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Known to be curious about and care deeply about things he does not have expertise in, he has written about a number of topics outside of his main topic of research, which is Topology. He has (b"h) two children and no grandchildren (yet).

An Evolutionary Perspective on[[1]](#footnote-1)תורה ומדע.

In the Institute in Copenhagen, where through those years several young physicists from various countries came together for discussions, we used, when in trouble, often to comfort ourselves with jokes, among them the old saying of the two kinds of truth. To the one kind belong statements so simple and clear that the opposite assertion obviously could not be defended. The other kind, the so-called “deep truths,” are statements in which the opposite also contains deep truth.

Niels Bohr (1949)

ואף הוא פתח ודרש 'דברי חכמים כדרבונות וכמסמרות נטועים בעלי אסופות נתנו מרועה אחד' (קהלת יב, יא) למה נמשלו דברי תורה לדרבן? לומר לך מה דרבן זה מכוין את הפרה לתלמיה להוציא חיים לעולם אף דברי תורה מכוונין את לומדיהן מדרכי מיתה לדרכי חיים אי מה דרבן זה מטלטל אף דברי תורה מטלטלין ת"ל מסמרות. אי מה מסמר זה חסר ולא יתר אף דברי תורה חסירין ולא יתירין ת"ל נטועים מה נטיעה זו פרה ורבה אף דברי תורה פרין ורבין.

בעלי אסופות אלו תלמידי חכמים שיושבין אסופות אסופות ועוסקין בתורה הללו מטמאין והללו מטהרין הללו אוסרין והללו מתירין הללו פוסלין והללו מכשירין שמא יאמר אדם היאך אני למד תורה מעתה תלמוד לומר כולם נתנו מרועה אחד אל אחד נתנן פרנס אחד אמרן מפי אדון כל המעשים ברוך הוא דכתיב (שמות כ, א) וידבר אלקים את כל הדברים האלה. אף אתה עשה אזניך כאפרכסת וקנה לך לב מבין לשמוע את דברי מטמאים ואת דברי מטהרים את דברי אוסרין ואת דברי מתירין את דברי פוסלין ואת דברי מכשירין

Bavli Ḥagiga 3b

This essay is about the acceptance of two contradictory views at the same time, which, while impossible for a rational individual, is possible for a community (or, perhaps better, a people). I will not make an argument so much as suggest an analogy to a basic point in evolutionary theory: the long-term survival of a population in an uncertain environment requires genetic diversity; only in a very static (peaceful?) environment is optimization for the niche possible. We will not get to this point until the last section.

The issue I am concerned with is intellectual openness to ideas outside of Torah. This is a topic with a voluminous literature. I wish to espouse a point of view that what is referred to as secular knowledge is, in principle, of vital importance, and yet despite that, it has frequently been discouraged. I suggest that that tension has important implications.

The structure of the essay is as follows: The first section explains that despite the overwhelming centrality of Torah knowledge, even it has been censored under some conditions. In the second section, I turn to some forms of non-revealed knowledge (I prefer not to use the word secular) and discuss some of their religious benefits. The third section acknowledges the dangers of non-revealed knowledge and, relatedly, the prima facie rejection of this knowledge by many. The fourth section, in contrast, addresses the dangers in rejecting non-revealed knowledge, beyond not accruing its benefits. The last section suggests that given the danger of both accepting and rejecting non-revealed knowledge, it is necessary to adopt multiple strategies. While the adoption of multiple strategies does not guarantee the success of any individual, it is perhaps the best that can be done.

It is important to remember that the covenant is, firstly, between Hashem and the whole people and secondarily, between Hashem and the individual.

I. Torah

Before attending to the question of תורה ומדע, i.e., the desirability of studying ideas (or knowledge) outside of Torah, it is worth considering the problem of studying Torah itself. While it is easy to find many statements within our tradition praising the one who studies Torah, it is not a perfect מצוה תמידית, an obligation for all people at all times.[[2]](#footnote-2)

Here are some examples of exceptions to the obligation to study Torah, in no particular order. Some of these apply to all people at some time, while others apply to some people all of the time, and still others concern content:

1. An *Avel* (person in mourning) is exempted from Torah study. However, there might be an obligation for the *avel* to study Torah content which causes sadness.
2. One is exempted from Torah study when confronted by a mitzvah that cannot be performed by others.
3. Women are exempted from Torah study. But they might have an obligation to study those portions of Torah that concern actions that they are commanded to perform.
4. Gentiles are forbidden from studying or being taught Torah,[[3]](#footnote-3) and yet the Talmud, on three occasions, repeats the following statement of Rabbi Meir:

Rabbi Meir says: From where is it derived that even a gentile who engages in Torah is considered like a High Priest? The verse states: “Which if a person does, he shall live by them” (Leviticus 18:5). It is not stated: Which if priests and Levites and Israelites do, they shall live by them, but rather: A person, indicating that all people are included. You have therefore learned that even a gentile who engages in Torah study is considered like a High Priest. (BQ. 38a, San. 59a, AZ 3a).

1. There are restrictions on teaching Torah to an unworthy disciple ((תלמיד שאינו הגון.
2. מעשה מרכבה ועריות may not be expounded publicly.

There is no reason to believe that all these exceptions have a unifying explanation. But each exception seemingly indicates some limit on the vast importance of studying Torah.

Let us list several possible (not mutually exclusive) benefits of the study of Torah:

It is a great mitzvah.

It is our way of learning what Hashem wants from us.

It is our way of understanding Hashem.[[4]](#footnote-4)

To be sure, Torah study must at least serve the purpose of enabling one to perform the commandments that are its content. The gemara has very negative things to say about one who studies without the intention of practicing. That is probably the reason for the exemption of one who is confronted with a mitzvah that cannot be performed by others. For the same reason, Torah study does not override other mitzvot such as, for example, *avelut*.

However, (as pointed out by שו׳ע הרב הלכות ת"ת) from the fact that we study much Torah that has no practical application today or perhaps ever—e.g., הילכתא למשיחה, נגעי בתים, עיר הנדחת, בן סורר ומורה—one may conclude that the practical performative side is not the whole story of Talmud Torah*.*

An extreme example of exalting Torah study is found in *Sefer haMitzvot* (mitzvah 3) where it is described as a path leading to אהבת ה':

שצונו באהבתו יתעלה. וזה שנחשוב ונתבונן במצותיו ומאמריו ופעולותיו עד שנשיגהו ונהנה בהשגתו בתכלית ההנאה, וזאת היא האהבה המחוייבת, ולשון ספרי לפי שנאמר ואהבת את ה' אלהיך איני יודע כיצד אוהב את המקום תלמוד לומר והיו הדברים האלה אשר אנכי מצוך היום על לבבך שמתוך כך אתה מכיר את מי שאמר והיה העולם.

Yet despite this, Torah study is forbidden to particular people and in particular modalities because of various dangers.[[5]](#footnote-5)

It is telling that although Maimonides includes women in the mitzvah of אהבת ה' he does not advocate their learning Torah as part of the methodology for accomplishing this. After describing the importance of knowing various basics of Jewish theology, Maimonides makes the following statement:

I maintain that it is not proper for a person to stroll in the *Pardes* unless he has filled his belly with bread and meat. "Bread and meat" refer to the knowledge of what is permitted and what is forbidden, and similar matters concerning other mitzvot. Even though the Sages referred to these as "a small matter"—for our Sages said: "'A great matter,’ this refers to Ma’aseh Merkavah. `A small matter,’ this refers to the debates of Abbaye and Ravva"—nevertheless, it is fitting for them to be given precedence, because they settle a person's mind. Also, they are the great good which the Holy One, blessed be He, has granted, [to allow for] stable [living] within this world and the acquisition of the life of the World to Come. They can be known in their totality by the great and the small, man or woman, whether [granted] expansive knowledge or limited knowledge. (Yesodei haTorah 4:13).

Maimonides explicitly asserts that women have the capacity to learn what we conventionally call Torah while being skeptical about their capacity to learn what many of us would call science. (For Maimonides this would be the part of Torah called Talmud). Yet in the laws of Talmud Torah (1:13) he writes:

A woman who studies Torah will receive reward. However, that reward will not be [as great] as a man’s, since she was not commanded [in this mitzvah]. Whoever performs a deed which he is not commanded to do, does not receive as great a reward as one who performs a mitzvah that he is commanded to do. Even though she will receive a reward, the Sages commanded that a person should not teach his daughter Torah, because most women cannot concentrate their attention on study, and thus transform the words of Torah into idle matters because of their lack of understanding. [Thus,] our Sages declared: “Whoever teaches his daughter Torah is like one who teaches her tales and parables.” This applies to the Oral Law. [With regard to] the Written Law: at the outset, one should not teach one’s daughter. However, if one teaches her, it is not considered as if she was taught idle things.

It seems that, despite the great benefit of learning Torah, the risk of coming to a wrong conclusion, or perhaps the risk of making the Torah *seem* incorrect, makes learning Torah something that should be discouraged—at least for some people and under some conditions,. If this is the case for Torah, surely there must be restrictions on other forms of learning based on the risks that this learning entails.

II. *Madda*: What is it and what are the benefits[[6]](#footnote-6)

*Madda* means many things to many people. A partial list would include Jewish and world history, philosophy, the physical (such as physics chemistry, astronomy, geology, etc.) and biological sciences (such as human physiology, virology epidemiology, ecology etc.), mathematics, the social sciences (such as sociology and economics), and the arts and humanities. A friend (I wish I remember who) told me that he thinks that תורה ומדע nowadays (among young YU rabbis) means Torah and Jewish History.

One can argue whether the contents of the שער היחוד of the חובת הלבבות is תורה or מדע. I will make a practical delineation between these areas, Torah and *Madda*, based on sources; i.e., whether the knowledge being described derives purely from the Jewish tradition or whether non-Jewish sources are admitted. The author of חובת הלבבות is explicit in his introduction that some non-Jewish sources are admitted:

ושמתי רוב ראיותי מן הדברים המושכלים וקרבתים בדמיונים הקרובים אשר אין בהם ספק וסמכתי להם מה שמצאתי כתוב בספרי הנביאים ואחר כך סמכתי להם דברי הקבלות שקבלנו מרבותינו ז״ל ומן החסידים והחכמים שבכל אומה שהגיעו דבריהם אלינו מפני שקויתי שיהיו הלבבות נוטים אליהם ומקשיבים אל חכמתם כמו דברי הפילוסופים ומוסרי הפרושים ומנהגיהם המשובחים וכבר אמרו רבותינו ז״ל כתיב וכמשפטי הגוים אשר סביבותיכם לא עשיתם וכתיב וכמשפטי הגוים אשר סביבותיכם עשיתם - כמתוקנין שבהם לא עשיתם, כמקולקלין שבהם עשיתם. ואמרו כל האומר דבר חכמה אפילו באומות העולם נקרא חכם

The aforementioned fields of study that we might take to constitute *Madda* are not at all identical to one another, neither in terms of their potential benefits, nor in terms of their drawbacks. Let’s paint with a broad brush, papering over some of their differences to make a crude argument for the value of studying *Madda* in general. The reader can decide to which of the aforementioned fields of study, if any, the following paragraphs apply.

The first argument is a variation[[7]](#footnote-7) of part of the discussion in the previous section. One has an obligation to be appropriately grateful to Hashem, and one cannot be grateful for that which one doesn’t know. A religious person should be grateful for the viruses that haven’t wiped out humanity, that haven’t jumped from other species, for the meteors that haven’t hit the earth. It’s true that we thank Hashem for some historical events, and these are established in Biblical or Rabbinic commands, but shouldn’t one study history to be aware of the other things we should be thankful for?

Lest one think that the obligation for gratitude only leads to a requirement of learning the physical and biological sciences, and history, I insist that even the humanities are implicated. So much of art is the human reaction to what might otherwise be cold scientific fact. Many a humanist has claimed a deeper appreciation for the rainbow than the scientist. Should a תלמיד חכם need to read a Romantic to learn this, more than the רמב"ן? No, but it’s possible that an American of the twenty-first century might benefit religiously from such reading.

Accepting this point or not, in general, it is certainly arguable that incuriousity about the actions of Hashem is a religious failing.

Another point is that we are enjoined to be enlightened by any and every person. We can positively learn from the eloquent writings of Feynmann and Franklin ideas about dedication to work, self-improvement, etc. We can understand what it is that the Torah is telling us not to do by reading the biographies of successful people whose fortunes or success was based on ruthlessness. We can frequently see how bad attributes lead to short term advantage but plant the seeds for ultimate failure (and how the ones who don’t see that failure comes to pass might have simply died too early to reap what they sowed). Why not read Plutarch’s *Lives* and case studies from the *Harvard Business Review*?

So there is a second argument about the possibility of improving one’s service of Hashem by paying attention to those who are devoted to other things, and considering alternative possibilities for understanding the world.

A third argument comes from having at one’s disposal a different set of tools for looking at the world. There is an advantage to being able to channel Kantian moral reasoning, Utilitarianism (in various flavors), and economic approaches to law. The first time I heard one of the ideas in מנחת שלמה בענין רודף ואפשר להצילו בלי להמיתו (חלק א) used in an argument was when I read the famous pro-abortion paper of Judith Thompson in “Philosophy and Public Affairs.” What seems implausible in one setting can feel compelling in another, and you learn something from the inconsistency between your intellect and your emotions..

Indeed to understandסברה , it is sometimes useful to read people who have no religion and only have recourse to סברה.[[8]](#footnote-8)

All fields of מדע contain non-intuitive (or at the least, non-obvious) discoveries. The seeker of truth will cherish these, understand them, and look for their ramifications elsewhere. Presumably examples are unnecessary, but the Talmud in Pesaḥim (50b) indicates a well-known point in economic theory:

What is the reason that one sees no blessing from wages of scribes? Rabbi Yehoshua ben Levi said: The members of the Great Assembly observed twenty-four fasts, for scribes who write Torah scrolls, phylacteries, and *mezuzot*, so that they will not become wealthy from their craft, as were they to become wealthy, they would no longer write these sacred items.

As the wealth of a worker increases, the value of their time increases, so unless prices go up (which חז"ל certainly weren’t interested in), less would be produced by such workers. With a non-wealthy class of scribes, those interested in wealth would not be attracted to the field, while those uninterested in wealth would continue to write in any event, which is the idea expressed later in that gemara:

and all those engaged in the work of Heaven and earn their living from it, including those who sell the sky-blue dye for ritual fringes, never see a sign of blessing from their labor. And if they engage in these activities for their own sake, to ensure that there will be more sacred items available to the public, then they do see blessing from their labor.

Someone unschooled in economic thought could imagine that arranging for scribes so that they will not become wealthy would result in fewer sacred writings being written. (I will not speculate about the relevance of this to the question of how doctors should be paid.) It is easier to understand the gemara when one has understood somewhat abstractly the basics of micoreconomics.

The fifth argument is that of the Gr”a. To deliver halakhic rulings, one needs to be familiar with the realia. (Perhaps Gr”a was referring to some of the earlier arguments as well). He insisted that any lack in secular knowledge will result in a lack in Torah knowledge.

This point seems too obvious to need amplification. However, I point out that it is indeed rare to find people who appreciate what this means in terms of e.g., the capacity to weigh evidence, and the need to be able to follow statistical reasoning, be aware of issues such as p-hacking, publication bias, framing effects, Simpson’s paradox, etc. Surely a *Posek* needs as much statistics as anyone who has a master’s degree in public policy.

Returning to the average person, based on the Talmudic (Berakhot 35b) interpretation of the verse ואספת דגנך we have both an obligation and permission to earn a living. Nowadays this involves, for many, a knowledge of technology, and not merely to be a passive user. Knowledge workers must be able to modify technology and contribute to it intellectually.

Of course, the narrowness of some people involved in technology is cliché, but frum people should eschew these negative stereotypes: the requirement of עבודת ה' means that we have to show that Judaism broadens and deepens one’s perspective, so that it is a religion of'כי היא חכמתכם ובינתכם לעיני העמים' (Deut. 4:6)

That many Jews are suspicious of science and social science and think very crudely about issues (because they don’t look for nonobvious causes and unexpected effects outside of תורה itself—) sadly can lead to large-scale חילול ה' that they cannot even appreciate that they are perpetrating. (אינו יודע שאינו יודע ).

III. The risks of *Madda*

Of course, learning מדע is risky. Even learning תורה can be risky and we have seen that it has been discouraged for certain people or in certain ways.[[9]](#footnote-9)

The study of philosophy has been discouraged (or worse) by many. Great leaders of ours have written highly negative statements regarding the מורה נבוכים and the שער היחוד. For example, Rivash in his Responsa 45 (dealing with the issue of חכמת יוונים) says:

והחכם רבי לוי ז"ל גם הוא הי' חכם גדול בתלמוד ועשה פירוש נאה לתורה ולספרי הנביאים והלך בעקבות הרמב"ם ז"ל אמנם גם הוא הטו את לבבו אותן החכמות הרבה מדרך האמת והפך דעת הרב רבינו משה ז"ל בקצת ענינים כגון בענין ידיעת השם בעתיד האפשרי וכן בעמידת השמש ליהושע והשיב צל המעלות אחורנית כתב דברים שאסור לשומעם וכן בהשארות הנפש ובהשגחה בענין עונשי הרשעים בעה"ז כמ"ש כל זה בספרו קראו מלחמות השם ומעתה ישא כל אדם קו"ח בעצמו אם שני המלכים האלה לא עמדו רגליהם במישור בקצת דברים כבודם במקומם מונח ואם היו גדולי העולם איך נעמוד אנחנו אשר לא ראינו מאורות לערכם וכמה וכמה ראינו פרקו עול התפלה נתקו מוסרות התורה והמצוה מעליהם בסבת למוד אותן חכמות וכמ"ש רבינו האי גאון ז"ל בתשוב' שכתבתי למעלה'

Similarly, the study of history has been discouraged. I will quote from a well-known speech of R’ Shimon Schwab (which is not at all an unprecedented perspective):

What ethical purpose is served by preserving a realistic historic picture? Nothing but the satisfaction of curiosity. We should tell ourselves and our children the good memories of the good people, their unshakable faith, their staunch defense of tradition, their life truth, their impeccable honesty, their boundless charity and their great reverence for Torah and Torah sages. What is gained by pointing out their inadequacies and their contradictions? We want to be inspired by their example and learn from their experience … Rather than write the history of our forebears, every generation has to put a veil over the human failings of its elders and glorify all the rest which is great and beautiful. That means we have to do without a real history book. We can do without. We do not need realism; we need inspiration from our forefathers in order to pass it on to posterity.

Even pure science is not exempt from the possibility of leading to heresy. Copernicus and Darwin are not well-loved by the fundamentalists of many religions. Astronomy and Geology seem to contradict the simple reading of Genesis. (That this is to be considered a problem is a consequence of the rejection of philosophy within religion and a preference for אמונה פשוטה—which is arguably a preference for doing good over being best, i.e., knowing truth.)

Biology is problematic: but is anything about the multiple strains of Covid understandable outside of an evolutionary lens? (Yes, each one can be a separate creation for whatever mysterious reason. However, that is not a perspective that leads to useful decisions about vaccination policy, isolation protocols, etc.)

And so on. It seems that only Mathematics might be exempt from the possibility of leading to heresy. And yet it mathematics is equally incapable of leading to אהבת ה'; for while it is an extraordinarily beautiful science and is highly valuable for understanding many things of value, it would be hard to argue that the sum of the angles of a Euclidean triangle is 180 degrees is a law ordained by Hashem.

Each area of מדע, even broadly construed, contains risks of heresy. Since study of *Madda* is not itself a מצוה, should we not then simply avoid the risk? With the danger of study being so great, one should be very careful indeed to avoid at least some areas that contain the danger—perhaps prohibiting everything other than Mathematics?

IV. The Risk of Ignoring *Madda*

However, there is a real counter-fear in our generation,[[10]](#footnote-10) namely, some interpret the fear of those who are אוסר as indicating to the relative strength of scientific and philosophical arguments against the validity of religion. Given the role that science and technology play in our society, can we discourage this learning? I was once asked by a *yeshiva bachur* at a *chareidi yeshiva* why math progresses (he mentioned Fermat’s last theorem) but Torah does not.

Had he studied some philosophy he would not have been bothered by that question, for he would have been able to critically analyze the concept of progress and also would have been aware that most areas of philosophy also do not advance in the same ways that Mathematics and Physics advance (and these, too, do not advance in the same way as each other).

In addition, is it really the case that because of a concern we should impinge upon if not uproot the proper observance of אהבת ה', תפילה, and עבודת ה' ? (I note that although we uproot an entire מצוה on a גזירה, in this case, there are lower forms of these מצוות that will survive, so this undesirable state of affairs in not untenable.)

Shall we show fear that the תורה cannot stand up to its secular rivals[[11]](#footnote-11)? So much so that we choose to forgo the benefits of *Madda*?

V. An Evolutionary Perspective

I cannot give a halakhic ruling. Indeed, on a similar issue, no less than the חוות יאיר wrote (Responsa 210):

ועם כל זה גליתי לך דעתי ברצוא ושוב ובתנאי כפול שתביא דבריי בכור בינתך פעם אחר פעם ולא תסמך זולת הסכמתך כלל וכלל על דבריי לא אתה לא אחר שיזדמנו לו דברי מאמר הזה כי אין הכרעתי ושיקול דעת קטן

כמוני כדאי להכריע ושימשך אדם אחריהם.

I am not so much trying to suggest what should be done as thinking about the consequences of what will be done—and accepting this latter as the will of Hashem. If I’m wrong, then I will be happy that my ideas will die away a natural death with time (or through counterargument).

We are confronted with a deep problem: the search for truth. We have two starkly-opposing conceptions of the place of studying *Madda* in the search for truth: either it is an act required for the ultimate perfection of *homo religiosis* or it is anathema. There is no room for compromise.

But, there is no need for compromise; communities and individuals who have the resources to leave or think differently than their communities will be attracted to different approaches. There is a need for coexistence.

I would like to suggest an analogy in the realm of evolutionary thought to genetic diversity within a population. Not all members of a species are genetically identical—they are not clones. Indeed, for the survival of species, diversity is an enormous benefit. (Covid 19 has benefited from diversity to be able to evade the effects of vaccines and developing immunity, as an example that we all learnt too well recently.)

If you are uncomfortable with an analogy to evolution, it is possible to use an analogy to portfolio theory, and the value of having a diverse portfolio for dealing with uncertainty, i.e., for the challenges of the future that are not well-understood today. But personally, I prefer to continue with the evolutionary picture because it focuses on a large group, a species, and considers the logic of its flourishing (survival, growth, development).

I thus suggest thinking about the advantage to כלל ישראל of having a diversity of opinions, some of which are correct and some of which are wrong (in some sense) but for which we say אלו ואלו דברי אלקים חיים. Let us recall the Mishnah in Eduyot (1, 5):

וְלָמָּה מַזְכִּירִין דִּבְרֵי הַיָּחִיד בֵּין הַמְרֻבִּין, הוֹאִיל וְאֵין הֲלָכָה אֶלָּא כְדִבְרֵי הַמְרֻבִּין. שֶׁאִם יִרְאֶה בֵית דִּין אֶת דִּבְרֵי הַיָּחִיד וְיִסְמֹךְ עָלָיו

There are a number of explanations of the Mishnah. The ראב’ד writes:

ולשון התוספתא תצטרך עליהם שעה ויסמכו עליהם. דומה לזה הלשון שאין ב"ד אחרון יכול לסמוך על דברי היחיד אלא בשעת הדחק. שאין ב"ד יכול לבטל וכו' כלומר ופירוש בשעת הדחק נמי אלמלא שימצאו דברי היחיד הראשון שהיה חולק עמהם לא היה האחרון רשאי להתיר מה שאסרו הראשונים לפי שאין ב"ד יכול לבטל כלל דברי ב"ד חבירו וכו'. ואפשר כמו כן לומר כי הטעם האמור בתוספתא טעם בפ"ע הוא וטעם האמור במשנה טעם אחר הוא לומר שאם יראה לב"ד האחרון שהלכה כדברי היחיד הראשון יסמוך עליו כלומר יקבע הלכה כמותו כמו שמצינו באמוראים האחרונים שהן קובעים הלכה כיחידים הראשונים בכמה מקומות ואע"פ שהמרובים חולקים עליהם ואם לא שמצאו דברי היחיד הראשון לא היו אחרונים יכולין לדחות דברי הראשונים מדעת עצמן לפי שאין ב"ד יכול לבטל וכו' אלא מכיון שמצאו היחיד [מן] הראשונים שהיה חולק עמהם היה להם במה לתלות זהו טעם משנתנו:

Minority opinions can become majority opinions in the future, or according to the Tosefta, these opinions can be accepted in a שעת הדחק—even if they would otherwise not be on the strength of their reasoning. One can view minority opinions as unsuccessful at one time, but that may be necessary and valuable given a change in the environment at some future time. They are accepted under different circumstances than those under which they are created. This is somewhat analogous to the idea of “preadaptation” in evolutionary theory, explaining how wings develop originally just as a means for cooling off an organism, rather than for flying. Minority opinions develop in their own cities, as did Darwin’s finches of the Gallapagos: in the city of Rabbi Eliezer they would chop trees and make fires on שבת for the sake of מילה.

The wrong adaptations in the wrong time can be unsuccessful with terrible consequences. One expects some people to go “off the derekh.” Let me recall the famous letter of R’ Dessler (מכתב מאליהו vol. 3 translation taken from the internet):

The approach of the yeshivos was to establish a single goal, that being the development of greats (gedolim) in both Torah and fear of Heaven. It is for this reason that they forbade their students to attend university, as they could not see a way to develop “gedolim” in Torah without focusing their students’ sights exclusively on Torah. However, one must not think that they did not recognize in advance that following this method would certainly alienate some who would be unable to subscribe to this more extreme position and would choose instead to leave the path of Torah. Nevertheless, this was the price they were ready to pay for the “gedolim” in Torah and fear of Heaven that would be raised in their yeshivos. Of course, they would work aggressively to do whatever possible to help those who would not remain bnei Torah, but not in a way that would draw others after them.

Note that this view is almost the opposite of the view of fear that we had mentioned above. It accepts that one takes risks in order to achieve religiously great individuals, whose existence is necessary for the survival of the Jewish people! I don’t think that this is an unprecedented view although it is rarely expressed so starkly.

Consider the Rambam’s view at the beginning of his commentary on חלק regarding three groups of readers:

ראיתי לדבר בכאן בעיקרים רבים באמונה גדולים ונכבדים עד מאד. הוי יודע כי בעלי התורה ממה שאתה צריך לדעת כי דברי חכמים ז"ל נחלקו בם בני אדם לשלשה כתות.

הראשונה והוא רוב מה שראיתי ואשר ראיתי חבוריו ומה ששמעתי עליו הם מאמינים אותם על פשטם ואין סוברין בהם פירוש נסתר בשום פנים והנמנעות כלם הם אצלם מחויבות המציאות ואמנם עושין כן לפי שלא הבינו החכמה והם רחוקים מן התבונות ואין בהם מן השלמות כדי שיתעוררו מאליהם ולא מצאו מעורר שיעורר אותם סוברין שלא כוונו החכמים ז"ל בכל דבריהם הישרים והמתוקנים אלא מה שהבינו לפי דעתם מהם ושהם על פשוטם ואע"פ שהנראה מקצת דבריהם יש בהם מן הדבה והריחוק מן השכל עד שאילו סופר על פשוטו לעמי הארץ כל שכן לחכמים היו תמהים בהתבוננם בהם והם אומרים היאך יתכן שיהיה בעולם אדם שיחשוב בזה או שיאמין שהיא אמונה נכונה ק"ו שייטיב בעיניו וזו הכת עניי הדעת יש להצטער עליהם לסכלותם לפי שהם מכבדין ומנשאין החכמים כפי דעתם והם משפילים אותם בתכלית השפלות והם אינם מבינין זה וחי השם יתברך כי הכת הזה מאבדים הדרת התורה ומאפילים זהרה ומשימים תורת ה' בהפך המכוון בה לפי שהשם יתברך אמר בתורה התמימה אשר ישמעון את כל החוקים האלה ואמרו רק עם חכם ונבון הגוי הגדול הזה והכת הזאת מספרים משפטי דברי החכמים ז"ל מה שכששומעין אותו שאר האומות אומרים רק עם סכל ונבל הגוי הקטן הזה ורוב מה שעושין זה הדרשנים שהן מפרשין ומודיעין להמון העם מה שאינם יודעין ומי יתן אחר שלא ידעו ולא הבינו שיהיו שותקין כמו שאמר מי יתן החרש תחרישון ותהי להם לחכמה או שיהיו אומרים אין אנו מבינים כוונת החכמים בזה המאמר ולא היאך יתפרש אבל הם מחשבים שהם מבינים אותו ומשתדלים להודיעו לפרש לעם מה שהבינו הם עצמם כפי דעתם החלושה לא מה שאמרו חכמים ודורשין בראשי העם דרשות ממסכת ברכות ופרק חלק וזולתם על פשטם מלה במלה:

This indeed is an extremely common approach, which demands accepting the preposterous as a sign of religious commitment. The second group is a sad one in the opposite direction:

והכת השניה הם רבים ג"כ והם אותם שראו דברי החכמים או שמעום והבינו אותם כפי פשוטו וחשבו שלא כוונו חכמים בו זולתי מה שמורה עליו פשט הדבר והם באים לסכל אותם ולגנותם ומוציאין דבה על מה שאין בו דבה וילעגו על דברי חכמים ושכלם יותר זך מהם ושהם ע"ה נפתים גרועי השכל סכלים בכלל המציאות עד שלא היו משיגים דבר חכמה בשום פנים ורוב הנכשלים בזה השבוש המתיחסים לחכמת הרפואות והמהבילים בגזרת הכוכבים לפי שהם במחשבתם נבונים וחכמים בעיניהם ומחודדים ופילוסופים וכמה הם רחוקים מן האנושית אצל אותם שהם חכמים ופילוסופים על האמת אבל הם סכלים יותר מן הכת הראשונה והרבה מהם פתיות והוא כת ארורה לפי שהם משיבים על אנשים גדולים ונשיאים אשר נתבררה חכמתם לחכמים ואלו הפתאים אילו היה עמלם בחכמות עד שיהיו יודעים היאך ראוי לסדר ולכתוב הדברים בחכמת האלהות והדומה להן מן הדברים אצל ההמון ואצל החכמים ויבינו החלק המעשיי מן הפילוסופיא אז היו מבינים אם החכמים ז"ל חכמים אם לא והיה מתבאר להם ענין דבריהם:

This group rejects a paper tiger: the Torah that it did not find because it did not give it the benefit of the doubt, by studying it carefully with an attitude of humility.

והכת השלישית והם חי השם מעטים עד מאד עד שאין ראוי לקרותם כת אלא כמו שיאמר לשמש מין ורק היא יחידה והם אותם בני אדם שנתברר אצלם גדולת החכמים ז"ל וטוב שכלם ממה שנמצא בכלל דבריהם מורים על ענינים אמתים למאד ואע"פ שהם מעטים ומפוזרים במקומות מחבוריהם הם מורים על שלמותם

Although it’s a different small elite than Rav Dessler’s, the Rambam’s focus is entirely on this third group, for he accepts that the preservation of the people requires teaching ideas that will be taken at face value by the first group.

ואולם זה טוב להם עד שיהיה להם כח והרגל והשתדלות בעשיית התורה ומזה יתעוררו לדעת האמת ויחזרו עובדים מאהבה.

Of course, even the ones who leave should remain, and in this case, remaining can mean accepting a less intellectual form of Judaism, one where one might prefer to choose one’s יסודות האמונה by some criterion other than evidence, or where one is simply culturally Jewish, but feels a closeness to his people and supports them. In all of these cases, one can hope for an ultimate movement towards serving ה מאהבה.

There are many possible models for this. One might take a “multi-organ” view of the Jewish people, so to speak, in which some subcommunities will produce the next generation of Jews, a different population might provide the financial support for their institutions, another part provides the thinkers that enable participation in diplomacy or the international economy, and many might provide the ideas that propel the next generation. Alternatively, one might view the Jewish people as an ecosystem occupied by different species (a much more pessimistic view, in my opinion). In any case, let me summarize this evolutionary perspective as including the following components:

(1) an attempt to achieve the ideal (i.e., that Moshiaḥ will have smikhah and a PhD, so to speak[[12]](#footnote-12))

(2) a recognition of its own riskiness

(3) a recognition that never trying for the ideal ensures its non-achievement

(4) a recognition that losses to this elite might include movement away from חרידי to חילוני

(5) a recognition that if we maintain an אהבת ישראל and appreciate the unity of כלל ישראל , the losses described in (4) should be temporary, from the point of view of our people, and viewed as possibilities latent within our genetic diversity; also a recognition that “true models” will persist and attract later generations

For those who find such a point of view hard to imagine, it might be useful to consider the analogous issue of the rise of Ḥassidut, and its movement from a potentially quasi-heretical sect to a significant proportion of contemporary orthodoxy.

To close, considering that we are a community of people committed to courageously seeking Hashem everywhere, and who are dazzled by the beauty and wisdom of creation, the risks of the individual who moves in this direction considerably decline. Being a community devoted to a project that is too large for any individual[[13]](#footnote-13)14 we say לא עליך המלאכה לגמור; rather, we can all work to undertake the project together by sharing insights (be they correct and not) and allowing them to bloom in their time.

The debt of the younger generation who try to embrace such an approach to those who came earlier is tremendous. A thank you is all we can say and we can all pray for the realization of the hope:

כִּי מָלְאָה הָאָרֶץ דֵּעָה אֶת ה' כַּמַּיִם לַיָּם מְכַסִּים.

1. As Maimonides writes in the introduction to his commentary on :חלק ואם אתה המעיין מאחת השתי כתות הראשונות לא תשגיח בדברי ולא בשום דבר מזה הענין לפי שלא יהיה נאות לך שום דבר ממנו . The remarks below will surely be repugnant to a wide class of (potential) readers. The initial quotes, though, (perhaps) suggest that it is, at times, necessary to accept contradictory views. [↑](#footnote-ref-1)
2. For instance, it is not in the list in the introduction of the ספר חינוך, that lists all מצוות תמידיות.) [↑](#footnote-ref-2)
3. San. 59a, Hag. 13a. [↑](#footnote-ref-3)
4. This may be an independent *mitsva*. Or a prerequisite to the mitsva of loving and fearing *Hashem*. It might be a good unto itself – a person with such an understanding is a better or a higher quality person. This begs a different question that we do not address: What is the relation between the type of person one is and the type of actions one does/has done. Sometimes one might have a duty that precludes them from maximizing their “spiritual growth” (a point made by R’ Henkin z”l at an עזרת תורה dinner). It might be preferable to be a servant of *Hashem* than being a Torah prodigy, presumably *Balaam* understood many things that most of *Chazal* did not. [↑](#footnote-ref-4)
5. See Hag. 3a, and the well-known Maimonidean responsa permitting the teaching of Torah to Christians but not Moslems, based on his analysis of the likeliness of a dangerous misinterpretation. [↑](#footnote-ref-5)
6. The next section will be about risks. [↑](#footnote-ref-6)
7. I have understood the Rambam’s point of view that we would have awe and admiration because of the study of *Hashem’s* creation/actions. But it could be that he intended gratitude, as well. In any case, this idea is implicit in תפילה itself in the ברכות קריאת שמע and in מודים. [↑](#footnote-ref-7)
8. Again, there is an alternative: to deny that we have the capacity of creating סברות but should only avail ourselves of those which are grounded in the גמרא. Even if so, it is useful to understand why certain prima-facie logical arguments are not accepted (if only to prevent oneself from falling into a trap). [↑](#footnote-ref-8)
9. That some of those people should approach *Hashem* through מדע would, *prima facie*, seem reasonable. However, the possibility of them then denigrating חכמת התורה exists. [↑](#footnote-ref-9)
10. A standard argument (e.g. quoted in that Rivash) about the study of philosophy by the רמב"ם is that he needed to do this for his generation. [↑](#footnote-ref-10)
11. Understanding that this is only a perception: the truth being that the fear is the inability of the masses to be able to judge correctly. I must emphasize that this is a legitimate fear. No one living through recent history can blithely accept the idea that “in a free market of ideas, the truth will win”. (Indeed, Dawkins’s contribution to this subject in “The Selfish Gene” is correctly influential – even if I disagree with him about the force of some of his conclusions.) [↑](#footnote-ref-11)
12. I am not saying that he will have a degree (from YU, Bar Ilan, or Touro?); just that he will have the knowledge and insight. I can say nothing about his source of knowledge. [↑](#footnote-ref-12)
13. 14 Or as an old colleague of mine, Paul Sally, once said “Anything worth doing will take more than one lifetime to accomplish”. [↑](#footnote-ref-13)