

## Responses to Rabbi Miller

### A compilation of comments on the *Hirhurim* blog and other sources on the Internet

*Rabbi Shlomo Miller of Toronto wrote a widely-publicized letter in which he condemned the writings of Rabbi Nosson Slifkin. This letter was subsequently translated and annotated by his associate Rabbi Simcha Coffey, who also wrote a response to the Canadian Jewish Tribune article about Rabbi Miller's letter, and it was posted on his website toriah.org. Many responses to Rabbi Miller's letter were posted on the Internet in blogs and in comments written on the blogs, which are collected here and edited for clarity. Some were written by an anonymous but well-known professor of Judaic studies cited by N. Klafner, others by N. Klafner and Y. Aharon, and others anonymously. Rabbi Miller's letter is presented both in the original Hebrew and in its translation by Rabbi Coffey.*

הנה הספרים של סליפקין כבר הוחרמו ע"י גדולי ישראל ומתחלה כשראיתי אותם אמרתי ריה מינות נודף מהם, אולם אח"כ ראיתי מש"כ אודות ששת ימי בראשית והם דברי מינות וכפירה, מלבד שהם דברי בורות ולא הבין כלל שכל חקי הטבע שאנו רואים עכשיו נקבעו בגמר ששת הימים כשעשה הקב"ה שביתה של יום השבת ואמר לעולמו די, אבל מהות הזמן וחקי הטבע בששת ימי בראשית אין להם שום דוגמא למה שאנו רואים עכשיו. וכבר אמרו רז"ל שנים עלו למטה וירדו ד. שלידת קין והבל היתה תיכף אחר ההריון ביום הששי של ששת ימי בראשית.

As is well-known, the books authored by Slifkin have already been banned by the *gedoley yisrael*. When I initially came in contact with his writings, I sensed an aura of heresy emanating from them. Indeed, upon further investigation I discovered that his opinions on the six days of creation are definitely heretical. Furthermore, they are boorish in content; he fails to comprehend that all of the laws of physics which prevail today were first established at the end of the six days of creation when *Hashem* terminated the creative process as represented by the day of *Shabbos* when "He said to His world, enough". In reality, the laws of physics which existed during the six days of creation have no parallel to those which we perceive today. Our sages have already stated "two arose on the bed and four descended" meaning that the birth of *Kayin* and *Hevel* happened immediately after their conception on the sixth day of creation.

Rabbi Miller's argument from *Kayin* and *Hevel* is perplexing. Since it is ordinarily impossible to bear children a short time after conception, he concludes that the laws of physics – presumably referring to the flow of time – must have been different. But why not simply conclude that the laws of biology were different? Is Rabbi Miller claiming that it is impossible for God to make someone give birth immediately after conception?

Nevertheless, Rabbi Miller chooses instead to state that the laws of physics were different. But what exactly does this mean? How many hours transpired during Eve's pregnancy? If there were many thousands of hours, then time during the six days of creation was indeed, to all intents and purposes, much more than six regular days. If it was only an hour, then the laws of physics have not changed at all; there was merely a biological miracle which has no bearing on the various lines of evidence for an ancient universe.

Of course, there is also the possibility that the Midrash, which speaks of many events taking place on the sixth day, is speaking in allegory, in which case it is entirely irrelevant to our discussion. This is the approach taken by Rambam, as explained by Abarbanel:

Rambam was stirred [to interpret it allegorically] by the words of Chazal, who said that all this transpired on the sixth day, as this shows that their opinion is that it did not literally take place. For it is impossible that on the sixth day, man was created, placed in Gan Eden, fell into a deep sleep, had his side taken and built (into Chava), and she came to him, and they sinned, and she conceived, and was punished, and man was banished – for without doubt all this is impossible to take place on one day. Rather, all this is abstract and conceptual.

Yet Rabbi Miller's position is that the laws of nature and the nature of time itself completely changed at the end of the sixth day. But in what meaningful sense was time different during the six days of creation? Rabbi Miller presumably agrees that the universe ended up looking as though it is billions of years old. And if all the laws of physics were speeded up during that time to produce this effect, then in which sense is it meaningful to speak of the six days being ordinary days? It's just playing with semantics. Rabbi Miller is doing precisely what he accuses Rabbi Slifkin of doing – interpreting the six days as being something other than six ordinary days.

In Rabbi Coffe's response to the Jewish Tribune article, he defends Rabbi Miller's position as follows:

There have been several important works authored by leading scientists in their fields discussing the various possible circumstances that could have existed during the incipient stages of the universe which would differ from currently understood laws of physics. Consequently, it would seem that the Talmudic dictum quoted by Rabbi Miller falls squarely within the parameters of current scientific enterprise.

This is simply false. The speculative works to which Rabbi Coffe refers discuss the possibility that at the *incipient* stages of the universe – the first few moments of its fifteen billion year duration – certain laws of physics may have functioned differently. All these leading scientists would ridicule the idea that their research could be used to show that the universe is only 5766 years old. Rabbi Miller's usage of the Talmudic dictum falls very, very far indeed outside of the parameters of current scientific enterprise.

ודבריו בזה הם כפירה בעיקר יסודות התורה.

Thus, Slifkin's opinions in these matters are absolute heresy.

Here is an astonishing leap of reasoning. Rabbi Miller is entitled to disagree with Rabbi Slifkin's explanation of the nature of the six days, no matter how difficult his own explanation. But how does Rabbi Slifkin's view suddenly become heresy in the fundamentals of the Torah? (Note: in the original Hebrew, Rabbi Miller wrote "heresy in the fundamental foundations of the Torah." For some reason, Rabbi Coffe seemed to tone this down in his translation.) Since when is it a fundamental of the Torah to believe that the six days of creation were six ordinary days?

Rabbi Coffer offers an explanation for this extraordinary ruling:

In other words, Creation is not a process that finds expression in current laws of physics and thus cannot be defined by it. During the *shevshes yimey bereishis*, the laws of physics were entirely different from those that exist today. This is self-evident from the Torah and can be gleaned from *Chazal*. Furthermore, this has been the collective *mesorah* of all Jews throughout the ages and in fact was uncontested even by gentiles. When a Jew makes *kiddush* Friday night, he is specifically proclaiming the truth of this idea and rejecting that of Slifkin's approach. Since *Chazal* have portrayed the *sheshes yimey bereishis* in terms of accelerated processes that have no parallel in our experience, there is no room to interpret *maaseh bereishis* in terms of what may look to us like millions of years of biological development. Anyone doing so is undermining the Torah and *Chazal* and is therefore espousing *kefira*. Cf. *Rambam Hilchos Tshuva* 3:8.

Granted, the collective *mesorah* of Jews through the ages *before* modern science was that the six days were ordinary days. But the question is as to how we understand it *since* evidence of an ancient earth came to light. As Rav Gedaliah Nadel *ztz"l* writes:

...The expression "one day" that the Torah uses, according to its literal translation, refers to one [conventional] day. Maimonides and the other early authorities truly held of this view, that each of the six days of creation lasted for one [ordinary] day, because they had no reason to believe otherwise. However, for us, there are indeed such reasons.

The single and popular work dealing with these questions for the last thirty years is Feldheim's *Challenge*. Several of the essays in that book propose that the six days of creation were not regular days. This view was also espoused by Rav Dovid Tzvi Hoffman *ztz"l* and Rav Eli Munk *ztz"l*. Is this *kefirah* that has been widely circulating in the Orthodox community for several decades without anybody noticing?!

With regard to the claim that *kiddush* is a rejection of any approach that takes the six days as longer than regular days, Rabbi Aryeh Carmell responds to this in *Challenge* as follows (page 259):

...Others however do not feel that there is any force in this argument. 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, *sephiroth*, or other spiritual constructs.

Rabbi Coffer's concluding words to his footnote, where he cites Rambam, are greatly misleading. The passage from Rambam to which he refers defines someone who denies the Oral Torah as a heretic. However, Rambam is clearly *not* referring to anyone who takes parts of the Torah non-literally against rabbinic tradition, since Rambam himself did precisely that on numerous occasions! Rambam elsewhere defines this heretic more precisely as someone who denies the very existence of Oral Torah. He certainly did not refer to someone who disagrees with the scientific pronouncements of *Chazal*, as Rambam would not have defined himself as a heretic. Thus, there is no basis in Rambam for Rabbi Miller's startling definition of heresy.

ובאמת הלך בדרכי המלעיגים על חז"ל כידוע שהמשכילים לעגו על דרשות חז"ל והיו חכמים בעיניהם שרק הם המשכילים יודעים דקדוק לשון הקדש,

The truth is that he has followed the ways of those who scoff at the sages, like the *maskilim* who ridiculed the exegeses (*drashos*) of our sages while considering themselves all-knowing, assuming that only they were able to understand the precise meaning of words in *lashon hakodesh*.

Rabbi Miller's accusation of Rabbi Slifkin being someone who "scoffs" at Chazal is echoed in Rabbi Coffe's response to the Jewish Tribune article, where he describes Rabbi Slifkin as someone who is led to "casually dismiss much of the wisdom of the Talmudic sages." Yet the facts of the matter are entirely different. Rabbi Slifkin's books seek to *defend* Chazal in light of challenges that are raised by anti-religious organizations such as Daat Emet. As part of this task, he respectfully states, on about *three* occasions (according to his publisher), that Chazal sometimes relied on the science in their era – and he is quoting authorities such as Rabbi Samson Raphael Hirsch when he does so, and he only does so after exhausting all other options. Calling this "scoffing" or "*casually* dismissing *much* of the wisdom of the sages" is a baseless slur.

עד שבא המלבי"ם זצוק"ל וחבר בנין נפלא על תורת כהנים להסביר דברי חז"ל על פי עומק לשון הקדש והראה נפלאות מתורת השם ויסודות דקדוק לה"ק שידעו חז"ל. וכן הוא כהיום בקושיות מן המדע על מה שאמרו רז"ל ובמקום שאנו מחויבים להאדירם, הוא בא להשפילם ואם יש קושיא שאינו יודע תירוץ, צריך להודות שלא זכיתי להבין דבריהם וכמו שעשו גדולי ישראל בכל הדורות כשהי' להם קושיא על הגמרא כי לא דבר רק הוא מכם, אם רק הוא מכם שאינכם מבינים, ואם נגשים אל התורה וחכמי התורה ביראת הכבוד ובענוה אז נלך לבטח ולא נכשל בעקרי הדת כמו שעשה סליפקין וידוע דברי הרמב"ם סוף הלכות מעילה שלא תהא מחשבת אדם בד"ת כמחשבתו בשאר דברי חז"ל ע"ש בכל דבריו הנעימים.

Until the *Malbim ztvk"l* appeared and composed an incredible work on *Toras Cohanim* to clarify the words of our sages based on the deepest, most fundamental imperatives of *lashon hakodesh* thereby demonstrating the wonders of *Hashem's* Torah and the profound grasp of biblical grammar which our sages possessed. So too in our time, Slifkin advances questions against our sages from current theories and in place of honoring the words of our sages, he denigrates their opinions. If he encounters a question for which he possesses no answer, it would behoove him to say "I have not merited to understand the words of the sages" just as all of our great scholars have done through the ages whenever they encountered a question on a subject in Talmud; "for it is not a thing that is lacking from you" and our sages comment, "for if it is lacking, it is from you" who lack the ability to comprehend. If we approach the Torah and its sages with awe and humility, then we will traverse confidently and not stumble in the fundamentals of our religion as Slifkin has done; the *Rambam's* words at the end of the laws of *me'ilah* are well known: "one's thought processes in Torah should not be the same as his thoughts in mundane matters", see there the remainder of his pleasant words.

It is extremely ironic that Rabbi Miller cites Malbim and Rambam as paradigms of the correct approach and uses them to denigrate Rabbi Slifkin. Both of these Torah authorities, when confronted with challenges from science to Torah, did *not* say "I have not merited to understand" as Rabbi Miller recommends. Instead, they reinterpreted Torah to conform with science, even at the expense of going against Torah giants of

earlier generations. Malbim, for example, explicitly rejects all the traditional opinions concerning the nature of the *rakia*, on the grounds that science has proven them wrong. Rambam rejects the statements in the Talmud concerning the heavenly spheres producing sound, for the same reason. They saw it as their obligation to give a satisfactory answer, not to say “I do not understand.” And they saw no reason to ascribe infallibility to the Sages. The dictum “for if it is lacking, it is from you,” refers to Torah, not the scientific pronouncements of sages.

והנה המפרשים כתבו על שאלת הרשע מה העבודה הזאת וכו' אשר בעל הגדה כתב שאומרים לו בעבור זה וכו' לי ולא לו ובתורה כתובה מענה אחרת ואמרתם זבח פסח. ופרשו המפרשים שכשומעים דברי מנות אין להתוכח עמהם, אבל לעצמנו אומרים דברי חזק. ואמרתם לעצמנו ולא לו זבח פסח וכו' אשר פסח וכו'

The *Haggadah* delineates the question of the *rasha*: “of what purpose is this work to you?” [He says “to you” thereby excluding himself. By excluding himself from the community of believers, he denies fundamentals. Therefore blunt his teeth and tell him:] “It is because of this that *Hashem* did for *me* when I went out of Egypt”, and the author of the *Haggadah* comments “for *me*, but not for *him* – had he been there, he would not have been redeemed”. The commentaries note that the answer given in the Torah is “and you shall say it is a Passover offering to *Hashem*” which differs from the answer in the *Haggadah*. The commentaries explain that when one hears words of heresy, one should not contend with them, however to ourselves, we should respond with words of encouragement, “and you shall say”, but “not to him”, “it is a Passover offering etc.”

Many people were appalled at Rabbi Miller comparing Rabbi Slifkin to a *rasha*. Rabbi Coffe, in his response to the Jewish Tribune, claims that such was not the intent of Rabbi Miller’s letter:

As far as the alleged comparison to the wicked son of the *Hagadah*, Rabbi Miller’s words are taken entirely out of context. Nowhere in the letter does Rabbi Miller compare Rabbi Slifkin to the ‘wicked son’. There are obviously some differences in Weltanschauung between certain groups in Orthodox Jewry. Rabbi Miller is aware of this. He is also aware that unfortunately there are certain elements that will spare no effort in maligning Orthodox leadership in an attempt to undermine their words. Just as the teachings of the *Hagadah* are meant for us but are not directed towards the wicked due to their unwillingness to acknowledge them, so too, the comments in the letter are directed only towards people who are open-minded and are willing to listen as opposed to those who choose to maintain pre-conceived notions. The latter group invariably fall prey to spurious depictions of Orthodox dogma effectively eliminating their partiality and thus their ability to countenance the pronouncements made by leading Orthodox Rabbis. This is the extent of the comparison.

The question is, of course, whether Rabbi Coffe’s interpretation of Rabbi Miller’s letter is accurate. In general, Rabbi Coffe seems to be trying to reduce the harshness of Rabbi Miller’s approach; note that, unlike Rabbi Miller, he does not refer to “Slifkin” but instead to “Rabbi Slifkin.” Are his apologetics for Rabbi Miller accurate? Certainly everyone else understood the letter as comparing Rabbi Slifkin to a *rasha*. After all, the equation is quite straightforward:

1. Rabbi Slifkin writes that the six days were not ordinary days

2. Rabbi Miller claims that stating that the six days were not ordinary days is heresy
3. Rabbi Miller points out that just as we do not respond to the wicked son, we do not respond to heresy.

By far the most reasonable interpretation is that Rabbi Miller is comparing Rabbi Slifkin to a *rasha*. If he is not in fact doing so, then it is up to him to clarify this.

ומש"ה אני כותב איזה דברים לחזק לבות אלו ששמעו דברי כפירה שתורה"ק אינה אמיתית לפי ידיעת חכמי הטבע ואדרבה הפך בה והפך בה דכולה בה.

Therefore, I have decided to expound upon some matters in order to strengthen the hearts of those who have been exposed to heretical doctrines which claim that our holy Torah is contradicted by the knowledge of scientists; on the contrary, “delve into it, and delve into it, for all is encompassed within it”.

There are some issues that need to be addressed here. First of all, nobody is claiming that Torah is contradicted by science; the claim is only that certain human expositions and commentaries on Torah are contradicted by science. Second, when Rabbi Miller proceeds to claim that there examples of Torah conforming to modern science, this is entirely beside the point. The issue is not as to whether there is ever *anything* in the Torah that conforms with science. Rather, the question is as to what to do about the numerous instances in which Torah and the statements of the Sages do not conform with science. Rabbi Slifkin cites numerous authorities that solve such problems by reinterpreting the Torah or stating that Chazal relied on the science of their day. Rabbi Miller cannot simply ignore the authorities that Rabbi Slifkin quotes by claiming that their approaches are heretical without explaining *why* they are heretical.

הנה חכמי הטבע עד לפני ד' מאות שנה לא ידעו שכוכבי לכת אין להם אור עצמם אלא אור חוזר מאור השמש עד שבא החכם Galileo והראה שכוכב נוגה Venus אין לו אור עצמי אלא אור חוזר. אולם לדעתי הדבר מוכח מדברי חז"ל שקראו שמו נוגה. ומלת נוגה שונה ממלת אור כמו שביאר המלבי"ם חבקוק פ"ג פסוק ד' ו'נוגה כאור תהיה כתב המלבי"ם נוגה הוא דבר שאין לו אור מצד עצמו רק מוציא האור מדבר אחר כמו הירח וכוכבים] כוכבי לכת [שאינן להם אור רק מקבלים ומגיהים אור השמש הזורח עליהם, ולפ"ז מוכח ממה שקבעו חז"ל שם נוגה על הכוכב Venus מוכח שאין לכוכב זה אור עצמו. א"כ דבר זה שלא ידעו חכמי הטבע עד קרוב לשני אלפים אחר כך, כבר נודע לחז"ל.

Until 400 years ago scientists were not aware that the light which appears to radiate from planets is not inherent light but rather light reflected from the sun. Then Galileo appeared and demonstrated that the light emanating from the “shining” planet Venus is merely reflected light. However, to my mind, this observation can already be gleaned from our sages who referred to this planet by the term “*nogah*”. The word “*nogah*” (shining) differs from the word “*or*” (light) as the Malbim has explained in his commentary on the verse in *Chavakuk 3:4*, “and *nogah* will be similar to *or*”. The *Malbim* writes that *nogah* is a term that denotes an object that does not possess inherent light but rather emits a reflected light just as the moon receives the light of the sun and subsequently reflects its rays. Thus, the fact that our sages have assigned the term “*nogah*” to the planet Venus demonstrates that they understood that this planet did not

possess inherent light. If so, we see that knowledge discovered by scientists 400 years ago was already known to our sages over 2000 years ago.

Rabbi Miller states that it is clear (*mukach*) that Chazal knew that the planets are solid structures which reflect the light of the sun while the rest of the world thought then planets were just ordinary stars, prior to Galileo proving this. He adduces proof from the word *nogah*, which Chazal used to name Venus, and which the Malbim says means “reflected light.” The problems with this are as manifold. First, if Chazal so clearly knew such facts about the solar system before Galileo, then why did so many Rabbonim reject the heliocentric model of our solar system and consider it to be heresy? Second, the Malbim lived long after Galileo and therefore his definition of *nogah* cannot be used to demonstrate knowledge prior to Galileo, unless it can be unequivocally proven that the word always carried such a connotation. Third, the word *nogah* is used in Tenach to describe the light of fire (Yeshayah 4:5) and of stars (Yoel 2:10), both of which possess innate rather than reflected light. Finally, and most devastatingly, if the name *nogah* indeed meant that it is a solid structure and not a star, why would only Venus have this name, and not the other planets? This indicates instead that the name *nogah* refers to a characteristic of Venus that is *not* shared with other planets. And there is a simple explanation as to why Venus is called *nogah* – it is the brightest star in the sky after sun and moon.

In light of these points, to say that the name for Venus shows that the sages understood Venus to be a planet rather than a star is a fanciful speculation with more arguments against than in favor; it is very, very far from being *mukach*.

אודות מהות של אור מתחלה סברו חכמי הטבע שהאור גרגרים עד Corpuscular Theory of Light שאחרי כן הוכיחו שהאור גלים Wave Theory of Light עד שלפני מאה שנה הוכיחו עוד הפעם על אמתת גרגרים photons וגם גלים והאריכו בזה חכמי הטבע Quantum Theory שפעמים נראה כגלים ופעמים נראה כגרגרים. והנה מלת אור כבר כתב ביד הלוי מאב"ד דווירצבורג שהמלה נגזרת ממלת ירה ומורה על יריית גרגרים של אור אולם יש מלה שניה על אור, נהרה ע' איוב פ"ג פסוק ד' ואל תופע עליו נהרה. ולדעתי בנוי ממלת נהר והוא כמו גלים. א"כ ב' מלות של אור מראים על שתי הבחינות של אור.

Regarding the essence of light, scientists first thought that light was composed of particles i.e. the Corpuscular Theory of Light. Later, they showed that light was emitted in waves i.e. the Wave Theory of Light. A hundred years ago, scientists demonstrated that light does possess particle-like qualities and subsequently scientists proposed the Quantum Theory that sometimes light appears as waves and sometimes as particles. Now behold, the *Yad Halevi*, written by the *av beis din* of Wurtzberg, has written that the word “*or*” has its roots in the word “*yaroh*” (to fling) and denotes the flinging of light particles. There is another word which denotes light “*niharah*”, see *Iyov 3:3*: “*v'al tofah alav niharah*”. To my mind, this word has its roots in the word “*nahar*” (river) which signifies the concept of waves. If so, these two grammatical representations of the word “*or*” represent the two differing forms of the phenomenon of light respectively.

Rabbi Miller claims that *jarah*, “shooting,” conveys the meaning of photons (discrete packets of energy), and that *nahar*, “river,” conveys the meaning of waves.

The problems with this are as follows:

- 1) Chazal did not invent this word. It is found in the opening passage of the Torah. If this etymology is proven true, it is a demonstration of God's wisdom, not the Sages, and as such it has no bearing on the discussion.
- 2) Chazal make no statements which show that they understood light's photon or wave properties.
- 3) Relating *yarah* to photons is way too creative to take seriously. If anything, it relates to the rays of light which appear to "shoot out" from the sun.
- 4) Relating *nahar* to waves is not even plausible. Only oceans have waves. Rivers do not have waves.
- 5) No one would ever think of this if not for already knowing about the photon and wave properties of light. Such creative reinterpretations do not demonstrate anything.

גם יש לציין דברי הגר"א באדרת אליהו ומובא נמי מפיו בספר גביעי גביעי הכסף שחושך אינו העדר האור אלא בריאה כדכתיב יוצר אור ובורא חשך, והחשך הוא החומר שעליו פועלת יצירת האור, ובוזה טועים חכמי הטבע וכמ"ש הגר"א

The *Gra's* words in *Aderes Eliyahu* are also noteworthy and are brought down in his name in the book *Giviey Gvia Hakesef* as follows; darkness is not an absence of light but rather a creation unto itself as it states "who forms light and creates darkness." Darkness is the substance upon which light operates. In this area the scientists err, not taking into account what the *Gra* has written [with respect to *choshech*].

The Vilna Gaon's view was that of Kalaam, and Rav Saadia Gaon argued against it in *Emunos Ve-Dei'os* 1:3. Ramban also states that darkness (in non-supernatural circumstances) is the absence of light (Bereishis 1:4 and Shemos 10:23), as does Rambam (*Moreh Nevukhim* 3:10), and the Ran (*Derashos Ha-Ran* 3, p. 40 in the Feldman edition). How the Vilna Gaon's explanation "strengthens the hearts of those who have been exposed to heretical doctrines which claim that our holy Torah is contradicted by the knowledge of scientists" is mystifying. Rabbi Miller has admitted that the *Gra's* words are contradicted by the knowledge of science. They are also contradicted by Rav Saadia Gaon, Rambam, Ramban and Ran. Rabbi Miller does not give any evidence at all that would demonstrate that the *Gra* is correct and Rav Saadia Gaon, Rambam, Ramban, Ran and science are all wrong.

וע"פ דברים אלו אולי יש למצוא פתרון הבעיות ב Quantum Theory Non-local Reality ולהבין המציאות של שמוכח מכח Bell's Theorem אבל כל זה עדיין לא בא לידי ברור

Based on these theories, it might be possible to resolve the conundrums that plague Quantum Theory and to comprehend the existence of Non-Local Reality which is evident from Bell's Theorem. However, these theories have still not been fully clarified as yet.

Using the Gaon's explanation to solve a scientific conundrum would be interesting if it were actually done, but Rabbi Miller himself in the letter admits that he does not have a clear understanding of how this could be done. It seems to be a throwback to the ether theory that was promoted in the 19th century. This theory held that light or electro-



magnetic radiation required a physical medium for propagation, called ether, just like sound or water waves. Unfortunately, this theory was disproved by the Michaelson-Morley experiment which showed that the propagation speed of light was constant regardless of the earth's motion in space. That experiment was the basis for Einstein's special relativity theory. Now, Rabbi Miller believes that an ether theory must be resurrected in order to account for non-locality and other weird quantum phenomena. Perhaps Rabbi Miller, or his disciples Rabbi Coffe and Dr. Ostroff, should work on this; there is a Nobel Prize in physics waiting for them if they can pull it off.

Many people have observed that Rabbi Miller's mention of "Quantum Theory," "Non-Local Reality" and "Bell's Theorem" seem to simply be jargon that is thrown in to give the impression to uneducated people that Torah scholars are great experts in physics. Such people may well have their faith in rabbinic authority strengthened as a result. Unfortunately, those who have studied physics have their faith in rabbinic authority seriously weakened instead. One comment on a blog brought this out clearly:

As a professional physicist I was less than taken with Rav Miller's letter. On one hand these rabbonim reject modern science as completely incompetent, and yet at the same time they are trying unsuccessfully to show that Chazal knew all of modern science. It is illogical. Bell's Inequality vis-a-vis quantum mechanics are in a new field of physics. Like any new field there are problems which have yet to be solved. Rav Miller's solution of an unknown and unmeasurable field is laughable; if you cannot measure it or detect it how can you know it's there?! The UFOlogists in the 50's used to postulate an unknown and unmeasurable field to explain how aliens could come from distant systems at much greater than the speed of light. These buzzwords are to be found all over the internet and in modern popular science books. Just mentioning them does not make you a scientist nor an expert in these fields. Rav Miller has said nothing in his letter which could not have been taken directly from a popular book.

Instead of solving any conflicts between Torah and science, Rabbi Miller has simply further worsened the crisis of faith that many people have when it comes to statements by rabbis concerning science.

והנה יצאתי חוץ מגדרי לכתוב דברים שאינם צריכים לבני תורה המאמינים בדברי תוה"ק ובדברי חז"ל. אבל האמת צריכים לידע ולהודיע שאין לנו שום הערכה בגדלות חז"ל ובאמתת דבריהם.

I have stepped outside my normal boundaries to expound upon things that are essentially unnecessary for Torah Jews who believe in the Torah and in its sages. But the truth is that in today's climate, it is necessary to make known that we have no concept whatsoever of the greatness of our sages or the veracity of their words.

While such matters are indeed unnecessary for Torah Jews who possess simple faith in the Torah and in its sages, the truth is that in today's climate, there are many people who are greatly disturbed by the challenges that science raises to the Torah and its sages. It is very important to bring to light little-known views from our Rishonim and Acharonim which address such difficulties. It is a pity that, rather than provide viable solutions for these conflicts himself, all that Rabbi Miller can do is condemn efforts by others to do so.

One further point should be added. Rabbi Simcha Coffe writes that “The footnotes and endnotes found in this paper are entirely those of the translator.” This is false. The lengthy scientific endnotes (*a*, *b*, *d* and *e*), which give the impression that Rabbi Coffe possesses considerable scientific expertise, have been simply cut-and-pasted from the Wikipedia website, without any attribution.