GUEST OF HONOR SPEECH **JBitsoup.orgJ**

AT THE THIRD WORLD

SCIENCE FICTION CONVENTION

DENVER, 1941

THE DISCOVERY OF THE FUTURE

Here in my hand is the manuscript of a speech. If it works out anything like the synopses I have used, this speech will still be left when I get through.

Before I start, I want to mention an idea that might be fun. It was an innovation in political speaking introduced in California by Upton Sinclair that raised Cain with the ordinary run of political speakers: answering questions from the platform. But I want to put one reservation on it, and that is that questions should be in writing, with names signed, so we can read them into the mike so that I can have clearly in mind what the questions are.

During the course of the last day or so, I have gathered the impression that quite a number of people are inter-ested in the background of my stories; and; in some cases, in my social and political ideas, economic ideas, etc.—some of which, but not all, shows in my stories. Some of them have evidenced an interest in my own personal background. So, if the question comes along, I will do my best to answer it, perhaps dodging the embarrassing ones a little.

To get to the talk itself: THE DISCOVERY OF THE FUTURE. I was told that there was no time limit, so I assumed that he wanted my usual three hour speech. Or, perhaps, we can just keep going until the hall is cleared.

Forry[Ackerman] told you that I have been reading science fiction for a longtime. I have. I have been reading it as long as I could get hold of it, and I probably experienced much the same process most of you did: parental disapproval, those funny looks you get from friends, for reading “that kind of junk.”

We here, the science fiction fans, are the lunatic fringe! We are the crazy fools who read that kind of stuff—who read those magazines with the outlandish machines and animals on the covers. You leave one around loose in your home and a friend will pick it up. Those who are not fans ask you if you really read that stuff, and from then on they look at you with suspicion.

Why do we do it? I think I know. This is an opinion, but it is probably why we like science fiction. It is not just for the adventure of the story itself—you can find that in other types of stories. To my mind it is because science fiction has as its strongest factor the single thing that separates the human race from other animals—I refer to a quality which has been termed "time-binding."With a hyphen. It's a term that may not have come to your attention. It is a technical term invented by AlfredKorzybski , and it refers to the fact that the human animal lives not only in the present, but also in the past and the future.

The human animal differs from all other animals*only* in this one respect. The definition includes both reading and writing. That is the primary technique whereby we are able to make records, to gather data and to look into the future. Other things we do that we think of as making us humans rather than animals—some animals have done at sometime. They form governments. They invent machines. Some animals even use money. I have not seen them doing it, but I have heard reports that I believe to be credible. But time-bind they do not do, to anything like the extent that the human race does.

Time-binding consists of making use of the multitudi-nous records of the past that we have. On the basis of those records, the data we have collected directly and the data that we get from others by means of time-binding techniques, including reading and writing, we are able to plan our future conduct. It means that we have lived mentally in the past and in the future, as well as in the present. That is certainly true of science fiction fans.

I like the term Future Fiction that CharlieHornig gave it. It seems to me a little broader than Science Fiction because most of these stories are concerned with the future—what will happen.

In taking the future into account, trying to predict what it will be, and trying to make your plans according-ly, you are time-binding. The child-like person lives from day to day. The adult tries to plan for a year or two at least. Statesmen try to plan for perhaps twenty years or more. There are a few institutions which plan for longer than the lives of men, as for example, the Smithsonian Institution and the Catholic Church, that think not in terms of lifetimes, but in centuries. They make their plans that far ahead, and to some extent, make them work out.

Science fiction fans differ from most of the rest of the race by thinking in terms of racial magnitudes—not even centuries, but thousands of years.Stapledon thinks in termsof. . . how many years? How far does his time scale go? I don't know: the figures mean nothing to me,

That is what science fiction consists of—trying to figure out from the past and from the present what the future may be. In that we are behaving like human beings.

Now, all human beings time-bind to some extent when they try to discover the future.But most human beings—those who laugh at us for reading science fiction— time-bind, make theirplans, make their predictions, only within the limits of their personal affairs. In that respect, they may try to predict for a year or two, make plans, even try to predict for their entire lifetimes, but they rarely try to predict in terms of the culture in which they live. In fact, most people, as compared with science fiction fans, have no conception whatsoever of the fact that the culture they live in*does* change, that it*can* change. Even though they may believe it with the top of their minds, they don't believe it way back in the thalamus, in their emotions.

Our grandfathers thought the horse could never be replaced by the auto. Four years after the Wright brothers first flew, they were still trying to get the War Department to come out to look at the airplane. And when one Major General did take a look at an airplane flying, he remarked that it was a very interesting scientific toy, but, of course, it had no possible military application! That was just a short time ago, a very short time.

You will hear that sort of thing around you all the time. I made use, a while ago, of a quotation I would like to use again, from 0. B. Shaw. Referring toBrittanicus in*Caesar and Cleopatra,* he said, "he is an outlander and a barbarian and he believes that the customs of his tribe are the laws of nature." That is what you are up against when you try to get most people to read science fiction. That is why they think you are crazy, because they believe that the customs of their tribe are the laws of nature, immutable and unchanging. They do not believe in changes.

Phrases like "There'll always be an England" are pleasant and inspiring at the present time, but*we* know better. There won't always be an England,nor a Germa-ny, nor a United States, a Baptist Church, nor monogamy, nor the Democratic Party, nor the modesty taboo, nor the superiority of the white race, nor airplanes.Nor automobiles. They will go. They will be gone—we'll see them go. Any custom, institution, belief, or social struc-ture that we see around us today will change, will pass, and most of those we will *see* change and pass.

In science fiction, we try to envision what those changes might be. Our guesses are usually wrong; they are almost certain to be wrong. Some men, with a greater grasp on data than others, can do remarkably well. H. G. Wells, who probably knows more (on the order of ten times as much, or perhaps higher) than most science fiction writers, has been remarkably successful in some of his predictions. Most of us aren't that lucky;

I do not expect my so-called*History of the Future* to come to pass. I think some of the trends in it may show up, but I do not think that my factual predictions as such are going to come to pass, even in their broad outlines.

You speak of this sort of thing to an ordinary man— tell him that things are going to change—he will admit it, but he does not believe it at all. He believes it just with the top of his mind. He believes in "progress." He thinks things will get a little bit bigger, and louder, and brighter, a few more neon signs. *But he does not believe that any actual change in the basic nature of the culture in which he lives, or its technology, will take place.*

Airplanes he thinks are all right, but those crazy rocket ship things! Why, a rocket ship couldn't possibly fly. It hasn't got anything to PUSH on. That is the way he feels about it.

There will never be any rocket ships. That is all right for Buck Rogers in the funny papers. He does not believe that there could be rocket ships, nor does he believe that there will be things that will make rockets look like primitive gadgets that even the wildest of the science fiction writers have not been able to guess or think about. Rocket ships are about as far as I am willing to go be-cause I have not got data enough to think about, to make a reasonable guess about the other forms of transporta-tion or gadgets we may have.

But that same man did not believe in airplanes in 1910!

I have spoken primarily of mechanical changes because they are much easier to show, to point to, than the more subtle sociological changes, cultural changes, changes in our customs. Some of these can be pointed out. I would like to point out one of them right now. The word "syphilis" could not be used in public even as short a time as fifteen years ago.

Yet, as I used it here, I did not see any shock around the room—nobody minded it—even the*Ladies' Home Journal* runs articles on it. We are getting a little more civilized in that respect than we were twenty years ago. Our grandfathers considered that word indecent. They believed that things that were

decent and indecent were subject to absolute rules, that they were laws of nature. The majority of people around us now believe that their criteria of decency and indecency are absolute, that they won't change, that there are some things that are*right,* and some things that are*wrong.* They do not know enough about past history to be able to make any predictions about the future.

I could think of some rude words to use in that connection, wordsthat are still rude now. I think it quite possiblethat twenty years from now on this same platform I could use those words and not produce any shock around the room.

For things*do* change. And words which we consider utterly indecent today may very possibly simply be used as tags, as terms with no emotional connotation to them, twenty years from now.

We happen to live in a period of sudden and drastic change in a good many of the things that happen to us. I think it is extremely important that we be prepared for that change and for that reason, I think that science fiction fans are better prepared to face the future than the ordinary run of people around them, because they believe in change.

To that extent, I think that science fiction, even the corniest of it, even the most outlandish of it, no matter how badly it's written, has a distinct therapeutic value because*all* of it has as its primary postulate that the world*does* change. I cannot overemphasize the impor-tance of that idea.

Unless you believe that, unless you are prepared for it—as I know all of you are—you can't retain your sanity these days. When a man makes predictions and they keep failing to come true, time and again, he goes insane, functionally insane. It has been proved in labora-tories time and again. It has been proved with respect to men, but I'll give an illustration with respect to animals.

The well-known experiment was performed with rats, an experiment in which a rat was disappointed in his predictions time and again. He went crazy. It happens to work the same way with men. Things do not necessarily work the same way with animals as they do with men, but in this case, there is data to prove it. The inability to believe in change makes absolutely certain that your prediction will disappoint you. That does not apply to this group, but it does apply to a great many people.

For that reason, I believe we are in a period in which large portions of the human race will be in a condition of, if not insanity, at least un-sanity. We see that over a large portion of the world today. I think we have seen it crawling up on us for a number of years. In 1929 we had the market crash and people jumped out of the window as a result of not being able to predict things which were perfectly obvious, written on the face of the culture, something that would happen.

The Depression came along, and the madhouses filled up again. Other only slightly less slaphappy individuals proceeded to be a bitunsane by concocting the most wildly unscientific schemes for making everybody rich by playing musical chairs..Not quite crazy—they could still find their way around and take street cars and not get lost, but not quite sane either. That can lead, if it goes on long enough, to a condition of mass insanity that none of us is going to like.

Nevertheless, we science fictionists, I think, are better prepared for it than others. During a period of racial insanity, mass psychoses, hysteria, manic depression, paranoia, it is possible for a man who believes in change to hold on, to arrest his judgment, to go slow, to take a look at the facts, and not be badly hurt. Things will probably happen to us, very unpleasant indeed, we can't separate ourselves from the matrix in which we find ourselves. Nevertheless, WE stand a chance, for I am very much afraid that a

great many people of the type who laugh at us for dealing with this stuff, will not be able to hang on.

The important thing is to hang on to your sanity, to preserve sanity while it happens—no matter what bad things happen to the world..As individuals it may be difficult for us to do anything about it, even though all of us in our own ways, and according to our lights, are trying. But this series of wars that we find the world in now may go on for another five years, ten years, twenty years—it may go on for fifty years—you and I may not live to see the end of it.

I, personally, have hopes—wishful thinking—that it will terminate quickly enough so that I can pass the rest of my lifetime in comparative peace and comfort. But I'm not optimistic about it. During such a period, it is really difficult to keep a grip onyourself , but I think that we are better prepared to than some of the others.

I can speak more freely here than I could in a political.meeting , because it's a highly selected group. I've known a good many science fiction fans, and I've observed, statistically, certain things about them. Most of them are young as compared with othergroups, most of them are extremely precocious—quite brilliant. I'd be very much interested to see IQs run on a typical group of fans.

But, even without IQs I know that most of the people here are way above average in intelligence. I've had enough data on it to know. I'm not trying to flatteryou, I'm not interested in that. I am interested in the fact that you have unusually keen minds. However, that lays us open, and I am including myself in this, lays us open to dangers that don't hit the phlegmatic, the more stolid. Unless we are able to predict, we are even more likely to be subjected to functionalunsanities than those around us.

I'm preaching, sure. I know that. I could have filled a speech with wisecracks and with stories and anecdotes, but I feel very deeply about this. And if you can bear with me for a few minutes more, I still want to talk about it.

There's a way out, there's something that we can do to protect ourselves, something that would protect the rest of the human race from the sort of things that are happening to them, and are going to happen to them. It's very simple, and it's right down our alley: the use of the*scientific method.*

I'm not talking about the scientific method used in the laboratory. The scientific method can be used to protect ourselves from serious difficulties of other sorts—getting our teeth smashed in—in our everyday life, twenty-four hours of the day.

I should say what I mean by the scientific method. Since I have to define it in terms of words, I can't be as clear as I might be if I were able to make an extensional definition. But I mean a comparatively simple thing by the scientific method: the ability to look at what goes on around you. Listen to what you hear, observe, note facts, delay your judgment, and make your own predictions. That's all there is, really, to the scientific method: to be able to distinguish facts from non-facts.

I used the term "fact." I used it in a technical sense, and I should say what I mean by a fact. A fact is anything that has happened before this moment, on July 4th, 1941.Anything that has already happened before this moment. Anything after this moment is a non-fact. Most people can't distinguish between them. They regard as a*fact* that they're going to get up and have breakfast tomorrow morning. They get the difference between facts and non-facts completely mixed up, and in particular, thesedays people are getting very mixed up between facts and. theories, isms,ologies and so forth, so-called "laws of nature," depending on what year you happen to be speaking.

That distinction between fact and fiction, fact and non-fact, is of extreme importance to us now. It has even become a strong issue in the field of science fiction. Without referring to any movement by name, or any person by name, because I wish to make an illustration, I want to invite your attention to the fact that the science fiction field has been very much stirred up by asemipo-litical movement which uses the word "fact" quite extensively. But it uses the word fact with reference to what they are—what they*predict* will happen in the future, and that's a non-fact. And any movement, insti-tution, any theory, which does not make a clear and decided distinction between fact and non-fact, cannot by any stretch of the imagination be called a scientific movement. It simply is not because it does not use the scientific method. No matter how complicated their terminology may be, or how much they may use the*argot* of science.

I'm going to have to make an excursion here. I've wandered somewhat from the talk I had in mind.

I want to make another comment on science fiction and the fact that you and I have to put up with an awful lot of guff from people because of the orthodox point of view with which it is regarded.

I have never been able to understand quite why it is that the historical novel is the mostapproved, the most*sacred* form of literature. The contemporary novel is next so; but the historical novel, if you write an historical novel, that's*literature.*

I think that the corniest tripe published in a science fiction magazine (and some of it isn't too hot, we know that; some of my stuff isn't so hot) beats all of the*Anthony* Adverses and*Gone With the Winds* that were ever published, because at least it does include that one distinctly human-like attempt to predict the fu-ture.

One would think that the literary critics and the professors of English—those who make a business of deciding what is good and what is bad in literature—had some connection in their ancestry with the Fillyloo Bird. I think you know theFillyboo Bird: he flew backwards because he didn't care where he was going, but he liked to see where he had been.

I want to mention the fashion in which the scientific method—just the matter of observing what goes on around you—observing it through your own eyes, in-stead of taking other people's opinions, reserving your judgments until you have enough data on which to make a judgment—can be of real use to you even now, quite aside from any possible worse period in history, in the coming history.

I mentioned that it can keep your teeth from getting knocked in; that's an important point. It can because you'll stay out of controversies and out of arguments that you would otherwise get into. If you are talking with a man who obviously does not bother to use the scientific method, or does not know how to use the scientific method in his everyday life, you'll never get in an argument with him. You'll know there's no point in an argument with him, that you cannot possibly convince him. You can listen—and you'll get some new data from him—and you'll be better able to predict thereafter, if on no other point than the fact that you'll be better able to predict what his reactions will be.

There are other advantages, in the way of keeping yourself cooled down, so you can be a little happier. For example, a man who uses the scientific method cannot possibly be anti-Semitic. I have made that an illustration because it has caused a lot of trouble in the world lately. Why can't he be anti-Semitic? For a very simple reason: he doesn't have enough data, consequently he hasn't formed an opinion. No matter how long he lives he can't hate all Jews, and unless he knows all Jews, he can't hate all Jews, because he doesn't form an opinion unless he has data. It is possible for him to hate an individual Jew as it's possible

for him to hate an individual Irishman or Rotarian or man or woman.

But he can't possibly be anti-Semitic. He can't hate all capitalists, he can't hate all unions, he can't hate all women—you can't be a woman-hater, not if you use the scientific method. You can't possibly: you don't know all women. You don't even know a large enough percentage of the group to be able to form an opinion on what the whole group may be!

By the same reasoning, it's very difficult for him to hate at all; and if you can just manage to keep hate out of your life (or a good portion of it—I can't keep it*all* out of my life myself. I've got to sit down and whip myself about the head and shoulders to get myself calmed down at times—but you can help yourself with this method)—if you can keep hate out of your life, you can keep from; getting your teeth knocked in. You can keep out of a lot of difficulties and take care of yourself in a better fashion.

A man who uses the scientific method cannot possibly believe that all politicians are crooks, for he knows that one datum destroys the generalization. I'll give you one datum on that point: Senator George Norris, whether you like him or not, is a saint on earth. Whether you agree with his opinions or not, he's not a bad man.

And because he's never entirely certain of his own opinions on any subject, a man using the scientific method stays out of arguments, keepshimself from the emotional upsets that cause you to lose sleep and upset your stomach. You get such things as herpes—oh, I'm not an M.D., but there are plenty of functional disorders that a man can avoid, can very well avoid.

Here's a rough picture of the scientific man in every-day life. Such a man stands a better chance of living through our period to a ripe and-happy old age, in my opinion. But I wish to make plain that the use of the scientific method does not depend on any formal educa-tion in science. It is an attitude and point of view and not a body of information. You need have no formal educa-tion at all to use the scientific method in your everyday life. I am not disparaging the body of scientific informa-tion that has been gathered by specialists or the equally enormous body of historical and sociological data that is available. Unfortunately, we can't get very much of it. But you can still use the scientific method, whether you've bad a lot of education or not, whether you've had time to gather a lot of personal data or not.

With respect to the acquisition of scientific training, I've heard people around fan clubs remark, "I wish I knew something about mathematics," or "I wish I under-stood something about physics." Complaints that they're not fully appreciating some of the stories because they don't have enough specialized information. Some sub-ject was too hard, or they weren't able to go far enough in school. I greatly sympathize with that.

I'm not trying to play it down or anything of the sort. It's very much ofa regret to me that I'm not at least twins and preferably triplets, so that I could have time to study the various things that I'm interested in. And I know that a lot of you have felt the same way—that life is just too—not too short, but too narrow—we don't have room enough, time enough, to get around and learn all the things that we want to, and it is almost impossible for us to get a full picture of the world.

Surprising, that the data actually is available.God knows that no one can even hope to cover even a small corner of the scientific world these days. I think there's a way out of the dilemma, however, a fair one for us, and a better one for our children. It's the creation of a new technique to cover just that purpose. Men who might be consideredencyclopedists , or interpreter-synthesists, I like to call them, men who make it their business to find out what it is the specialists have learned, and then apply it to the rest of us in consolidated form so that we can have, if not the details of the picture, at least the broad I outlines of the enormous, incredibly enormous, mass of data that the human race has gathered. The facts

behind us, the things that have happened before this moment, so that we can be better able to predict for ourselves, plan our lives after this moment.

There's only onesynthesist who has really made such an attempt up to the present time, and I'm very pleased that it happens to be possibly the greatest of the science fiction writers: H. G. Wells. Wells perhaps didn't do a good job of it—good Lord!he didn't have a*chance* to; he had nobody before him, he did the pioneer work. He started it. But H. G. Wells, in his trilogy,*The Outline of History, The Science of Life* and*The Work, Wealth, and Happiness of Mankind,* is, so far as I know, the only writer who has ever lived who has tried to draw for the rest of us a full picture of the whole world, past and future, everything about us, so we can stand off and get a look at ourselves.

It will be better in the future. Nevertheless, it was great work, the fact that he*did* it, that he tried at all.A wonderful work. Because he had done that kind of work, that he tried to do that kind of work for the rest of us, is the reason, to my mind why his scientific fantasies are more nearly accurate in their predictions than those of, oh,myself , and various other commercial writers in the field. I don't know as much as H. G. Wells: I probably never will know as much as H. U. Wells—my predictions can't be as accurate.

But, after considering H. G. Wells' trilogy, it occurred to me that it would be amusing, to me at least, and I hope to you, for me to mention some books by assorted writers that, to a certain extent, help to fill in the gaps in the picture. And—to a certain extent, help to make up the lack of a broad comprehensive scientific education, which no one, not evenSc.D.s and Ph.D.s, can really have.

For example, in mathematics, is there one book which will help the non-mathematician, the person who hasn't specialized in it and made it his life work, to appreciate what mathematics is for? I've run across such a book; it's called Mathematics and the Imagination byKasner and Newman. You don't have to have any mathematical edu-cation to read it. To my mind, it's a very stimulating book, a very interesting book, and when you've finished reading it, you at least know what the mathematicians are doing and why.

Among other things, you will discover—and this runs entirely contrary to our orthodox credos—that mathe-matics is not a science. Mathematics is not a science at all—it's an aspect ofsymbology , along with the alpha-bet.That there is no such thing as discovering mathe-matics, for example. Mathematics is invented; it's an invented art, and has nothing directly to do with science at all, except as a tool. And yet you will hear the ordinary layman speaking time and again of mathematics as a science. It just plain is not because it has no data in it; purely inventions, every bit of it, even the multiplication tables. Yes, 2 x 2 is 4 is an invention in mathematics, not a fact.

There are other such books. In physics, there isEddington's Nature of the PhysicalWorld, I think one of the most charming books ever written, one of the most lucidly and brilliantly written books. It gives a beautiful background to modern physics. It's approximately fif-teen years old, so in order to cover a lot of the things that are currently being used for fiction in the science fiction field, you would need to supplement that. The book I got for my own purpose to supplement it—because, you see, I'm not a professional physicist, I'm an engineer—to help to bring it up to date, is White's*Classical and Modern Physics,* published in 1940. It is about the latest book-bound thing on modern physics that I know of.

There are later things in such publications as*Physical Review* and*Nature,* but this goes up to and including the fission of uranium. It includes nuclear physics, and it delighted me to find the thought that, very likely when we got around to it, we'd find life on other planets.A very stimulating thing to get from a professional scientist, particularly in the field of*physical* sciences. I picked that book because White is an associate of Lawrence in the nuclear laboratory at Berkeley. In other words, he is in on the ground floor,

he knows what he's talking about.It's modern physics, 1940, the best up to that time.

So far as astronomy is concerned, I've never seen anything that surpassed, for a popular notion of the broad outlines of the kind of physical world we live in, than John Campbell's series that appeared in *Astound-ing*. They started in 1936, and ran on for fifteen or sixteen issues, his articles on the solar system. I've always been sorry that Campbell did not go on from there and cover stellar astronomy, galactic astronomy, and some of the other side fields. But, even at that, anybody who has read through that series by Campbell on the solar system will never again have a flat-world attitude, which most people do have. Not in the science fiction field, of course—I mean not among fans of science fiction.

(I speak many times as if the human race were divided into two parts, as it*may* be; people who love science fiction, and people who don't. I think you will be able to keep sorted out which ones I'm talking about. I hope so.)

In the field of economics, an incomplete science, but nevertheless one that you can't possibly ignore, I think the most illuminating book I've ever, read is one by Maurice Colburn, called*Economic Nationalism.* The title won't give any suggestion of what the contents are, but that is simply the tag by which it is known.

Jim Fancy's*Behind the Ballots* is probably as nice a job of recording actual data in politics as I've ever seen; however, politics—I'd never recommend that people read books in the political field.

Go out and take a look*yourself*Everything else you hear is guff.

I saved for the last on that list of the books that have greatly affected me, that to my mind are key books, of the stuff I've plowed through, a book which should head the list on the*must* list. I wish that everyone could read the book. There aren't many copies of it, and everyone can't, nor could everyone read this particular book. All of you could—you've got the imagination for it. It's*Science and Sanity* by Count AlfredKorzybski , one of the greatest Polish mathematicians when he went into the subject of symbology and started finding out what made us tick, and then worked up in strictly experimen-tal and observational form from the preliminary work of E. T. Bell.

A rigor of epistemology based on E. T. Bell [break in transcript here—some words lost].. .symbology of epistemology. The book refers to the subject of seman-tics. I know from conversation with a lot of you that the words epistemology and semantics are not unfamiliar to you. But because they may be unfamiliar to some, I'm going to stop and give definitions of those words.

Semantics is simply a study of the symbols we use to communicate. General Semantics is an extension of that study to investigate how we*evaluate* the use of those symbols. Epistemology is the study of*how* we know*what* we know. Maybe that doesn't sound exciting. It is exciting, it's very exciting. To be able to delve back into your own mind and investigate what it is you know, what it is you*can* know, and what it is that you*cannot possibly* know, is, from a standpoint of intellectual adventure, I think, possibly- the greatest adventure that a person can indulge in.Beats spaceships.

Incidentally, any of you who are going to be in Denver in the next five or six weeks will have an opportunity, one of the last opportunities, to hear AlfredKorzybski speak in person. He will be here at a meeting (similar to this) ofsemanticians from all over the world; McLean from Los Angeles, and Johnson from Iowa, andReisser from Mills College andKendig and probably Hayakawa from up in Canada—the leadingsemanticians of the world—to hearKorzybski speak.

It is much better to hear him speak than it is to read his books. He's limited by the fact that he's got to

stick to the typewriter, to the printed word, but when he talks, when he talks, it's another matter! He gestures, he's not tied down with his hands to the desk the way I am, he walks, stumps all around the stage, and waves his hands, and when he's putting quotation marks on a word, he puts them on…[illustrates, audience laughs]. And you real-ly gather what he means. Incidentally, he looks like Conan Doyle's description of Professor Challenger if Professor Challenger had shaved his beard. Dynamic character.

You may not like him personally, but he's at least as great a man as Einstein, at least, because his field is broader.The same kind of work that Einstein did, the same kind of work using the same methods, but in a much broader field, much closer to human relationships. I hope that some of you will be able to hear him. I said that this will be one of the last chances, because the old man's well over seventy now. As he puts it, "Ivill coagulate someday, Ivill someday soon, Ivill coagu-late," which is the term he uses for dying.

He speaks in terms of colloidal chemistry. Properly, it's appropriate. He won't last much longer. In the meantime, he's done a monumental piece of work that H. G. Wells did in the matter of description, and the two together are giants in our intellectual horizon, our intellectual matrix today, that stick up over the rest like the Empire State Building.

I started out to talk primarily about science fiction and I got off on some of my own hobbies. It's a luxury to me not to be held down by a plot and a set of characters. Here I can say anything I like and not be bothered.

I myself have been reading science fiction sinceGernsback started putting it out in the*Electrical* Experimenter. Then I read it in*Argosy* and I dug up all that I could out of the Kansas City Public Library. Every member of my family had a library card; there were seven of us, so I could bring home quite a number of books at one time. I wear glasses now as a result. I never had any particular notion of writing it until about two years ago when a concatenation of peculiar circum-stances started me writing. I happened to hit the jackpot on the first one, so I continued writing. It amazed me to discover that people gave money away for doing things like that—it beats working.

It's likely that I won't be writing very much longer. With the way things are shaping up, I'll probably have other things I'll have to do, as will others here, whether we like it or not. But I hope to be a fan of science fiction for at least fifty years if I can hold myself together that long and keep from getting my teeth kicked in.

All I really want to do is to hang around as long as I can, watch the world unfold, see some of the changes—what they really are—that suits me.