

GUEST OF HONOR SPEECH
AT THE XIXth WORLD
SCIENCE FICTION CONVENTION
SEATTLE, 1961

THE FUTURE REVISITED

Madame Chairman, Banquet Chairman, members of the World Science Fiction Convention, friends—protocol now requires that I make a speech.

I don't know why this is so. I'm quite sure that nothing I can say tonight can compete with the entertainment offered last night.

There will be a question period. But right now, under a precedent established at the First World Science Fiction Convention, I am expected to produce some Big Thoughts giving clear evidence of a Deep Thinker.

It has been just twenty years since the last time I did this. A good interval, I think—it gives time for a new generation of fans to grow up and thereby reduces the likelihood that discrepancies between the Deep Thoughts on the first occasion and the Deep Thoughts on the next occasion will show up—it lets me speak freely.

Is there anyone here tonight who was at the Denver Convention in 1941? Do you recall what I said on that occasion?

You see? That shows you what one gets for deep thoughts. My subject twenty years ago was THE DISCOVERY OF THE FUTURE. My subject tonight is THE FUTURE REVISITED—and we'll check up a little, not too closely, on whether what I said twenty years ago still makes sense.

If you all will be so gracious as to invite me again, twenty years from tonight, I'll be happy to accept. 1981, that will be—I can't accept for 1984; Big Brother will be watching.

We might hold the 1981 convention on the Moon, at Luna City. I understand that there are very few conventions on the Moon—and these affairs have been growing more and more unconventional over the years—so we should call it Looneycon.

My subject in 1981 will be—obviously—THE FUTURE. . . WHATEVER BECAME OF IT?

But it may be more practical—more in accordance with the wishes of the authorities—for us to hold the 1981 Convention in some small garden city of the future located on the Arctic Ocean in the far north of Siberia.

We can call it the SlaveCon.

I went back and reread that speech of twenty years ago in order to see just what slips I would have to cover up or explain away tonight.

I found that it was not going to be necessary to cover up—largely because I had been too cagey to make very many specific predictions. However, I did make two hard-nosed predictions.

I predicted that the years immediately following 1941 would be a period of great and radical change change so great that most people would not be able to understand it, assimilate it, cope with it—and that the whole world would start behaving irrationally—crazy.

Does anyone want to dispute that it has? If so, I won't argue—I'll simply refer them to the headlines in tonight's paper.

I also said that science fiction fans, because they were interested in the future and believed in change, would not be so shocked by these drastic changes we have seen these past twenty years and thereby stood a better chance of not going crazy when the rest of the world did.

I can't prove that I was correct in this prediction—or pious hope—by referring you to the headlines. But—I can't see -that science fiction fans are one whit crazier than they were twenty years ago.

The second firm prediction I made in 1941 was a dead cinch, no harder than predicting tomorrow's sunrise—at least it seems that easy, looking back instead of forward. I said that the series of wars the world was in would go on for five, ten, twenty, possibly fifty years— Now look at the damned thing, twenty years later!

Anybody here with a transistor radio? Will you keep it tuned to Coneirad, please?

Let's update that prediction tonight. Things are even worse tonight than they looked in 1941, with World War II already raging and Pearl Harbor only weeks away. 1941 looks like the Good Old Days now— There is no peace in the future for any of us. . . even the youngest here.

In .propiiesying tonight I am going to be less cagey, more specific, than I was in 1941—although not so specific as to try to guess tomorrow's headlines. In the:

wisely cynical words of L. Sprague de Camp: "It does not pay a prophet to be too specific."

But, as William Lindsay Gresham said, "You'll never get rich prophesying gloom." But I'm not trying to get rich tonight; I'm trying to make some hard-headed predictions—and I'm sorry to say that my crystal ball does not have very many nice things in it—not for the rest of this century.

So, for any of you who don't want to hear bad- news, this.is a good time to slide out the side door.

Wishful thinking—it would be so much pleasanter to indulge in wishful thinking. Do you remember a story, in Astounding I think, three or four years ago—"The Cold Equations"? One of the most nearly perfect science

fiction stories ever written—and oóe of the most bloodcurdling.

Remember it? A sweet- young girl, stowed away on a spaceship. Lots of stories have started this way. . . and they usually end with a romance between the pilot and the sweet young stowaway, with a lavish ration of cops and robbers in between before he gets her.

This one didn't. No cops and robbers, no romance. The Cold Equations—the laws of nature—said that she had to be jettisoned—killed—to permit that spaceship to land. - -

And she was killed. There wasn't any other possible answer.

By 1980 a solid world government, guaranteeing permanent peace and civil liberty to all, even to the citizens of those nations that choose to remain socialistic, a concerted effort by all nations to control population and raise living standards for all. Cancer conquered, and all the diseases of poverty and filth being brought under control as we devote the effort to world public health that we now devote to armaments and war, a thriving colony on the Moon, and a base on Mars, cheap and easy space travel. . . plenty to eat for everybody—that is what I would like to predict tonight. How I would love to live in such a worLd!

The Cold Equations say No.

I'll never see such a world. I'll be doing well to stay alive to my natural span.

And so will you.

Because one-third of us here in this room will die in the near future. -

H-bombs? Probably not H-bombs. But there are lots of other ways to die besides H-bombs, some of them much nastier than blast or radiation burns. Such as being waylaid and killed by your next door neighbor because you have food. Or he thinks you have.

Or starving slowly -in a slave camp. Oh, it can happen! There was a member of my family -who was' a wealthy woman in 1941—in 1942 she was in a concentration camp. She's dead now, the camp killed her—very slowly. Her husband is dead, too, but not the same way. He was a military P.O.W.—they took him out and lined him up along with eight hundred others and machine-gunned them.

Oh, yes, there are some things worse than H-bombs and fallout—and some of us here tonight are going to getintimately acquainted with them.. . in the near future.

How near? Probably not this week. The logic of war today is such that it is most exceedingly unlikely to break out in the middle of a crisis. In this new sort of war the real crisis never stops—and the poorest time to start the hot war is in the middle of a cooked-up crisis such as the one we are in tonight. The hot war is much more likely to break out—if it ever does break out, which is not the likeliest alternative—after a period of sweetness and light, of “peaceful coexistence,” with no hint of warning.

So, if you want to make a trip around the world, even visit Berlin, or Moscow, go right ahead and don't worry. You'll, be at least as safe as you are at home. So do it—live it up! Have fun.

Gather ye rosebuds while ye may
Old Time is yet a-flying
For while we're all still here today
Some morrow weW be dying.

Of all the possible futures ahead of us for the rest of this century most of them encompass the destruction of the United States of America as the political entity we know and with the death of at least 50- or 60,000,000 of her citizens. Our country destroyed and one-third of us dead—you—and you get it—so long, Ted—honey, you're too young to die!

Well, I've lived a full life—and the Cold Equations apply to me as much as to anyone. With any luck-I'll be the first man on my block to glow in the dark—but with bad luck I'll have to go the hard way.

The secret of correct prediction is to shun wishful thinking and coldly believe the Cold Equations. Shun pessimistic thinking, too—as I am doing and as I shall presently prove to you. Treat the world the way a research scientist treats a problem—examine the data, try to organize, try to predict coldly and logically. Not what you -want to have happen—but what can happen and what is most likely to happen—and then, and only then, what you yourself can do about it, to make things easier or better or safer for you and your kids.

You don't cope with a cancer by forgetting it, and hoping it will go away.

You don't avoid a traffic accident by closing your eyes. Ninety percent of the possible futures ahead of us fall into two groups, none of them good.

All other possibilities—call it ten percent, I simply mean some small and unlikely fraction of the things that can happen to us; the remaining possibilities represented by this arbitrary ten percent are such wild chances as the sun going nova soon, or flying saucers landing on the White House lawn and in Red Square followed by the Galactic Overlords taking us under their benevolent wings

—God, how many times have I read that story! Read it?—I've written it!

Or Nikita Khrushchev suddenly being converted to Christianity and volunteering for Mr. Kennedy's Peace Corps.

All you can say for those possibilities is that they are, none of them, physically impossible—but don't stay awake waiting for them. -

The remaining nine chances out of ten, the probable futures, break into two parts. The first part—I won't say "first half"; there is no way to estimate the percentages

—the first part is the blowup, the catastrophe, the one most science fiction stories have been written about or assumed as a condition, present or past, for the sixteen

years since Hiroshima—I mean World War III, all-out and with all the trimmings, from H-bombs on Seattle and New York and fifty other targets to biological warfare and any other nastiness your imagination cares to contrive—and you can be sure that if your imagination picked the wrong choices, what will happen will be, still nastier.

This first part, World War III, splits logically into two subdivisions: one in which we win, one in which we lose. Some people like to add a third case here, in which both the U.S. and the U.S.S.R. are so crippled that neither one wins—but that is not truly a third situation—because in - that case China wins.

All I want to point out at the moment is that something on the order of one-third of us die, no matter who wins. Not one-third of the Russians—one-third of us.

Or do we? Let me make a quick check. Will any of you here who have already built and stocked a fallout shelter please hold up your-hands?

I expected it—I've asked this same question of a number of widely varied audiences; very few Americans are prepared to stay alive while the fallout cools down. Nor am I criticizing, please note that my hand did not go up. My wife and I have no fallout protection of any sort. I'm not proud of it, I'm not ashamed of it—I'm simply in the same boat as almost everybody else and have paid as little attention to the warnings.

I'm not preaching, I'm not urging you to hurry home and start filling sand bags and bottling water. This is how it is. We are not now prepared to live through a heavy attack—and those figures of a third or maybe a half of us dead stand—unless we do prepare. If we do; and from what I've seen of American temperament I doubt if we will prepare.

The other part that makes up the ninety percent of all of our possible futures is simpler, slower—and just as deadly in the long run. In due course, with no more than minor brush wars unfelt by any but the poor blokes who - get killed in them, the United States will find itself in a situation where the simplest, easiest, and safest thing to do will be to surrender. Maybe it won't be called surrender—maybe it will be called a “realistic accommodation” by the editorial writers that year—or a “treaty of non-aggression with commercial agreements for mutual trade”—or anything. The name doesn't matter; the idea is that the Kremlin will be giving the orders here rather than Washington.

Death then comes to many of us with that whimper rather than the big bang and, of course, not nearly as quickly. But just as thoroughly. The laddies who liquidated the trouble in the Ukraine, and used tanks on the school boys of Budapest, won't hesitate to liquidate the bourgeois mentality here. You can ask yourself, most privately, whether or not you are of the temperament to live through this—and I don't want to know the answer! But

my own estimate of the average American Joe Blow is such that I expect the long-term casualties if we surrender to be at least as high as the casualties in all-out war. We've been free a longtime, we won't take kindly to chains, a lot of us; they will have to liquidate, one way or another, quite a large portion of us before we will be docile.

But it will be slower and not nearly so spectacular. Just nastier— That's all. That fills up the entire ninety percent of probable futures for us. All the other possibilities lie in that ten percent or less which are wildly unlikely.

"Now, wait a minute! There's one more. If we can just manage to avoid an all-out war—"

I can hear you saying it. I rather suspect that we will manage to avoid an all-out war. That is our most probable future. The Kremlin doesn't want war—God knows the Russian people don't want war although they won't have any choice, either way—and most Americans are most reluctant to face the prospect of a real war— how many of you have built fallout shelters?— that's

proof. And I must admit that I am selfish enough to enjoy peace, such as it is, as long as it lasts. It is possible, though not too probable, that I will die of natural causes before this slower defeat overtakes us.

Let me define it. The remaining possibility is that, if we avoid an all-out World War III, that in time the Communist Axis would reform internally, cease to be aggressive and imperialistic, cease to menace us and the rest of the world, start being a peaceful, socialistic neighbor, something like Sweden. Or that, if we just wait long enough and avoid war, the Russian people themselves and the Chinese people will rise up, throw off their oppressors—and save us the headaches.

Okay, it's physically possible, we must add it to the list.

But not in the- ninety percent.

This must be placed over in the fraction -of wildly unlikely possibilities, along with the Galactic Overlords and Nikita Khrushchev learning to sing "Jesus, Lover of my Soul." -

Anything else is wishful thinking at its sorriest.

Over and over again since my wife and I returned from the Soviet Union last year, people have said to us, almost:

pleadingly, "Don't you think that, in time, as they get more consumer goods and improve their standard of living, that the RuSSians will—"

No, I don't think it!

The first and most important thing to learn about Communists is that they behave like Communists.

Communism is a religion, an extremely moralistic and utterly engrossing religion. Do you think that you could possibly wean a Catholic priest away from his faith by offering him an improvement in his standard of living?

Preposterous! And, believe me, a devout Communist cannot be seduced with sirloin steaks and Cadillacs. Or Zims.

The first thing to learn about Communists in order to understand them—and thereby guess how the frog will jump—is that Communists are not villains!

Let me repeat it like a radio commercial: Communists are not villains!

They are devout, moral, very moralistic, kind,- humane, and utterly convinced—by their standards! And they live by their standards!

Even Nikita 'Khrushchev, the butcher of the Ukraine and Hungary, is not a villain—not in his own mind. His conscience is clear and his motives are pure. He feels no more guilt for anything he has done than did the Grand Inquisitor of Spain in the time when the Inquisition was at its roughest—and for exactly the same reason: Nikita does what he does for the highest of moral reasons—by his standards. -

Until you learn this one thing about Communists you have no chance of reading and understanding the Cold Equations.

Communists are nice people, almost all of them. They are sincere, they are true believers—and they won't be seduced by sirloin steaks. I have been in six Communist countries and in eight of the so-called Republics of the Soviet Union—in much travel over many years. I know many, many Communists, know them and like them. Like them? Of all the major peoples on this planet the Russians and the Chinese are the most like us, the ones I like best—and it is a matter of deep sorrow to me that these sweet and warmhearted people should be elected by the logic of history to be our antagonists.

I wish you all could know them as well as I do—and I wish you could have the tremendous advantage, as I had, of having a wife who had gone to the tremendous effort of learning to speak Russian fluently before we -'went there.

This is impossible for most people, I know—I was lucky. Nevertheless it is possible to learn something intellectually of how the Communist mind works by studying, hard and sympathetically, Dialectical Materialism, the history of Communism and other aspects of Marxism-Leninism.

Know your enemy—the first law of war.

If the American people and in particular American political leaders took the trouble to try to learn the mind -and methods and high moral standards of their enemy, we would not behave as foolishly as we do.

We might even save the lives of a third or more of our people. -

To understand him on his terms— Not on ours, not on our bourgeois, capitalistic, democratic, almost anarchistic terms—but to learn what he thinks of himself—and why. Learn that Russians love their country, are loyal to their own form of government mostly—probably a higher percentage than of Americans loyal to their government, honestly believe that Communism is the

salvation of mankind—if we learned these things, we wouldn't rely on Mr. Micawber's solution and wait for something to turn up.

However, I don't see one chance in ten thousand of Americans—enough Americans—getting to know the mind of the enemy well enough to realize this. Won't happen. Instead, we will go right on applying our own rather fuzzy and good-hearted humanitarianism and will go on applying to Communists our own parochial and rather naive standards—and will go on misunderstand- ing him and continue to be utterly surprised when he acts like a Communist.

It will likely be the ruin of us. Only in the rather unlikely chance of us stumbling into a war—and winning it at a cost almost too dreadful to visualize—can I see anything but ruin ahead.

However, if any of you, as individuals, want to understand the years ahead, just remember this: the key to it all is Communists are not villains.

Not that this will do our country any good—because the vast majority of us will go on thinking of Communists either as devils, or as poor stupid clunks who can be seduced by sirloin steak. And this misconception is going to ruin us and kill many of us.

But it isn't all bad— -

Bear: in mind that our ancestors outlived the sabertooth tiger, lived through the Black Death. The human race isn't washed up yet and won't be. Forget On the Beach; the future isn't that bleak. If a third of us will die, that still means that two-thirds of us will live—and the loss won't matter to the human race. This, our race, is appreciating at the rate of 160,000 humans per day now—60,000,000 Americans can be replaced in how long? A year and ten days— -

Oh, most of them will be Chinese rather than Americans—but is this bad? -

Only for us. It may well be an improvement; the Chinese have been raised in fortitude for centuries... whereas we have been living pretty high on the hog and keep alive our poorest stock. Racially and genetically it may well be an improvement for a third of us to be killed off.

That doesn't mean we have to' like it.

I'm merely saying let's not feel too tragic about it simply because it's us—racially we aren't all that important. -

And do remember that this little group here tonight can't do much about it, one way or another. This wouldn't be the place to attempt to start political action to try to change things anyhow; we here represent too many highly divergent viewpoints—including, I would guess from the size of the group, at least a handful of devout, convinced, and non-villainous Communists.

No, tonight we are simply examining what is likely to happen in the future. -

Twenty years ago I urged the convention audience to prepare themselves against the shock of change, so that they could roll with the punch, be as happy as circumstances permitted—and increase their chances of survival.

That still applies, twenty years later. Nobody will live through the extremely rough period ahead of us, a period that probably will see the end of our national- history, by getting the jitters, flipping his lid, or being overcome by the horror of it all.

The period ahead of us is guaranteed not to be boring. I said that science fiction fans apparently had not changed in twenty years. That is not quite true of many science fiction writers. Or perhaps it is the editors, since I am judging by the stories I see in print.

Twenty years and more ago science fiction writers (as it seems to me) were much more free swinging. The worlds they wrote about were dangerous and they never apologized for it—whereas today many sf writers seem to write sweet little stories about a bucolic culture after the blowup with everyone determined never to let the scientists get out of hand again—so help me, to read many of the sf stories today you would think that Lord God Almighty made a terrible mistake - when He invented radioactivity and that it was up to the human race, as instructed by sf authors, to correct His error.

But take a look back twenty-odd years ago. The worlds of Doc Smith's space epics make the prospects of World War III look like a tea party. Nor was he alone. John Campbell, in his space sagas, always described scenes just as rough—and so did Jack Williamson. Those were terrible and terrifying universes—yet their characters charged in undismayed, against any odds—scattering blood over thousands and millions of parsecs.

It seems to me that most of the writers today have fallen sick of the jitters. An all-out space battle, with beams flashing and planets destroyed in the backlash is just too horrible for them to think about.

Many of the sf writers today seem to have acquired a permanent nervous breakdown during and after World War II. Some of the things that science fiction long predicted have come to pass—and now they're scared silly.

- I don't understand it.

Look, friends, the only possible way to enjoy life is not to be afraid to die. A zest for living requires a willingness to die; you cannot have the first without the second. The '60s and '70s and '80s and '90s can be loaded with the zest for living, high excitement, and gutsy adventure for any truly human person. -

“Truly human”? I mean you descendants of cavemen who outlasted the saber-tooth, you who sprang from the loins of the Vikings, you whose ancestors fought the Crusades and were numbered the Golden Horde. Death is the lot of all of us and the only way the human race has ever conquered

death is by treating it with contempt. By living every golden minute as if one had all eternity—.

About fifty years ago when I was a small child a thing happened in my home town which made a permanent impression on me. My family lived in - Kansas City then; there is a large park in the south of town, Swope Park. Almost every Sunday in good weather we would. ride the street car out there and enjoy the park. Through the park runs—or did run, then—a railroad track, the Katy line. There were half a dozen places-where one could cross the track on foot. -

A man and his wife were walking in Swope Park one Sunday, started across those tracks, and she stepped on a switching juncture, got her foot caught in it—stuck tight.

Nothing to panic about, there were no trains in sight and that line carried only a couple of trains a day.

But she found that she' could not pull it out even with her husband's help—and there was no one else around.

They both worked away at it for several minutes when a stranger came along, a man, and now all three of them strained and pulled. -

No luck—and now they heard a train coming.

Too late to flag it down—too late to do anything— save continue to try to get her foot out of there.

Of course both the husband—and the stranger who had happened along—could have saved themselves easily.

But they didn't. Neither gave up, both men kept trying and were still trying as the train hit them.

The wife and the stranger were killed at once; the husband lasted just long enough to tell what happened and died before he could be moved.

The woman-had no choice. The husband had a choice but acted as a husband should.

But what about the stranger? -

No one would have blamed him if he had jumped clear at the last moment at which he could have saved himself. After all, in sober fact, the woman could not be saved— it was too late. She was not his wife, not his responsibility—she was a total stranger, we don't know- that he ever learned her name.

But he didn't jump back. He was leaning over, pulling at this stranger's leg with all his strength when the locomotive hit him. He used the last golden moments of his life, the last effort his muscles would ever make, still trying to save her.

I don't know anything about him. I didn't see it happen and when the crowd gathered—amazing how fast a crowd can gather even in a lonely spot once an accideni happens. My parents got me quickly back and away from there to kçep me from seeing the mangled bodies. So all I really know about

it is what I can recall ,from hearing my father read aloud the account in the Kausas city Star. . -

I don't even know the stranger's name. The newspaper described him as about twenty-eight, I think it was, and a "laborer." Probably that means "hobo" as he was walking along the tracks. It is - possible that this married couple who died with him would never, under other circumstances, have met him formally, might not have been willing to sit down and eat with him.

I don't know. I'll never know -anything about him— except how he chose to spend the last five minutes of his short life .'. . and how he elected to die.

But that is really quite a lot and I've thought about it many times since. Why did he do what he did? What did he think about in those last few rushing minutes when the train bore down on them? Or did he think about anything save the great effort he was making? Was he afraid? If he was, what inner resources did he draw on to offset that fear with ultimate courage?

We can't know. All we know is that, with no flags flying, no bands playing,-no time to prepare his soul for the ordeal—he did it.

And the only conclusion I have ever been able to reach is this: This is how a man lives. And this is how a man dies. - -

His caveman ancestors have good reason to feel proud of him—and this is why the caveman's children are reaching out to the stars—and will reach the stars.

Would it have made a difference if some other manor woman—had happened along in place of this nameless stranger? Did inexorable fate bring 'this hero to his appointed triumph? Or was it coincidence so wild that an author would be ashamed to use it that a man with the necessary courage happened to be walking along that railroad track?~ -

I don't think any of these things are true. I suggest that it really didn't matter much in the outcome which human being happened along. I have great respect for the race of which I now have the honor to be a member—and I think that the chances are at least seven out of ten that any stranger with the same gutsy abandon would have done the same thing. You- here in this room. Anybody— -

This is not a tale about how a man happened to die in Swope Park on a Sunday afternoon back when Taft-was President. This is a story for any year about how a man. . - lives. -

The next ten, twenty, thirty, forty years will offer exceptional and rewarding opportunities for busy, happy, and adventurous living—to men and women who are not inclined to worry too much about just how long they will live.

It is possible that these many opportunities for a busy

but short life will come as a result of us fighting and winning World War III, then trying to occupy the U.S.S.R. Let us say that this will be a very interesting experience and that at least some of the natives will not take kindly to being occupied—as Hitler learned and as Khrushchev himself learned in the Ukraine—and let us note also that atomic weapons are very little use against an underground—and then let it go at that.

But I do not see us as the most likely winner. If we lose the war—or surrender without fighting—there will be, here in America, a long, long period of underground resistance. It will be both the most tragic and the proudest era in our history.

But not necessarily an unhappy one for those who choose to fight. Happiness does not come from sirloin steaks and Cadillacs—nor does hardship and danger mean unhappiness to those who choose it voluntarily. These are not the circumstances under which people commit suicide. - -

Nor will occupation of the United States necessarily be too uncomfortable for the survivors who choose not to resist. Oh, it will be different all right—but probably more like Czechoslovakia than like poor Poland. Life under Communism actually isn't so awfully difficult for most people—just dreary—unless you happen to be terribly fond of marching and group calisthenics.

-But life for the underground resistance fighters will be most difficult—but not dreary. And it will be a great day for the 4-F, and the female warrior, and the overage warrior. No bureaucratic piffle about flat feet or underweight or poor eyes or underage or overage—or even a growing cancer—this is a game with no rules and any number can play. Women will be just as welcome as men—a rifle or a knife wielded by a girl kills just as dead as one in the hands of a professional soldier. Besides that, women, especially if they are young and pretty—or either one—have weapons at their disposal in this sort of irregular fighting that we men simply don't have.

It will be a glorious and tragic period and it will go on for a long, long time.

If any of you here think that you might decide to join the underground when the time comes, rather than simply knuckle under and do as you are told, you may want to give it some thought and a certain amount of preparation ahead of time. In the first place you obviously can't take part in it unless you manage to live through WWIH—if they hold it. I won't discuss how to do this, as it is really very simple and the instructions are available at any Civil Defense office—unless, of course, you are at ground zero of a direct hit, a factor which renders all other considerations academic.

Besides dodging fallout, you may want to stash away some weapons and some ammunition—it will save you from having to steal them barehanded from Russians or Chinese afterwards—time-wasting and chancy. I won't go into the matter of what weapons or how much ammunition, either, except to say that if you happen to live in a state which has a

registration law on guns, then buy your weapons in some other state, sneak them home, and hide them against der Tag—because the very first thing a military provost does is to go to the local records, find out who has guns, send squads around to pick them up—or shoot those who fail to surrender them.

You will want to learn -how to make grenades and bombs in your own kitchen, too. Ask almost any chemist—my wife Ginny, or Isaac Asimov, or Will Jenkins, or Tom Scortia.

But most of all you will want to study—ahead-- of time—how to fight and stay alive. Your object will be to cause one of the conquerors to die for his country—not the other way around—and this sort of irregular fighting isahighart.

Fortunately there are books, excellent books. Here are three: New Ways of War by Tom Wintringham, Guerrilla Warfare by Yank Levy, and The War of Guerrilla by Che Guevara.

All three of these books are by Communists—and you can't possibly find better teachers anywhere. -

If you can't lay hands on one of these, there is a book Kill or Get Killed, by an - American colonel, Rex Applegate, just published by St!ckpole this year. I don't know bow good it is—and I do know that these three Communist books are good—but it may be easier to buy and it is well recommended.

This advice is just a footnote in hope that if you do decide to join in, it might keep you alive—a bit longer, at least. -And if you do—good luck to you! Good hunting! Maybe we'll even run across each other some day—if 'we're both lucky, long enough.

It will be the most glorious and tragic period in our history—and it will go on for a long, long time.

But I am forced to say that it will not succeed. This -is almost certain. Because no underground anywhere in history- has ever managed to throw off their conquerors—without help from outside.

And we aren't going to have any help. Not any.

So in time, all of us who resist will be killed—or be captured and shippe~l off to slave labor camps. There is no hope of winning. You won't have -any more chance than that nameless stranger did when he chose to stick it out and be killed by that locomotive. All in this world that joining the underground has to offer is a chance -tolive as a man—and be happy as long as you are alive.-

However, to some people that is quite a lot.

I think it behooves every one of us to take out his soul and examine it carefully—and decide just what sort of person he is—before the chips are down. You'll save yourself a lot of grief.

There are only two rational points of view; this is an either-or situation. Either you believe in your heart:

“Give me Liberty or Give me Death”—

—or, -your viewpoint is: “I’d rather be Red than dead.” -

No tertium quid. No middle ground. It’s that nonexistent middle ground the wishful thinkers are looking for when they ask, “Don’t you really think that the Russians, as they get more consumer goods and more cultural exchange with those of us in ‘the free world, that they will—” and the rest of that nonsense.

This conflict will be resolved. Not because we wish it, but because Communists behave like Communists—and they will change, in the words of Nikita Khrushchev, when shrimps learn to whistle. -

So find out where you stand—don’t tell me, tell yourself.

This is a good time to say a word in praise of one of the greatest minds of this century—Bertrand, Lord Russell.

- A mind like a computer, utterly logical. I won’t repeat his arguments—go look them up. Because no one has ever stated the arguments for pacifism and surrender more logically and more cogently.

I can’t disagree with him in any -way. The man makes sense. - - ‘

My only difference with him is the total disagreement of starting from a different set of unarguable values. I honor and respect Lord Russell.. . because he knows where he stands and why and has the courage to stare open-eyed at the consequences of his own, moral values.

But I have no use at all for the wishful thinker who makes himself believe that, if he just closes his eyes to it, the horrid things will all, go away.

So examine your souls. “I’d rather be Red than dead”—nobody can argue with that. If you’ve got it in you to knuckle under and be One of the sheep—to be a collaborator, find it out now. It can save you a lot of gef in the future

You can still build your fallout shelter, live through it—surrender without resistance and save your own life and the lives of your children. If you’ve got talent for not fighting City Hall, you can even make a pretty good thing of it—perhaps better than you have now. - ‘ - -

Only one minor drawback. Some dark night you may encounter a neighbor who is still bull-headedly attached to an older slogan: “Give me Liberty or Give me Death”—and in his stiff-necked way, resents your collaboration.

- He may cut your throat. He will cut your throat!—if you are careless.

This is really sad. It really is. I mean it. A pacifist doesn’t want to cut anybody’s throat, not anybody. When he says, “I’d rather be Red than dead,” he means it—but he doesn’t mean any harm to anyone else~

It is most unfair that he should find himself trapped between two groups of fanatics, both of which are quite willing to cut throats between the soup and the entree— with no loss of appetite. -

But that's how it is. This is no world for wishful thinkers and our immediate future has almost no place for a pacifist in it. It's not fair at all, but—your neighbor who now comes to your cocktail parties will, sometime before long—cut your throat.

He's a mean bastard and he just doesn't understand pacifists. He thinks they look better with their throats cut. And there are so many of him and so few of the People's Police that, chances are, he'll manage it— before the police get him.

It just . . . isn't . . . fair! - -

Perhaps this is a good time for me to stop and interpolate a statement on my own behalf. I have been forced to realize that, in the minds of many people— including some of you here tonight—i am a dirty war-mongering beast who wants to sprinkle fallout over innocent babes.

By the standards of antagonists I suppose the most I can plead is nob contendere.

Which is the same as pleading guilty.

Yes, I would rather risk fallout on innocent- babies, with -chuckly smiles and dimpled knees—than see the United States of America surrender to this monstrous evil.

But my wishes in the matter will not be consulted— and I am not indulging in wishful thinking tonight. I think our most probable future is surrender, without a fight. No radioactive fallout.' Just slavery.

I happen to think that it is better to risk fallout for a baby than to risk slavery for it. But, again, my opinion - won't be asked., I also think there are prices too high to pay to save -the United States. -

Conscription is one of them. Conscription is slavery— and I don't think that any people or nation has a right to save itself at the price of slavery for anyone—no matter what name it is called. We have had ,the draft for twenty years now; I think this is shameful. If a country can't save itself through the volunteer service of its own free people, then 'I say: Let the damned thing go doWn - the drain!- -

I don't like suppression of the truth for any reason. I think the word "classified" stinks!

I do not think that a group of people is justified in locking up a human being. If! had my way, all jails and prisons would be torn down, utterly abolished!

I was not born with these opinions and I did not form them lightly. I say these things as a man who has, in the past, marked documents "Confidential" or "Secret," a man who has given orders to conscripts, as a man who has sentenced his fellow men to prison. I don't like any of it.

All three of these things have to do with why I despise Communism—but I will mention only the factor I despise most. I hate Communism most for its coldblooded murder of the truth!

“Pravda” doesn’t mean “truth.” Pravda means whatever serves the world Communist revolution.

Let me tell you how this works in practice.

Thanks to George Orwell the grisly idea of unpersons and revised history is well known. Perhaps some of you thought that he was exaggerating. -

While in the U.S.S.R. I tried very hard to find some trace of John Paul Jones. This should have been easy, as his career is unique; he founded both the American Navy and the modern Russian Navy. -

But John Paul Jones has been sunk without a trace. I asked about him repeatedly, not only from guides who supposedly are trained in Russian history—and who are trained in it, of the revised sort—but also of professors of history, curators of historical museums and such. Not one of them had ever heard of him, he’s an unperson.

Kerensky—Dr. Kerensky was President of Russia after the Tsar was overthrown and before Lenin came along. He is still living, in Palo Alto. I was unable to find anything about Kerensky in any Russian museum. I asked about him, and yes, they had heard of him—and changed the subject. He is becoming an unperson.. . as soon as there is no one left alive who remembers him. All visible traces of him are gone.

Trotsky—Lenin and Trotsky were a team, like Khrushchev and Bulganin, in the early years of the U.S.S.R. While we were there the U.S.S.R. was holding a great Lenin celebration; among other exhibits were hundreds and hundreds of news photographs from the early days of Communist Russia. I looked them all over carefully trying to find Trotsky’s unmistakable face, searching especially in group pictures of the Central Committee, pictures of the various ministers on official occasions. -

Not one picture—Trotsky is an unperson. He exists only in the memories of those old enough to remember the early twenties.

In contrast, please note that Benedict Arnold, Aaron Burr, Jefferson Davis, Robert E. Lee, and other persons on the losing side in rebellions in our history are still in our history books.

I asked about several of the Russian heroes of WWII, such as Budtnny and Timoshenko. Nobody knew or cared what had become of them—when a man drops out of the news in Russia, that’s that.

Let me recount one recent news story—as reported in the Soviet Union: the U-2 incident.

You all remember it. A U-2 plane piloted by a civilian employee of the CIA—an American spy—came down in some fashion near Sverdlovsk in

Siberia. . . and this marked the end of four years of aerial spying conducted by the CIA.

But here's how we got the story. On 5 May last year Mrs. Heinlein and I were ~in Alma-Ata, Kazakhstan, in the Soviet Union. Alma-Ata is almost unbelievably remote—it. is in the middle of a restricted territory— slave camps and rocket launching sites in a vast semidesert—3,000 miles inside the Iron Curtain, and a few miles from the Red China border. It is north of Sinkiang, north of Tibet, north of the Himalaya Mountains, northeast of Afghanistan, and almost exactly in the geometrical center of the great Asian land mass.

Not a good place to buy' American newspapers.

However,,we got the news orally, from a local Commie boss. Khrushchev made a speech that day and gave 'the official CommUnist version; this local boss ordered us into his office and gave it to, us.

An American military plane had been shot down at 65,000 feet while attempting to cross the Afghanistan frontier into the U.S.S.R.—and let that be a lesson to us. The first attempt had been nailed right at the border and that was what would happen to any other American military plane that tried such aggression.

Khrushchev's speech was for- internal consumption only—and please note the discrepancies between what. was fed to the Russian people and what did happen. The incident now takes place I ,500 miles south of where it happened, right at the border. it is the first such incident,, ' rather than the last of many, over four years. Soviet military might have smeared the attempt at once and at 65,000 feet. -

(We may never know how and why that plane reached. the ground But for a number of physical, engmeermg reasons, it was not shot down at 65,000 feet by rocket fire.)

This is how history is revised, a la Nineteen EightyFour.

Two days laterwe saw pictures of the supposed wreckage in Komsomolskaya Pravda—and I pointed out to our guide that a radio installation does not fall 65,000 feet and reach the ground without a mark on it. I merely made her angry—she insisted that their newspapers “never print anything but the truth—never!”

Shortly thereafter we were in Kiev, waiting for a plane. Some Americans there asked us where we had been, where we were going; Mrs. Heinlein told them that we were- now going to Vilno—and in answer to more questions, she explained that Vilno was the capital of Lithuania, one of the Baltic republics taken over by the U.S.S.R. about twenty years earlier;

A Russian translator, a young woman about twentythree, was in the waiting room some distance away; she overheard this—and rushed over and butted in. With, shrill indignation she informed us and the others that Mrs. Heinlein was lying/—that Lithuania had always been part of the Soviet Union!

Mrs. Heinlein shrugged and told her she was wrong and turned her back on her. -

We went to Lithuania. Lithuania is a lovely country, very beautiful, and it had a very high native civilization and culture before the Communists came—Lithuania was far ahead of the barbaric giant east of it. It had its own literature and language and its industry was far ahead of that of the Soviet Union, especially its electrical industry. -

A gentle, beautiful, and delightful place, even today— as long as you don't notice that all of the boss jobs there are held by Russians—not Lithuanians.

It is probably unnecessary to point out that the young woman was utterly mistaken and that Mrs. Heinlein was 100 percent correct—after all Lithuania lost its freedom—so recently that the free Lithuanians—exiles and refugees—still maintain their national legation in Washington. The rape of Lithuania—and Estonia and Latvia, and the attempted rape of Finland—is still fresh in the minds of many of us and the facts are well and widely known throughout the world.

Except behind the Iron Curtain.

This is no accident, of course. On June 6th, 1941, after most elaborate preparations, the secret police swooped down and deported all of the Lithuanian national leaders of every sort—some 60,000 in a country of less than 3,000,000—and loaded them like cattle and shipped them east to such far-distant places as Kotlas and Vofkuta. -

Thereafter it took about a year for the underground resistance to get organized.

However, it makes me solemnly proud to say that even this lopping off of all their leadership has not killed the Lithuanian spirit—they are still fighting and the Russian conquerors are still having an uneasy time of it. The Terror still shows in that country, a visitor can't miss it—whereas it doesn't show in Russia itself, nor even in the Ukraine. It is my guess that little Lithuania will never stop fighting its conquerors. I hope we do as well.

Since what happened to Lithuania is a preview of what will probably happen to us, let's stop a moment to see just how utterly the truth has been raped concerning Lithuania. Lithuania was a nation, a people, and a culture when Russia was merely peasant villages, seth ruled over by illiterate barbaric chieftains. In the fourteenth century the Lithuanian Empire stretched right across Europe, from the Baltic to the Black Sea, Danzig to Odessa, an area greater than France, Germany, and England today—and controlled all the trade routes. Russia wasn't even a country then; they were a bunch of local tribes all paying tribute to the Tatar Khanate in the south. But you won't learn this in Russia today!

But a small people—the Lithuanians were never

numerous—has trouble maintaining its independence in a country having no natural barriers. In time, Poland, Germany, and Russia all fought over little Lithuania and Napoleon crushed through it twice. In 1795 the Tsar annexed it and held it for 123 years, to 1918, during which time the Tsars tried, with extreme harshness— and without success—to extinguish Lithuanian nationalism, language, and culture. They rubbed out the name “Lietuva” and lumped it in as part of “Northwest Territory.” In 1863 the Russians exiled 9,000 Lithuanian leaders to Siberia and imported Russians to fill all government jobs, closed the Roman Catholic schools, and forbade the Lithuanian language to be printed or taught—and note how closely this resembles what the Communists have done to them this generation, and are still doing.

But neither the Tsars nor the Communists were successful; harsh measures merely stimulated the underground. The Lithuanians have been free during most of their history, they were free and independent only twenty-two years ago and they have not forgotten their great history. They have never stopped fighting, they are fighting tonight—somewhere in Lithuania right this moment, some Russian or some collaborator is having his throat cut. - -

But, far from being “always a part of the Soviet Union” Lithuania fought the Russian Communists during the disorders that followed the collapse of the Tsarist Empire—fought them to a standstill and the Soviets signed a peace treaty in 1920, guaranteeing to respect Lithuanian independence and promising to pay indemnities—these promises were worth what Communist promises always are worth; nevertheless Lithuania remained free until World War II, at which time, by a combination of pressure and trickery, the U.S.S.R. took them over without a fight. How is it that this Russian girl in Kiev holds such a distorted view of history? The most ironical—and the most chilling—aspect of this incident was that she was sincere. She was certain that she was speaking the truth—and that Mrs. Heinlein was a liar, a capitalist, aggressor liar, intentionally spreading false stories about her beloved country.

How?

Well, in the first place people in the U.S.S.R. don't travel much—a trip such as most of you have made to come to this convention is impossible. A Soviet citizen has to use his passport and get a visa from the police to make a trip like that from Tacoma to Seattle. It is extremely unlikely that this young woman in Kiev had even been in Lithuania. She knows only what she is told—she knows less about her own country than I do, she's traveled less in it. - -

In the second place every word, every source of information available to her has been government controlled—books, magazines, television, radio, newspapers, everything. It is almost impossible to describe this; it has to be experienced—but it feels a little like being smothered in cotton wool. It is a

very odd feeling and it overtakes one after only a few days in the Soviet Union. I can't describe it, put it over emotionally... but try to imagine a situation in which every textbook, novel, magazine, you name it, is published by the Government Printing Office, every editor is a political employee—and censor. Imagine, if you can, a situation in which fan magazines could not possibly be printed— putting out a fan mag would be a certain way to land in Siberia.

The effect on me of this atmosphere was such that when I first got outside I at once bought every newspaper and newsmagazine that I could lay hands on—French, American, British, German—and read them all, at once, thirstily. - - -

This girl grew up under such conditions.

But the last and most important factor is that it starts so young. In the Soviet Union babies are placed in a kindergarten when they are only a few weeks old, while mom goes back to work. - - -

Let me describe one. We visited the Forty Years of October Collective Farm, a large place with a school system, so they said, of 800 children— probably true since we were shown one of four schools on the farm and it did have about 200 kids in it.

We were taken into a kindergarten class, perhaps thirty boys and girls five or six years old—they had not yet learned to read. They gave a little performance for us—a little girl recited a poem, a little boy delivered a memorized prose recitation, the class sang a song. The children were healthy and clean and well dressed and happy and it was all very charming indeed, much like a parallel welcome to a visitor in one of our own kindergartens.

After we were outside and temporarily out of earshot of any of the local people, Mrs. Heinlein asked me if I had understood it; I admitted that I had caught only half a dozen words—I do not speak Russian—ordering a meal or directing a taxi driver is my outside limit. -

“Well,” she answered, “the little girl was reciting the life of Lenin, the little boy gave a speech about the Seven Year Plan, and the song the class sang was about how we must all fight to preserve our revolution.” - -

And these were just little baby kids, who had not yet learned to read! -

So let's not blame that young woman in Kiev. She was a nice, patriotic, earnest kid, saying what she honestly believed was the truth. I'm sorry that I was annoyed with her—as I certainly was!—even at the time the row took place. Given other circumstances, I'm sure I could be friends with her.

I could never be friends with the Communist bosses who fed her these lies and who have made it impossible for her to learn the truth about Lithuania—or any other aspect of history. Their cold-blooded suppression of the

truth is, in the long run, more damnable in its effects than anything else they have done. -

About noon on May fifteenth, the day before the abortive Paris Summit Conference, Mrs. Heinlein and I were going downhill from the castle which dominates the lovely city of Vilno. Coming uphill were a dozen-odd Red Army cadets; we stopped and chatted, answered their questions, showed them our passports.

Presently one of them, who seemed to be in charge, asked us if we had heard about the new Russian spaceship?

No—we had been away from news lately. Tell us.

It just happened that morning—the cadet gave me lift-off time, perigee, apogee, period, and even now—he illustrated with a gesture—a Russian cosmonaut is circling the Earth! - - -

All the other cadets nodded agreement to everything he said and sometimes added details.

I congratulated them on their country's wonderful scientific achievement—with a frozen smile and a sick feeling in my- stomach. We talked a bit more about it, then they went on up the hill and we went down.

That afternoon we tried very hard to - buy a copy of Pravda. None were available anywhere—and this is like not being able to buy the New York Times in New York City. - - -

We tried to listen to the Voice of America—jammed more heavily than we had ever heard it jammed.

We did listen to the Voice of Moscow—Mrs. Heinlein told me that it did report the rocket—but jUst as one of the sputniki, no mention of a passenger.

-

That evening our guide joined us to go to the ballet— and she immediately told us that the cadet had been mistaken, it was not a rocket ship with a man in it—just a dummy. The cadet had misunderstood. -

Well, perhaps so.. . but, if so, all those dozen or more cadets were mistaken exactly the same way.

Remember the date, May fifteenth. This is the rocket -
-on which they admitted, a few days later, having trouble with the retrojets; they fired in the wrong attitude and they could not bring it down. It is also the one concerning which the New York Herald-Tribune published the cartoon: "Dummy to base! What's this about 'not return- - ing'?" ~-

That rocket is still up there, it may have passed overhead while we ate dinner. Is there a dead Russian in it? Is there an "unperson" in the sky?

I don't know. Under the Communist system it is never possible to get the facts. The truth is dead—.murdered— and the official version, the pravda, is that which advances the world Communist revolution.

But I wonder what our own history will be, say fifty years from now? Will it turn out that there never was a Cold War, never was a Korean War—and that the United States and other free countries voluntarily joined up as people's republics immediately after Mother Russia's glorious and unassisted victory in the Great Patriotic War of 1940-45? Will Plymouth Rock and Jamestown be dropped out of history books in favor of the Russian colonies which (in fact) existed in California and Alaska?

What new unpersons will there be? Edison? Einstein? Eisenhower? - -

I don't know, I can't guess. I simply know that when the government controls every word that is printed, every idea that is taught in school, history is no longer a record of the past but is a changeable thing, whatever is convenient to the government.

And I am strongly of the opinion that our most likely future is a Communist World State. This is not a certainty—but it is the strongest of the probabilities.

But it isn't all bad, our future. If World War III holds off for a number of years, or never occurs at all—as I think is very probable—the immediate future will be tremendously exciting. -

Landing on and occupation of the Moon—oh, certainly! That could happen before the end of this year, 1961—although not by us, of course. Landings on Mars? Almost certain. How long? Five years? Ten years? Let's put it this way: almost all of us here tonight should live to see it. It is not even especially unlikely that some person now in this room will, before the 1960s are over, walk the dead sea bottoms of Barsoom. - -

Of course you may not like it; it is possible that the one of us here tonight who reaches Mars may not get there as a member of the United States Air Force—or "Space Force." The Russians have a well-established habit of sending their most cantankerous political prisoners to colonize very remote and exceptionally difficult and dangerous places—and I see no reason why the dawning age of space should change this habit. -

However, if by any wild chance I myself am tapped for a corrective labor colony on Mars, I shall do my damndest to enjoy it, every golden moment. It is a chance that almost all of us science fiction fans would have given our eye teeth and our left arms up to the shoulder to get—and by damn! if the chance comes my way, I'm not going to curse my luck.

Mars!

Think of it! It's going to happen to somebody and it might be one of us. Shucks, if my wife can learn Russian, I guess I can learn it too. If I have to. If it is part of the price for going to Mars! -

Travel to the planets is just one of the obvious things in Pandora's Box. Any of you who have been wringing your hands over the horrors of modern war had better massage them and get ready to wring them much harder.

Most of the worrying today seems to be over H-bombs and fallout. Listen, friends, H-bombs and fallout are going to be the very least of your worries.

I don't think that the Russians are going to hit us with H-bombs—unless they do it almost at once, which seems to me most unlikely. H-bombs destroy too much—and they don't want to ruin this country; they just want to own it. And fallout is too indiscriminate.

Something like the neutron bomb, which kills without fallout and without destroying things like steel mills and railroads, would suit them much better.

If they were loaded for bear with neutron bombs in ICBMs, they might be mightily tempted to quit sparring with us and let us have it, with both barrels—in which case there is little to worry about; a corpse does little worrying.

Another change, just over the hill, is that the so-called nuclear bomb club, now consisting of us, the Soviets, France, and Britain, is, very shortly, before the '60s are over, going to become about as exclusive as the Benevolent and Protective Order of Elks. - All of the little nations are going to have them, too. If the war in Algeria lasts another ten years—and it has already lasted ten years—the Algerian Arabs are going to be using them. -

They will even be in private hands. I can't venture to guess what degree of anarchy we will have when a Brave New World Al Capone has pony A-bombs. . . but don't be surprised when it happens.

But don't blame me for it—I don't know how to make A-bombs. It is just that this development is clearly in the cards.

There is an even fancier—and simpler—type of atomic weapon coming up: The californium bullet, fired in an ordinary rifle, or something much like it and weighing no more—a bullet of fissionable material that reaches critical mass on impact and goes off as a small A-bomb.

However, atomic weapons are not the ultimate in nastiness. It is customary these days to speak of ABC weapons, meaning atomic, biological, and chemical—and we tend to forget the second two. -

Biological weapons? Diseases tailor-made for deadliness and for ease of distribution—say a virus that can be put into New York City's water system and won't be destroyed by processing nor detected by ordinary methods of analysis. That's just a sample and I'll pass on—but please note its beautiful simplicity compared with H-bombs and ICBMs.

Chemical warfare? Both Russia and the United States have tons and tons of nerve gas stockpiled—why use H-bombs? But why use nerve gas? The biochemists, as mild and nearsighted and harmless as physicists looked

thirty years ago, are now talking about chemical weapons, gases or aerosols, that, instead of killing, will simply turn a man into a helpless slave by confusing him, breaking his grip on reality—brother, when they start doing that the “Crazy Years” are really here!

But ABC isn't the end of the alphabet. We must add both “W” and “X”—”W” stands for weather and I won't elaborate as all of you have read stories about melting the ice caps, causing a crop-failure, drought, etc. Weather control is now in the fine finished state that aeronautics was in 1906. Only a very rash person will now guess what may come out of weather control.

as always, stands for “unknown.” Exactly as atomic weapons were unknown and undreamed of— save by a few crazy science fiction fans and writers only twenty-five years ago— - -

—and things are moving faster now. Much faster.

However, I don't consider any of these, even “X,” the ultimate weapon. The ultimate weapon was invented in pre-history. It is a kitchen knife in the hands of a determined man—who is fed up.

Don't ever underrate this weapon. It is far more dangerous than all the ABCWX weapons put together— and there will be a big place for it in all of the next forty years. And thereafter, as long as any of the human race is still alive and still human.

But let's not talk about weapons. I am a short-time pessimist—but a long-time optimist. I don't think the human race is going to kill itself off. Why, I rather doubt if we are even going to indulge in one of those third-of-the-population-dead wars. And remember this: once the human race is established on more than one planet and, especially, in more than one solar system, there is no way now imaginable to kill off the human race. Instead we'll spread with that enormous speed described in Asimov's stories and wind up in a Galactic culture like that in Doe Smith's yarns.

- Star -travel? Sure, we'll have star travel—probably before the end of this century.. . in the lifetimes of many here tonight. The outstanding fact of 1961 is not H-bombs—but the hurtling speed of advancing technology. There are several things which indicate that we should and probably will have real star ships in that time—things that say it just as loudly as Dr. Goddard's first little rocket said that spaceships of some sort were coming.

It won't solve the population pressure problem—and perfect contraception won't solve that either. But star ships will mean more human beings on other planets— very quickly—than on Earth, even though Earth is still more crowded.

Power, transportation, star ships, medicine, long life—never mind the individual predictions. The most significant single fact today is that ninety percent of all the scientists who ever lived in all history, are alive right now—and working—and producing. We are doubling our knowledge every few years and the rate keeps going up. Predictions? Make your own.

Pay no attention to the predictions of almost all of the professional scientists; by nature they are very conservative in their predictions and they have almost always been wrong—on the short side. The important fact is not what they expect—but the fact that they are alive and working. To get a better notion of the scale of the changes in the next few decades take the very - wildest stuff being printed as fiction in science fiction magazines— —then square it! -

If you miss, it will be on the conservative side.

Brother, the joint is really jumpin’.

Will we encounter intelligent life elsewhere in the universe? This is almost a philosophic speculation, since we don’t have enough data yet—but if I am crowded into a corner, I will answer flat-footedly that I expect us to find it almost as quickly as we have star travel. Soon, in other words.’

If it turns out that we are the only life in the universe, it will be, to me, the most startling thing possible.

I have saved the most optimistic and happiest prediction for the last. — This century of revolution was bound to happen, even if Karl Marx had never lived. I rather think it will destroy democracy, probably all over the globe, for quite a long time. -

But democracy and freedom, pleasant and sweet as they are to those of us who have learned to cherish them—cherish them so much that we are willing to die for them—nevertheless are not things essential to human life and progress; these are recent inventions—

—and don’t give me any guff about the Greek city states; those states were founded on slavery.

Freedom and democracy we can . . . and then regain them in time. Not in your time and mine, probably—but when the human race needs these factors, we’ll use them again.

But there is one very important factor which is growing all over this planet along with and as a direct result of this uncomfortable and dangerous century of revolution we are sweating out.

Reading and writing!

As of now, more than sixty percent of the human race cannot read or write. But as a direct result of all these revolutions people are learning to read and write who never did before.

Everywhere! It is one of the benefits—perhaps the only benefit—of Communism. But don’t discount it; it is terrifically important.

A man who learns to read and write is halfway to freedom by that one fact.

What road he takes we can’t guess. But eventually he, or his children or his children’s children, will get there. The Communist bosses, instead of fighting it, are helping this process along—and they can’t afford to change it, even if they see the danger to themselves in it, because

no system these days can afford to try to reverse this and reinstitute illiteracy. The competition is too tough; any other system whose people are literate would displace them.

So note the twentieth century down as a century of tragedy and war and death—but also please note that it is the century in which the human race finally learned to read and write. More people will learn to read and write in the next forty years than in all the thousands of years in history.

I firmly predict that this will be the most important historical fact about this, our century.

I see that I have overstayed my welcome and I want to thank the committee for having arranged to have you all chained to your chairs—had you not been a captive audience you would have walked out long back. I ask your pardon for having discussed so many grim things— but it is not possible to speak sensibly about our tragic era without talking grimly about grim things. I didn't plan it that way; I just work here—on this planet, I mean.

So thank you all ~I'll see you in Siberia in 1981.

Or maybe on Mars.