

# ISAAC ASIMOV ON SCIENCE AND THE BIBLE

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**Paul Kurtz:** In your view is the Bible widely known and intelligently read today?

**Isaac Asimov:** It is undoubtedly widely known. It is probably owned by more people than any other book. As to how widely it is read one cannot be certain. I suppose it is read very widely in the sense that people just look at the words and read it mechanically. How many people actually think about the words they read, I'm not at all certain. They can go to a house of worship and hear verses read without thinking about what the words mean. Undoubtedly millions of people do.

**Kurtz:** There used to be something called the Higher Biblical Criticism. What has happened to that?

**Asimov:** I am constantly hearing, from people who accept the Bible more or less literally, that the Higher Criticism has been outmoded and discredited, but I don't believe that at all. This is just something that people say who insist on clinging to the literal truth of the Bible. The Higher Criticism, which in the nineteenth century, for example, tried to show that the first few books of the Bible contained several strains that could be identified and separated. I think is as valid today as it ever was. Fundamentally, there is a J-document and a P-document in the early chapters of Genesis and an E-document later on. I have no doubt that as one continues to investigate these things one constantly learns and raises new questions.

**Kurtz:** But by and large the public does not know much about this skeptical, critical interpretation of the Bible. Would you say that is so?

**Asimov:** Yes. Just as by and large the public doesn't know about any of the disputes there have been about quantum theory. The public knows only what it reads in the newspapers and sees on television, and this is all extremely superficial.

**Kurtz:** One thing I am struck by is that today in America we don't have a free market of ideas in regard to religion and the Bible. You are an outstanding exception. You have taken the Bible seriously and have submitted it to critical analysis. Would you agree that, although free inquiry concerning the Bible goes on in scholarly journals, and perhaps in university classes and in some books, the public hears mostly pro-religious propaganda -- such as from the pulpits of the electronic church, from various religious publications, and from the daily press -- and very rarely any kind of questioning or probing of biblical claims?

**Asimov:** I imagine that the large majority of the population, in the United States at least, either accepts every word of the Bible as it is written or gives it very little thought and would be shocked to hear anyone doubt that the Bible is correct in every way. So when someone says something that sounds as though he assumes that the Bible was written by human beings -- fallible human beings who were wrong in this respect or that -- he can rely on being vilified by large numbers of people who are essentially ignorant of the facts, and not many people care to subject themselves to this.

**Kurtz:** Do you take the Bible primarily as a human document or do you think it was divinely inspired?

**Asimov:** The Bible *is* a human document. Much of it is great poetry, and much of it consists of the earliest reasonable history that survives. Samuel I and 2 antedate Herodotus by several centuries. A great deal of the Bible may contain successful ethical teachings, but the rest is at best allegory and at worst myth and legend. Frankly, I don't think that anything is divinely inspired. I think everything that human beings possess of intelligent origin is humanly inspired, with no exceptions.

**Kurtz:** Earlier you said that the Bible contained fallible writings. What would some of these be?

**Asimov:** In my opinion, the biblical account of the creation of the universe and of the earth and humanity is wrong in almost every respect. I believe that those cases where it can be argued that the Bible is not wrong are, if not trivial, then coincidental. And I think that the account of a worldwide flood, as opposed, say, to a flood limited to the Tigris-Euphrates region, is certainly wrong.

**Kurtz:** The creationists think there is evidence for the Noachian flood.

**Asimov:** The creationists think there is evidence for every word in the Bible. I think all of the accounts of human beings living before the flood, such as Adam and Eve and Cain and Abel, are at best very dim memories of ancient Sumerian rulers; and even the stories about Abraham, Isaac, and Jacob I rather think are vague legends.

**Kurtz:** Based on oral tradition?

**Asimov:** Yes, and with all the distortions that oral traditions sometimes undergo.

**Kurtz:** In your book *In the Beginning*, you say that creation is a myth. Why do you think it is scientifically false? What are some of the main points?

**Asimov:** Well, all of the scientific evidence we have seems to indicate that the universe is billions of years old. But there is no indication whatsoever of that in the Bible if it is interpreted literally rather than allegorically. Creationists insist on interpreting it literally. According to the information we have, the earth is billions of years younger than the universe.

**Kurtz:** It is four and a half billion years old.

**Asimov:** The earth is, and the universe is possibly fifteen billion years old. The universe may have existed ten billion years before the earth, but according to the biblical description of creation the earth, the sun, the moon, and the stars were all created at the same time. As a matter of fact, according to the Bible, the earth itself existed from the beginning, whereas the stars, sun, and moon were created on the fourth day.

**Kurtz:** Yes, so they have it backward.

**Asimov:** They have that backward, and they have plant life being created before the sun. All the evidence we have indicates that this is not so. The Bible says that every plant, and every animal, was created after its own kind, which would indicate that species have been as they are now from the very beginning and have never changed. Despite what the creationists say, the fossil record, as well as very subtle biochemical evidence, geological evidence, and all sorts of other evidence, indicates that species have changed, that there has been a long evolutionary process that has lasted over three billion years.

**Kurtz:** It's not simply biology that they are questioning, but geology, astronomy, and the whole basis of the physical sciences.

**Asimov:** If we insist on the Bible's being literary true, then we must abandon the scientific method totally and completely. There's no way that we can at the same time try to discover the truth by means of observation and reason and also accept the Bible as true.

**Kurtz:** So what is at stake in this debate between evolution and creationism is not simply the principle of evolution in regard to living things but the whole status of the sciences themselves?

**Asimov:** That is what I believe. But I have letters from creationists who say that they don't deny the scientific method, that they are just trying to examine the inconsistencies in the evidence presented by the evolutionists. However, that is not what should be the chief job of the creationists. What they should do is present positive evidence in favor of creationism, which is something they never do. They confine themselves to pointing out inconsistencies in the evolutionary view, not hesitating to create those inconsistencies by distortion and, in my opinion, in some cases by outright fraud. Then they say that they have "proved" that evolutionary theory is false, and therefore creationism is correct.

**Kurtz:** Of course you don't deny that *how* evolution occurs is not fully or finally formulated.

**Asimov:** Certainly there are many arguments over the mechanism of evolution, but our knowledge about the evolutionary process is much greater than it was in Darwin's day. The present view of evolution is far more subtle and wide-ranging than Darwin's was or could have been. But it still is not firmly and finally settled. There remain many arguments over the exact mechanism of evolution, and furthermore there are many scientists who are dissatisfied with some aspects of evolution that most other scientists accept. There are always minority views among scientists in every respect, but virtually no scientist denies the fact of evolution. It is as though we were all arguing about just exactly what makes a car go even though nobody denies that cars go.

**Kurtz:** What about the metaphorical interpretations? When I was growing up, the general view was that we should accept creationism and that it is not incompatible with evolution but is to be interpreted metaphorically or allegorically in terms of stages.

**Asimov:** There is always that temptation. I am perfectly willing, for instance, to interpret the Bible allegorically and to speak of the days of creation as representing eons of indefinite length. Clarence Darrow badgered William Jennings Bryan into admitting that the days could have been very long. This horrified Bryan's followers, as it would horrify creationists today. You can say that the entire first chapter of Genesis is a magnificent poem representing a view of creation as transcending the silly humanoid gods of the Babylonians and presenting a great abstract deity who by his word alone brings the universe into existence. You can compare this with the Big Bang. You can say that God said "Let there be light" and then there was the Big Bang; and one could then follow with all sorts of parallels and similarities if one wished. I have no objection to that.

**Kurtz:** But aren't the stages wrong, even if it is interpreted metaphorically? You said earlier that, according to the Bible, God created the earth before the heavenly bodies.

**Asimov:** Yes. Some of the stages are wrong. But you could say that, when the Bible says "In the beginning God created the heaven and the earth," what was really meant was the universe. We could say that, at the time the first chapter of Genesis was written, when people spoke of the earth they meant everything there was. But as our vision

and perspective expanded we saw that what was really meant was the universe. Thus, if necessary, we can modify the words. But the creationists won't do this; they insist on the literal interpretation of the creation story. When it says "earth" they want it to mean *Earth*; when it says on the first "day" they want it to mean a twenty-four-hour day.

**Kurtz:** When the Bible says, "And God made the firmament," what does it mean? Isn't that odd?

**Asimov:** Well, if you trace the word *firmament* back to its original meaning, it is a thin, beaten layer of metal. It is like the top you put on a platter in a restaurant. It is like the lid of a dish. The earth is a dish and the firmament comes down upon it on all sides. It is a material object that separates things. There are waters above the firmament and waters below. In fact, in the Book of Revelation, which was written about 100 C.E., centuries after Genesis was written, the writer describes the firmament as folding up like a scroll. It was still viewed as a thin metal plate. But we know as surely as we can know anything at all that there is no firmament up there -- there's no thin metal layer -- there's only an atmosphere, and beyond it a vacuum, an empty space, except where there are planets, stars, and other objects. The blueness of it is an illusion due to the scattering of light, and the blackness of night is due to the absence of any light that we can see, and so on.

**Kurtz:** In a metaphorical interpretation, how would you interpret "the waters above and the waters below"? Does that make any sense?

**Asimov:** Not to me. Obviously the people who first wrote about the waters above the firmament were thinking of rain. The rain supposedly came down through the windows in the firmament. There were little holes, as in a shower head, and the rain drizzled through. I don't blame them for not understanding. I don't criticize the ancients for not knowing what we know. It took centuries to work up this knowledge, and the ancients contributed their share. They were every bit as intelligent as we are and every bit as much seekers after the truth. I'm willing to admit that. But the fact is that they didn't know as much as we know now.

**Kurtz:** They were limited by the prevailing scientific and philosophical views of the day.

**Asimov:** And by the little that had been learned up to that time. So this seemed a logical explanation of the rain. They didn't know the nature of the evaporation from the ocean. They didn't understand what the clouds really were and that is why they spoke of the waters above the firmament and below, but there is no reason that we should speak of it that way.

**Kurtz:** If you take Genesis metaphorically, you can believe in the theory of evolution as the Big Bang and also that everything evolved, so this need not be a threat to science necessarily?

**Asimov:** No, if you are willing to say that the universe began fifteen billion years ago -- the exact number of billions of years is under dispute -- as a tiny object that expanded rapidly and dropped in temperature, and all the other things that scientists believe happened, then you can say that God created it, and the laws of nature that controlled it, and that he then sat back and watched it develop. I would be content to have people say that. Frankly, I don't believe it, but there's no way one can disprove it.

**Kurtz:** You don't believe it? You don't think there is sufficient evidence that there was a cosmic egg that shattered and that God created this cosmic egg?

**Asimov:** I believe there's enough evidence for us to think that a big bang took place. But there is no evidence whatsoever to suppose that a superhuman being said, "Let it be." However, neither is there any evidence against it; so, if a person feels comfortable believing that, I am willing to have him believe it.

**Kurtz:** As an article of faith?

**Asimov:** Yes, as an article of faith. I have articles of faith, too. I have an article of faith that says the universe makes sense. Now there's no way you can prove that the universe makes sense, but there's just no fun in living in the universe if it doesn't make sense.

**Kurtz:** The universe is intelligible because you can formulate hypotheses and make predictions and there are regularities.

**Asimov:** Yes, and my belief is that no matter how far we go we will always find that the universe makes sense. We will never get to the point where it suddenly stops making sense. But that is just an assumption on my part.

**Kurtz:** Religion then postulates and brings in God.

**Asimov:** Except it tends to retreat. At the very start you had rain gods and sun gods. You had a god for every single natural phenomenon. Nothing took place without some minor deity personally arranging it. In the Middle Ages some people thought the planets revolved around the earth because there were angels pushing them, because they didn't know about the Galilean notion that the planets didn't require a constant impetus to keep moving. Well, if people want to accept a God as initiating the big bang, let them. But the creationists won't do that.

**Kurtz:** Are you fearful that this development of a literal interpretation of the Bible is anti-science and can undermine rationality in this country and in the rest of the world?

**Asimov:** I don't believe it can actually stop sensible people from thinking sensibly, but it can create a situation whereby there are laws against allowing sensible people to think sensibly in the open. Right now the fight is over creation and evolution. In the long run, in any fight between evolutionists and creationists, evolution will win as long as human beings have sense. But there are laws now in Louisiana and Arkansas, and other legislatures are considering similar laws.

**Kurtz:** It was struck down in Arkansas.

**Asimov:** Fortunately! But wherever the law exists, school teachers must teach creationism if they mention evolution. This is a dreadful precedent. In the United States a state can say: "This is scientific. This is what you must teach in science." Whereas in many nations that have had an established church -- nations we may have looked upon as backward -- they nevertheless understood that within the



subsystem of science it is science that decides what is scientific. It is scientists who make the decision. It is in the scientific marketplace that ideas win or lose. If they want to teach religion, they can teach it outside of science, and they can say that all of science is wicked and atheistic. But to force their way into science and to dictate what scientists must declare science to be destroys the meaning of all of science. It is an absolutely impossible situation and scientists should not permit it without a fight to the very end.

**Kurtz:** I fully share your concern. What about religion itself? Should religion be a subject for free inquiry? Should examination of the Bible be openly discussed in American society?

**Asimov:** I don't see why not. I think nothing is sacred, at least in a country that considers itself intellectually free. We can study the political process all we want. We can examine the reasoning behind communism, fascism, and Nazism. We can consider the Ku Klux Klan and what they believe. There is nothing that we should not be able to examine.

**Kurtz:** And your examination of the Bible indicates that it is contradicted in many places by modern science?

**Asimov:** Yes. Now this does not automatically mean that science is correct and the Bible is wrong, although I think it is. People should examine it. One thing we cannot do is to say without examination that the Bible is right.

**Kurtz:** Isaac, how would you describe your own position? Agnostic, atheist, rationalist, humanist?

**Asimov:** I am an atheist, out and out. It took me a long time to say it. I've been an atheist for years and years, but somehow I felt it was intellectually unrespectable to say one was an atheist, because it assumed knowledge that one didn't have. Somehow it was better to say one was a humanist or an agnostic. I finally decided that I'm a creature of emotion as well as of reason. Emotionally I am an atheist. I don't have the evidence to prove that God doesn't exist, but I so strongly suspect he doesn't that I don't want to waste my time.

**Kurtz:** But the burden of proof is on the person who claims God exists. You don't believe in Santa Claus, but you can't disprove his existence. The burden of proof is upon those who maintain the claim.

**Asimov:** Yes. In any case, I am an atheist.

**Kurtz:** You have no doubt reflected a good deal on this. Can people live without the God myth, without religion? You don't need it presumably. Does man need it?

**Asimov:** Well, individual human beings may. There's a certain comfort, I suppose, in thinking that you will be with all of your loved ones again after death, that death is not the end, that you'll live again in some kind of never-never land with great happiness. Maybe some people even get a great deal of comfort out of knowing that all the people they don't like are going to go straight to hell. These are all comforts. Personally, they don't comfort me. I'm not interested in having anyone suffer eternally in hell, because I don't believe that any crime is so nearly infinite in magnitude as to deserve infinite punishment. I feel that I couldn't bring myself to condemn anyone to eternal punishment. I am opposed to punishment.

**Kurtz:** The height of wickedness, is it not?

**Asimov:** Yes. I feel if I can't do it, then God, who presumably is a much more noble being than I am, could certainly not do it. Furthermore, I can't help but believe that eternal happiness would eventually be boring. I cannot grasp the notion of eternal anything. My own way of thinking is that after death there is nothingness. Nothingness is the only thing that I think is worth accepting.

**Kurtz:** Do you think that one can lead a moral life, that life is meaningful, and that one can be just and noble without a belief in God?

**Asimov:** Well, as easily as with a belief in God. I don't feel that people who believe in God will automatically be noble, but neither do I think they will automatically be wicked. I don't think those who don't believe in God will be automatically noble or automatically wicked either. I think this is a choice for every human being, and frankly I think that perhaps if you don't believe in God this puts a

greater strain on you, in the sense that you have to live up to your own feelings of ethics. But, if you do believe in God, you also believe in forgiveness. There is no one to forgive me.

**Kurtz:** No escape hatch.

**Asimov:** That's right. If I do something wrong, I have to face myself and I may not be able to figure out a way of forgiving myself. But, if you believe in God, there are usually rituals whereby you may express contrition and be forgiven, and so on. So it seems to me that many people can feel free to sin and repent afterward. I don't. In my way of life, there may be repentance but it doesn't make up for the sin.

**Kurtz:** Of course a lot of people who are humanists say that, if ethics is based upon either fear of God or love of God and his punishment and reward, then one is not really ethical, that ethics must grow out of human experience.

**Asimov:** Well, I said the same thing in an argument about what I called [the Reagan doctrine](#). Early in what I already consider his disastrous administration, Reagan said that one couldn't believe anything the Soviets said because they didn't believe in God. In my view, maybe you can't believe anything the Soviets say, but not for that reason. If you are ethical only because you believe in God, you are buying your ticket to heaven or trying to tear up your ticket to hell. In either case, you are just being a shrewd profiteer, nothing else. The idea of being ethical is to be ethical for no reason except that that is the way to be if you want the world to run smoothly. I think that people who say virtue is its own reward or honesty is the best policy have the right idea

**Kurtz:** Are you suggesting that morality is autonomous, that you learn by living and that one doesn't need an independent religious support for moral choice?

**Asimov:** Yes. If a group of people are living together in a community where there is a lot of lying and stealing going on, it is an unpleasant way to live. But if everyone tells the truth and is honest and thoughtful of his neighbor, it is a good way to live. You don't need to go any further than that.

**Kurtz:** Is there one value that you have always felt is the most important -- one moral principle?

**Asimov:** I am scrupulously honest, financially speaking, but I have never really had a serious temptation to be otherwise. I long for a temptation so that I can prove to myself that I am really scrupulously honest, you see.

**Kurtz:** I thought you were going to say that you were committed to truth and knowledge!

**Asimov:** When I think of being committed to truth and knowledge, that seems to be such a natural sort of thing. How can anyone be anything else? I give myself no credit for that. I don't see how it is possible to be tempted away from it, and if you can't be tempted away from it then there is no point in even considering it a virtue. It is like saying that it is a virtue to breathe. But when I think of truth, I wonder about telling those little social lies we tell for our own convenience, such as telling someone you have another appointment when you don't want to go out some evening. I don't have much occasion to do that, but I guess I am as prone to it as almost anyone is. Although I am apt to call someone up and say, "Gee, I meant to call you yesterday but I forgot." I probably shouldn't say that. I should say that I was busy all day long.

**Kurtz:** These are not great moral dilemmas. Have you never been tested or challenged morally? You are a man of great courage, but perhaps you are old enough that you don't have to worry.

**Asimov:** There's no such thing as not having to worry. I suppose that if people wanted to make a big fuss about my atheism it could conceivably reflect itself in the sales of my books so that my economic security would suffer. I figure, what the hell! There is a certain amount of insistence inside me to prevent me from bartering my feelings, opinions, or views for the sake of a few extra dollars.

**Kurtz:** So you have the courage of your convictions?

**Asimov:** I suppose so, or it may be just a desire to avoid the unpleasantness of shame! Unfortunately, many people define wickedness not according to what a person does but according to

what a person believes. So an atheist who lives an upright and noble life, let us say, is nevertheless considered wicked. Indeed, a religious believer might argue that an upright and noble atheist is far more wicked than an atheist who happens to be a murderer or a crook.

**Kurtz:** Is this because the atheist lacks faith in God, and that is considered the ultimate "sin"?

**Asimov:** Yes. The atheist who is a murderer or a crook gives a bad example for atheism and persuades everyone else not to be atheistic. But a noble and upright atheist, so the believer fears, causes people to doubt the existence of God by the mere fact that a person who does not believe in God can still be upright and noble. Religious believers might argue that way, but I think that is a horrible perversion of thought and of morality.

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