

Towards a Resolution of some of the Conflicts

1. Introduction.

Our attempt, this week, to resolve specific conflicts between Religion and Science is predicated on our opinion, explained last Friday Night, that both have separate functions in life, although they overlap. In this area of overlapping there are certain conflicts. Whether or not we can resolve them, now or ever, the fact remains that both Religion and Science entail inherent and eternal truths, and neither will stand or fall by these conflicts. It is in this spirit, and in the knowledge that Torah is true and that all it maintains is true, that we proceed to the factual discussion.

2. Evolution vs Creation.

- a: The Bible and Creation. The Universe was created by G-d, at His command, and was created ex nihilo. G-d created living as well as inorganic matter. Vegetable, animal life and human beings were created in fixed species ("le'mineihu").
- b: Biology and Evolution. There is no one theory of evolution. There are many, but fall mainly into three classes: Lamarckian, Darwinian, and Mutation theory. Will explain in more detail later.

Essentially, almost all theories of Evolution maintain these principles:

- 1) Living forms as they now exist in their many species were not always thus.
- 2) Life is constantly evolving, and the direction is from simpler to more complex and higher forms.
- 3) Species, as we know them, are not fixed. ALL forms of life that we know have a common origin (the "Origin of Species"). Life began on this world with a unicellular germ. Then, by one way or another, and over millions of years, several lines of descent gave rise to our present species, including Man. The method of evolution is, according to one school (Lamarck), by the organism adapting itself to its environment, thus gaining new skills and new physical features while losing some others (give giraffe example), and insists upon the inheritance of acquired characteristics. According to a second school (Darwin), there is always a "struggle for survival", and there results a "survival of the fittest", i.e. the strongest species win the battle of life vs life and survive by virtue of their superior physical traits, or shrewdness. A third theory (Mutation) would attribute the survival of one line of descent, and extinction of another, to pure chance and probability.

- c: First resolution. This first approach is based upon our belief that the Bible, especially the first part of Genesis, can be interpreted liberally. There is no single, definitive, official, accepted interpretation. There are as many interpretations as there are commentators - thousands. Maimonides avers that Bible up to Va'yera (Abraham's maturity) can be interpreted figuratively. With this in mind, following points are of interest:

- 1) There is nothing sacrilegious ~~with~~ about assuming that life was evolved, in a line of descent with changing species. We simply add that it didn't happen blindly, or because of a brutal struggle for survival, but solely because G-d so willed it. i.e. G-d controlled evolution according to His will.

(John Fiske: "Evolution is God's way of doing things")

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- 2) In the Biblical account of Creation, where the world is done in "six days", it is exceedingly interesting that the organization is, like in evolutionary theory, from simple to more complex, or lower to higher forms of life. Thus we begin with inorganic life, to simple organic life and finally Man. Here is a general outline:
- *First Day - heaven and earth (i.e. matter) and light (i.e. energy)
 - *Second Day - Water and atmosphere
 - *Third Day - the collection of Water into specific deposits, and the geotopic outline of Earth. The beginnings of Vegetable life - grass, then trees
 - *Fourth Day - the Sun and the Moon and the orderly rotations as they do now
 - *Fifth Day - Sea-life, Birds, Sea-monsters (i.e. mammoth reptiles)
 - *Sixth Day - insects, beasts, Man
- 3) In addition to this Biblical record, the Oral Tradition of Israel, as preserved by Rabbis of Talmud and Midrash, is exceedingly valuable here. Thus a Rabbinic tradition (Eruvin) states that Man was originally bisexual (androgyny), and that he once had a tail (showing his closeness to ape family).
- 4) Another tradition has it that Man was created in slow stages, and was a living creature long before he assumed his final form and before he was endowed with human intelligence (Avos D'rab Nassan and Pessikta Rabassi)
- 5) A Talmudic statement has it that the reason birds have scale-like skin on their feet is that they were created from water, like fish. This is akin to the theory which attributes the descent of birds from fish, or common origin.
- 6) Another source (Midrash Avakir) maintains that before Noah men had webbed fingers like birds and reptiles, because he had to dig manually, not having tools; but then, when he began to use tools, he had no need for webbed fingers, and so lost this feature (Lamarckian inheritance of acquired characteristics, atrophy etc)
- 7) We know that certain species have become extinct. Thus Rabbis speak of Tachash of days of Moses having disappeared.

We see, therefore, that it is ridiculous to draw hard and fast conclusions from simple reading of Bible. All we know for certainty is that G-d is He who created all, and hence moral conclusion is: we must serve him. But noscientific descriptions.

d: Second Resolution. Our second approach is based upon a sincere doubt whether evolutionary theory is correct after all. Upon genuine scientific bases we have the right to question the whole thing. Perhaps we have all been living under an illusion. Of course, some will scoff at this suggestion and call it heresy - which proves that Evolution is really become a Religion; and if it is to remain Science, we must be allowed to question it, and if necessary, discard it.

- 1) Lamarckian theory that characteristics acquired by adaptation can be inherited, has absolutely no proof. It cannot be demonstrated experimentally. It conflicts with other accepted biological theories. It is logically difficult to maintain. It has long been discarded by Western Scientists, and now even Soviet biologists have tossed it out.
- 2) Darwinian Theory is harder to object to not on scientific grounds, but in popular discussions, and that because it has become a sort of religion in itself and any attempt to question it is regarded as dark reactionary work and unscientific. This is a result of its popularization by atheistic materialists like Wells and Huxley who seemed to use it as a substitute for the faiths they had lost. But the fact is that many great and outstanding scientists have seriously questioned Darwinian Evolution and concluded that it is mostly a priori theory,

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 an idea conceived by a highly imaginative mind, not backed by experiment, and accepted in a way which shows that it is more faith than science. Also, many scientists report that Natural Selection, i.e. Darwin's survival of the Fittest, leads to perdition, not to better forms of life; and that, on the contrary, Mutualism (also called symbiosis), or the process whereby different forms of life practice reciprocal aid and thereby keep alive, is much more effective in the continuation of life than the antagonistic life-struggle of Darwin. Also of importance is the opinion of a good number of high-grade scientists that zoology has today 17 major form-groupings, and that it is impossible to find transitions from one form to another. It is not difficult to find a host of even more serious objections. Thus Lecomte Du Noüy has pointed out that if you do not assume a Divine intervention in the evolutionary process, then the theory of evolution is in direct contradiction to the most basic law of all physics, the Law of Thermodynamics concerning the increase in entropy.

Thus, as recently as this past summer, a well-known French biologist, writing for the journal "Diogenes", reviews evolutionary theory, and concludes that, "the experimental production of new species has never been accomplished... evolution is not a fact in the strict sense in which science understands the term. It remains an idea..."

- 3) It seems, therefore, that scientists nowadays are not quite so sure about the Theory, or theories, of Evolution, as they once were. Under such conditions, and remembering the elasticity of interpretation of the Bible, is it worth discarding Religion because of such conflicts?

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 e: Third Resolution. This third approach is basically a continuation of the second. Now again we are skeptical of the scientific basis of this challenge to Judaism.

But whereas a few moments ago we questioned only evolutionary theory as such, we now must widen our skepticism and include all retrospective disciplines of Science, i.e. all attempts to reconstruct in our minds what went on so many, many years ago. We must distinguish between what a scholarly guess or the flight of one man's imagination who happens to be a scientist and who imagines in scientific terms, and between solid fact as established according to science. And let us remember that Science - i.e. scientific method, requires that a fact be declared established only if and when it can be repeated under the same experimental conditions with laboratory controls. Thus, until you demonstrate, in the laboratory, the evolution of one more complex species from a simpler or lower form, you have absolutely no right to call your ideas of evolution "science". Yet that is just what we have done.

Let me cite just one authority, a most respected conservative person, a top-notch scientist who is now also a diplomat - the former President of Harvard, Prof. James B. Conant. Listen to what he writes (just last year) about these various theories about the beginning of the world or life:

"Many of the so-called theories of the origin of life are not scientific theories at all in the sense of being guides to action. They are merely speculative ideas which no one knows how to connect with new experiments or observations. On this point... the general public is apt to be much confused. People fail to distinguish between a new theory about the origin of life (or of granite or petroleum), which is merely one speculative idea, and a theory from which flow new consequences that can be tested. Speculation in the field of cosmogony is not to be disparaged, but the wide publicity given to each new flight of fancy tends to confuse the general public..."

Such are the words of an outstanding scientist. Yes, all these theories about the origin of life have no right to the title of "scientific fact". And as long as they don't, they have no right to dispute religious teachings with the authority of superior knowledge and factual evidence. Add to that the fact that even as speculation, Evolution now stands on the weakest grounds it ever has.

3. Geology and the Age of the World according to Tradition.

- a: The Conflict. Geology now maintains that the Earth went through a series of different stages until it came to its present form, and even now is in a state of flux. The Bible has the world created as is. Also, geologists maintain that the world is ancient - that its age is measured in the millions of years, while Jewish Tradition believes the world to be 5,715 years old. Finally, there are many theories as to the origin of the Universe - supposedly from a "cloud" of matter-energy, and about the origin of our Earth, Sun and Moon. The Bible speaks of separate creations of Heaven and Earth, and separate creations of Sun and Moon.
- b. Resolution One. The general validity of all retrospective theories is open to very serious doubts, as previously indicated. Geologic and cosmogonic theories are, like evolution, at most good guesses, at the worst colossal frauds, and in all probability interesting conjecture.
- c. Resolution Two. The fact is that there are so many theories as to the origins of the earth, sun, moon and universe in general, that there is little use in discussing a single theory as opposed to Jewish teachings. And even then, even if we should admit the cogency of the arguments for the antiquity of the universe, ~~why~~ because of such reasons as stone structure, the age of rocks, radioactivity and lead-isotopes etc., who says that G-d didn't create the world a comparatively short time ago already manifesting certain signs of old age?
- d. Resolution Three. Each and every theory of the origin of the universe, no matter how far back it purports to go, comes to a blank wall. Say that the entire universe developed from a galactic cloud with a spiral twist. All right - but where did the "cloud" come from, and who twisted it? Say that all matter (in keeping with Einstein's theory of the interconvertibility of matter and energy) was once energy. But where did that energy come from in the first place? And what accounts for that completely improbable automatic conversion of it into matter? The point is, that you cannot go back a certain distance without facing the ultimate question: where did it all of it really come from? No "scientific" theory can escape the ultimate question. And the Bible long ago answered it in its first sentence, an answer which not only accounts for the origin of the great universe, but which holds consequences for the moral lives of individual men and women. In the beginning, before galaxies and clouds and spiral twists and energy and curved space, before all that there was nothing but G-d, and out of nothing He created heaven and earth...
- e. Resolution Four. Having shown the weakness of these various theories which aspire to the title "scientific", let us now proceed to the other facet - what does Judaism really teach?
- 1) When the Bible speaks of "six days" or "seven days", it need not really mean 24 hours-spans as we know it. The word "day" may be equivalent to our term "age". Thus the ages speak of each day being a thousand or two thousand years duration. (Agadath Shmuel, see Torah Shleimah Breshit 1, 448)
 - 2) Zohar and Midrash Rabba about G-d building worlds and destroying them before creating present world. In that case, all "ice-age" relics etc. etc. are from these "previous worlds" of which tradition speaks, and our "age of earth" refers to our present historical civilization. This, in fact, is a most important conclusion: the traditional age of "earth" refers not to the age of the "earth", but rather to the age of our civilization beginning, in its pre-dawn, with the appearance of specific individuals about whom the Torah tells. Adam, as the first to commune with G-d, is the first one worthy of mention. He begins history. What happened before him ("ADAM" and "HA'ADAM") is unimportant, hence not mentioned.