

TOWARDS A DEFINITION OF TORAH

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Introduction

What is Torah? To appreciate the difficulty of the problem, consider the following examples of Torah from the *Gemara* and *Tosafoth*:

- (a) " $\sqrt{2} = 7/5$ " is a good approximation, but not an exact equality. For if it were an equality then " $2 = \sqrt{2} \times \sqrt{2} = 7/5 \times 7/5 = 49/25$ "—that is, $2 = 49/25$, or, $50 = 2 \times 25 = 49$, an absurdity.¹
- (b) Consider the following experiment to determine if ants have a king. A coat is spread over an anthole during the summer so as to provide shade. An ant comes out and is marked. Thinking the sun is no longer out, he informs the other ants. The coat is removed so that when the other ants come out they discover that the marked ant had lied to them. If they kill the marked ant without consulting other ants, then they have no king (for otherwise he would have been consulted).²

One is immediately struck that these two Torah texts are ordinary mathematical and biological statements. Since the two texts come from the Talmudic-Midrashic literature and its commentaries, they are classified as Torah. Similar scientific statements of a mathematical or biological nature, however, would not be Torah. The apparent lack of difference between our texts and ordinary scientific literature, demands a precise consideration of the definition of Torah.

The attempt to answer by noting that, say, (a) is a *Tosafoth*, still leaves many unanswered questions. Why should *all Tosafoth* be classified

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Dr. Hendel's paper is a provocative and perhaps unique approach toward a definition of Torah by distinguishing the "content" of Torah from the "source" of Torah and Torah as a "source".

as Torah if some deal *totally* with 'non-Torah' subject matter? If the proof in *Tosafoth* is Torah *now*, then what was it *before Tosafoth* put it in? If it was Torah then also, then why aren't all mathematical statements classified as Torah? If it wasn't Torah then, then what are the precise mechanisms by which a statement which is mathematics today can become Torah tomorrow?

It is the purpose of this essay to attempt to give a precise conceptual and philosophical analysis of a basic *halachic* concept which might throw considerable light on this and other problems. Our study might also help lead to a new perspective on Torah and science.

I

To begin, we quote *halachic* formulation of the examples just given.

Let us examine the Code of Maimonides (*Rambam*)³. In defining the commandment of learning Torah, *Rambam* points out that Talmud is classified as Torah.⁴ *Rambam* classifies the 'mystical orchard doctrines' as belonging to the Talmud,⁵ and then defines the "Work of Creation" to belong to the 'Orchard doctrines'.⁶ As is clear from his *Mishneh Torah*, as well as the explicit identification in his Mishnaic commentary, the 'Work of Creation' is identified with Physics and Chemistry.⁷ Thus Physics and Chemistry are classified as Torah!

Yet, intuitively, we feel that there is something absurd in stating that a "Physics Major" is learning Torah all day. If one were to make a vow to learn Torah on a certain day, would he fulfill his vow by learning the theory of relativity all day? Would he be allowed to make the blessings, such as, "... who has chosen us ... and given us *His Torah*", on the theory of relativity?

Rulings similar to that of Maimonides occur among other *Rishonim* (Early commentators). Thus:

Rav Huna asked his son Rabbah, "Why don't you attend Rav Hisda's lectures, which are so profound?" "Why should I go to him?" answered he, "seeing that when I go to him he treats me to *secular discourses*." Thus he tells me that when one enters a bathroom, he must not sit down abruptly, nor force himself overmuch, because the rectum rests on three teeth-like glands, and they might become dislocated, endangering his health. "He treats of health matters," he (i.e. Rav Huna) replied, "and you call them secular discourses! All the more reason for going to him."⁸

On the critical words, "secular discourses" *Rashi* states,

He treats me to worthless words "which aren't Torah".

As is clear from the apparently superfluous words "which aren't Torah", *Rashi* regards Rav Huna's reply at the end as an indication that he considers the lectures to be Torah. Again, however, the notion that students of hygiene are learning Torah all day demands clarification.

II

To attempt to solve our problem, we must distinguish between two basic modes of classification of knowledge:

- (a) Classification by *content*:—we consider disciplines from the point of view of *what they are*—their *content*;
- (b) Classification by *source*:—we consider disciplines from the point of view of *where they come from*—their *source*.

Corresponding to our distinction within the type of *knowledge* itself, we must make a similar distinction within the *act* of knowing, and the intent of the learner.

- (a) Knowing the *content*:—the goal of the learner is to master and know the *content* of the knowledge;
- (b) Knowing the *source*:—the goal of the learner is to know the *source* of knowledge; to establish a *relationship* with the teacher.

Scientific knowledge, for example, is classified by its *content*: biology is the science whose *content* answers questions about living creatures, the *content* of Physics and Chemistry deals with matter, the *content* of Mathematics deals with numbers and related abstractions, etc. The act of learning science, is similarly classified, as a knowing of *content*—one learns a science to master its *contents*.⁹

Prophetic knowledge, however, is classified by its *source*. Jewish prophecies, for example, are the body of knowledge whose *source* is God—its content can be anything and indeed does vary.¹⁰

Similarly, the act of learning (that is, reading) a loveletter, is classified by its *source*. The primary purpose of reading a loveletter is not mastery of its contents, but rather, the acceptance of an act of affection by the writer, so that the reader may sustain his *relationship* with the *source* of the letter—his lover.

What about Torah? It would seem quite natural to define Torah by content: the body of knowledge whose *content* answers questions about morality—what God wants from man and how man must behave! The act of Torah study would have as its goal the mastery of its *contents*—knowledge of *halachah*. In light of the problems we mentioned above,

however, we find it better to define Torah by its *source*, both on the level of the knowledge itself as well as on the level of the act of knowing:

Torah is that body of knowledge which is *hallowed* by being *related* to a *source* of sanctity; the goal of the *act* of Torah study is for the learner to *relate* to the *Source* of *Kedusha*—*God*. Proper Torah study *must have both* an *individual* who *relates* to *God* (e.g. by the Torah blessing said in the morning), as well as a *text* which is *connected* with *Scriptures* or *Halacha* in a very definite manner (described below).

III

The clearest proof for this occurs in the laws of writing a Torah:

A *Sefer Torah* (Torah scroll), *Tefillin* (phylacteries), or *Mezuzah* written by a heretic must be burnt. . . . for, he (the heretic) thinks that the Torah is like other books—and *since this is his intention there is no hallowing* of the Divine Names, and it is a *Mitzvah* (meritorious act) to burn it.¹¹

Quite clearly, the Torah of a heretic and religious person are identical in their *content*. The only difference is that the heretic has not sanctified the Torah by intending to relate it to its *Source* (in Whom he does not believe). The Torah is not a *book*, but rather a *hallowed book*—the heretic has only produced a book.

Further confirmation, may be found in the *Rosh's* definition of *Aggadah*:

Words of (secular) wisdom which have been given Scriptural support,¹²

that is, secular wisdom which has been *related* to a *holy source*—*Scriptures*.

It is important to emphasize that the *Rosh* is not claiming *Scriptures* to be the source of scientific knowledge; nor is his statement a legal fiction by means of which secular knowledge becomes Torah. The fallacy in this perspective of the *Rosh* is that it regards the ultimate purpose of knowledge as *content*—telling me some truth about reality which I can use. Certainly, practical knowledge is a very important part of Torah. However, the Torah has as its essential goal, the establishment of a *two-way relationship* between the human being and the *Source* of Holiness—*God*. This can happen by the human being studying *God's Word* (*halachah*), or by the human being finding Scriptural support (*God's word*) for *his* interests (secular wisdom)—both can be Torah.

In the spirit of this *Rosh*, we may solve our dilemma about *Rambam's*

classification of Physics-Chemistry under Torah. Obviously, not all Physics is 'Works of Creation', just as not all Torah is 'Works of Creation'. Rather, 'Works of Creation' is that body of knowledge which is *simultaneously* Torah and Physics—that is, statements whose *content* answer physical questions and whose *source* is holy. This, of course, corresponds to our intuitive notion of 'Works of Creation' as the exegetical derivation of the cosmic structure from a careful literary analysis of the beginning chapters of Genesis. Again, note that the verses are essential!—the goal is not Physics, but creation of a *relationship* between God's Torah and the human being's science.

We may similarly answer the question posed at the beginning of this essay by the presentation of the two Torah texts. For although the *content* of the two texts is the same as the content of ordinary biological and mathematical statements, nevertheless, their *relationships* to *sources* of sanctity are different. Ordinary scientific statements have no such relationship. The *Gemara* and *Tosafot* however, do *relate* the scientific statements of our two texts to Scriptural verses and *halachah*. Thus, the two texts are related to *sources* of *kedusha*—hence they are Torah.

IV

It is an interesting but, unfortunately, neglected problem to classify the means by which Torah and science can be so related. We have found the following five techniques and it is noteworthy that examples of all five occur in primary sources, including many examples of scientific experiments.

Science, and/or scientific experiment, can aid Torah by:

- (1) *giving* us the *criteria* for the states of reality mentioned in certain *halachot*;
- (2) (a) operationally *defining* ambiguous words in Scriptural verses;
(b) telling us how the scientific *principles* mentioned in certain verses *operate*;
- (3) *illustrating* the *relationships* mentioned in *halachah* or *agaddah* by using as parables scientific phenomena with the same relationship.

Torah may help science by:

- (4) *metaphorically* classifying or *justifying* scientific-secular phenomena under *halachic*-moral categories. This usually involves poetic technique, such as:

- (a) personification;
- (b) metaphoric symbolism;
- (c) ethical interpretation;
- (5) *explicitly* or *exegetically telling* us scientific statements. There are two important classes:
 - (a) The mystical orchard doctrines, which deal with the basic cosmic structure (Physics, Chemistry, Cosmology, and Divine Metaphysics)—their study requires thorough familiarity and ease with Talmudic literature;¹³
 - (b) the other sciences.

We shall now give examples of these classes from primary sources.

- (1) *Giving criteria for states of reality*: This is the most common application of science to Torah. Thus,
 - a) *Halachah* states that the Sabbath may be desecrated if a person's life is in danger. Medical science, in turn, tells us when a person's life is in danger.
 - b) *Halachah* tells us the necessary area of a *Succah*. Mathematicians tell us when certain odd geometrical shapes have this area. Thus, example (a), given at the beginning of the essay, deals with the area of squares which are inscribed or circumscribed in a circle of given radius.
 - c) It is prohibited, according to *Halachah*, to harm one's body. Medical science tells us which agents and activities are harmful to us. The quote referred to earlier, from Tractate Shabbath concerning hygiene in the bathroom, is an example of such laws. Recent *halachic* discussion of the prohibition of smoking would also fall under this class.⁸
 - d) *Halachah* forbids the Jew to eat *Terefah*—an animal that has a *fatal* physical defect. There is a controversy whether the absence of the down of a bird invalidates it. Rabbi Simeon ben Halafta, known in the Talmud as the experimenter, once made an experiment to disprove R. Judah's view. R. Simeon owned a hen whose down was gone entirely. He wrapped it in the leather apron used by bronze workers (to give it warmth), and then put it in the oven. The hen grew feathers even larger than the original ones.²
- (2a) *Defining words*: The Bible states that the ants have no "*king*"¹⁴—a concept borrowed from the human social realm. To ascertain the usage of the term (*king*) in regard to the ant community, R. Simeon ben Halafta performed experiments to see if the

ant community consulted anybody in performing executions (we have already mentioned the experiment in example (b) at the beginning of the essay). The lack of such consultation, he suggested, indicated that the term "*king*" used by Solomon meant an ant who was consulted for legal decisions and implementations (similar to the human realm). Several other Rabbinical scientists however, take issue with this interpretation of the experiment.

(2b) *Defining operation of principles:*

- a) The Bible states that God provides food for the raven's young.¹⁵ Rav Assi performed an experiment in which the mother was barred access to her fledgelings in order to determine *how* God would provide for the young (the experiment will be quoted in detail below).¹⁶
- b) The Bible says that "The advantage of the earth is in *all* its things . . ." ¹⁷ Rabbi Simeon ben Halaftha performed experiments on the hoopoe bird to show how this is true. A hoopoe bird had placed its nest in a sycamore trunk in R. Simeon's garden. R. Simeon nailed a board over the nest to see what the bird would do. The hoopoe brought a certain herb which it placed on the nail and destroyed it. R. Simeon said, "It is well that I should conceal this herb, lest thieves go and do this and destroy human beings."¹⁸

As is clear from *Tosafoth*, the experiments were *not* performed to establish the veracity of the texts-only to determine their meaning or details.¹⁹

- (3) *Illustrating relationships: Halacha* considers Torah law to be natural—intrinsically bound up with the very nature of existence itself. To illustrate the relationship between the natural immutability of Torah and the artificial nature of man-made law (which can easily be changed), Rabbi Alexandri ben Haggai and Rabbi Alexander the hymnologist used as an analogy, the relationship between the natural immutability of pigment coloring and the removability of artificial coloring. Just as the blackness of the raven's wings (pigment coloring) cannot be easily removed, so also, the Torah's Law written in black letters, cannot be removed.²⁰
- (4) *Metaphoric justification:*
 - (4a) *Personification:* Rabbi Johanan observed: If the Torah hadn't been given, then we could have learned modesty

from the cat, honesty from the ant, chastity from the dove, and good manners from the cock who first coaxes and then mates.²¹

- (4b) *Metaphoric symbolism*: Rabbi Hoshaya son of Rabbi Samlai of Caesarea in the name of Rabbi Isaac ben Ze'iri dealt with the sun, and tried to show its complete lack of power (to refute the claim of the idolaters who claim it should be worshipped). The sun's strength does not belong to the sun *itself*, but rather to God (the sun is the *object* of God's strength, not its *owner*). To illustrate this case, (a powerful vigorous being, the sun, who, although appearing to be strong, is really a slave to its strength), he uses the analogy of the newlywed. The newlywed's strength is not an attribute of his *person*, but rather an attribute of his sex drive's strength which uses him as an *object*. Just as the bridegroom must helplessly consummate his marriage with a *bloodspot*, so to, the sun must helplessly consummate its day of strength with the *blood-red* sunset.²²
- (4c) *Ethical interpretation*: If the man has orgasm (literally: emits semen) last, then the child will probably be male; if the woman has orgasm last then the child will probably be a female. The *Gemara*, having derived this fact Scripturally, later goes on to justify it ethically.²³ Thus, the fact that the man has orgasm last is given ethical interpretation—he *controls* himself.
- (5) *Explicit telling*: We have already seen several examples of this in the preceding quotations. For the present we will suffice with two:
- (5a) The A-V node, a microscopic nerve bundle in the center of the heart, which branches out to the various heart muscles, plays a crucial role in the increased heart rate and activity we associate with love, anger, and intense emotion. Since, in Hebrew, emotions and their associated organs are often connected by the same word (e.g. anger and nose—more breathing during anger; motherly love and womb, etc.), we would expect the word for the *Yetzer Hara* (evil inclination) to correspond to this nervous bundle, a small structure that branches out (like the shape of a fly or wheat). The great medical Talmudist, Samuel, derived this from: "And the 'wheat-shaped source of passion' lies at the doors (of the heart chambers)."²⁴
- (5b) In example (4b) we saw reference to the fact that marital

consummation ends with a bloodspot. The *Midrash* actually derives this (as well as the whole parable) from an ingenious interpretation of a Biblical verse: "And he (the sun) is like a bridegroom coming from his canopy, who (though) jubilant in his virility, rushes to the bloody consummation."²⁵

Of course, in any given case, these methods may, and usually do, combine. Thus, the relationship between orgasm and child sex (4c) is first corroborated scripturally (method 5) and then interpreted ethically (method 4).²³ Similarly, the comparison of the Torah's immutability to pigment coloring's immutability (method 3) is attached to the verse, "... black as a raven . . ." ²⁶ (method 5).

Method (4), which underlies the whole philosophic-*agaddic* interpretation of *halacha* and Scriptures, is of fundamental importance; even explicit Biblical verses are "justified" in its light:

Rabbi Simeon ben Lakish said, there are many verses which, to all appearances, ought to be burnt, but are really essential to Torah (he then goes on to ethically justify some apparently unnecessary verses i.e. verses which apparently do not contain ethical content, and seem to contain only geographical or historical information).²⁷

Unfortunately, except for method (1), these methods are often scoffed and laughed at. This is due to people's objective conception of Torah, which they classify by *content*, ignoring the fact that both *it* and the *act* of learning it, must be classified by *source*. We offer the following biological experiment as a paradigm for the transformation of science into Torah:

Rav Assi was an experimenter. He once saw a raven making a nest, laying eggs, and hatching fledgelings. He took the young, put them into a new pot, and sealed its top (to prevent access of the mother). After three days he opened the pot to find out how they were surviving. He found that the fledgelings had been secreting excrement, and that they were now swooping over the gnats in their excrement and devouring them. *Rav Assi applied to them this verse*; "Who provides the raven prey, when its fledgelings turn to God, frantic for lack of food."^{15 16}

Note the critical, "*Rav Assi applied to them this verse*,"—it is precisely this which makes the difference between a secular biological experiment and a holy *baraita*. Also observe, that a basic working knowledge of Scripture and *halacha* is necessary if such methods are to apply.

It should be noted that the *whole* of this *Midrash* is Torah. This is analogous to the laws of *Succah* roofs. A valid *Succah* roof must have more

shade than sunlight. Nevertheless, if the few particular square feet of area that a person sits under has more sunlight than shade, then the *Succah* is still valid. This is because the definition of *Succah* roof applies to the *whole* of the roof considered as one unit—we do not apply the definition to each individual *part*. Similarly, the definition of Torah applies to the *whole* of a logical unit of thought. From this point of view, our five methods may be thought of as methods of uniting Torah and science into one logical unit (just as the *Succah* roof may be seen as consisting of all its square inches).

Note, we have *not* at all discussed the *degree* of Talmud Torah—only its *existence*. For example, logical depth enhances the degree of the study act.²⁸ The status of Torah-science *agadoth* and *halachoth* should be analyzed in this light also—to reach the full degree of Torah they would have to contain a certain degree of analysis (similarly, there is a certain preference in certain cases for *halachoth* over *agadoth*—though, certain of our scientific experiments concerned *halachoth*).

V

Having demonstrated that the Torah *knowledge* itself is classified by its *source*, we now offer texts showing that the *act* of Torah *learning* is also classified by its *source*.

Consider the following *Rambam*:

All Jewish men are obligated to study the Torah, whether they are poor or wealthy, whether they are healthy or greatly suffering, whether young or very old without strength—even the poor who get their living from charity, going from door to door. . . .²⁹

Rabbi Dr. Joseph B. Soloveitchick (the *Rav*) notes the strangeness of the law: true study is an arduous task, requiring much mental concentration and lack of interference from external sources; how can an invalid or suffering sick man study?

To answer this question, the *Rav* quotes the following *Midrash*:

Rav Levi said: This may be compared to an owner who hired laborers to fill buckets with holes in them. One, who was a fool, said: "What good am I doing? What the bucket takes in at one end it lets out at the other." The wise one however, said, "I will fill the buckets—even if the water goes out, at least the pail will be cleaned." So too, does the person with a "hole" in his head say: "What good will I do by learning Torah—I will not retain it and will forget it." The wise man

however, says, I will learn it anyway—even if I don't retain it, the Torah passing through me will cleanse my personality.³⁰

Thus, from a conceptual point of view, we have introduced two types of study of Torah: (a) study to acquire and amass knowledge, and (b) study whose goal is *relationship* with or service of God (the *Source* of Torah), whose effect on the personality is a redemptive, cathartic purification.³¹

As a final proof, we quote the following *Gemara*:

Rab Judah said in Rab's name: What is meant by, "Who is the man of wisdom who will understand this, or he to whom the mouth of God has spoken and can declare it, 'Why is the land lost, burnt like the desert, without anyone passing through?'"³² This question was put to the Sages, Prophets, and the Ministering Angels, but they could not answer until the Holy One Blessed is He, Himself resolved it, as it is written, "And God said, because they deserted my Torah which I gave before them, and they did not hear my voice and did not walk therein."³³ Rav Judah said in Rab's name: That is, they did not first utter the blessing over the Torah.³⁴

The Talmud is quite startling—the verse quoted refers to "desertion of the Torah," and yet the Talmud equates this with not saying the blessing!

Apparently, this *Gemara* considers the blessing on the Torah to be an *essential* part of the commandment of learning Torah. If one puts on *tefillin* or blows *Shofar* without the blessing, he has, nevertheless, fulfilled the Biblical commandment in question—but, has violated the rabbinical requirement of saying a blessing. Here, however, although one learns all day, if he has forgotten a blessing, he has not fulfilled anything—on the contrary, he is a "deserter of Torah."³⁵

This otherwise strange law may be understood from our basic conceptual distinction. For the purpose of Torah study is not only to master its *contents*, but also to *relate* to its *Source*—that is, the study is the vehicle for establishing a God-man relationship. The person who studies all day has attempted to master the content of Torah. It is only through the blessing however, that he *indicates* his intention and *hallows* his effort as being an attempt to enter a God-man relationship. Without the blessing, he is not relating to Anyone; he merely is mastering Torah knowledge which has little to do with the commandment of studying Torah.³⁶

The law of the heretic's *Sefer Torah*, mentioned earlier, also substantiates our point. The Talmud's derivation in this regard, is particularly enlightening:

A precise literary analysis of Deut. 6, 4–9, shows its structure to be a paragraph with an introductory *general* statement (to love God),

followed by three *particular* modes of implementing the basic theme (*studying Torah, binding tefillin, and writing Mezuzoth*). Thus the literary structure clearly indicates that all three acts are done to have a consciousness of God.

“Just as the *binding* (or *study*) is not a mechanical act but rather, is done to remind us of our *relationship to God*, so to, must the *writing* be classified by our *relationship with God*, and not mechanically.”¹¹

VI

To complete our analysis we still have to classify one more item. Can this requirement in the act of Torah study, to relate to a source of *Kedusha* be a requirement of the act only, or is relationship of the knowledge itself, also, always required? Suppose, for example, that prior to the study of the laws of calendar sanctification, I undertake an organized study of astronomy—what is the status of this organized study? If personal intent alone suffices, then any ordinary scientific study done for the sake of helping me in Torah can itself be classified as an actual act of Torah study. If relation to the *source* is required, both in the act and knowledge, then such study itself would not be Torah. (I would first have to relate the astronomy to Torah itself, to make it Torah).

We can bring analogies from other commandments. The learning of how to blow *Shofar*, the building of a *Succah*, the making of surgical instruments for circumcision. . . ., are obviously not actual fulfillments of those particular commandments. For the commandment is not to *build* a *Succah* but to *live* in one, not to learn *Shofar* blowing but to perform. . . . Nevertheless, these acts can certainly be classified as necessary preparatory fulfillments of the *mitzvot* in question.

In fact, in certain cases, these necessary preparatory acts have *halachic* significance. Thus, the making of parchment for a *Sefer Torah*,³⁷ or the sky-blue dyeing in *Tsitsith*,³⁸ require doing the act for the sake of the *Mitzvah*—a *Sefer Torah* may not be written on parchment not made for the sake of the *Sefer*, *tsitsith* may not be made with haphazardly dyed sky-blue thread. . . .

In a similar manner, performance of scientific experiments or general learning of science, while not a fulfillment of Torah study, may nevertheless, be a necessary preparatory act. However, in analogy with the above-quoted laws of *Sefer Torah* and *Tsitsith*, and by comparison with similar laws involving *devarim shebikdushah* (holy things), we might require that the scientific study or experiment, be (explicitly) done with the intent of actual Torah study (for only at the time of actual joining with Torah—by say,

one of our five methods—does the learning of science become an actual fulfillment of Torah). Plain learning of science however, would have the same status as unintended (that is, not intended for *Sefer* use) parchment, and would not intrinsically be connected with study of Torah, *Talmud Torah*.

VII

Of utmost relevance to our own times is the observation that our statements concerning *Talmud Torah* have analogs concerning heresy.

Practical cases are quite frequent. For example, Rabbis are often confronted with anti-traditional statements coming from Biblical criticism. Intuitively, one would like to classify these statements as heretical. Yet, this seems inconsistent with acceptance or recognition of apparently similar statements among some *Rishonim*, who made statements differing from the accepted Talmudic opinion.

This dilemma vanishes as soon as we realize that, like *Talmud Torah*, *epikorsus* (heresy) is defined by its *source*,—not just by its *content*. The *Rishon's* antitraditional statement, emanates from an ideologically committed person who is attempting to study our tradition by logically analyzing Biblical texts. The *epikorus'* antitraditional statement emanates from an antiideologically committed person analyzing Biblical texts. Thus, the *Rishon*, on both a personal and textual level, *relates* to a *source of kedusha*—hence, his act is one of *Talmud Torah*.³⁹ The *epikorus* however, relates on a personal level to a *source of Toomah* (uncleanness) and *epikorsus*—hence his act is classified differently.

This anomaly, of an identical act being classified as *Talmud Torah* in one case and *epikorsus* in another, has already been seen in the actual *Sefer Torah* itself! The *Sefer Torah* of a heretic is burnt—that of a *Rishon* has *kedusha*; the Biblical analysis of a heretic is *epikorsus*—that of a *Rishon* is *Talmud Torah*. The focal point, is not *what* you learn, but *to whom* or *to what* you *relate* by that learning—to the forces of *Kedusha* or the forces of *Toomah*.⁴⁰

VIII

Having seen that *Talmud Torah* is defined by its *source*, the question naturally arises as to why this is so—that is, what fundamental philosophic idea can serve as a unifying thread to many of the laws of *Talmud Torah*.

The basic philosophic concept we are searching for is “love of God”. Man’s Torah study is equated with an act of love between God and man.

A confirmation of this equation occurs explicitly in *Sifre*:

“And they shall be—these words which I command you today—on your heart.” Why is this stated? Since it states, “And you shall love God your Deity with all your heart, with all your personality, and with all your possessions,” I would not know through which means one loves the Holy one, Blessed is He. Therefore, it says, “And they shall be . . . on your heart,” for through this (that is, study) you recognize the Holy One, Blessed is He, and become glued to his paths.⁴¹

This basic concept can explain all the laws under consideration—we will suffice with one example. If the *act* of Torah study is equated with the *act* of love, then the *Book* of Torah (the *Sefer Torah*), is equated with the *Book* of Love (the *loveletter*). Thus:

- (a) the heretic can't write a *Sefer* because an “adulteress” can't write a “loveletter”—the heretic has produced a book—not a loveletter;
- (b) *Sefer Torahs* or *Tefillin* can't be mass produced because “loveletters” are not mass produced—each one is an individual act;
- (c) The treatment, with *kedusha*, of a Torah parchment whose ink has faded is analogous to the precious treasuring of a faded loveletter.

Many *agadoth* and *halachoth* can be given an elegant new perspective this way.

IX

Having investigated rather thoroughly the romantic nature of Torah study, we conclude with some applications to other problems—in particular, the science-religion problem. Needless to say, the literature on the subject is vast, and all we can hope to do is to offer a new insight which might help.

Virtually all discussions of religion vs. science—both those encouraging the latter as well as those opposing it—start from the erroneous assumption that both religious and scientific study are well-defined, *fixed* existing territories of knowledge.⁴²

As we have pointed out, however, only science has a fixed territory—that is, any given scientific statement has the same truth or falsity today, as it would at any other past or future point of time. The Torah, on the other hand, is not a fixed territory—it is the dynamic, Divine spark, constantly growing, whose ultimate goal is consumption of *all* territories making it also become part of the fire. As we have seen however, this process of sanctification is not arbitrary—for it must be related to Torah

study in a very definite manner, and must be studied with that intent.

In practical terms, we must not accept the modern, lifeless, pragmatic, utilitarian approach to knowledge. Instead, we must regard our Torah study in terms of a dynamic, intra-personal relationship with God Himself, and set aside fixed times each day for a "rendez-vous" with Him. Our Rabbis should emphasize in their *Shiurim* (discourses) the universality of Torah, and the individual should search out that domain of Torah which deals with *his* interests⁴³—"For in the Torah of God does he find *his* desires. . . ." ⁴⁴

Unfortunately, many of the major areas where Torah and science meet are not operable today, and hence, due to pragmatic pressures, have sometimes fallen into misuse. A noteworthy exception is *Shabbath*, whose elucidation, in the light of modern technology, requires expertise in *halacha* and science. However, many beautiful areas of *halacha*—the knowledge of astronomy for the laws of calendars, botany for blessings, everyday utensils for *Taharah*, architecture for the *Mishcan*, . . . could be equally utilized and studied. Furthermore, this is only the first of the five methods we enumerated above; the whole ethical-exegetical corroboration of science from Scriptures (method (4)), with which the *Midrashic* literature is replete, has become a lost, and sometimes scoffed at, art. Should not a central *Midrashic* method be given the same energy and analysis which we give to other disciplines? These texts should be gathered, organized, analyzed, and enlarged upon.

Rabbi Samson Raphael Hirsch has contended, that it is precisely this cosmic pervasiveness of Torah which at all times formed the deep, quiet, moral core of the life of the Nation, of which, of course, the history of the dynasties is mostly silent.

It is out of its bosom alone, that appearance of people such as Elkana and Chana, Samuel and David, and the brilliant host of prophets could have sprung, and its existence alone can give an answer to the riddle of such appearances.

The conception and consecration of the Divine relationship with human beings was spread over everything which the hand touches or does. All work and craftsmanship then stands in service of this calling of Man to relate to God. The biologist and chemist, the astronomer and architect all work with an ear to the words of God which from the Heights of Moriah send the spirit of holiness into the ordinary life of the people. The lowest technician or scientist feel themselves spiritually elevated by the consciousness which is brought into their work—that through it, they will relate to the Torah of God, which is enthroned on Moriah.

Are we not told that the goal of the whole development of mankind is the stage-beyond the present-in which the holiness that emanates from the Sanctuary of God's Torah will have so penetrated life in general, that the difference between profane and sacred will have disappeared-that the word of God will reach everywhere, far beyond the parchment of the Torah into wherever men live and work, and then, "... on the bells of the horses the high-priestly 'Holy to God' shines, the pots of the Temple like the bowls of the altar, and every cooking vessel in Judah and Jerusalem is so holy to God that those that bring offerings can use them for offerings."⁴⁵

NOTES

1. See *Tosafoth*, Succah 8a—I have paraphrased the original geometric argument, and stated it arithmetically.
2. Hullin 57b
3. See Rabbi Prof. Twersky's article reprinted in *Jewish Medieval and Renaissance Studies*, by Alexander Altman-Harvard Univ. Press; Cambridge, Mass. (pg. 95–119).
4. *Rambam—Talmud Torah* 1, 11
5. *Ibid.* 1, 12
6. *Rambam—Yesodei HaTorah* 4, 13
7. Mishnaic commentary to Hagigah 2, 1; *Rambam Yesodei Torah*, Chapters II, III, and IV.
8. Shabbath, 82a (cf. *Deoth* IV; and *Rotzeach* XI; and XII)
9. Note, that even if our statement about living creatures has a superstitious *source*, it is still classified as a biological *statement*. The question of *source* or means of acquisition of knowledge is important only insofar as classifying the statement as a biological *truth* (e.g. statements which come from experiments).
10. Analysis of prophecies, however, is classified by content—for the analysis does not come from God. The analysis is a body of knowledge whose *content* answers questions concerning the prophecy. Even the learning of prophecy might be classified as a knowing of content—my primary intention being to learn its content. Also note that our two classifications aren't mutually exclusive.
11. *Rambam, Yesodei HaTorah* 6, 8 and *Tefillin* 1, 13. Note, how in this example, there is an interplay between relationship to source on both the personal and textual level. The heretic's *Sefer* lacks *kedushas Sefer* (textual level) because he (personal level) did not intend to hallow it.
12. *Rosh*; Nedarim 36b
13. *Rambam, Yesodei HaTorah* 4, 13
14. Proverbs 6, 6–8
15. Job 38, 41
16. Leviticus Rabbah, 19, 1
17. Eccl. 5, 8
18. Koheleth Rabbah; Chapter 5, verse 8; *Baraita* 5
19. See *Tosafoth* on Hullin 57b
20. Leviticus Rabbah XIX, 2
21. Erubin 100b
22. Leviticus Rabbah 31, 7 (in some editions 31, 9)
23. Niddah 31a-b (Scriptural derivation); Niddah 71a
24. Gen 4, 6; Ber. 61a; Also cf. *Targum* to Eccl. 10, 1.
25. Psalms 19, 6. The word "path" can refer to the biological cycle of woman (Gen 18, 11). Also cf. note (22).
26. Song of Songs 5, 11

27. Hullin 60b. There is however, a difference between science and Torah in this regard. For Bible study is certainly Torah. The study of Biblical texts is Talmud Torah even if I don't understand the precise relation of the texts I am studying to ethics. However, study of scientific texts without employing any of the five methods—i.e. with no connection to Torah or *halacha*—is certainly not Torah
28. e.g. see *Rashi* Avoth 3, 23 (cf. *Ran* quoted in *Orach Chayyim* 47, 2)
29. *Rambam*-Talmud Torah 1, 8
30. Leviticus Rabbah 19, 2. Note especially the very beautiful change the *Rav* has made at the end of the *Midrash*.
31. This remark comes from the *Rav's* Saturday night lectures in Boston, on *Rambam's Hilchoth Talmud Torah*, given in Sept. 68—June 69. (The quoted *Midrash* was not given on this *halachah* but was used later on). It should be pointed out, that in light of our previous analysis, we must say that case (a)—learning to amass knowledge—should be interpreted as an attempt to *relate* to God (the *Source* of the Torah) *by means of* amassing knowledge. This is analogous to carefully reading a loveletter so that I may be able to more easily please my beloved—my true goal is obviously to relate to the *source* of the letter—my lover,
32. Jer. 9, 11
33. Jer. 9, 12
34. Nedarim 81a and Baba Metzia 85a-b
35. That this is clear even if one learns all day is clear from the context which is speaking about scholars who learn all day (see *Rashi* in Nedarim).
36. This is clear from the *Rashi* and the *Ran* on this *Gemara*.
 (a) Thus in Baba Metzia, *Rashi* says that by not making the blessing “he shows his attitude that the Torah is not a precious *gift*.” The purpose of learning is strengthening of a two way relationship by an acceptance of a gift—the utility of the gift is a secondary matter—the primary one is the affection in giving it and the acceptance of that affection.
 (b) Similarly, the *Ran* in Nedarim, emphasizes in the name of Rabbi Jonah that only God knew (the Sages, prophets, and Angels didn't). The trouble was not an objective one which the Sages, say, could easily have noticed. On the contrary, objectively everything seemed to be alright (Torah knowledge was being amassed)—“it was only God who could look into the depths of a man's heart who knew the trouble”—from the point of view of relating however, things were very bad, for the learners had no intent of relating to God by their act. The omission of a blessing was a *symptom* of the hidden disease.
37. *Rambam*, Tefillin 1, 11
38. *Rambam*, Tsitsith 2, 3
39. This is true even if his logical analysis turns out to be false (i.e. logically false). (Cf. “Both these and these are the words of the Living God,”—obviously two contradictory statements cannot both be true. The adage does not say they are both words of truth but rather of the Living God—the point is, that, to be classified as *Talmud Torah* one needs sincere *intent* to *relate* to Torah and also that the object of study be joined and related to actual Torah). The

- fact that one's analysis inadvertently turned out to be wrong is irrelevant to this commandment.
40. Just as in the case of the *Sefer*, we do not ask the heretic whether or not he actually sanctified the names—but rather go to his underlying ideology, which is logically antithetical to such behavior,—so also, in the case of the *epikorus* we do not ask if he intends to relate to God—but rather go to his underlying ideology. Similarly, just as falsehood doesn't change the proper Torah act, so also, the possible logical correctness or sincerity of the heretic (which we needn't doubt now) cannot change the heretical nature of his statements, which emanates solely from his relationship to an ideologically heretical source.
 41. *Sifre* on Deut. 6, 4–9
 42. This statement, is actually an oversimplification. There do exist authors who have heavily emphasized the romantic—subjective nature of *Talmud Torah*; however, we still differ with them on certain issues. To take one example, see Rabbi Dr. Norman Lamm's article, "Rav Hirsch and Rav Kook: Two views on *Limudei Kodesh* and *Limudei Chol*," printed in *Gesher* Volume 3, number 1 (Sivan 5726-June 1966). Rabbi Kook is described as viewing the relationship between Torah and science as a dynamic process by which the *kodesh* sanctifies the profane. While not necessarily disagreeing with Rav Kook's position we would like to present three major differences between his presentation and ours:
 - (a) Sanctity of *act* or *object*: The concept of the *kodesh* sanctifying the *chol* is a very *general* one—so general that it applies to eating and sex as well as science. There is clearly a difference between putting on *tefillin* and eating in a saintly manner—in eating it is the *act* which we sanctify, while in *tefillin* the *object* (i.e. *tefillin*) has intrinsic sanctity to begin with. Similarly, if I learn science in a holy manner, the science still remains *chol*—anyone else studying it, is studying *chol*. However when I connect a biological experiment with a verse, then the resulting entity has intrinsic *kedusha*—anyone else studying it, is studying Torah.
 - (b) *Halacha-Aggada*: Rav Kook's analysis is based mainly on *kabbalistic-aggadic* notions. We have brought in *aggadah* incidentally—our main discussion has been strictly *halachic*, and based on the views of several *Rishonim* (when disagreement does occur, it usually occurs concerning philosophy or concerning learning science from non-Jewish sources (cf. *Rambam*, Idolatry 2, 2–3; or *Calendars* 19, 16). The opinions we have stated here however, are agreed with by all *Rishonim*.
 - (c) *Accessibility*: Rav Kook's method of sanctifying one's life is a general goal, involving complex personality transformations of a very broad nature, which are in general, quite difficult to achieve. We have described a method *accessible* to all. After learning our five methods, every mathematician could produce the *Tosafoth* in *Succah* on the square root of two (cf. footnote (1)); every biologist could produce a *Midrash* in *Leviticus Rabbah* (cf. note (16)).
 43. *Avodath Zara* 19a
 44. *Psalms* 1, 2
 45. The text is based on Rav Hirsch's commentary on Lev. 11, 47; and 4, 12. Note how ideologically Rav Hirsch did agree with Rav Kook. It is only on a pragmatic level that he behaved differently.