essentially if the nations of Europe had hydrogen bombs, I mean really any nation in Europe, that there would be not a danger either to each other or to us. The cities in Europe are so important that no one would move if it prevented the loss of a city. It's a crowded continent.

The Middle East too?

SZILARD:

No. In the Middle East I am in favor of a political settlement and of an intergovernmental police force armed with conventional weapons.

But the Russians can arm the Syrians and we can arm the Turks with ordinary weapons...

SZILARD:

No. This would have to be done *with a list such as - this*
 would be ...

With ordinary weapons we would go our way, but with atomic weapons there would be a joint inspection or?...

Szilard:

No. I think this intergovernmental police need only have conventional weapons and should not have anything else.

I see, but ^{we} would give up arming Turks and they would give up arming Syrians? In general.

SZILARD:

Oh surely. The agreement would be very simple. Russia would simply commit herself in no circumstances to buy mideastern oil which she doesn't need anyway. If Russia does not buy mid-eastern oil, the only market for the mideastern oil is Europe, and I think everything takes care of itself quite automatically from that point.

The stubborn fools. They could have given so much peace to the Russians by just committing themselves not to buy mid-eastern oil.

Szilard;

Well, ... in the Middle East does not cost them anything, costs them nothing.

And China and Japan, however, were big enough toward her to be independent in this matter.

SZILARD:

I think that it would probably be very difficult to risk in China or Japan, and I think they are big enough to ^{be} independent. Yes.

But, say North Korea and South Korea?

SZILARD:

No. Those are typically dangerous countries.

Since the end of the war the one continuing theme in all American policy in relation to Russia and even while the war was on as Vandenburg stated it and others was the plea to Russia, and it was made as a plea by Churchill and in different terms by Vandenburg, was to separate the security, the military problem of Russia from the problem of politics. It's ingrained in the very nature of Communism that this separation is a false one, and what you just blandly assumed away in the approach to the Middle East; (and I assume it would apply to India, it would apply to China, it would apply to everything in which the Soviets are now basing their hopes) is that they would suddenly accept this assumption. I do not rule out in the historical process that this will come about, but the whole history from roughly the victory in Stalingrad forward, that is, since early '43 to the present, is that your [?] basic assumption, namely, that there is in Soviet policy a willingness to separate the military policy from political control and political power--the whole

story of our relations with Russia is the story of their persistent denial of this premise.

SZILARD:

I don't quite understand you. I think America and Russia ... perfectly symmetrical. What Russia tries to get in the Middle East are governments which are friendly to Russia but ^{communist} not ~~the~~ governments. Russia is quite satisfied with governments which are friendly or subservient to Russia and doesn't care a damn whether they are ^{communistic} ... or not. Not that it is certainly not profitable to Communists.

Inside
Neither was Soviet senator ^{Spelling} ~~Chang~~ Kai Chek in the twenties. Just look back at what happened in China. They played with the Nationalists [?] ~~undercut~~ them--at this moment the Communist party in Egypt is saying exactly what the Communist party said about the Nationalists at the time the Russians were playing with the Nationalists. I mean, this is a most naive conception of Soviet policy.

SZILARD:

Look, I think,--and I must insist on this ~~complete~~ ^{democratic} symmetry. We don't care a damn whether a country is ~~XXXXXXXXXX~~ or not; what we care is to have a friendly government. We have subverted Iran very successfully, and we have a government which is friendly to us; but Iran is of course not a capitalistic country, nor is it a democratic country. We are not propagating

democracy. We want governments which are friendly to us. This is precisely what the Russians want.

Rostow What makes a government friendly in the absence of a political conviction?

SZILARD:

A government is made friendly because we supply the arms for this government to remain in power.

Rostow But they could supply arms as well, so what maintains a friendly government?

SZILARD:

Well the fact is that we cannot maintain a friendly government for very long. This cannot be done for very long. Twenty-five years after a successful subversion, the government of the country may not be friendly to us, or it may not be friendly to Russia. Mr. *Rostow* ~~Russell~~, you see we have reached a point where we fully disagree. I see no evidence in history for your contention. The Chinese Communists have war not with Russian aid. The arms the Chinese Communists used... were American arms which through bribery they got through Chiang ⁴⁸kai chek. Russia kept aloof.

I think that Professor Rostow is disturbed by the same sort of thing that I've been disturbed by throughout the evening,

sir, and that is the definition of weapons. The assumption that you have been making and we've been making in this discussion here, it seems to me, that is, that weapons are largely military, and I think that what Professor Rostow is saying is that the Russians don't consider and have never considered indeed since Marx and Engels and throughout their thought with ... that these military weapons were the weapons. Now it seems to me that disarmament, for example, or arms control on the part of the Russians could be conceived of as a weapon, not as something to bring peace but as something to bring more war. And I think if we consider it in this broader term, and I don't like to take the discussion out of context, but it seems to me that this is a vital matter because I can see at the present time any number of reasons why the Russians should make a really large effort in terms of disarmament, that is to say perhaps even something that was unilateral. And the reason for this is the same as their disarmament proposals in the 1930's, those that ... for example took seriously at the time. And that's because they consider weapons in a much broader context than we've been considering them ^{here}/tonight. Isn't that basically the problem here?

That's part of it; they are related.

What is assymetrical about it? Can't we too?

Yes. But there are a good many advantages they have in the utilization of other weapon systems, for example, in terms of a pre-emptive or preclusive buying, in terms of dumping, in terms of the kind of lead time they've got with respect to technical assistants, [?] and in terms of the kind of training that they've been doing over the past two or three years. I would say that in a situation of arms control where the weapon systems would shift to other kinds of weapons that they have a really marked advantage as far as we're concerned at the present time and probably, at least possibly, over a considerable future.

I would like to say one thing here. I think that these two remarks illustrate something which is terribly fundamental in all of this; namely, what is inclined here is that we consider any disagreement as war, which is I think the exact opposite of your starting point, namely, that we will accept the fact that the Russians and we have disagreements, have aims, which in some areas are opposed to each other, that we may lose in some of these contests, and that it is just too bad that we are not prepared to kill and be killed on a very large scale to prevent from losing such contests. If this is not true--and this is where my basic doubt is; that is, I tend to agree, and I think it is quite immaterial whether the Russians feel that way or not--I think we do--they probably do too,--but even if they didn't, I think this is where the danger lies; that is, I'm not as convinced as you are that we or the Russians aren't willing to die for things which in this comfortable room

we would certainly not consider desirable or even consider to die for. And I think it doesn't matter whether the Russians want to conquer the world by subversion. The important point is that we feel that way about it.

SZILARD:

Look, I had a chapter on subversion, which is not on your list now. If Russia continues to subvert, we are going to continue to subvert; two can play at the game, and subversion can be ~~partly~~ ^{partly} subversion. I would not be in favor of the agreement.

But the point we make here is that these other all/games besides the military one we can't play as well, if I understand ...

SZILARD:

That's not on the record. We have subverted Iran; we have subverted Guatemala. What have the Russians subverted lately? They can hardly hold on to Poland. Surely Poland is ... They have difficulty holding on to Poland.

They have done a good job in Viet-Nam; they have done a pretty good job in Czechoslovakia.

SZILARD:

In Czechoslovakia Russian troops have moved in, put in Russian-controlled police, the Russian troops moved out, and

the Russian-controlled police made a coup d'état. I don't call this subversion; I call this conquest.

May I ask this question? If the Russians should indeed be so superior at subversion--let's admit that they can subvert almost any country except us because we are unsubvertible--will we now say that it is therefore important that we be prepared to kill millions of Russians to prevent it because if we enter in the process to lose many Americans and commit murder and suicide, if we feel that way, then we are not willing to have an acceptable agreement. I think that is the crux of the matter.

Of course, there's an implicit assumption here that in the military field they can't be as efficient as they are being ~~as/xxxxxx~~ other fields compared to us.

SZILARD:

Well it seems to me in the whole postwar period we constantly underestimate Russia's military strength and we constantly overestimated Russia's political strength, I mean as far as ability to subvert. I think that we have some sort of insecurity about the whole system, and we think the Russians have something better. This is what we subconsciously seem to think. But Russia was in effect not able to do anything by exporting Russia ... No one bought them.

Now I'm inclined to believe, to be honest about it, that perhaps in which we feel weakest today is the area in which we have always felt weakest in terms of our ability to fight wars, and this is only economic front; certainly for 150 years we've always said that our economy was the finest thing going, but when it came to utilizing this economy in war, we've always felt that it was totally unusable, indeed even in...Pardon?

That's not true.

Depends who he is.

No, I don't think that this...

It's in the premise, I mean the huge industrial backlog that can be attacked and was supposedly recently popularized in the ... war

Yes. But the point is that we've never felt, neither we nor the British, that we could prepare for example for war or use this industrial capacity for economic capacity until the very last moment.

?

Yes. But what started it was supposed to be invincible.

Ah, but this is quite a different proposition. You get ~~again~~, for example, Sir John Simons saying in 1938 that you can't build up the British ~~xxxxx~~ air force because this would wreck the economist, and that one of the things that one has to have in order to go into a war situation is good strong, solid economy, and to hell with the air ~~xxxxx~~ planes, you see. And this, of course, has been our own view of war in terms not only of the 15 billion dollar budget or the 37 billion dollar budget; this has also been our view indeed from the debates as far back as the constitutional conventions on the adoption of the constitution. There too you find there's the attitude that even the Navy which, after all, can't walk up the streets and take over the country, is going to eventually subvert our freedoms because it is going to cost so much. We've never had any confidence in our economy as this economy of ours relates to war, and it seems to me also that we have little confidence in this economy of ours in terms of its utilization for bouncing tin prices or aluminum prices or copper prices, to use ~~xxxxxxxxxxxx~~ three examples that are present today.

Yes, they have the confidence in the ability to produce war until the time comes to produce it...

But then it's too late.

SZILARD:

This is completely changed. In the next war it will be fought with what we have on hand.

Well now, wait a second, sir. This is again a suggestion that the war that is going to be fought is going to be fought in strictly military terms. What I'm suggesting here is that the war may not be fought in military terms, and therefore, our attitude toward our economy and a whole lot of other things may be putting us in a very serious position...

Szilard:

War uses, I mean, in the narrow sense of the word, is fought by the military. What kind of war are you talking about?

Well, yes, but you see the point is that in Communist doctrine war has never been thought of in narrow military terms, and I don't think it is now. As a matter of fact, I don't expect it to be fought that way in the future.

Well I think in the last we have had a lot of this expansion or continuing of war with other means, and we have seen the whole spectrum sort of develop them.

That's where I shut up.

...that the real problem that Szilard really addresses himself to is the following: (1) We are in a situation today where this is not any more a feasible suggestion because war can be played now in such a way that there is a qualitative difference between the kind of war that you had in the past and the kind of war that you have now, and therefore, there arises a completely new situation, and maybe one should try to separate therefore the other things and not consider it as continuing war with other means but continuing something else with other means and creating a completely new situation, and (2) We are at the first time in the history of our world in a situation where the development of productive capabilities are such that many of the old kind of competitions that went on become in some sense meaningless ^{that} and ~~we~~ have now a situation where on the one hand we have a saturation in terms of military kind of war, and on the other hand, we have for the first time a possibility of a corporation on a scale between two very large nations that one at least should explore the possibilities of in working in a quite different direction and not talk^{ing} ~~xxx~~ about the continuation of war by other means but talking about the continuation of peace in a very different kind of competitive framework. I would like to see this substituted for the kind of saying, "We are now fighting a war in different ways, and they are better at fighting this kind of a war than we are." I don't think that they have to be better, but I think that we have a very great chance of developing the kind of schemes and putting, as far as the peoples of the world are concerned, forward some things that are at least

as attractive as the kind of subversion ... policies that the Soviets have carried out over the last few years.

Well, all I can say is that I couldn't agree more that the arms, and particularly the dangers of accident at the present time are greater than they ever have been in the past, but I am certainly not the one who is discussing war by other means. It's ^(SP)Kruschev over the past, well since 1953 anyhow, who's been discussing this. It's not my idea; it's his idea. He's the one who's talking about winning the war by economic means. He's the one who's talking about declaring economic warfare.

many news talking at out time here.

One important point. Are you maintaining that one can't restrict the threat of a military war but still fight an economic war.

Oh no. What I'm suggesting is that, although I feel quite as strongly certainly as Dr. Szilard or anyone else does about the necessity of restricting in some way or another the military capacities of both sides, what I'm trying to say is that it struck me that the implication of what he's saying is that this would lead to some kind of peace. It seems to me that this would simply lead to an intensification of struggle in an area in which to date we haven't shown ourselves

particularly competent.

But this kind of struggle is a tolerable way of life, in the world ~~XXXXXXXXXX~~; I don't see why we can be afraid of having the struggle.

If we felt confident that we could believe that that's the only kind of war ^(or) Krushchev is really interested in, we ² wouldn't be meeting here tonight and we wouldn't see all the ² sides arguing in the world around us and the competition between nations or between or between political and economic systems ...

~~XXXXXXXXXX~~

I think that no matter what Krushchev says, there is a great deal of difference between not being able to buy this or that ^{drink?} ... and being blown to bits by a hydrogen bomb. I think basically the issue we are discussing is to stay alive, isn't it?

Well you see, that's not the issue that I would like to see discussed. I guess that's the difference because I'm not really interested in staying alive. I'm much more interested in saving what I consider to be a system of values, and it seems to me that the threat to our ² system of values in this other kind of struggle...

Prof. Deutsch

You're prepared to die for this? This murder and suicide problem with which we are faced?

That's right.

many voices

Now I'd like to ask a question ... discussion. Let's even suppose--assume for the moment that once one gets to this so-called second stage that one may conceive of a means of stabilizing it. We still have the problem, as you say, of turning the clock forward, of pushing the clock forward, and this by your estimate means something on the order of five years or so of living in a state of the world in which there are now going to be very strong tensions and very strong temptations for somebody to do something just because these tensions exist. So what in addition to this notion of being able to conceive of a stable stalemate when the time arrives and all the ~~XXXXXXXX~~ nations have the prerequisites for such a stalemate, one also has to have a scheme of living through the next five years in a situation of extreme tension and the possibility of blowing up. Now whether you have any thoughts on this subject that you might want to ...

SZILARD:

Yes. But it's a much different subject, and I'd rather not talk about it tonight.

Well the probability of war--we took a poll here--the probability of war is between 1 and 5 per cent? Well that's not much of a risk over the next five years.

Just one question. Do you have any time estimate on how long it will take to reach the second stage, that is, where you have solid fuel?

SZILARD:

Well, I can't really give an estimate on that, but I think that we are moving quite rapidly in that direction, and you see, if the Russians and we could reach a meeting of the minds--that's what our aim really is in the ~~XXXXXXXXXXXX~~ of ^{stable stalemate} second stage the ~~XXXXXXXXXXXX~~--then we immediately could agree on a number of things which we can do together because we would have agreed on something basic.

But you are jumping a second stage then? I find it easier to believe that the Soviets would be willing to find some rational system of military security; ~~XXXXXXXXXXXX~~ ^{then I believe} that they would be willing to cooperate on an all economic bases too.....that they would probably intensify the economic struggles, but I'm not sure this means the two ideas are incompatible.

SZILARD:

I don't know what you ... I don't believe that Russia would, ... would in the sense that she would be willing to

accept less in exchange of the goods she sells than what she can get.

Well this is no more competition or worry [?] than we are facing right now. We're in fact competing with Russia on the economic level.

I'd like to ask a question of Mr. Deutsch. I'm curious. I've been trying to say for the past ten minutes, what type of situations could arise during the second stage--what kind of situations could arise in the third areas--what concrete situation could arise in the third area where we would feel that the response of dying would in fact be appropriate and the only possible response in terms of ... You said you were worried about this, and at some level I am too; but in ten minutes I haven't been successful in illustrating even at a very high level of ... some kind of situation which might arise which would bring us into this sort of thing.

Well, if you were as self-righteous as Dulles, you might. I mean, if you were as self-righteous as Dulles, you could conceivably see a situation in which in order to save somebody from a fate worse than death ...

PROF. DEUTSCH:

Let me give the specific thing I had in mind, since the question was addressed to me. Imagine we have for a long

economic depression in this country, and imagine the Russian system should ... productive capacity just in that period work extremely well, and imagine that people, being what they are, there is a sudden wave of enthusiasm of economic cooperation with the Russians and acceptance of many things (of course, everybody thinks he's doing this in his own national way) the Russians and we consider characteristic of the Russians. In other words, if all of a sudden popular thought governments spring up all over the world, integrating the economies of their countries into the Soviet system and Soviet ships coming across the oceans carrying ... Now I can just see the people getting mad in Washington and saying, "What are these bombs doing, being buried while the world is sliding out of our hands."

Let me say just two things about this: (1) It's precisely this level of ^{productivity} ~~of~~ which I have to introduce in every one of the examples which I can think of, and I think in terms of the types of techniques and devices which are available to us for dealing with ^{the} ~~a~~ depression/^{at home} ~~at~~ home ^{worldwide} ... I think this restricts the ... of freedom to the point where I think the probability of some-thing like this occurring becomes ^{epsilon?} ~~xxxxxxx~~ if not zero. If you can think of instances of only this level of protestment~~x~~... on this ground and on this problem, I'd be very much inclined to vote for Mr. Szilard. If it takes this kind of a situation or this order of nonsense...

PROF. DEUTSCH:

I also agree. All I meant was that there is a real problem there that there comes a point at which people are willing to die...

I would then suggest, sir, a division of labor between you and me about what we worry about. I don't think I'd worry about it.

I would like to ask the next question as to what good at that point in the past you have at least a fighting chance. I'm not quite so sure if we, even assuming the worse, that if we were pushed back to the point where in the past we would have said, "Naturally we prefer to die rather than submit." I'm not sure but what the rules haven't changed to a degree that we might not even feel that way...

PROF. DEUTSCH:

In that case, I think the danger of war is not as great as we ...

Well, that 's what I've been wondering about, yes. You have this extraordinary situation--I've been sitting through all of this because I haven't sat through as sophisticated a discussion as this in a long while, trying to see if there were

any simple things you could pull out of it; and its very difficult to pull anything simple out of it. Human beings usually react to fairly simple situations even though there may be a whole lot of sophisticated things involved in creating those situations. You've got a world where in all probability we are going to have changes taking place in between the two systems and changing taking place within the two systems, and my own feeling is that if you try to freeze those changes, we'll ~~probably~~ probably create more strains than we will/a valve of steam. You have at the same time a kind of a mass reluctance on the part of people in general at this stage of the game to use the big weapons as a kind of a basic, instinctual feeling that there is something awful about this and that it is a new situation and that we've never been here before and let's not use them if we can help it. And you have working against that the kind of thing which I assume is on Jerry's mind, for example, which is the danger that maybe this instinctive revulsion against using the big things could be affected by something where the arms race could get out of hand and all of a sudden we'd find ourselves in a situation where a few people might feel that they could do the whole thing at one sweep again, and therefore, it doesn't make any difference what the mass of people would feel. The few people could start it, and it would then be all over. Now I'm trying to fit those things together, and I can't (fit them together.)

Well, this is sort of the danger of the next five years. It's quite clear, I think, probably on both sides that eventually we will arrive at some kind of a stalemate in terms of ~~weapons~~ weapons.

capabilities, which one might or might not make stable, depending on how sensible one were. The temptations seem to me to be almost insurmountable in the period between now and then to maneuver and strengthen one's position, always with the idea in mind that well, you can go fairly far because to use dirty hydrogen bombs now is almost ~~xxxxxxxxxx~~ ^{...} to murder and suicide, and nobody is going to do it except on extreme provocation, so one has to have probing whereby somebody, let's say, like Dulles was a few years ago, would feel extremely ... to see how far he could go to ~~xx~~ wrest Hungary from the Russian orbit or Poland. And ^{SP?} Khrushchev would like to try just because when it comes to this stable stalemate, it will put him in a better bargaining position in the last analysis to see how far he can go in making sure that Egypt and Syria and perhaps a little more around there is sort of tied up tightly in what would be considered ~~xxx~~ legitimately ... And these tensions at the immediate stage seem to me to be something that we have to worry a great deal about ^{even though} ~~xx~~ we don't feel that we can ^{very} talk about them in a/limited way in the short time.

I have a funny feeling that even though ~~xxxxxxxxxxxxxxxxxxxx~~ ~~xxxxxxxxxxxx~~ ~~xxxx~~ in fact it's physically probably not so, that ~~xxxxxxxxxx~~ in terms of the planned use of weapons as contrasted to an accidental provocation and a sudden or instinctive response, we are in a situation of stable stalemate ^{security} which may not come from the physical ~~xxxxxxxxxx~~ ~~xxxxxxxxxx~~ of weapons as much as it comes from the insecurity on both sides of being able to judge just what the hell the things are; that is,

the consequences in this judging on either side are so great that, in fact, this gives you a considerable element of security. The real danger is the fact that you have this insecurity which would make you respond very rapidly if something went wrong, and I don't know how to judge the danger in that.

The additional degree of stability which Szilard's plan would give you is that it would insensitize you to a much greater degree than you are now to the possibilities of a danger of a shift in the balance of power due to what happens in the third area. Now you do care because in some sense it really does matter to us what in terms of our survival capabilities, what happens in third areas. And under Szilard's plan we would be highly insensitive on narrow military power survival ground to what happens in the rest of the world. We wouldn't care in the least in terms of this sort of narrow rationality capitalism ... ^{concept.}

↓ ↓

This is why Deutsch, for example, in terms of narrow military ... calculations wouldn't give a hang about ... governments, and in the end the only thing which would cause us to react irrationally would be extra power considerations which have^{to}/do with domestic frustrations and that we are unhappy with our own society, depression...

*general
noises*

The whole point of your plan as I see it is to stop at the second stage and not let it get on to the third.

SZILARD:

You see, I could say this in the postwar years. Both we and Russia regarded any additional ally as an additional asset. In the second stage of the stalemate, we are both going to regard every additional ally as an additional liability, and this is a very ...

I think you're overly optimistic about how long you can arrest yourself in the second stage.

2

But this security--when I ask a question about how you can break out of it--how do you break out of the second stage?

New Answer?
 What happens ~~is~~ through every breakout, as soon as you get to the point where the breakout becomes operational in the sense that ~~xxxx~~ you're beginning to manufacture weapons or something the threat of two cities if you don't stop immediately faces you, and you've go to...

You assume that you recognize it, and that particular discussion was sort of in a limited area of things that were required in large numbers. Now maybe all weapons that you

might use in all situations as a result of unfore^eseen technological achievements or insights which I don't visualize are going to be of that character, but this is a fairly substantial assumption.

SZILARD:

Now I don't understand about something. ...we can arrest ...in the second stage only if Russia and we are agreed that we want to arrest it, isn't it?

Yes.

SZILARD:

This will require some degree of inspection and cooperation; otherwise, we can't freeze the second stage.

But what about inspection? Will this mean that?...

SZILARD:

Stopping manufacture.

You're talking about present weapons and technology.

Are you going to freeze science in such a sense that nothing new...?

SZILARD:

No, that's not the point. The danger would come only-- you see, I have never really defined the third stage which ... the third phase of the arms race by developing a system/which ^{through} you can destroy rockets in flight. If you can't destroy rockets in flight, no matter how many other murderous weapons you invent, you are still stable because we can destroy any number of cities in Russia and they can destroy any number of cities here. This stabilizes it, and any other weapon like poison gas, for instance, would not upset the ~~xxxxxxxxxx~~ stability.

? You'd be dead. You could bury cities. ?
?
?

No. But this you see happening, but it's conceivable that you have only two hundred weapons that these are points which are vulnerable from a lot of different ways than to missiles, for example. You might have very sophisticated ways of neutralizing these.

SZILARD:

How?

Gases--I don't know what. But I'm just saying that you've got to be on guard against all kinds of surprises, not only for the ability to shoot down missiles.

SZILARD:

.....I think from there on there must be no secrets in further military research.

I'd say this requires a good deal more than the stabilizing in the second stage of the stalemate in the sense that you don't just build new weapons...that really all I'm trying to say.

SZILARD:

"Bounds" or "Balance"

One word--and as time goes on, you have to have better and better control of all research that ...

SZILARD:

Yes ...

that I think Mr. Davis made ~~in his~~,
May I try to come back to a point/~~the~~ namely, that somebody who has lived through the Munich days in France and who has seen the effect of ...'s article on dancing, and the time interval that was given in order for it to have some effect because there was time for this kind of thing, I can't help being concerned about the fact that ^{a lot of} ~~world~~ situations could arise in

which the problem of time, as far as functioning of democratic or even ~~xxxxxxx~~ ... processes wouldn't be given under those circumstances, and I think that partly the concern both Professor Rostow and Mr. ... have shown comes from the fact that as a nation we haven't learned to be sensitive to these other factors in a sufficient manner so that we can in some sense balance therefore the concern that exists on the other side which is a very ^{electric} ... kind of concern, and I do feel that part of this stalemate would be for us to develop the counterpart currency in terms of the concern of the country and the concern of the nations of the world with these kinds of processes that would have to do with the nonmilitary aspects. And I don't think that we could really let ourselves be maneuvered into a situation where we would say, "Well as long as we have achieved a military stalemate, the heck with the rest of them." We would not assume just a national isolation/^{ism} but in some senses an intellectual isolationism ~~xxx~~ ^{by} that saying/our reaction time here doesn't really count. [?] As long as it is anything, [?] but the people who are sitting there and pressing the military buttons still are reacting pretty well, and the rest is not terribly important. And I think that some of the discussion we have had really even about the recession that has existed in this country has brought out some of these elements of what is going on here, and I think that in some sense that if one wants to use this military language, and I am not sure that it is a good language, but in some sense the thing that would have to go here with a stalemate of Stage 2 would be ^{the} alerting of all these other energies and all these other facilities that we have, because without them we would

really find ourselves in a pretty impossible situation pretty soon, and the fact that we have a military stalemate might psychologically become completely intolerable, and you would get into one of Mr. Deutsch's situations, and this is something that just wouldn't work. And I think that to put this just on a military front here is maybe the thing that these two other gentlemen have felt was not covering the real problems that under those circumstances we as a nation have to face.

The necessity of course is never as efficient and in a sense is irrelevant almost for the Szilard position, but there are a lot of other things we would have to do, including maintain our own society in reasonably decent shape under those circumstances.

There has also been sort of an undercurrent assumption in this discussion, and I think there only not ~~has been~~ quite as much recently in public opinion in that at least we can run the military race successfully, and therefore, we don't have to choose alternatives for our own security, in other words, that the possible alternative to the kind of thing we're talking about here, namely, a rational security system, would with some limited level of arms ~~xxxxxxxx~~ is to continue to compete successfully in the arms race. Well, the bold fact is that we're not competing successfully in that ~~xx~~ race any more

than we are in the other races you are talking about, and this could be more disastrous than losing the economic race.

Not any more so, but at least adds to the possibilities.

It could bring a disastrous consequence much more rapidly.

Oh yes. ^{to us} To us instead of to our children. Or to our grandchildren. ^{our kids} My children exist. And this is just a fact, and it's the same problem that you talked about in the economics field~~XX~~, that we're not prepared to commit our resources on the level of the Soviets appear to be willing to. We can't discipline ourselves, so that the resources we are committing aren't used very ^{sensibly.} ~~XXXXXXXXXXXX~~ It's the same trouble we have in the economic field, and on the whole, we can get to feel more discouraged when you look at our military efforts than you do when you look at our economic efforts over the prospects for the next ten years.

Maybe that's because you've studied ^{it} ~~XXXX~~ more.

... picture ain't so good.

In a curious way you reduce the payoff in some respect to the "economics race" if you in some sense stabilize the military situation in this way because part of the payoff in the economic race has to do with ~~xxxx~~ substantial shifts in the balance of power. And again, taking Szilard's assumption, India going Communist wouldn't matter in terms of balance of power and Europe going Communist wouldn't matter in terms of balance of power if we really had this mechanism working. *many voices* As long as we remain in the second stage...

Of course there is a basic problem here which no one has ever taken to answer, and I think that's Walt's principle challenge to Leo, namely, the assumption that the Soviets regard the present arms race and tensions and so on as undesirable, and I would think that Walt's implication was that these are a desirable thing, that they create the kind of a world they like to meddle in.

I don't think he--would he take that position? I would say probably these tensions--I think he might also maintain though that whereas these tensions exist at the present time because of the arms race that these same tensions could perhaps even be increased in other types of warfare or at least made virtually the same as they are now.

This is your problem, not ours.

~~XXXXXXXX~~ PROF. DEUTSCH:

Is the following thing just possible?--that the Russians for reasons (I mean what we mean by "The Russians" and what is meant by popular will and nations armed people and all that) but as we see it, the Russians might possibly decide that their standard of living is bearably high enough for them and that they would like to use their surplus productive capacity-- which is obviously in the process of ^{rising} ~~XXXXXXXX~~ very very rapidly and must rise more rapidly than ours did in a comparable period because they are starting with more technology or they have started already at a much higher level--that they would like to use to neutralize this tremendous expansion in productive capacity to buy the nations of the world in a certain sense. To buy the good will, the cooperation, the political cooperation of the Indians, the Chinese, and so on. Now if we assume that this happens, then it seems to me that we have only two possible choices. We can say, "All right. We want this just as badly as the Russians want it. We therefore must make comparable decisions." I mean we have a comparable kind of productive capacity; we must decide that we want to live about like the Russians do and use our productive capacities in a similar way, or else we can say, "No. We don't want to do that. We will accept that the Russians buy that if we buy Cadillacs or whatever else we want to buy." Or thirdly, we can say, "We don't want to do either of these two. We want to kill those guys." If that is what we want to say, then we don't want any military agreement. Then we want the military threat; then we are the aggressors, and maybe we are, maybe we want to be, but I don't think we should fool ourselves.

The Russians ... the Indian five-year plan fails, and they manage in the meanwhile to ...

The real problem is that I don't really believe that the Russians are this altruistic. I hope they are.

PROF. DEUTSCH:

I don't know whether it is altruistic. They may present the bill in the end. But this is one of the three possibilities. We can say, "Let them." But I think still we will have to make that decision because it's very possible that the Russians really want to work that way, and we don't.

Actually in terms of what is [?] the magnitude as you look at the Russian foreign aid effort, of the kind of sensible foreign aid on our part which would in fact put ~~xx~~ the total inflow of capital into ... technical aid above the threshold necessary to make the Indian five-year plan successful and at least provide the necessary if not sufficient conditions for Indian politics to stabilize reasonably well over the next ten or fifteen years, the kind of effort on our part is all so ... in terms of all but a sort of grotesque Humphreyan conception of what the American economy is capable of, that it is a joke...

It would hardly fix up our recession.

SZILARD:

2. I don't believe the Russians will export capital on the last year; I think the only capital that they will export is the capital of ^{domestic} ... and no other.

I would suggest we adjourn.