## **Defending God's Creative Wisdom**

Rabbi Natan Slifkin

Dr. Jonathan Ostroff's article in the Jewish Press, "Contra Rabbi Slifkin," was free of the virulent rhetoric that has accompanied most of the condemnations of my work. Nevertheless, I was disappointed to see him continuing to present some serious distortions of my writings. These were accompanied by a mix of problematic claims about science and theology intended to support the verdict that my book *The Challenge Of Creation* is false and heretical. Dr. Ostroff's prose is smooth, and it is easy to miss the grave errors, both scientific and theological, in his presentation, as well as his manipulation of statements by myself and others. Unfortunately it is always easier to obfuscate and distort than to untangle and clarify, so by necessity, this rejoinder is quite long. I hope that the reader will bear with me as I separately address the scientific and theological issues, in order to defend a large number of people in the Jewish community who do not see themselves as heretics.

## I. The Scientific Issues

In his article, Dr. Ostroff repeatedly claims that I have been hiding important information about scientific anomalies from my readers. But it is not I who is distorting the scientific picture. My book accurately summarizes the state of modern science. And the consensus of the global community of scientists, in all the relevant fields of the natural sciences, is that the universe is many billions of years old, and that all life descended from a common ancestor (the question of exactly *how* this happened is still subject to debate, as I discuss in my book), based upon an extraordinarily diverse wealth of evidence. To be sure, there are occasional anomalies, as with everything else, but these do not undermine the vast amount of evidence in favor of these conclusions. There are many cherished concepts in *hashkafa* and *halacha* that have isolated anomalies associated with them. Dr. Ostroff would, justly, not see such *kashyas* as reason to do away with these ideas, and there is likewise no reason to do so here. A few anomalies do not undermine a well-established position. Furthermore, when one investigates the "anomalies" cited by anti-evolutionists, one usually finds these claims to be based upon misunderstandings or distortions of scientific data.

Dr. Ostroff would have us believe that all the world's scientists are not to be trusted, because they are operating under assumptions and biases that are contrary to religion. Yet the opposite is true. Mary Schweitzer, the paleontologist that Dr. Ostroff quotes, is a devout evangelical Christian. She believes that the dinosaur fossils that she studies are millions of years old not because of any anti-religious bias, but because the evidence overwhelmingly favors that conclusion.

Dr. Ostroff states that "what Rabbi Slifkin does not reveal to his readers is that under the right conditions, an animal the size of a dinosaur can become a fossil in a mere three weeks!" I do not reveal that to my readers for a very simple reason. The pace of fossilization is irrelevant; what is relevant is when this fossilization took place. Dr. Ostroff is not sure whether dinosaurs were created on day five of Creation, along with whales and eagles, or on day six, along with lions and bears and people. Well, it's easy to prove on theological grounds that it wasn't on day five; as that involved only the creation of aquatic and flying creatures. Dr. Ostroff claims that Chazal indicate that the *taninim hagedolim* (sea-monsters) of the fifth day may include land-living dinosaurs, but he avoids quoting the actual source, which clearly refers specifically to a single individual of a single amphibious species, the behemoth. Furthermore, on scientific grounds, his question regarding their day of creation is easy to resolve – let's just see whether dinosaur fossils are found along with the fossils of whales and eagles, or along with the fossils of lions and bears! But we find instead that their fossils are found with neither. The hundreds of thousands of dinosaur fossils that are found all over the world are never found with the fossils of contemporary animals such as dogs or lions or elephants or with people. The most reasonable conclusion is that they lived at a different period.

Dr. Ostroff notes that I have "consistently refused to discuss the validity of the scientific evidence," but he omits a crucial qualification – I have refused to discuss it *with Dr. Ostroff*, not with everyone! This is for many reasons, including his repeated distortions of statements made by myself and others. But a primary reason why I cannot discuss the validity of the scientific evidence with him is that any scientific discussion has to follow the basic principles of science – evaluating the evidence on its own merits, and drawing whatever conclusions it implies, without prior bias. Yet for Dr. Ostroff and others like him, evolution is not a scientific issue but rather a religious one. He considers it utterly heretical to accept evolution, so how can he possibly accept any evidence for it?

In fact, when one of Dr. Ostroff's colleagues once claimed to me that there are not enough fossils of intermediate species to justify accepting evolution (he didn't explain why the fossils that exist do exist), I asked him how many it would take for him to accept it. He wouldn't and couldn't answer – for, of course, there is no evidence that will convince him. With people for whom denying modern science is a matter of religious dogma, it is pointless to engage in the charade of having a scientific discussion. Their goal is not to honestly evaluate the evidence, but to defend their faith. One way of doing this is to look for any potential weakness and exploit it out of all proportion. While focusing on minor anomalies, they fail to confront the mountains of geological evidence, the wealth of fossils, the homologous anatomies of whales, land mammals and bats, the strange nature of various physiological structures, the similarities in DNA between different species, and so on. A person who has the goal of asking *kashyas* can always find something, but others prefer to look at the overall picture, draw unbiased conclusions, and present a model that seeks to best explain all the data.

With the overwhelming evidence and consensus of scientific opinion against them, antiscientists seek to latch on to any statement by a scientist that may bolster the case, but usually they end up distorting the significance of what the scientist is saying. A perfect example is with Dr. Ostroff's claim that the research of Dr. Mary Schweitzer shows that fresh blood cells have been discovered in a fossilized Tyrannosaurus Rex. First of all, this is quite a perversion of the scientific picture. Schweitzer herself only said that the structures she found had the appearance of blood cells, not that they actually are blood cells! She clarified that "the fossil record can mimic many things, so without doing the chemistry to show that there are similarities to blood cells at the molecular level, I do not make any claims that they are cells." In fact, most other paleontologists do not believe that they are blood cells.

Dr. Ostroff then claims that these blood cells prove scientists wrong in believing that dinosaurs lived millions of years ago. But on what basis does Dr. Ostroff claim that it is impossible for blood cells to be preserved for so long under the right conditions? Why does he insist that those scientists who say that this is impossible are right, and that those scientists who say otherwise are wrong, and that they are all wrong when they say that dinosaurs lived millions of years ago? This seems rather selective.

Let's put it another way. Even if Dr. Ostroff were correctly representing paleontology in claiming that there are fresh red blood cells in dinosaur fossils, then there are two possibilities: either this shows that dinosaurs lived a few thousand years ago, or they lived millions of years ago but their blood cells can be preserved under freak conditions. Which is the more reasonable conclusion? Well, considering that dinosaur fossils are never found with the remains of contemporary animals, and that there is a wealth of evidence from many diverse fields of science that dinosaurs lived millions of years ago, doesn't this make it more reasonable to conclude that the preserved red blood cells are a freak anomaly? And let's not forget that all the other thousands of dinosaur remains are very much fossilized. How does Dr. Ostroff account for this? Presumably he believes that the unique forces of Creation or of the Deluge caused this phenomenon. So why was this particular Tyrannosaur fossil different? Whichever way you look at it, it's an anomaly. It certainly doesn't overturn the mountains of evidence that dinosaurs lived long, long before contemporary creatures.

## **II.** The Theological Issues

Dr. Ostroff claims that my book carries no approbation from any *rosh yeshiva* or *posek* because it is heretical. Aside from his curious preference for *roshei yeshivah* and *poskim* over theologians, his charge is tragically ironic. The principal objection of many of my distinguished opponents to my original books was that I included such approbations, thus making my books appear to target the insular yeshivah world. I was requested by several Roshei Yeshivah to reprint the books, but without including such approbations, so that my books would only be read by people struggling with these issues and not by their own communities. It was precisely out of sensitivity to their wishes that I removed the approbations from my books when reprinting them! This is the absurdity of the position in which I find myself: if I present endorsements, then I am condemned for not having them!

Dr. Ostroff also notes that I have a blurb on my book from the atheist philosopher Michael Ruse, seemingly implying that my book must therefore be heretical. But this is precisely the difference between myself and Dr. Ostroff – I can boost my credibility by showing that even people who do not share my ideological position can attest to the accuracy of my material and the cogency of my arguments, whereas he is unable to do that. Dr. Ostroff can never find a non-religious scientist who will support any of his "scientific" positions.

After these irrelevant trivialities, we finally come to the charge by Dr. Ostroff that I have contravened core principles of the Torah. He follows this up with the utterly fallacious claim that I failed to address this in discussions with him. In fact, I repeatedly challenged Dr. Ostroff regarding his claim about there being "core Torah principles" that I contravened, but he dropped out of the email discussion.

What exactly is the theological problem with evolution? Dr. Ostroff first alleges that I "freely admit that his Darwinian interpretation flies in the face of every classical Talmudic and Rishonic source discussing the topic." That is a disturbing spin on my position. What we find amongst the Rishonim is an attempt to understand Creation in light of the philosophical beliefs of their era. Thus, Ramban spoke about the universe originating from the Greek *hyle*, and Rambam interpreted the six days as referring to Aristotelian hierarchal levels of the natural world rather than time-periods. Of course we won't find any Talmudic or Rishonic source specifically mentioning evolution, just as we won't find them saying that the earth orbits the sun. But what we do find is an effort to reconcile Torah with that which appears reasonable to accept, rather than insisting upon the rejection of science and inventing new principles of faith by which to condemn those who take different approaches.

We then come to the primary charge leveled by Dr. Ostroff, in which he is recording the views of his rebbe, Rav Shlomo Miller of Toronto. This is a new charge that was never previously leveled by any of my opponents: that modern science undermines Shabbos. I met with Rav Miller last week to discuss this issue, and it is worthwhile to note that the tone of the meeting was pleasant and Rav Miller was very warm.<sup>1</sup> However he insisted that all the astronomers, physicists, geologists, paleontologists, anthropologists, archeologists, and so on are all completely mistaken in believing that the laws of nature were operational beyond 5768 years in the past. He did not care whether the six days of creation were 24 hours each or several billion years, but he strongly objected to the idea that the laws of nature were operational during this period.

The reason for this objection, as also presented by Dr. Ostroff, is the belief that Shabbos must attest to the supernatural creation of everything in the universe. Since the Torah describes God as having created the world in six days and then ceasing from such activity,

<sup>&</sup>lt;sup>1</sup> Rav Miller informed me that while he was requested to sign the ban on my books, he refused to do so. He told me that although he does not agree with my books at all, he objected to the letter of condemnation that was signed by various Gedolim (but unfortunately he did not elaborate on the nature of his objections to it). In light of that, I find it curious that Dr. Ostroff's website approvingly presents this letter. I would have thought that since his rebbe objected to it, he would either not publicize it, or explain why his rebbe felt that it was wrong.

they insist that the way in which God runs the world today – i.e., via the laws of nature – could not have been the way that God operated while creating the world. One cannot maintain that the planets and stars and animal life were formed via naturalistic processes, since such processes would still be at work today. In fact, as I understood Rav Miller, one must insist that new planets and stars and animal species *cannot* be formed today. A distinction must be drawn between Creation and Shabbos.

This is not an insignificant point, and it raises a difficulty with the approaches of people such as Dr. Gerald Schroeder and Dr. Natan Aveizer who, albeit with fiddling around with the duration of the days, interpret Genesis as an essentially scientific account of the development of the universe. If the six days of Genesis are describing the physical, chronological history of the development of the universe, ending 5768 years ago, and the creative activities of Genesis refer to these events, then in which way did God cease from creative activity? Science maintains that there are still stars and planets being formed, and new animal species evolving. Still, this does not appear to be an insurmountable difficulty; one could answer this by saying that when the Torah says that God rested from creation, it means only that creation was concluded vis-à-vis the universe being ready for man, but not that the nature of creative activity itself finished.

Yet in any case, the approach to Genesis that I favor in my book is fundamentally different. As my mentors taught me, Genesis is not to be understood as a scientific, chronological description of the historical development of the universe. Instead, it is to be understood as a multilayered text teaching crucial lessons about theology rather than science, with additional mystical interpretations of the six days as referring to *sephiros* – Divine forces involved in creation. Space does not permit me to do justice to this approach; people must read my book to properly understand it. But the basic point is that the six days are not a scientific account of a period of time in the world's history, and Shabbos is likewise not attesting to a point 5768 years ago when the laws of nature suddenly took effect. In the words of my mentor, Rav Aryeh Carmell of blessed memory:

The true nature of God's creative activity during the six days and the sense in which He can be said to have "rested on the seventh day" must remain forever beyond our comprehension, whether the days are taken literally or metaphorically. It is reasonably clear that the Torah wishes to convey that the six weekdays and Shabbat correspond to some basic structures of reality, and it can make no difference to the concept of Shabbat whether God's "activity" or "inactivity" is expressed in relation to days, *sephirot*, or other spiritual constructs. (*Challenge* p. 259)

Just as we dip our finger in the wine on Pesach night to allude to the "finger of God" smiting the Egyptians, notwithstanding the fact that God has no finger, so too we commemorate Creation with our six days and Shabbos, even though God does not "rest" and the true nature of Creation and Shabbos was something else entirely.

There is no reason for insisting that everybody must conform to a particular understanding of how the universe developed and of Shabbos. Rambam, for example, was of the view that the six days of creation were hierarchal positions in the natural world rather than time-periods, yet he would certainly not have insisted that anyone who mistakenly believes them to be time-periods has undermined the nature of Shabbos! As long as one is understanding Shabbos as attesting to God's deliberate, goal-oriented creation of the universe, it makes no difference how one understands that creation to have taken place.

There is one statement of Dr. Ostroff's with which I am in complete agreement: his proclamation that "The very laws of nature, the imperatives that govern the cosmos, space, time, mass, energy, and life were only able to come into existence via God exercising his role as the Creator." And *that* is what we can certainly perceive Shabbos as attesting to, along with God's actual implementation of these laws to create the universe. Dr. Ostroff is free to believe that Shabbos *also* attests to the supernatural formation of everything within the universe – which was also, of course, the belief of many classical authorities who had no reason to think otherwise. But this particular interpretation of Shabbos does not suddenly become the sole acceptable definition of it!

## III. The Underlying Issue

One must wonder why this objection, not raised by anyone else, is so crucial to Dr. Ostroff. I think that there is an underlying issue. In his writings, Dr. Ostroff repeatedly insists that if a person accepts a naturalistic explanation of the development of the universe then there is no such thing as perceiving it as the work of the Creator. Dr. Ostroff in essence concedes to the atheists that with any process that can be explained scientifically, we cannot say that God was behind it. But this flies in the face of traditional Jewish belief. We see God's hand in the stars at night, even though astronomy well explains their nature. We see God's hand in miracle of childbirth, even though it is a natural process. We see God's hand in allocation of the Land of Israel amongst the Twelve Tribes, even though it was done via a "random" lottery. And we see God's hand in the events of Megillas Esther, even though it was through "chance" and "happenstance."

In the same way, we can see God's hand in the formation of stars, even though astronomy has an adequate explanation of how this happens. We can see God's hand in the formation of the lofty mountains, even though geologists can easily explain these. And we can see God's hand in the extraordinary diversity of animal life, even if we have an evolutionary explanation for it. There is no need to deny the legitimacy of all these branches of science, as Dr. Ostroff insists that everyone must.

Rav Shimshon Raphael Hirsch, who was skeptical of evolution on scientific grounds (which was a reasonable response in his day), nevertheless did not see such naturalistic explanations as presenting any conflict with Judaism. He wrote that if evolution were ever to be accepted as true by the scientific world (which it certainly has), "Judaism in that case would call upon its adherents to give even greater reverence than ever before to the one, sole God Who, in His boundless creative wisdom and eternal omnipotence, needed to bring into existence no more than one single, amorphous nucleus, and one single law of "adaptation and heredity" in order to bring forth, from what seemed chaos but was in fact a very definite order, the infinite variety of species we know today, each with its unique characteristics that sets it apart from all other creatures." Seeing God's hand working within His laws of nature is not only acceptable; it is an even greater testimony to His creative wisdom. We should not have to insist, "Ah, the scientists can't explain this!" in order to perceive God. It's also very dangerous; what happens when science then does explain it? We should be able to perceive God everywhere, in our daily lives, in history, in the things that science can explain, not just in the things that science cannot explain.

To be honest, it doesn't bother me if people deny modern science – physics, astronomy, geology, paleontology, and biology – although I believe them to be mistaken in doing so. If they say that God cannot be seen in natural processes, I think that they are making a grave theological error, although I won't distribute letters of denunciation. But I do strongly protest their condemnation as heretics of those who do, with good reason, accept the global consensus of the modern scientific enterprise, and who follow the path of Rav Hirsch and many other theological authorities in seeing this as part of the creative wisdom of God.

The Challenge Of Creation can be ordered online at www.yasharbooks.com