

THE UNIVERSITY OF CHICAGO

CHICAGO 37 • ILLINOIS

THE ENRICO FERMI INSTITUTE

FOR NUCLEAR STUDIES

The Editor,
The Times,
Printing House Square,
London, E. C. 4.

March 17, 1958.

Sir,

Should you decide to print the attached "Letter to the Editor", I should greatly appreciate your sending me a clipping, or otherwise notifying me, of the accomplished fact.

Near the top of the second page, I have marked a sentence with red pencil. Should the letter be improved, in your judgment, by omitting this sentence, please feel free to omit it. I should also be grateful if you would correct the grammar and the spelling of the letter without otherwise changing the text.

Very truly yours,

Leo Szilard.

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Letter to the Editor

Sir,

Perhaps as a result of the successful launching of the "Sputnik" by the Russians, scientists are not considered expendable in the United States at the present time. This makes it easier for them publicly to state disagreeable political truths. Since no other groups exist which can indulge in stating such truths with quite the same degree of impunity, perhaps there now devolves upon us scientists the duty of playing, in this respect, the role of the ancient prophets. Impelled by these considerations, I wish to say the following:

The British Government, in a recent White Paper, has stated that "... if Russia were to launch a major attack upon them (the democratic western nations), even with conventional forces only, they would have to hit back with strategic nuclear weapons."

Since one can hardly doubt that Russia would retaliate in kind, this declaration may be regarded as a threat of murder and suicide. A threat of murder and suicide, made by an individual, would be wholly ineffective unless that individual were thought to be "crazy". Clearly, the cabinet would have to follow

up the publication of the White Paper by a policy deliberately aimed at creating the impression of being "crazy", in order to render their otherwise ineffective threat sufficiently believable to have a "deterrent" effect. Sir Anthony Eden's cabinet very nearly created such an impression -- in Russia as well as in America -- through their armed intervention in Egypt; there is no reason why their successors should not be able to do equally well, or better, in this regard if they put their minds to it.

Omit!

I trust that most of your readers will agree with me that the issue of the H bomb is far too serious to be treated in a "letter to the editor" in any but such a whimsical manner. Still, in order to make certain that I may not be misunderstood, let me add the following:

I have no quarrel with those who say that Britain cannot protect her so-called "vital interests" in the world by leaning on her own military strength, if she is not basing her strategy on her stockpile of H bombs. However, they frequently also imply that Britain could, in fact, safeguard her vital interests by leaning on the H bomb -- which, unfortunately, does not follow. Are the grave dangers to which Britain exposes herself through the possession of H bombs truly outweighed by good and sufficient reason for basing her strategy on the H bomb? My British colleagues may be in a better position to give an answer to this question than I am.

I am not one of those who believe that much of importance may be accomplished by halting the bomb tests, or even the further manufacture of bombs. I believe rather that if the solution of our problem can be achieved through disarmament at all, then

nothing short of getting rid of the stockpiles of bombs, as well as the means suitable for their delivery, can be regarded as an adequate measure. However, even if America and Russia both ardently desire to rid the world of the bomb, they might still find it impossible to attain this goal. It might thus very well be that we shall have to live with the bomb for a long time to come, whether we like it or not.

It is well to keep in mind that the situation of America and Russia with respect to the bomb, is very different from that of Britain. There might be a transitional period in which Russia will have a superiority in rockets, but it is reasonable to assume that, before long, a real stalemate will exist between the strategic atomic striking forces of the United States and those of the Soviet Union. Such a stalemate will be instable and sooner or later erupt in an all-out atomic war, (that neither Russia nor America wants) unless constructive measures are taken by the governments of these two nations, aimed at eliminating the causes of this instability. So far, neither of these two governments appear to have given adequate consideration to the requirements of stability in an atomic stalemate. Moreover, I fear that they are not going to buckle down to thinking over these requirements in detail until they actually begin to discuss with each other the technical and political aspects of the issues involved. The sooner they do this, the better off we shall all be.

Yours very truly,

Leo Szilard.
The Enrico Fermi Institute for Nuclear Studies,
The University of Chicago,
Chicago 37, Ill.

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Manoir Saint-Castin,
Lac Beauport, P.Q.,
Canada.

March 30th, 1958.

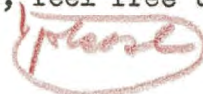
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I am compelled to take up the pen again - this time in self defence.

On March 25th, Lord Halsbury objected, in these columns, to my "Letter
to the Editor" of March 22nd ^{and} ~~He~~ wrote: "Whether their mantle (the mantle
of the ancient prophets) has descended on Canon Collins or on Father ~~Gopplestone~~,
I know not; but it is undetectable on the shoulders of Professor Szilard, whose
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surrender, ~~in an attempt to speed up the German surrender~~ the Royal Air Force
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~~in the way~~, when Japan was ~~militarily~~ defeated, and sued for peace, America destroyed Hiroshima by one atomic bomb, and Nagasaki by another.

As long as only Germans indulged in this kind of warfare, it was ^{generally} regarded as an atrocity. Only when England and America did likewise did this kind of warfare acquire a certain degree of respectability.

After the war, there came a time when America threatened to use atomic bombs against Russian cities, and ^{to} kill millions of civilians, should Russian troops enter Western Europe; a statesman of no less ^{or} stature than Sir Winston Churchill applauded this policy on the grounds that such "massive retaliation" is the only means by which the western democracies can protect "freedom". At that time, I was not able to think of any convincing arguments, based on ascertainable facts, either for, or against, the view expressed by Churchill, but I was firmly convinced of this much: should it indeed be true that freedom cannot be preserved, except by such morally reprehensible means, then freedom ~~just~~ cannot be preserved. ~~at all~~.

Moral considerations play a ~~not inconsiderable~~ role in determining the course of action of all sane human beings in civilized society, even though individuals differ greatly from each other in their susceptibility to such considerations, and ~~those who wish to indulge in such actions~~ might therefore be more or less sharply divided into the black sheep and the white sheep. Governments, however, are not human beings, and are far less susceptible to moral considerations ~~than are human beings~~, particularly in ^{times of war} wartime. The course of events during the last war ~~have~~ has amply demonstrated this point, and those who wish to believe that the governments of the great powers appreciably differ from each other in this respect, will find it difficult to reconcile such a belief with ^{the facts recorded by} ~~recent~~ history.

This does not relieve the scientists, who were instrumental in accomplishing the large-scale liberation of atomic energy, from ^{the obligation of} opposing, on moral grounds, the

contemplated use of atomic bombs for purposes of strategic warfare. During the last war, a strong group of scientists, working on the Uranium Project, at the University of Chicago, (which set up the first self-sustaining chain reaction on December 2nd, 1942) strenuously opposed, on just such grounds, the use of atomic bombs against the cities of Japan. After all efforts had failed, I

circulated within the project - as a measure of last resort - ^{various} ~~the two drafts of~~ a petition, addressed to the president, ^{Both of these were} which was based solely on the moral issue involved. It was

^{dated July 13 1945 - was} signed by ~~57~~ ^{still at Chicago} scientists, and they comprised ^{most} ~~all~~ of those who, by virtue of their creative ability, had made a real contribution to the success of the project.

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Atomic power will provide the nations with new means of destruction. The atomic bombs at our disposal represent only the first step in this direction and there is ^{almost} ~~no~~ limit to the destructive power which will become available in the course of this development. Thus a nation which sets the precedent of using these newly liberated forces of nature for purposes of destruction may have to bear the responsibility of opening the door to an era of devastation on an unimaginable scale."

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John/McCloy relates that, at the last meeting in the White House which concerned itself with the use of the bomb against Japan, towards the end of the meeting, someone raised the issue of whether ^{we} ~~one~~ ought not to think of ending the war against Japan by political, rather than by purely military, means. The raising of this issue, so McCloy relates, threw the meeting into a tail-spin, and he raises the question of whether the course of history might not have been different had this issue been considered earlier. It is conceivable that, had

British statesman been involved in these discussions in Washington, history would have taken a different course; this I would not know.] I can only compare American scientists with American statesmen, ~~Exclusively~~ and in this regard I may say, that ~~the~~ discussion of the issue of ending the war against Japan by political, rather than by ~~purely~~ military, means, had been going on among scientists at Chicago for three months prior to its being raised in the White House. [I might be battering against open doors, however; perhaps Lord Halsbury would not object to my saying that the political wisdom displayed by American scientists - and by "scientists" I mean only men of proven creative ability - has, in the past decade, appreciably exceeded that of American politicians.]

At the time of ~~this~~ writing, I am attending a conference, called by Bertrand Russell, which is attended by British, American and Russian scientists, as well as scientists from other nations. We are discussing politically controversial ~~international issues~~ ^{relations} for the ~~sole~~ purpose of clarifying our own minds on these issues. (The conference is held under the sponsorship of Mr. Cyrus Eaton, ^{as} was an earlier conference, of a less private character, that was held at Pugwash, Nova Scotia, in July of last year). ~~A discussion of such topics by a gathering of scientists has a certain advantage over their discussion by a gathering of politicians.~~ What makes such a discussion ^{among} scientists ~~among~~ ^{is may be} so much simpler, and therefore potentially more fruitful, ^{that it would be of great value} is the following circumstance: ^{For checks} if a fellow scientist says something at such a discussion, I ~~must~~ ^{we need to} examine only whether what he says is, in fact, true, or whether he is in error. In contrast to this, if a politician says something, /I, as well as anyone else, must ask, is, ^{is he saying it?} "Why does he say it?" After that, ~~one~~ ^{we} may, or may not, get around to asking, also, whether what he says is true.

In my letter, I merely stated that scientists may have a special obligation publicly to state unpleasant political truths; and I did not express the belief that scientists have a special competence to express an opinion on the political

issues created by the bomb. Since, however, Lord Halsbury says that to hold such a belief is foolish conceit, I am now, ~~in~~ ^{in duty bound} in honour bound, to say that ~~—~~ for the reasons ^{in dw asked} stated above, I do, indeed, hold this belief.

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Mahadon }
Frank }



Manoir Saint-Castin,
Lac Beauport, P.Q.,
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March 30th, 1958.

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Moral considerations play a not inconsiderable role in determining the course of action of all sane human beings in civilized society, even though individuals differ greatly ^{one from the} ~~from each other~~ in their susceptibility to such considerations, and ~~these differences in susceptibility to such considerations~~ might therefore be more or less sharply divided into the black sheep and the white sheep. Governments, however, are not human beings, and are far less susceptible to moral considerations than are human beings, particularly in wartime. The course of events during the last war ~~has~~ has amply demonstrated this point, and those who wish to believe that the governments of the great powers appreciably differ from each other in this respect, will find it difficult to reconcile such a belief with recent history.

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Atomic power will provide the nations with new means of destruction. The atomic bombs at our disposal represent only the first step in this direction and there is ^{almost} no limit to the destructive power which will become available in the course of this development. Thus a nation which sets the precedent of using these newly liberated forces of nature for purposes of destruction may have to bear the responsibility of opening the door to an era of devastation on an unimaginable scale."

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I believe that
Discussion of such issues among scientists is more likely to lead ~~them~~ to the right conclusions than similar discussion among politicians. If a fellow scientist says something at such a discussion, we need to examine only whether what he says is, in fact, true, or whether he is in error. In contrast to this, if a politician says something, the first question that we must ask is, "Why is he saying it?" Only after we know the answer may we get around to asking whether what he says happens to be true.

In my "letter", I ~~merely~~ stated that, these days, scientists may have a special obligation publicly to state unpleasant political truths, ~~but~~ I did not profess to a belief that scientists have a special competence to express an opinion on the ~~political~~ issues created by the bomb. However, since Lord Halsbury says that to hold such a belief is "foolish conceit", I now feel bound to say that - ~~on the basis of my experience of the last 12 years~~ for the reasons indicated above - I do, indeed, hold this belief.

Yours very truly,

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Leo Szilard.
Manoir Saint-Castin,
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March 31st, 1958.

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April 1st, 1958.

Sir,

I am compelled to take up the pen again - this time in self defence. On March 26th, Lord Halsbury objected, in these columns, to my "Letter to the Editor" of March 22nd, and wrote: "Whether their mantle (the mantle of the ancient prophets) has descended on Canon Collins or on Father Copplestone, I know not; but it is undetectable on the shoulders of Professor Szilard, whose views reflect expediency rather than morality." In my "letter", I questioned the expediency of the threat, implied in a recent British White Paper, of resorting to the use of hydrogen bombs against the cities of Russia in the case of a war, which Russia might otherwise be willing to limit to conventional weapons. Perhaps Lord Halsbury is right in blaming me for having omitted, from my discussion, the moral issue which is involved. I did so in order to keep my letter short, but *for the sake of keeping my letter short, but this may be no valid excuse. I did so in order to keep my letter short, but this may be no valid excuse. I did so in order to keep my letter short, but this may be no valid excuse.* *valid excuse that*
from becoming too long

At the outbreak of the second world war, President Roosevelt warned belligerents against resorting to aerial attacks directed against cities, and thus waging war against the civilian population. This warning followed an earlier declaration by ex-President Hoover, who indicated that if Germany were to indulge in this kind of warfare, he would favour America's intervening in the war in order to crush such violation of the basic rules of decent human behaviour. Just how sincere these statements were, I would not know, but I am convinced that they expressed the *and sincere* feelings of the vast majority of Americans, prior to the war.

When, during the last war, with Holland already militarily defeated, the Germans attempted to force the surrender of Holland by bombing the residential sections of Rotterdam and killing 40,000 civilians, their action was universally condemned by public opinion in America, as well as in Britain. Undoubtedly, Germany's action was aimed at speeding up the surrender of Holland, thereby shortening the war, and the Germans might have argued that by ending the war quickly they had ^{saved lives} actually reduced the total number of casualties, ^{But few people} ~~But none of those in America, with whom I was in contact at that time,~~ would have been willing to accept ^{such a high number} such an argument as ^{valid excuse} ~~valid~~.

When, after America had entered the war, the American Air Force began to bombard the cities of Japan with jellied gasoline bombs, burning to death hundreds of thousands of men, women and children, most Americans remained - for a while at least - unaware of the fact that America had adopted this method of warfare. Similarly, ^{few} ~~most~~ Englishmen - up to this very day - have remained unaware that, ^{of the fact that} at a time when Germany had been decisively defeated - a few weeks before her unconditional surrender - the Royal Air Force carried out a raid against the residential sections of Dresden, and burned to death about 200,000 of the people residing in that city.

Several months before the Potsdam Conference, the United States government was informed, through the intelligence reports which it received, that Japan ^{was} ~~could not~~ ^{essentially defeated and would not be able to} hold out very much longer. Just prior to the Potsdam Conference, the Japanese ambassador to Russia called on the Russian Foreign Secretary, conceded defeat, and sued for peace. This does not mean, of course, that Japan offered to accept unconditional surrender. Clearly, what ^{Japan} they hoped for was a negotiated peace. The Russian government informed President Truman, at the Potsdam Conference, of the step taken by the Japanese government.

Following the so-called Potsdam Declaration, in which President Truman

called on Japan to surrender, the American Strategic Air Command issued a warning to the inhabitants of twelve Japanese cities ^{telling them} asking the inhabitants to leave, because their city would be destroyed by bombs. Hiroshima and Nagasaki were not among the cities named. ^P John J. McCloy relates that, prior to the Potsdam Conference, at the last meeting in the White House which concerned itself with the use of the bomb against Japan, towards the end of the meeting, someone raised the issue of whether they ought not to think of ending the war against Japan by political, rather than by purely military, means. The raising of this issue - so McCloy relates - ~~through~~ threw the meeting into a tail-spin, and McCloy remarks that perhaps the course of history ^{would} ~~might~~ have been different had this issue been raised by someone at a somewhat earlier time.

In summing up, we can say that it was Germany who initiated, in modern times, the waging of war on a large-scale against the civilian population by using means devised for mass destruction. But it was America and England who, by following Germany's example, gave this kind of warfare an aura of respectability.

Moral considerations play a role in determining the course of action of ~~all~~ ^{most} sane human beings in civilized society, even though different individuals are swayed ^{to} in a different degree by such considerations. Governments, however, are not human beings, and they are likely to give very little weight - if any - to moral considerations, particularly in time of war. They are tempted to follow ~~the~~ ^a course of expediency, pure and simple, to the point where their logic approaches the logic of insanity. ^{Therefore, it behoves} ~~It remains to deter them from a course of action which~~ ^{and urge on public opinion} ~~may be murderous as well as suicidal individuals who have no governmental~~ ^{of an individual} responsibility ^{to} ~~must~~ ^{their} relentlessly oppose actions contemplated by ~~the~~ government that violate the elementary requirements of morality. ^{and survive} After the defeat of Germany - starting with March, 1945 - scientists working on the Uranium Project at the University of Chicago, who were instrumental in setting up the first self-

sustaining chain reaction there (December 2nd, 1942), began a campaign against the contemplated use of atomic bombs for attacking the cities of Japan. After all other efforts had failed, I circulated within the project - as a measure of last resort - two draft versions of a petition, addressed to the President. Both of these were based solely on the moral issues involved. One - dated July 3, 1945 - was signed by 57 scientists, including most of those ^{who were} still at ~~Chicago~~ ^{and more of all the way} who, by virtue of their creative ability, had made a real contribution to the success of the project. An essential passage of this, hitherto unpublished, text reads as follows:

"Atomic bombs are primarily a means for the ruthless annihilation of cities. Once they were introduced as an instrument of war it would be difficult to resist for long the temptation of putting them to such use.

The last few years show a marked tendency toward increasing ruthlessness. At present our Air Forces, striking at the Japanese cities, are using the same methods of warfare which were condemned by American public opinion only a few years ago when applied by the Germans to the cities of England. Our use of atomic bombs in this war would carry the world a long way further on this path of ruthlessness.

Atomic power will provide the nations with new means of destruction. The atomic bombs at our disposal represent only the first step in this direction and there is almost no limit to the destructive power which will become available in the course of this development. Thus a nation which sets the precedent of ~~destruction~~ using these newly liberated forces of nature for purposes of destruction may have to bear the responsibility of opening the door to an era of devastation on an unimaginable scale."