Faith, Science, and Orthodoxy

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[1]Faith, Science, and Orthodoxy

How can an Orthodox Jew in today's world maintain faith in Torah in the face of the apparent challenges of natural science to that faith? I will here examine Maimonides' approach to the issue and then propose my own approach, one which relies upon reverting to what I understand as classic Jewish definitions of faith.

Before beginning I should like to note that I think that my task is relatively simple. Real challenges to Orthodoxy today do not come from the natural sciences but from literary criticism and history, which cast doubt upon the textual integrity of the Written Torah and upon Orthodox understandings of the nature of the Oral Torah;[2] from ethics, which challenges traditional Jewish understandings of the relationship of the sexes and of Jews and non-Jews, among other problems;[3] and from Enlightenment thought generally, which emphasizes the value of autonomy over faithful submission to God.[4]

How did Maimonides approach the reconciliation of Torah and science? He starts off by taking the text of the Torah as literally true in every case: "I believe every possible happening that is supported by a prophetic statement and do not strip it of its plain meaning."[5] But, there is an exception to this general rule: "I fall back on interpreting a statement [allegorically] only when its plain meaning is impossible, like the corporeality of God; the possible however remains as stated." What makes prophetic references to God as corporeal impossible to accept? Maimonides tells us in the *Guide of the Perplexed* (II.25, p. 328): "That the deity is not a body has been demonstrated; from this it follows necessarily that everything that in its plain meaning disagrees with this demonstration must be interpreted figuratively, for it is known that such texts are of necessity fit for figurative interpretation."

Maimonides' point is relatively straightforward: the Torah must be accepted as literally true in every case where its teachings do not contradict that which has been demonstrated to be true. By demonstration, Maimonides means "a syllogism both of whose premises are apodictic."[6]

Maimonides' position clearly makes demonstrated truth to be the criterion we use for determining which passages in the Torah we read literally, and which passages we read allegorically. If a scientific claim is demonstrably true, and the plain sense of Scripture contradicts it, we may not ignore or reinterpret the scientific claim; we must, rather, reinterpret Scripture. To all intents and purposes, science becomes our measure for understanding the Torah.[7]

Maimonides could be confident that this approach would cause him no problems since, at their deepest levels, Torah and science taught the same thing. Maimonides clearly states that *ma'aseh bereshit* is the rabbinic name for that area of study called by the philosophers, “physics,” and *ma'aseh merkavah* is the rabbinic name for that area of study called by the philosophers, “metaphysics”.

Maimonides had further reason for calm: the sciences he was concerned with, physics and metaphysics, proved that which he wanted them to prove, that God exists, is one, and is incorporeal. It is acceptance of these three beliefs, as taught by science, that Maimonides construes as the first commandment, “the great principle upon which all depends” ("Laws of the Foundations of the Torah," I.6), the “foundation of all foundations and pillar of the sciences” (I.1). Monotheism is the central axis around which the entire Torah revolves, denial of which is tantamount to denial of the Torah in its entirety.

In short, as long as science does not refute the existence, unity, and incorporeality of God –and it appears that there is no way it could – progress in the sciences in no way threatens acceptance of the Torah and obedience to the commandments.

Maimonides opened his magisterial law code, *Mishneh Torah* with the following statement (here translated loosely):

The most important principle of all the principles of the Torah, and the fundamental axiom of all the sciences is the same, to wit, to know that there exists a First Existent, that It gives existence to all that exists, and that all existent beings, from the heaven to the earth and what is between them, exist only due to the truth of Its existence.

Knowing this, Maimonides goes on to say, is a positive commandment – indeed the first positive commandment in his *Book of Commandments*, not to mention the first of the 'Thirteen Principles'.

In making these claims Maimonides imports science (in the guise of *ma'aseh bereshit*, Greek physics, and *ma'aseh merkavah*, Greek metaphysics) into the very heart of Torah. Indeed the Twentieth Century's leading Maimonidean, Rabbi Josef Kafih, went so far as to deny the possibility of secular studies (*limmudei hol*) for Maimonides: if a discipline yields truth, it is not secular.

Moreover, to know something, for Maimonides (following Aristotle), is to know it through or with its causes. The first commandment of the Torah is to *know* that God exists; and, as Maimonides makes clear in the Introduction to the *Guide of the Perplexed*, the only way to fulfill that commandment is through the study of physics and metaphysics.

The implications of this are vast:

- The study of science becomes incumbent upon all Jews who want to fulfill even the first commandment of the Torah.
- Psychoanalysis may be a Jewish science, as its opponents claimed, and Lysenko's biology was certainly socialist 'science', but surely no reader of this book would claim that there can be a *Jewish* physics or *Jewish* metaphysics. Thus, the science which Jews are commanded to study is precisely that science which is taught (for Maimonides) by uncircumcised Greeks and oppressive Muslims.
- One who has mastered what Maimonides calls (in the Introduction to the *Guide of the Perplexed*) the legal science of the Torah (i.e., the Talmudist) is thus inferior to one who has mastered the secrets of the Torah, i.e., the person who understands physics and metaphysics. (It is no wonder that many who read Maimonides expostulate: "This is Greek to me!" and that medieval rabbis wanted to burn or at least excise the 51st chapter of the third part of the *Guide*.)

Truth is absolute and objective; there can thus be no such things as intellectual (or spiritual) authority per se. Statements are true irrespective of the standing of the person making them. Maimonides could thus have no patience for the sorts of claims to rabbinic authority which underlie the contemporary doctrine of *da'at Torah* (charismatic rabbinic authority) in its various permutations.[8]

Thus far Maimonides, for whom natural science meant physics, who operated in a theistic universe, and for whom the greatest question posed by science was whether or not the world was created. What of contemporary thinkers, whose natural universe gets along quite well, thank you, without a final cause, confronted by the claims of geology, paleontology, and evolution, all of which demand far greater liberties with the "plain meaning" of Scripture than did Maimonides' naturalistic explanation of various miracles (but no greater liberty, I should note, than that demanded by his radically non-anthropomorphic reading of verses attributing corporeality to God)?[9]

Maimonides' position, challenging as it is to many contemporary conceptions of Orthodoxy, relies for its cogency upon conceptions of demonstrative truth foreign to the present-day scientific enterprise. Since little that science teaches today is demonstrably true in Maimonides' sense, his position offers us no guidance on how to relate Torah and science in the contemporary world.

Much of contemporary Orthodoxy has, it appears, backed itself into something of a corner with respect to the question of science and Torah. It has rather unreflectively adopted a kind of quasi-Maimonideanism according to which Judaism teaches truth in much the same way that science teaches truth. What brings Orthodoxy to adopt this stance? It makes two crucial assumptions, or, I should say, accepts two Maimonidean teachings which lock it into this position. The first concerns the "centrality of faith-commitments in Judaism" and the second the idea that Judaism recognizes a category of "commandments addressed to the intellect."[10]

Much of Orthodoxy today holds, in the words of Rabbi J. David Bleich, that "basic philosophical beliefs are not simply matters of intellectual curiosity but constitute a branch of Halakhah" and that matters of dogma are decided like other areas of halakhah. Bleich has recently reiterated the same position: "matters of belief," he maintains, "are inherently matters of halakha. It is not at all surprising that disagreements exist with regard to substantive matters of belief, just as is the case with regard to other areas of Jewish law. Such matters are subject to the canons of halakhic decision-making no less than other questions of Jewish law."[11] This position invites conflicts between science and Torah

since matters of belief include issues under the purview of the sciences. That is what Maimonides did; but how many of today's Orthodox Jews who agree with this position today would be willing to follow Maimonides in making "demonstration" (i.e., science) the arbiter of what the Torah means?[12]

There are a number of things which have to be said in response to this sort of position. First, I think that it misrepresents Maimonides: basic philosophical beliefs are *neither* simply matters of intellectual curiosity *nor* a branch of halakhah. They are attempts to understand the true nature of the universe to the greatest extent possible. *Ma'aseh bereshit* is the rabbinic term for what the Greeks called physics; *ma'aseh merkavah* is the rabbinic expression for what the Greeks called metaphysics – and these two are called the "roots" of the specific halakhot (*gufei Torah*). Considering that these roots are either true or false absolutely, it is literally inconceivable that Maimonides could have held that their truth status depends upon rabbinic *psak* (decision), as would be the case were they matters of halakhah. This leads to my second point: can we seriously credit the idea that Maimonides would have held that before he "paskened" (decided halakhically) that Moses was superior to all the other prophets before and after him, for example, that the question was undecided in Judaism? Similarly, of course, with respect to the other twelve of the Thirteen Principles. Of course not. Third, even were this understanding of Maimonides correct, the latter's position is quite clearly an *innovation* in Judaism and it is simply incorrect to read it back into rabbinic texts.[13]

None of this is meant to minimize the contribution of Maimonides to Judaism. Maimonides' position that truth is objective and must be accepted whatever its source[14] and his willingness to understand the Torah such that it cannot conflict with the teachings of reason are two aspects of his thought that make it possible for many people today to remain faithful to Torah and Judaism without feeling that they must turn off their brains. These teachings concerning Judaism only make sense if we insist that the Torah addresses the intellect and not just the limbs.[15]

But if the Torah contains the truth, why not command its acceptance, or at the very least, teach it in a very clear and unambiguous fashion? The reason is that for Bible and Talmud the translation of ultimate truth into clearly defined and manageable statements was less a pressing need than it was for Maimonides. Let me put this as follows: Maimonides and the Talmud agree that God's truth is embodied in the Torah. The Talmud finds pressing the need to determine the practical, this-worldly consequences of that truth, while Maimonides, in addition, finds its necessary to determine the specific, cognitive content of that truth. On one level, Maimonides is clearly right: Judaism does teach truth; but, on the other hand, his insistence on expressing that truth in specific teachings is an innovation in Judaism.

The point I am trying to make here comes out in the well-known talmudic story concerning the oven of Akhnai (Bava Mezia 59b). The Sages debated whether a particular kind of oven could become ritually impure. The text says:

On that day R. Eliezer brought all the answers in the world [to support his position] but they were not accepted. He said to them: "If the halakhah accords with my opinion, let this carob tree prove it!" The carob tree uprooted itself and moved 100 amot [c. 50 yards] – some say, it was 400 amot. The [other] rabbis said to him: "One does not bring a proof from a carob tree." He continued, saying "If the halakhah accords with my opinion, let this pool of water prove it!" The water thereupon flowed backwards. They said to him: "One does not bring a proof from a pool of water." He continued, saying "If the halakhah accords with my opinion, let the walls of this house of study prove it!" The walls of the house of study thereupon began to fall inward. Rabbi Joshua reproved them [the walls]: "By what right do you interfere when Sages battle each other over halakhah?" The walls did not fall [all the way] out of respect for R. Joshua and did not stand upright [again] out of respect for R. Eliezer. To this day,

they stand at an angle. He then said to them, "If the halakhah accords with my opinion, let it be proved by Heaven!" A voice from Heaven [immediately] spoke forth: "How do you disagree with R. Eliezer, when the halakhah accords with his opinion in every place?"[16] R. Joshua then stood upon his legs and said, *It is not in Heaven*! [Deut 30: 12]. [The Talmud then asks,] "What is the significance of *It is not in Heaven*?" R. Jeremiah said, "Since the Torah was given at Mt. Sinai we pay no attention to voices from Heaven [in determining halakhah] since You [i.e., God, the source of heavenly voices] have already written in the Torah at Mt. Sinai, *turn aside after a multitude* [Exodus 23:2]. R. Nathan met Elijah and said to him, "What did the Holy One, blessed be He, do when this happened?" Elijah replied: "He smiled and said, 'My children have defeated me! My children have defeated me!'."

Much can be (and has been!) said about this fascinating passage. Here it will suffice to quote an insightful comment of David Kraemer's: "Of course, we must assume that if the heavenly voice supported R. Eliezer's view, his view must have been closer to the 'truth.' Nevertheless, his truth is rejected, and the view of the sages, though objectively in error, is affirmed."[17] Judaism teaches truth, and that fact must never be forgotten. But the ultimate truth taught by the Torah need not necessarily be understood in its detailed specificity for us to live in the world in a decent fashion; while there is one objective "truth," the Talmud is interested in arriving at a halakhic determination, rather than at a determinate understanding of the final truth. We can safely put off determining the exact truth until *the earth be full of the knowledge of the Lord, as the waters cover the sea* (Isaiah 11:9);[18] but in the meantime we must know how to live.[19]

This talmudic position, I think, makes it possible for Jews to reach ever-greater understandings of the truth taught by the Torah and allows them to express that truth in language appropriate to each age. Had Judaism adopted a Maimonidean, as opposed to talmudic, understanding of the nature of our relation to the truth taught by the Torah, we would be forced to express our vision of the Universe in terms of the Neoplatonized Aristotelianism adopted by Maimonides. Our situation would be similar to that of Habad hasidim, who feel constrained to accept Maimonides' Ptolemaic description of the physical universe as "Torah from heaven," or to that of those Catholics who accept Thomism as normative and authoritative. But "the Torah is not in heaven" – it must be lived in this world, while the absolute truth which it embodies remains "from heaven," a constant challenge to our understanding, a constant critique of our tendency to intellectual complacency. The talmudic position, as hinted at in the story of the oven of Akhnai, allows Judaism to live and breathe in today's world as much as in yesterday's.

Maimonides, I have argued in a number of places, understood religious faith primarily in terms of propositions affirmed or denied. Bible and Talmud understood religious faith primarily in terms of trust and loyalty. This being so, "orthodoxy" is actually a misnomer, since Judaism, before Maimonides, knew no doctrines (=doxos) concerning which one absolutely had to be clearly and self-consciously "straight" (=ortho).

It is further important to realize that even though classical Judaism does not understand the nature of *emunah* as Maimonides does, and therefore places little value and emphasis on precise theological formulations, there are limits to what one can affirm or deny and still remain within the Jewish community. Note my terminology here: there are limits to what one can affirm or deny and still remain with the Jewish *community*. Denying the unity of God, for example, or that the Torah is of divine origin in some significant sense, or affirming that the Messiah has already come, are claims which place one outside of the historical community of Israel.

Returning to the issue of "faith, science, and Orthodoxy," I am here proposing that we understand Jewish faith in terms of loyalty to God, Torah, and Israel, loyalty which finds expression in the

fulfillment of the commandments and less as "commandments addressed to the intellect." It follows from this that the criterion for what we now call "Orthodoxy" should be construed less in terms of adherence to specific dogmas and more in terms of behavior which evinces trust in God. I further propose that we follow Maimonides in taking demonstrated truth to be the arbiter of how we understand Torah. But since we are not yet in the age of the Messiah, and the knowledge of the Lord does not yet cover the earth as the waters cover the sea, that means that we understand neither science nor Torah fully. One does not have to be a fan of Star Trek to know that we live in age in which we expect our scientific paradigms to change. One can be a fully "Orthodox" Jew and maintain that, yes, the Torah teaches truth, but that we do not yet really understand that truth.

In concrete terms, I am calling for modesty, both as scientists and as believers. Modesty yes, a total suspension of belief/disbelief, no. To reject the claim that the earth is vastly old, for example, is not only to reject the science of geology, but the entire edifice of contemporary physics and chemistry. The cosmos simply cannot be 5769 years old. This, of course, is only a problem for the most stubborn of Biblical literalists. But how about Noah's flood? There is no geological or archeological evidence that the entire earth was once covered by water; nor is it possible for humanity, in its rich diversity, to have developed and spread over the globe in the roughly four and one half millennia which have passed since the time of Noah. In these and other matters, the Written Torah cannot be taken literally without rejecting the crushingly overwhelming weight of scientific evidence.

But in many other, and more important areas, we may not fully understand the Torah, but science has not yet had its last word either: on God's existence, the creation of the cosmos, Sinaitic revelation, providence, prophecy, miracles, efficacy of prayer, the special relationship of God to the Jewish people, divine retribution, etc., science seems to have little definite to say to us, and it appears to me, is not likely to have much to say in the foreseeable future.

In the final analysis, if we are really to use the eyes God gave us,[20] we can do no other but revert to a qualified Maimonideanism: the Torah cannot contradict that which has been *proven* scientifically but science often proves less than what some scientists think they have proven. We must live in a world of fewer absolutes than many thinkers (rabbis and scientists alike) would like: the Torah cannot teach what science rejects as false, but the evidence of science is not yet fully in, so we do not yet know what the Torah really teaches·[21]

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[2]. See Levy, "Orthodox Bible Study."
[3]. For a forthright statement of some of these problems by an Orthodox rabbi and scholar, see Solomon, "Intolerant Texts."
[4]. Important work in this regard has been done by the late Steven Schwarzschild. See the essays collected in *Pursuit*. See further the essays in Frank, *Autonomy and Judaism*. Extremely valuable in this connection is Sagi and Statman, "Divine Command Morality."
[5]. "Essay on Resurrection," in *Crisis and Leadership*, p. 228.
[6]· "Treatise on Logic," chapter 8, Efros trans., p. 48. By "apodictic," Maimonides explains there, he means knowledge derived from perception, axiomatic statements (literally, "first and second ideas"), and experience. Maimonides is relying here on the second chapter of the first book of Aristotle's *Posterior Analytics*. For a discussion of Maimonides' use of the term "demonstration" (Arabic: *burhan*; Hebrew: *mofet*) see Hyman, "Demonstrative."
[7]· For an explicit statement to this effect see the entire passage surrounding the sentences quoted from Maimonides in the last note to this essay.
[8] .Onwhich, see: Kellner, *Maimonides on the Decline of the Generations and the Nature of Rabbinic Authority* [Albany: SUNY Press, 1996] and "Rabbis in Politics: A Study in Medieval and Modern Jewish Political Theory," *Medinah ve-Hevrah* 3 [2003]: 673-698 [Hebrew].

[9]· I should also note that Maimonides worked with a deductive model of what science was all about, very different from the way in which the scientific enterprise is understood today. For details, see my "Gersonides on the Song of Songs and Science."
[10]. I quote, here and below, from Bleich, "Orthodoxy and the Non-Orthodox." I hasten to add that Rabbi Bleich is the last person I would accuse of doing anything unreflectively. I focus on some of his writings here because he has well articulated a position which I find characteristic of contemporary Orthodoxy.
[11]· See *Tradition* 30 (1966), p. 101. I must note that Rabbi Bleich's position is put forward in explicitly Maimonidean terms.
[12]. Fairness demands a few words of clarification here. My equation of science and demonstration is a bit too facile, since, as I noted above, Maimonidean science is demonstrative, but contemporary science is not demonstrative n the same way. But the point is still valid. Maimonides made science as he understood it the arbiter of how to understand the Torah. David Bleich's understanding of Judaism is explicitly based on his reading of Maimonides. He should be willing, it seems to me, to grant to contemporary science the same authority that Maimonides granted science in his day.
[13]. Here of course, many would disagrees with me, holding Maimonides to be expressing Biblical and Talmudic teachings which were immanent in Judaism, just not explicitly stated before the 12th century. I, on the other hand, maintain that most Orthodox Jews today read Bible and Talmud through a Maimonidean glass (darkly). See my discussion with David Berger in the "Afterword" to *Must*.
[14]· Most clearly stated in his Introduction to his "Eight Chapters:" "Hear the truth from whomever says it" (in the case at hand there, Aristotle and Alfarabi). See *Ethical Writings*, p. 60 in conjunction with Davidson, "Maimonides' *Shemonah Peraqim*."
[15]. In this Maimonides clearly follows Rabbenu Bahya in *Duties of the Heart* and is clearly not followed by Leibowitz.
[16] This is hardly the case, but that is not an issue which we have to address here.
[17]. Kraemer, *Mind of the Talmud*, p. 122.
[18]. Readers familiar with the last sentence of the *Mishneh Torah* will know that my use of this verse is no coincidence.
[19] Daniel Statman points out that many readings of the Oven of Akhnai passage (including, he thinks, my own) are tendentious. See "Authority and Autonomy."
[20]· As Maimonides says in his letter to the Jews of Marseilles, "For is it not apparent that many statements of the Torah cannot be taken literally, but, as is clear from scientific evidence, require interpretation that will make them acceptable to rational thought. Our eyes are set in the front and not in the back. One should therefore look ahead of him and not behind him." Maimonides' next sentence is both revealing and touching: "I have thus revealed to you with these words my whole heart." I quote here from the English translation of Stitskin, *Letters of Maimonides*, p. 127. For the Hebrew text, see Sheilat, *Iggerot*, Vol. 2, p. 488.
[21]. This article is a revision of a longer essay of the same name in which I also deal with the positions of Steven Schwarzschild and Yeshayahu Leibowitz. That essay was published in my *Science in the Bet Midrash: Studies in Maimonides* (Brighton, MA: Academic Studies Press, 2009), pp. 233-245. I would like to thank Dr. Avram Montag (a real physicist) for discussing these matters with me.