



Lee Spetner



Dr. Spetner has been active for more than forty years in military-systems development, about 20 years with the Applied Physics Laboratory of the Johns Hopkins University and about 20 years with Elbit Systems, Ltd. in Israel. He received a degree in mechanical engineering from Washington University in 1945 and the Ph.D. in physics from MIT in 1950. In the course of his career he has taught graduate courses in engineering, physics, and mathematics. For many years he taught statistical communication theory at the Johns Hopkins University and later at the Weizman Institute of Science. He developed an interest in biology and evolution when he spent a year in the biophysics department of the Johns Hopkins University in 1963-64. In 1997 he published a book Not By Chance, that shows why neo-Darwinian theory cannot explain the development of life. He is retired and living in Jerusalem, but he is still active, doing research in biology and evolution.

Shabbat Shalom: Dr. Spetner, what initially kindled your interest in creation?

Spetner: There was no one thing that “kindled” my interest in creation. It is a subject that I was brought up on at an early age.

Shabbat Shalom: Is creation a relevant topic today in the twenty-first century? Why?

Spetner: I think that there is a lot of misunderstanding about creation, both in the scientific camps and in the religious camps. With the rapid movement of science today, I think we can look forward to a continuation of the convergence of the theological and the scientific understandings of creation.

Shabbat Shalom: Why is creation important in Jewish tradition? What role does creation play?

Spetner: Creation is important because it informs us that the entire universe belongs to the One who created it and that we, both Jew and non-Jew, have obligations to Him. We are responsible to find out what those obligations are and to carry them out. The obligations of the Jew are more than those of the non-Jew, but the responsibilities are equally strict in both cases. If the universe were not created, but rather were the product of pure chance, none of us would have any absolute obligations. Our obligations would be only those we impose on ourselves.

Shabbat Shalom: What does the Jewish faith in creation imply for a Jewish understanding of God, man, and life?

Spetner: I don't know what is meant by "faith in creation." Creation is something we have knowledge of. We have, however, only a limited understanding of creation, because not everything has been revealed to us. There have been special scholars in each generation who have had the ability and the merit to understand more than others. It is not possible to understand creation from the text of Genesis alone. The account is too brief, and it was not the purpose of Genesis to give us those details. For more detailed information about creation one has to study the Oral Torah. I think that science has a contribution to make here, but one must be careful to temper the scientific understanding with a measure of humility. Many people tend to think that present-day cosmological theories give us the correct (and only legitimate) picture of the universe and its origin. But we have seen scientific theories change radically in a matter of decades. I think that there will eventually be a synthesis of science and revelation in these matters, but we are at present far from this goal.

Shabbat Shalom: Do you think that creation really happened? If yes, how?

Spetner: Yes, I believe creation happened. I think almost everyone, believer and atheist alike, believes that, mainly from the evidence of the "Big Bang." I don't know how the "Big Bang" was triggered, and I don't think anyone else professes to know either. But I am confident that I know who was

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responsible for that trigger. Cosmologists cannot observe anything before the universe became transparent to radiation. They cannot even theorize with any reliability about any-

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thing that happened until after 10^{-35} seconds after the big bang. Whatever references we have in the Oral Torah to the actual creation are sufficiently obscure that they are difficult for us to interpret reliably. Nevertheless, we see science today converging on some of the details of creation in Torah tradition. The "how" is something that science is busy trying to answer.

Shabbat Shalom: When did creation take place in history?

Spetner: That is an interesting question. All scientific evidence points to about 15 billion years ago. I cannot say yet whether this is or is not consistent with Torah tradition because, as I said, the meaning of some of the traditional statements on this issue are obscure. But it seems to be clear that the actual creation of the universe occurred *before* the "First Day" of creation as recorded in Genesis. Rabbi Isaac of Acco (1250-1350) taught that at the time of the creation of Adam the universe was 15.3405 billion

years old. The Genesis story is not the first creation. The world was created and destroyed many times before that. A careful reading of Genesis indicates that at the time of the creation of Adam (which, according to tradition, was 5760 years ago) the earth already existed. Jewish tradition has usually shied away from discussing events that occurred before the Genesis account. But there are good reasons for investigating them.

Shabbat Shalom: Your recent book *Not by Chance!* is subtitled *Shattering the Modern Theory of Evolution*. Could you briefly summarize for our readers the main argument(s) by which you shattered the modern theory of evolution?

Spetner: My main argument is that the mechanism of random mutation and natural selection, which is assumed by evolutionists to be responsible for all of evolution, cannot account for the development of life from some simple beginning to all the complexity we see today. Random mutation with natural selection cannot account for macroevolution. It cannot account for the appearance of small modifications that could build up over long periods of time to produce the kinds of changes that would cause a fish to evolve into an amphibian. The power of natural selection is only to reject the modifications that are unfit and to enhance the numbers of those that are fit. The book presents two arguments showing

that the long sequence of evolutionary steps required by neo-Darwinian theory cannot be built on random mutations.

First, calculations show that the probability of getting a long

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sequence of adaptive mutations is too low to account for speciation. If a theory is forced to say that observable events have had to happen with very small probability, then that theory cannot be said to *account* for those observables.

Second, of all the many mutations that have been studied on the molecular level, there is not one that could serve as a prototype for the billions of mutations postulated by evolutionary theory to be responsible for the evolution of new species, new genera, and new phyla. The lack of such an observation does not only represent a lack of evidence for evolution; it is actually evidence against neo-Darwinian theory. For all of life to have evolved from a primitive form like a single cell, a large amount of information would have had to evolve in the process, simply because the complex life of today contains much more information than that single primitive cell could have contained. Neo-Darwinian theory postulates that all that information was built up slowly through random mutations culled by natural selection. There is no evidence or any argument in favor of that postulate. Moreover, both theory and evidence are against it.

***Shabbat Shalom:* Do you see other scientific arguments against evolution?**

Spetner: There are other arguments against evolution, but the above are the strongest and

least subject to rebuttal by evolutionists.

***Shabbat Shalom:* What would you regard as scientific arguments against creation?**

Spetner: I know of no scientific arguments against creation, whether the creation of the universe or the creation of life. What are offered as “scientific” arguments against the

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creation of life are nothing more than an assumption that supernatural intervention must be ruled out. That, of course, is not an argument.

***Shabbat Shalom:* Do you think that creation excludes evolution?**

Spetner: The word “evolution” is used in a slippery way by evolutionists. In selling their philosophy to the public, “evolution” means the development of all life from a simple beginning. When giving evidence for evolution, the word is watered down to mean simply that there has been change. “Evolution” in the sense of change is of course not incompatible with

creation. In chapter 7 of my book, I discuss how the ability to change is built in to living organisms. Creation does not exclude this kind of evolution, and there is good evidence that such evolution has occurred. In principle, creation could include the evolutionary process, as some theologians think. But I am not of that opinion.

***Shabbat Shalom:* Does the biblical story of creation in Genesis 1 have something to say about the scientific process of creation?**

Spetner: The story in Genesis is, in itself, too brief to shed much light on the process of creation in the kind of detail that would have meaning for science. Additional details in the Oral Torah shed more

light on the subject, and these details can, in some instances, correlate with the origin of the universe as presently understood by cosmologists. But we must remember that the present picture offered by cosmologists is not their final word; it will very likely change in the next decade or less.