

Dr. David Shatz

Practical Endeavor and the Torah u-Madda Debate

Assessing the framework of Torah u-Madda requires us to confront two tightly connected questions. First, should we study *madda* at all? Second, when we think about topics that Torah addresses—the origins of the universe, Jewish history, miracles, free will, human nature, moral standards—should we admit and integrate conclusions generated by secular disciplines into our *hashkafah*, and if so, how?

These questions about *madda* study and its use in attaining intellectual ends have spawned a staggering amount of *pesak* and *mahshavah*, and down through our day they have regularly ignited vitriol, divisiveness and vigorous polemics. By contrast, conspicuously little attention has been paid to another illuminating issue about employing *madda*: to what degree should theories and methods of secular disciplines be used to secure not intellectual ends, but vital practical ends in our daily lives.

That analyses of Torah u-Madda have generally not accorded prominence to this surprisingly complex dimension of their subject is doubly unfortunate. For not only have great *ba'alei mahshavah* proposed intriguing reactions to the issue that merit study for their own sake, but—especially in our technological age—“practical *madda*” bears important implications for the questions about *madda* study and its impact on religious belief that form the heart of the classic Torah u-Madda controversy. This essay indeed attempts to show how the uses of *madda* in practical life shed light upon these larger questions about the status and value of secular disciplines.¹

I. On the Uses of “Practical Madda”

Many Jews who vigorously oppose university study and who sometimes profess distrust of scientific and social scientific theories and methods nonetheless rely on science or social science for the conduct of their everyday lives—conceding thereby at least the legitimacy, if not also the necessity, of this reliance. These individuals go to doctors; avail themselves, when necessary, of medical technology, modern transportation, and computer networks; rely on highly trained experts to read economic trends and to suggest investments; and, in the face of family or personal difficulties, sometimes seek the help of psychologists or social workers. Likewise, most will want to benefit from the best of modern defense technology, along with sound methods of energy use, irrigation, engineering, aeronautics and home construction. Of course, recognizing that practical human endeavors cannot be crowned with success unless God wants them to be (Psalms 127:1), they couple this “trust” in technology, medicine and social science with *tefillah*, *Talmud Torah*, and proper conduct. Still and all, whatever supplements it requires, *madda*, as a practical tool, is a ubiquitous and to all appearances inescapable part of daily existence. Modern living demands it, no matter what the religious wing with which a person aligns himself.

I have sometimes heard it said that the behavior of the anti-*madda* community just described is flatly inconsistent with their own principles. Critics who lodge this complaint generally have two things in mind: first, that practical *madda* requires trust in cognitive methods which, in other contexts, opponents of *madda* study profess to distrust; and second, that these anti-*madda*ists exploit the talents, training, and services of people who have violated their principles. Before fleshing out and assessing these charges, we need to clarify some points of methodology.

1. At first glance, any allegations of inconsistency succumb to a straightforward reply. Surely the principle of *ein somekhin ‘al ha-nes* (“we do not rely on miracles”) is well established in Halakhah, and it mandates that we utilize natural knowledge and techniques;² we also find, for example, specific *mizvot* to seek medical care and earn a *par-nasah*.³ No one can gainsay, then, that a firm, clear halakhic rationale for using “practical *madda*” in medicine, economics and many other areas is quickly at hand. However, far from repelling the charge of inconsistency, an appeal to *ein somekhin* only reintroduces and underscores it. For the charge of inconsistency can be rephrased as follows: granted the halakhic propriety of using “practical *madda*” in the particular ways we described, the “hashkafic” rationale behind this halakhic license is not clean and straightforward—on the contrary, it is quite problematic and perhaps impossible to formulate if an individual stands opposed to *madda* study and distrusts its methods or conclusions. In other words,

the claim is that *ein somekbin 'al ha-nes* itself carries implications that a bare, mechanical invocation of it fails to address, and that ultimately validate a Torah u-Madda approach.

Let me express the point another way. Our starting point for discussion was a slice of sociological reality: that, *de facto*, even the anti-*madda* camp, or a significant segment of it, is steeped in technology, modern economics, health care, and other branches of *madda* (at least at the “consuming” end). While this may nurture the impression that any criticisms of such conduct merely aim to expose hypocrisy—a contradiction, in certain groups, between preaching and practice—the analysis does not have to be cast, and should not be cast, in this crude *ad hominem* form. The key point is not merely that the Orthodox right, too, is immersed in *madda*, but, rather, that this is exactly the course Halakhah encourages. If there exists a need to account for acceptance of practical *madda* in “hashkafic” terms, that need would remain even if, under pressure from criticisms of the sort we will examine, the anti-*madda* wing of the Jewish community would—unimaginably!—retreat into the ways of the Amish and the Christian Scientists in an effort to achieve consistency. For what is at issue is: what approach to the study of *madda* and the reliability of its methods makes maximal sense out of the generally recognized halakhic imperative to utilize the natural order? Since the great thinkers we will cite who examine the Halakhah’s sanctioning of human initiative—Rambam, Ramban, the Hazon Ish, Rav Eliyahu Dessler, Rav Joseph B. Soloveitchik—openly sought to account for it within their respective and often radically differing *hashkafot* (rather than taking it as a decree with no rationale), determining what principles of *hashkafah* justify taking practical initiative would seem to be at the very least a legitimate exercise, and arguably a mandatory one. Once we try to thus explain the Halakhah’s approach in “hashkafic” terms, we may find we are gradually committing ourselves to particular positions in the debate over the study of *madda* and the use of *madda* methods to form our beliefs.

In short, it is the Halakhah’s call for human initiative, not the behavior of the anti-*madda* wing, that ultimately is central to an evaluation of the anti-*madda* position, even though targeting criticisms at actual patterns of behavior will lend color, concreteness and focus to the presentation.⁴

2. Another methodological caveat has to do with the limits of argumentation in this context—what it can and cannot accomplish. Inconsistency is a strong accusation, and we must bring to any polemics a sober appreciation of how difficult it is to validate so extreme an indictment. Modern philosophers of science caution time and again that no theory in science can ever be falsified conclusively by observations and experiments, because a theory-holder can always modify certain background assumptions or adjust other parts of his belief corpus in order to accomo-

date a recalcitrant datum.⁵ When one ponders an objection to a proposed hypothesis, therefore, the question to ask is not whether the hypothesis-holder can keep his view logically consistent in the face of criticism—almost always, he can—but rather (1) what suppositions, principles and implications would he need to endorse in order to achieve consistency? and (2) how *plausible* or *appealing*, or, alternatively, how *ad hoc* and unappealing, are those suppositions, principles and implications? Even here, moreover, the power of argument is limited: after all, we might encounter further disagreements about what is plausible and what is merely *ad hoc*, disagreements that cannot be settled without begging some of the very questions that were at issue in the first place.

What is true in the realm of science holds as well in the realms of ideology and *hashkafah*. Faced with objections to a particular view, a target of criticism *always* has options: he can deny presuppositions the objector considers perfectly obvious, or cheerfully swallow consequences of his view that the objector deems preposterous. One person's *reductio ad absurdum* is another's *in hakhi nami*.

In the spirit of this approach to ideological and hashkafic debates, we should harbor no illusions about the power of argument. Contrary to popular perceptions, we shall see, the anti-*madda* community is *not* logically inconsistent when it couples opposition to *madda* study and distrust of its methods with reliance on *madda* in practical life; with sufficient ingenuity and tenacity, its position can be placed in a coherent, cohesive, self-consistent framework. Nonetheless, contrary once again to popular perceptions, one does not always turn back an objection to a position *merely* by finding a means of preserving logical consistency. By raising the specter of inconsistency, we can force the anti-*madda* camp to make clear and face up to the price it must pay—the moves it must make—to secure logical consistency; and we can also explain why advocates of Torah u-Madda might legitimately be dissatisfied with those moves. Theoretically, forcing opponents of *madda* study to state their assumptions and principles explicitly, even creates the possibility that some of them will switch allegiance—or at least rethink matters—because they are not comfortable with the positions to which they have just realized they are committed. I regard this outcome as unlikely, and possibly fantasy. But *argumentation need not convert others to be of value*. Rather, making its assumptions and principles explicit will enable each side, indeed force each side, to explain *to itself* how its position coheres and what makes it attractive *to its adherents*—regardless of whether its argument moves others. In fact, argumentation can sharpen even a neutral observer's definition of the issues that divide one school from the other, and in that way advance understanding of the Torah u-Madda controversy.

Although my argument is transparently polemical, then, it is intended more as a tool of analysis and self-clarification than as a conversion tactic. Beyond pursuing the charge of inconsistency, I will try, as the essay proceeds, to articulate a positive model for producing practical *madda* and to explain the model's strong points, thereby bringing into prominence the attractions of a Torah u-Madda framework. In the course of our analysis, we will find that our exploration of practical *madda* is entangled with many issues: the propriety of benefitting from the errant behavior of others; the validity of Zionism ; how providence operates; and more. Regardless of one's ultimate commitments on these issues and regardless of whether disagreements in these areas prove resolvable, it is critical to realize that they are all heavily implicated in the controversy over Torah u-Madda.⁶

II. On Some Alleged Inconsistencies

As we have noted, the charge of inconsistency can take two forms: epistemological and social.⁷

1. *The epistemological problem*

By going to doctors or psychologists or using technology, opponents of *madda* study implicitly grant credence to methods and theories which, in the cognitive context, they profess to distrust.⁸ The same assumptions and principles which shape and nurture disciplines of practical *madda*—namely, those of “scientific method”⁹—have given rise to threatening claims and theories as well: that the species came about by evolution; that external causes beyond our control determine all our states of mind and traits of character; that all reality, including the human mind, is physical and must be understood in materialistic categories. If the anti-*madda* camp trusts scientific and social scientific methods in the case of practical *madda*, how can it so peremptorily reject the conclusions of *madda* on sensitive theoretical issues?¹⁰ To flip the question around: if this camp really distrusts scientific views on theoretical questions, how can it explain and justify using *madda* in practical life?¹¹ The conceded effectiveness of science and social science in everyday life stands as eloquent testimony to the presumed reliability of these fields' methods and assumptions, and it therefore shields those methods and assumptions from being cavalierly dismissed when they are applied to religiously sensitive questions. That “we do not rely on *nes*” is, again, no solution to the problem but rather its origin. For the problem is that our definition of *nes* and its correlated definition of *teva* seemingly must be determined by current scientific methods, and the anti-*madda* camp rejects those methods in other contexts.¹²

An obvious retort is that, with respect to this problem, Torah u-Madda's adherents are in precisely the same boat as opponents of *madda* study—that is, they have to deal with exactly the same challenge. If acceptance of practical *madda*, or the Halakhah's insistence on practical *madda*, or the success of practical *madda*, commits Jews to the reliability of scientific or social scientific methods and assumptions, why isn't this a problem for Torah u-Madda advocates as well? Don't Torah u-Madda advocates also have to reject materialism and determinism even though science may embrace them? Why is practical *madda*'s acceptance and success uniquely a problem for the anti-*madda* camp?

This "*tu quoque*" ("you, too") argument is well taken; without question, there *is* a common challenge facing both camps. The problem of reconciling trust in practical *madda* with distrust of *madda* in theoretical areas may well confront the Torah u-Madda camp and not just its adversaries. But a key difference emerges when we ponder possible *solutions* to the problem: advocates of Torah u-Madda have available to them strategies for addressing the charge of inconsistency that are closed off to opponents of *madda* study.

(A) What, after all, is the most natural response to the charge that the success of practical *madda* establishes the accuracy of *madda* theories and methods on religiously sensitive questions as well? A person bent on meeting the charge might try to demonstrate that the methods which allegedly corroborate religiously problematic claims are not completely continuous with those used in generating medicine or technology, but rather involve inadequate data, logical gaps, and speculative leaps; he might try to raise sophisticated philosophical objections against extending scientific methods to metaphysical realms or the realm of personality, thereby highlighting the limits of human reason and scientific theorizing; drawing on historical and scientific tools, he might try to document the history of scientific failures and thereby support circumspection about accepting present day theories;¹³ finally, he might try to show that the success of practical *madda* need not entail the accuracy of the theories which are thought to explain these practical successes or the cognitive reliability of scientific theory-building generally.¹⁴ In short, by offering a close analysis and evaluation of the structure of scientific reasoning and by reviewing the history of scientific endeavors—that is, by setting out a reasoned critique of *madda* on its own terms—an individual might try to dismiss religiously objectionable claims of *madda* on *scientific* or *philosophical* grounds—using "*secular*" reasoning itself.¹⁵ In that way, he manages to preserve commitment to Torah without jettisoning the validity of *madda* methods.

But obviously, the only people in a position to launch any such critique in a sufficiently rigorous way are those who have actually studied *madda*. For the line of response just sketched—using methods of *madda* to

combat certain of “its” substantive claims—is off limits to opponents of *madda* study. By dint of adhering to their own principles, they lack the erudition to construct such an internal critique, and they may even distrust the very methods that are used to forge it. The anti-*madda* camp is therefore left with a thin *a priori* assertion that there *are* answers, while the Torah u-Madda camp labors to state what they are. Any use which opponents of *madda* study make in their own apologetics of critiques developed by Torah u-Madda figures has, in Bertrand Russell’s wonderful phrase, all the advantages of theft over honest toil.¹⁶

(B) The anti-*madda* camp’s troubles multiply when we take into account another position on which it tends to insist. Typically, members of this camp are poised to reject even major scientific theories at the slightest whiff of conflict between these theories and certain religious beliefs they hold, and they often treat scientific claims by Ḥazal as beyond dispute and as not even open to figurative interpretation. By doing so, they ignore more latitudinarian, flexible approaches to science-Torah conflicts among *Rishonim* and *Aḥaronim*.¹⁷ Not only does the anti-*madda* camp frequently neglect these sources, its refusal to utilize such flexible approaches greatly increases the *incidence* of conflicts between Torah and scientific claims. That, in turn, commits this camp to reject *more* of science and to distrust scientific method more than do the flexible approaches which Torah u-Madda advocates are likely to favor. If we encounter *frequent* failures of scientific method—those failures being identified by conflicts with Torah—wouldn’t the continued confident use of scientific inquiry for two of its classic purposes, prediction of events and control of the environment, become extremely suspect? Would you persist in using a calculator to help decide critical life situations if, by consulting a superior cognitive source, you previously have found the device to give whoppingly wrong answers some of the time? Suppose you insisted you could trust the calculator *except* when it conflicted with the superior source; what grounds could you adduce for this trust, given the calculator’s suspect record?¹⁸ The Torah u-Madda position, on the other hand, following the lead of the Rambam, will try hard to align religious beliefs with conclusions of *madda* by modifying the understanding of some of those beliefs when they clash with *madda*. Flexibility of this kind clears the way for a more open and general acceptance of *madda* as a cognitive tool—a source of knowledge in addition to Torah but constrained by and interacting with it—while limiting the need to reject *madda* claims to a smaller domain.

In view of my earlier methodological caveat, we should not take these points as a *logically conclusive refutation* of the anti-*madda* position. If someone opts to trust *madda* in a highly selective fashion, embracing its findings and theories on religiously neutral questions and trusting them with regard to technological advancement, while roundly rejecting them

on religiously sensitive matters, he incurs no logical inconsistency. That person is simply applying a set of hierarchically ordered epistemological principles: he gives *credence* to science but insists on *priority* for Torah, exactly as Torah u-Madda advocates should do when push finally comes to shove and *madda* threatens inalienable Torah beliefs—for example, *'ikkarei emunah* which resist any modification or reinterpretation. At all points everyone must be *prepared* to reject some of *madda*'s conclusions if necessary, even in the absence of a *madda*-based critique. The charge against the anti-*madda* position can only be that it is *implausible*—rather than *impossible*—that methods which work so well in so many areas and which continue to command our trust fail dismally and inexplicably in others. And opponents of *madda* study, remember, may not see at all the implausibility so plain to their critics and may even charge that this perception of implausibility itself rests, in question-begging fashion, on philosophical, *madda* principles. They might also deny that a critique of *madda* using the methods of *madda* (response (A) above) is in any way urgent, necessary or valuable. Indeed, one of the usual functions of such a critique in a Torah u-Madda framework is to determine when our understanding of a particular Torah belief needs to be refined, and that is not a pressing task for a member of the anti-*madda* camp. From his standpoint, therefore, the pragmatic success of science places him in no difficulty at all; he preserves logical consistency.

All this is true, and honesty should compel Torah u-Madda advocates to concede the point. And yet, at the same time, anyone who thinks it is implausible that a method which so often works so well would yield huge and inexplicable errors elsewhere (arguably, even opponents of Torah u-Madda would concur with that proposition were they asked their opinion in a *neutral* context), or anyone who wonders about using and trusting a method that has gone wildly wrong, will take *madda* more seriously than this. Such a person will thirst for a way to accommodate *madda* claims even in sensitive areas—to the extent that this is logically feasible and religiously acceptable. As part of this effort, he or she will want to study *madda* and consult religiously committed practitioners of *madda* to determine which claims are in fact warranted by *madda* methods and which are not, and will also want to see what leeway Jewish authorities grant in specific areas of belief that are under examination. The gain will be a more profound understanding of Torah.¹⁹

In a word: the success of *madda* and its continued use in practical life is not logically inconsistent with a contemptuous rejection of *madda* theories and methods on all sensitive cognitive matters. But to accept practical *madda* as a technique for improving human existence and to place our welfare so greatly in its hands, while totally rejecting *madda* conclusions in other areas—that bifurcation is far less coherent than trying to integrate the claims of *madda* with claims of Torah as much as

possible, as the Rambam and others labored to do. Integration proceeds by a delicate, complex, challenging, often frustrating process which involves both interpreting Torah texts and developing secularly-based critiques of *madda* claims. This process of harmonization is what guides Torah u-Madda advocates in all areas of *madda*, from physics to historical scholarship. And the success of practical *madda*, coupled with the halakhic imperative to utilize it, makes any blithe dismissal of secular methods strained and unconvincing.²⁰

2. The social problem

Many of the people working in *madda* fields are Jews. If you oppose *madda* study, how can you exploit the knowledge of Jews who have violated your principles by earning university degrees ?

This charge is more sweeping than the epistemological one, because it calls into question not only consultations with professionals in the sciences or social sciences but also use of *any* professionals—lawyers, for example—who have received university training. As just formulated, however—“if you oppose *madda* study, how can you exploit the knowledge of those who have studied it?”—the charge of inconsistency blatantly confuses two questions. One is whether a Jew may *himself* study *madda*. The other is whether he can *benefit from other* Jews who have studied it. A no to the first question does not entail a no to the second. I do not myself have to study medicine or psychology or economics or sociology or engineering to make use of the advice or services of experts in those fields; I have only to absorb the practical advice and guidance these experts produce. We can be consumers of practical *madda*, one might say, but not producers and providers.²¹

In its underlying attitude, this response to the charge of inconsistency resembles a position sometimes espoused in Israel today with respect to a hotly contested issue: whether yeshivah students should serve in the army. Yes, this position goes, protecting our people requires having *both* soldiers *and* people who devote themselves exclusively to Torah study. The war against Midian required one thousand from each tribe for physical combat, and also one thousand for *tefillah*.²² Though both Talmud Torah and military action are necessary, however, and though the Torah scholar benefits from the military protection provided by others (just as the soldier benefits from others' Torah study), anyone who actually becomes a soldier, even in a *hesder* setting, makes a wrong choice, betrays thereby the low level of his own spirituality and invites further spiritual disaster.²³ So, too, in our context: society needs doctors and psychologists and sociologists and engineers and economic analysts. But any Jew who becomes one of these by going through advanced study of these disciplines has made a wrong choice. In the case of *madda* study,

to be sure, the anti-*madda* camp I have in mind is not exclusively or even primarily the world of yeshivah students, but principally that of anti-*madda* people who work long hours on business pursuits; in that respect the analogy to army service is imperfect—there the alternative is continuous yeshivah study. Still, the basic thesis as regards both army service and use of professionals is the same: not everyone who performs a service helpful, even necessary, to society has made the right personal choice. The Talmud in *Hullin* 92a states that *talmidei hakhamim* have to pray for the *'amei ha-arez*—whom Rashi identifies as the farmers who supply them with sustenance. But no one would take this as a reason for becoming an *'am ha-arez* farmer rather than a *talmid hakham*.²⁴

Articulated this way, the anti-*madda* position exudes a morally disquieting tone. I ask you and want you to provide service X for me; yet I look down on you for choosing to be in a position where you can offer X. Now white collar workers may adopt an analogous attitude whenever they go to car mechanics or call plumbers or have their garbage picked up by sanitation workers or make use of elevator operators, doormen, and janitors. However, studying *madda* is alleged to be not merely a *lower* choice, but a *prohibited* one. Unlike a snob who hires a maintenance worker, anyone who opposes the study of *madda* but utilizes the advice of Jewish experts is benefiting from what he regards as *errant behavior*. And *that*, more than snobbery, seems eminently objectionable.

Opponents of *madda* study, I think, are forced to offer the following simple response: it is not *always* problematic to benefit from errant behavior. True, some products of wrongful activity become *asur ba-hana'ah*; but not all do, and restrictions are particularly lenient when great benefits are at stake. For example, medical knowledge that benefits Jews sometimes comes to them after having been developed in what is, from a halakhic standpoint, an improper fashion (e.g., by halakhically unjustified autopsies). Yet authorities declare it permissible to utilize the findings of halakhically improper medical research—“there is no exclusionary rule” in Jewish law as regards use of research.²⁵ To take another example, we may sometimes be permitted after the fact to save X’s life by transplanting an organ that was improperly excised from Y.²⁶ Halakhah displays a pragmatic bent about such scenarios.

Now, if it is sometimes permissible to benefit from errant behavior, then, in our present context, one may claim, there is likewise no contradiction between utilizing experts who have wrongly pursued professional degrees and prohibiting study of *madda* for oneself. Besides, as in the example of administering care by using improperly generated data, it is not the errant behavior *per se* from which one is benefiting. The errant behavior is merely a preparatory step for acts that are, in themselves, as in the case of medical care, acts of *hesed* or *hazalah*.²⁷ Before extensive university training became necessary for engaging in professions like

medicine, there was no objection to people learning those arts.²⁸ In short, although physicians, psychologists, social workers and the like have acted errantly by pursuing their respective courses of study, their services may still be used—and valued—when they provide vital benefits.²⁹

While the anti-*madda* camp does not fall into any *logical inconsistency*, then, by using Jewish practitioners of *madda* in practical life, once again, logical consistency has arrived at a price. In its exploitation of a halakhic technicality and its correlative glibness about taking advantage of errant behavior, the reply seems to cleanly miss the crux of the objection, which appealed to principles and integrity. To live one's life *in need of* errant behavior, or *wanting* there to be errant behavior—as one suspects is the case here—is offensive; to depend so heavily on someone's skills, while simultaneously viewing him as a transgressor for having developed them, is unseemly and hypocritical. Equally troubling is the incongruity in the Halakhah's position as it emerges from the anti-*madda* orientation. By counselling people to take initiative, does Halakhah mean in today's setting to license the unrestricted use of errant behavior? Would it so overtly provide a clientele for *'avaryanim*? Why would our system mandate consuming practical *madda* but prohibit producing it?

Unfortunately, such arguments will not sway the anti-*madda* camp into sharing a critic's distaste for their perspective. In the absence of a concrete *issur* against profiting from *this particular kind* of errant behavior, a critic's appeals to "principles" and "integrity" may strike an opponent of Torah u-Madda as proof positive of the accuser's acculturation into the ethical sensibility of modernity—as distinct from that of Halakhah. "Our" rejection of the anti-*madda* position is grounded in a "moral" reaction that may leave proponents of that position unmoved, even quizzical; "we" may be starting from a framework that already assumes, in question-begging fashion, the validity of certain general moral principles, including integrity, which have no precise halakhic correlate.³⁰ And there is, after all, the precedent of medical research, which provides a contestable but still serviceable analogy.³¹ The anti-*madda* position, then, is cohesive and consistent; its moral posture, however, is singularly unappealing to someone in the other camp.

Even if the anti-*madda* camp were to acknowledge both (a) the wrongness of benefiting from errant behavior and (b) the oddity of the view they impute to Halakhah, that would suggest only a limited conclusion: namely, that opponents of *madda* study should switch to using non-Jewish professionals and also (to remove the oddity of prohibiting production while mandating consumption) should see this as the Halakhah's preference. If *de facto* they consult Jews, that signals only that they are not adhering to their own principles; such putative hypocrisy in no way impugns their *theoretical* position. Later we will evaluate the tactic of making non-Jews exclusively responsible for producing practical *madda*,

but for now it is clear that the objection based on errant behavior makes no pretense to explaining the value of secular study in constructive terms. The Torah u-Madda camp therefore should not wax triumphant over having lodged that objection. And yet: with all that having been said, the failure of the anti-*madda* camp to eschew religiously observant professionals or so much as worry about the problem of errant behavior may reflect a subliminal admission that these professionals are not *'avaryanim* after all.

In both its epistemological and social forms, then, the charge of inconsistency levelled at opponents of *madda* study can be made good only by antecedently assuming general principles—in the one case epistemological, in the other moral—which those anti-*madda*ists will inevitably contest; and, in any event, the charge represents a purely negative, rather than constructive, line of thought. Nevertheless, the points we have raised should explain why many might be disturbed by the anti-*madda* position and be driven to seek another framework. Pressed on points of logic, the position has evinced stress, strain and fragility—enough, at least, to warrant a search for an alternative.

III. Rambam, Rav Soloveitchik, and the Challenge of Secularism

Having accentuated thus far the negative, that is, the unappealing aspects of the anti-*madda* position, we may try now to set out the positive—the attractions of Torah u-Madda. The task ahead is to formulate a perspective on entering scientific and social scientific professions that enables us to explain *to ourselves* why we find Torah u-Madda compelling; why we value *producing*, and not merely *consuming*, practical *madda*.

Let us first place our earlier analysis in a wider context. The specific conflicts between practical *madda* and Torah orientations which we have been discussing reflect a general challenge to religion that is posed by the incredible success of science over the past few centuries—specifically, its success in developing technology and dramatically advancing both somatic and psychological medicine. Secular thinkers often hail these centuries as a vindication of science as against religion—in two ways. First, as already noted, the pragmatic success of science seems to firmly establish the cognitive reliability of scientific method. In light of the proven capacity of scientific theories to solve problems of daily living on a grand scale, religion, so the secularist's argument goes, must now concede the potency of science as a tool for learning the truth about how the world works—and must defer to science in any case of a clash. Second, the concrete, palpable success of science in vanquishing disease, alleviating risk and pain in childbirth, increasing longevity, harnessing sources of energy, storing information, facilitating travel, detecting

potential weather disasters, creating instant communication, saving trauma victims, treating mental disorders, promoting the welfare of the handicapped, and improving the overall comfort and quality of life, seems to underscore the dependence of humanity on its *own* cognitive powers, together with its *own* behavioral energies and resources, as means of improving the human condition—in contradistinction to reliance on God. “In contrast with the mentality prevailing during the pre-modern ‘age of faith’ which placed exclusive reliance upon God and denigrated the efficacy of human action . . . the modern mind emphasizes man’s capacity to help determine the human condition.” “Technology has offered power, control, and the prospect of overcoming our helplessness and dependency.”³² The downside of technology—the dangers it poses and the unhappiness it brings—in great measure results from immoral usage, and as such can neither obliterate technology’s positive achievements nor diminish the urgency of continuing to improve human life by scientific inquiry.

For these reasons, use of *madda* in practical life implies, *prima facie*, a degree of secularization and of modernization: a commitment to, and dependence upon, scientific and social scientific methods as both (1) a cognitive tool and (2) a means of satisfying needs and solving problems in day-to-day existence.³³ The behavior of the anti-*madda* wing we have been discussing testifies to how deep this acceptance-*cum*-dependence runs and to how difficult it is to sever *madda* from life. Most people—willy-nilly, whether they confess to it or not—at least partly live and move and profit in the secular world of science and social science. The question—the challenge—is how best to accommodate this datum in a Torah framework.

Compartmentalization is one option, and *that* is the course I see the anti-*madda* camp as having taken. They exploit secular tools, but articulate no compelling, overarching hashkafic framework that could justify doing so. On the other hand, a different response to the argument of the secularists is to *combat* it: to show that there is no incompatibility here, and that secularists have been taking aim at straw men. Religion can perfectly well accept scientific method and perfectly well endorse the use of human cognitive resources to better the human condition—as a *religious*, not merely secular, activity. Two Jewish thinkers who furnish us with materials for meeting the challenge of modern secularists along these lines are the Rambam and Rav Joseph B. Soloveitchik.

1. *Rambam*

For the Rambam, human cognitive endowments, and especially the human capacity for scientific and philosophical inquiry, are of deep religious significance. Our intellectual abilities reflect the teleological

structure of nature—which, in turn, reflects divine wisdom and the operation of divine providence. When you utilize knowledge of nature to promote your welfare, you are not thereby electing to abandon your relationship with God, but, on the contrary, are operating squarely within a providential nexus.³⁴ Nature is the very locus of providence. God wants people to relate to Him *by* exploiting the teleology in nature, *by* manipulating the provisions for human benefit found within it—and those provisions include both the characteristics of natural objects and their own cognitive powers. Because the exercise of practical initiative using knowledge of nature is charged with religious value, the Rambam vehemently assails the notion that seeking medicine and physicians signals a condemnable lack of reliance upon God. On the contrary, taking medicine is no more audacious than ingesting food or drink, and hence Jews must deal with illness by exercising their capacity to discover and administer cures.³⁵ Likewise, in a famous letter to the rabbis of Marseilles, the Rambam sets forth a remarkable explanation of why the Jews lost the Temple and were exiled from their land. It was because having become infatuated with the sinful follies of astrology, “they did not occupy themselves with the art of warfare and the conquest of lands.”³⁶

Especially striking is the Rambam’s interpretation of the imperative “*tamim tihyeh im Hashem Elokekha*” (Deuteronomy 18:13). A long line of interpreters construe “*tamim tihyeh*” as a mandate to shun even effective natural means of advancing human ends and to rely instead on God.³⁷ In Rambam’s view, though, it seems to be a prescription of the very opposite sort: to be among the “*temimei ha-da’at*,” those whose opinions and actions are not adulterated by folly but rather are formed according to sound principles of science and wisdom.³⁸ For the Rambam, the contrast which Deuteronomy 18 sets out between Torah and idolatrous practices comes down to this: the Torah represents rational, practical scientifically-grounded living, while *‘avodah zarah* represents irrationality and futility.³⁹

Though all religious Jews recognize inventions and technological progress as reflective of *hashgahah*, what is distinctive about the Rambam—and sets him off, in particular, from anti-*madda* theoreticians of today—is that the doctrine of providence, as he understands it, carries weighty implications for human action. Belief in providence not only stimulates gratitude to God and a sense of dependence on His handiwork *pursuant to* human achievement; it also gives rise to a profound, galvanizing awareness of human responsibility. Because nature is providentially arranged and human beings have been equipped with means of understanding its workings and exploiting its structure, *therefore* people *must* actively devote themselves to improving their condition. To wait for divine intervention is to nurture passivity where God wants self-direction

and activism, and hence to fall out of a proper providential relationship. The modern secularist's perceived conflict between faith and initiative is, even on this pre-modern view, wholly illusory.

In today's context, the Rambam's approach dictates not only that Jews use available experts but that they seek to become experts as well. In fact, commentators have noted that one reason why providence operates "according to the intellect" (to quote Rambam's famous formula) is that the person who has developed his intellect will, by dint of his scientific knowledge, be better able to protect himself from threatening elements in nature.⁴⁰

2. Rav Joseph B. Soloveitchik

Like the Rambam, Rav Soloveitchik encourages the expansion and application of scientific knowledge. But whereas the Rambam emphasizes using inquiry to further one's *own* ends, the Rav underlines another religious aspect of scientific activity: its role in enabling human beings to carry out their responsibilities *to others*.

In such essays as "The Lonely Man of Faith" and "Majesty and Humility," Rav Soloveitchik develops a Torah response to technology.⁴¹ Basing himself on the two accounts of the creation of Adam in Genesis, he describes in "Lonely Man of Faith" two personality types: Adam the first, who is driven to subdue nature, "to harness and dominate the elemental natural forces and to put them at his disposal" (LMF, 12); and Adam the second, whose concerns are more spiritual and metaphysical, and who aspires to create or join a "covenantal community." From his *description* of the two Adams, Rav Soloveitchik derives a *prescription*, a norm: that is, since both roles reflect aspects of human nature as created by God, *both* are divinely sanctioned—and both must be given expression. (LMF, 54)⁴²

Although studded with dialectical tension between the two Adams and punctuated by sharp criticism of technological society, Rav Soloveitchik's underlying view of technology—Adam the first's task—is extremely positive. "In drawing this image of 'majestic' first Adam," writes Prof. Gerald Blidstein, "R. Soloveitchik enthusiastically endows Western scientific technology with the fullest acknowledgment Judaism could offer."⁴³ Technology paves the way for human beings (in their role of "Adam the first") to fulfill the biblical mandate of *mil-u et ha-arez vekivshuha*; to achieve "dignity" and "majesty"; to carry out their responsibilities to others and, further, by increasing the modalities for improving human welfare, to expand the range of these responsibilities; and, finally, to fulfill the ideal of *imitatio Dei*. R. Shubert Spero has nicely paraphrased Rav Soloveitchik's thesis as follows:

Since man as a moral agent has been given responsibility to help others, to conserve value, to preserve life, to eradicate evil, he is morally obliged to seek the power and the knowledge, the means and the instrumentation, to achieve all of this. If new sources of energy can eradicate poverty, if knowledge of genetic engineering promises to prevent certain diseases, then man is obligated to seek out this knowledge. . . . As God is creative, so man ought to be creative.⁴⁴

It would be foolish and presumptuous to translate Rav Soloveitchik's thesis into a specific mandate or *pesak* for all Jews to engage in professions that serve to improve human existence in the ways Spero itemizes and are alluded to in "Lonely Man of Faith." Apart from general hesitations we should feel about moving from *hashkafah* to *halakhah*, Rav Soloveitchik is careful to state that his description of Adam the first represents "the collective technological genius," and not "individual members of the human race" (*LMF*, 14). Nonetheless, having admitted these qualifications, it is hard to restrain the motif of responsibility from generating (1) a *permission* for individual Jews of appropriate talents and inclinations to occupy themselves with materially improving the world by technological means, along with (2) a *mandate* for the human race as a whole to do so—including the Jewish people. To be sure, Rav Soloveitchik's recurring references to "man" at first appear to leave open the theoretical possibility that only non-Jews fulfill Adam I's role. But this interpretation is simply not defensible. For *imitatio Dei* and the conquest of evil surely are incumbent upon Jews; and, most tellingly, Halakhah in Rav Soloveitchik's view is, precisely, an attempt to give expression to both Adams.⁴⁵

The approach of Rav Soloveitchik stands in stark contrast to the stance of the anti-*madda* camp. It is sobering, indeed, to compare the grounds for *madda* study which his august ideas generate to the rationale most often invoked in anti-*madda* circles when dispensation is granted to study *madda*: "I can study it so I can earn a living." Not so others can live; not so poverty can be ameliorated; not so disease can be conquered; not so I can be an active participant in the task of *yishuv ha-'olam*; not so I can fulfill responsibilities to other Jews or the world at large—but so that I can have enough to live on. Maybe there is a measure of altruism when a person is working to support a family. Still, whereas the anti-*madda* community manifests *hesed* of an extraordinary order in so many of its community and individual projects, nevertheless, when it addresses the issue of *madda* study, its ideology embraces no broad vision of contributing to the creation of a materially healthier society.⁴⁶ A justification of university training in these terms evidently leaves the anti-*madda* camp unmoved—even though it obviously comes *along with* a justification in terms of *parnasah* as well.⁴⁷ And even supposing—for argument's sake—that *parnasah* were the only admissible rationale for

madda study, why should choice of a means of *parnasah* be dictated solely by the needs of one's self and family, and not by those of the larger community?

Rav Ahron Soloveichik puts the point succinctly:

The true justification for in-depth study [of *madda*] ought not be excused as a means to financial success; rather, it is an attempt to help the world and to establish oneself in the course of history.⁴⁸

IV. The “Division-of-Labor” Approach

If the anti-*madda* position is to remain viable, its advocates have no choice but to reject Rambam's and Rav Soloveitchik's analyses. Let us focus on the Rav. As against the Rav, the anti-*madda* camp would have to insist that Jews have no obligation to contribute materially to civilization, and, indeed, are obligated not to do so. Short of opposing any and all technological growth (the way of the Amish), this means that non-Jews will be the ones charged with materially improving human welfare.

A major disciple of the Hatam Sofer, Rav Akiva Yehosef Schlesinger, advances just such a viewpoint. Jews and non-Jews must divide the labors of the world, he declares. Non-Jews have been given, as a *mizvah*, the task of “*lashevet yezarah*”—“to investigate and comprehend . . . to develop the powers of nature for the purpose of *yishuv ha-‘olam . . .*”; while Jews have been given the task of studying and observing Torah.⁴⁹ Each group is *prohibited* from undertaking the task of the other. A reviewer of Dr. Norman Lamm's *Torah Umadda* reiterates this “division of labor” strategy in milder form:

What is said here should not be understood as a disparagement of scientific investigation and its enormous achievements for the benefit of mankind. *Yesh hochmah ba-Goyim*. What is under discussion here is the question of whether or not it is an indispensable element of the ultimate concern of the Jewish people and the *raison d'être* of its existence.⁵⁰

Two pictures vie for our allegiance. Both of them value scientific progress and activity. But one—Rav Soloveitchik's, as I characterized it—makes such endeavor incumbent upon both Jews and non-Jews. The other—Rav Schlesinger's—sees it as the task of the non-Jewish world exclusively, and as off limits to Jews.

As we begin to evaluate these rival orientations, we must recognize that no responsible advocate of Torah u-Madda heralds technological involvement as “the *raison d'être*” of the Jewish people, as an author quoted above chose to put it. That would be an easy target, but a straw one. After all, even proponents of Torah u-Madda will promptly embrace Rav Schlesinger's thesis in a *moderate* version: they will agree

that, *as a people*, Jews must never make *yishuv ha-'olam* their *principal* task, since Torah and *mizvot* are their primary charge. But this moderate version of division-of-labor, notice, is perfectly compatible with Rav Soloveitchik's view that participation in technology and medicine is *part* of the Jewish task nonetheless, and that Jews are abdicating their responsibilities if they ignore this aspect of Adam. *This* is the crucial assertion that separates the camps, and therefore *it* should be the locus of contention. Consequently, for the division-of-labor approach to successfully generate a ban on *madda* study, it must not merely stress the *primacy* of Torah in the Jewish task—no one questions that primacy—but must deny to Jews collectively and individually *any* legitimate role in *yishuv ha-'olam*. Adopt a thesis less extreme than this, and you leave ample room for Jewish pursuit of *madda*.

This extremism proves to be the thesis's downfall. For could it be that Jews are *prohibited* from trying to improve the human condition through natural means, especially when fellow Jews would also be beneficiaries of their endeavors? Must we brand as wrongdoers all those Jews in history who *did* occupy themselves with *yishuv ha-'olam*? If the shock of such assertions were not enough to impugn them, we can easily marshal a variety of other grounds for assailing the division-of-labor approach, from its textual base to the tenability of its consequences.

1. *Textual base*: Textual arguments on both sides often are compelling only to the converted. But why is "*lashevet yezarah*" only for non-Jews, when the Talmud specifically invokes it with regard to procreation, a task certainly incumbent upon Jews (*Yevamot* 62a)?⁵¹

Did *Rishonim* adopt the division-of-labor thesis explicitly? On the contrary. When the Rambam speaks of the need for Jews to take initiative, he does not mean only that they can *go to* doctors; he means they ought to learn the art themselves. Jews are to be producers, not merely consumers—indeed, as we saw earlier, it was Jews who according to the Rambam brought scientific rationality into a world benighted and corrupted by the folly and superstition of idolatrous civilizations. The Rambam was not alone. A long line of medieval figures even argued that non-Jews had stolen their secular knowledge from Jews, who had cultivated these fields in antiquity.⁵² Think what you will of its historical accuracy, the claim certainly does not reflect the postulation of a rigid division of labors between Jews and non-Jews.

2. *Anti-Zionism*: The division-of-labor approach is deeply anti-Zionist.

'Torah only' Jews aspire to a State of Israel (that is, those who do not reject it even *de facto*) that will abide by all the rules and regulations of the Halakhah. But how is this to be done without Orthodox physicians and psychologists, Torah-educated writers and economists and sociologists, Halakhah-committed lawyers and poets and professors?⁵³

In hakbi nami! Despite the right wing's willingness on a practical plane to use *some* errant behavior in Israel today, opposition to *madda* study will often be accompanied by a theoretical anti-Zionism which denies validity to the concept, "Jewish state."⁵⁴ To some, this anti-Zionist consequence is perfectly palatable; but to many in the Torah u-Madda camp, it is a potent *reductio ad absurdum*.

3. *The moral character of society:* To advocates of the "division of labor" approach, it matters not if society and culture are molded and developed exclusively by non-Jews. These thinkers are apparently content to let science and other fields proceed apace without any infusion of Jewish content and spiritual outlook. Yet, post-Holocaust, that prospect should worry us immensely. The likelihood that an intensely technological society will sink into moral bankruptcy—which is perhaps the point of the biblical accounts of Lemekh and Tuval Kayyin—has not been lost on right wing thinkers; on the contrary, they revel in citing it in their condemnations of Western culture. "Every invention or development has a potential for good—but only if righteous people use it."⁵⁵ What one does not always find is a logical sequel to such insights: that, because technology and medicine must be fused with faith and controlled by ethics, therefore—as Rav Soloveitchik urged in "Confrontation"—ethical, religious Jews ought to join hands with morally sensitive non-Jews in shaping scientific growth and vital areas of public life. The justification for not drawing such a conclusion would have to be that the ethical fiber of the world around us is sturdy enough to provide the requisite moral control, and that is surely neither the assumption being made nor, from a Jewish perspective, the right assumption to make. When Jewish views on ethical problems are often misrepresented by influential Jewish writers and spokespersons who are not sufficiently knowledgeable or committed, the absence of Orthodox Jews from key professions looms all the more threatening. We should indulge no fantasies about how weighty an influence Orthodox Jews can wield in a gigantic world. And yet it is perfectly obvious that, if they stay uninvolved with general culture and lack a voice in its development, infusion of spiritual values into society will not readily come to pass in the form we would like.⁵⁶

Exhibiting greater self-consistency, Rav Samson Raphael Hirsch and Rav Avraham Yizhak ha-Kohen Kook called upon religious Jews to actively bring *kedushah* into cultural enterprises, and not court disaster by leaving cultural productivity to those who stand indifferent or opposed to Torah values. Rav Soloveitchik drives home essentially the same point when he demands that technological victories be tempered by a deep sense of humility, even failure and "defeat," expressed by submission to God. Adam the first's material triumphs must be guided by and unified with the covenantal concerns of Adam-II.⁵⁷ The attitudes of Rav

Hirsch, Rav Kook, and Rav Soloveitchik obviously extend beyond questions about Orthodox involvement in the sciences and social sciences; for example, they apply even more immediately to areas like international affairs and at least some facets of academic scholarship.⁵⁸

A colossal irony shoots through this last objection to the division-of-labor approach. When debate rivets on *intellectual* or *theoretical madda*, typically it is the Torah u-Madda camp which demands openness to the non-Jewish world and appropriation of its resources, while the anti-*madda* camp underlines the drawbacks of trusting in non-Jews and aspires instead to approximate an insulated life. But now as we explore *practical* uses of *madda*, it is none other than the anti-*madda* camp which—by the very nature of the division-of-labor approach—must perforce interact with the non-Jewish environment, develop dependence on it, and use the resources of the larger society with blithe disregard of their dangers. Juxtaposing this stance of the anti-*madda* camp with its hostile attitude to theoretical *madda*, I dare say that the anti-*madda* camp stands on the brink of inconsistency. The Torah u-Madda camp, on the other hand, while interacting with the non-Jewish world and mining its teachings, issues a clarion call for creative activity by Jews—activity that will harness and shape cultural growth, produce a corps of Torah professionals, and facilitate the independence of Jewish thought and action. Leaping to mind is an image drawn by Rav Kook: Jews must absorb, but then synthesize and transform, the best elements in the surrounding culture.⁵⁹

4. *Preference for religiously observant professionals*: Opponents of *madda* study often prefer a *frum* professional not only to a non-*frum* one but even to a non-Jew (ironically, maybe even more than “Torah u-Madda” Jews do). Surely that is a surprise given the “division of labor” approach. Faced with a choice between “using” an errant (university-trained) Jew or else a “goy,” why prefer the Jew? And wouldn’t paying such Jews for their services constitute *mesaye’a li-devar ‘averah*?

Doubtless, we can trace some of this preference for *frum* professionals to the social comfort of working with “*yidn*” and avoiding the “outside” world; but some of it may reflect a recognition that there are Torah ways of administering care and doing research, and also non-Torah or anti-Torah ways. Significantly, it is precisely in the field of mental health, where conflicts between Torah and practical *madda* are most intense, that preference for *frum* professionals waxes strongest, notwithstanding fear of stigma.⁶⁰ But it is highly anomalous to first admit that *frum* mental health professionals are fulfilling a truly important need and in the next second prohibit people from doing what they can to satisfy that need. Likewise, the *frum* lawyers and politicians who so often fight in the “outside” world on behalf of Orthodox causes would be barred from entering that world if the anti-*madda* ideology were carried to its logical

end; and licensed teachers of a suitable religious outlook would not be available to teach secular subjects in yeshivot. To point this out, of course, is not to demonstrate what Jewish involvement in culture means *for the direction of culture*; only, rather, what it achieves for individual Jews or local communities on a daily basis. Yet that less grandiose form of contribution must not be disparaged. On the contrary, it may be more important because it is more concrete and palpable.⁶¹

5. *Rav Soloveitchik's argument*: The preceding arguments are not the ones Rav Soloveitchik propounds. Rather, he rests his case for technological activity and medical conquests on his own brilliant interpretation of *Bereshit*—specifically, its emphasis on creativity, “majesty,” and *imitatio Dei* as definitive of the activity of Adam the first. Let me quote a passage that reflects the power and sweep of his articulation:

Yet, no matter how far-reaching the cleavage [between Adam the first and Adam the second], each of us must willy-nilly identify himself with the whole of an all-inclusive human personality, charged with responsibility as both a majestic and covenantal being. God created two Adams and sanctioned both. Rejection of either aspect of humanity would be tantamount to an act of disapproval of the divine scheme of creation which was approved by God as being very good. . . .

Especially vivid is this passage, a resounding and impassioned endorsement of *madda* activity:

I hardly believe that any responsible man of faith, who is verily interested in the destiny of his community and wants to see it thriving and vibrant, would recommend now the philosophy of *contempus saeculi*. (*LMF*, 54)

Overall, this is an argument of extraordinary import and force.

Taken together, the preceding arguments add up to a powerful case for Torah u-Madda; the division-of-labor strategy suffers greatly by comparison. And let us beware not to construe the responsibilities of Adam the first narrowly. The imperative of “*ve-kivshuha*,” for Rav Soloveitchik, spans not only technology but cultural products generally. Ethics, politics, economics and aesthetics are also among Adam the first’s activities (see, e.g., *LMF*, 15–16). New models in economics or new theories of government and political order all lie within the scope of human responsibility, though these must be modulated by spiritual aspirations and by submission to divine norms. Consequently, while, in converting the Rav’s argument to one on behalf of Jewish involvement in professions, I have emphasized encouraging Jewish participation in medical or social scientific conquests, the argument extends to stimulate Jewish activity in other fields as well.⁶² Surely if we take into account the other arguments I surveyed—involving Zionism, the direction of culture, and the value of having *frum* professionals in certain areas—then the need for Torah

u-Madda professionals is equally and eminently clear in areas like academic scholarship and university education. But I will not press this aspect of the argument here.

IV. Objections and Replies

The view that Jews should pursue *madda* because they bear responsibility to materially improve the human condition through the resources of nature is not wholly free of difficulties. Critics may cavil, for one thing, that not all “*frum* professionals” are idealistically motivated by a desire to build society, imitate God’s creativity, and spiritualize culture. At best they find their work tedious; at worst, their aim is pecuniary. A second objection is that individual labors contribute far less to the improvement of the human condition than Rav Soloveitchik’s thesis supposes. The first objection, in other words, is that from a *subjective* standpoint, these labors are not acts of *hesed*; the second, that from an *objective* standpoint, they constitute meager *hesed* at most. Let us take these objections in turn.

The first objection, based on the possibility of wrong motivation, trades on a fallacy. If someone argues that X should be pursued because it leads to a certain goal, it is illogical to remonstrate just on the grounds that some people pursue X for reasons different from or baser than this one. Would anyone oppose philanthropy, or populating the world, just on the grounds that people who engage in these activities often do so for reasons unrelated to the relevant *mizvot*? Or would an advocate of division-of-labor surrender his *own* thesis just because non-Jewish professionals, like many Jewish ones, are often selfishly motivated and are not trying to fulfill their divine charge?⁶³ Obligatoriness is one thing, motivation another. Pursue a noble goal for bad reasons or without a sense of mission, and you deserve criticism; but such censure of you as an individual hardly scars the *principle* that people *ought* to pursue that goal. Admittedly, *frum* professionals may need to develop a “Torah u-Madda” motivation in order for their professional activities to produce the results that Torah u-Madda advocates envisage. But the correctness of the theory with which we need to imbue professionals need not be hostage to people’s actual intentions.

Now to the second objection, that individual labors are far less significant than Rav Soloveitchik’s thesis would seem to imply. The feeling that the effort of a single individual is insignificant and dispensable is especially acute with regard to scientific research. Modern research aggressively seeks to expand human knowledge—but *not* with the aim, necessarily, of helping contemporaries or even the next generation. Rather, researchers perceive themselves as participants in a mammoth

collaborative project, one that carries no guarantee of results in their lifetime and may take centuries to bear fruit. Feeding this perhaps distinctively modern conception of research is a heightened awareness of history: in every age, science has advanced by building on both the successes and failures of prior generations.⁶⁴

Yet Rav Soloveitchik—far from overlooking these limits of individual ability—publicizes them:

Distribution of labor, the coordinated efforts of the many, the accumulated experiences of the multitude, the cooperative spirit of countless individuals, raise man above the primitive level of a natural existence and grant him limited dominion over his environment. What we call civilization is the sum total of a community effort through the millennia.⁶⁵

Plainly, in the Rav's opinion, the seeming insignificance of individual effort in no way mitigates the imperatives of *ve-kivshuha* and *imitatio Dei*. In any large-scale cooperative undertaking, the contribution of a single individual will, as a rule, seem puny and ineffectual; but this is no grounds for anyone's shirking responsibility. Proffered in a *zedakah* or building campaign, the excuse "I can't help much anyway" would justly meet with instant rejection.

Let us now turn to a third, more formidable objection. A strong case can be made, from oft-quoted sources, that devoting one's life exclusively to Torah study is the best choice a Jew could make. In saying this, I don't want to say whether "Torah" has to be construed as excluding or (*à la* Rambam) including *madda* study. The point is simply that the apex of achievement, according to this conception, is *individual study* and cognition, not other-oriented work of a material nature. Even an advocate of Torah u-Madda, Maimonidean style, might therefore find our emphasis on responsibilities to society out of step with existing sources. The contemplative and not the materially active life is the pursuit prescribed for a Jew.⁶⁶

The understanding of the Rambam set forth in the objection we are hearing—namely, that *his* "Torah u-Madda" stance makes personal study and not societal improvement the highest goal—misses the place that action toward others occupies, according to Rambam, in the life of the perfected human being who practices *imitatio Dei*.⁶⁷ Acknowledging this keeps viable the view that other-directed activity is part of the ideal Jewish life. But the most important thing to notice about the objection at hand is that it is not available to all opponents of *madda* study. Many spend 9 to 5—and often longer—on their own *parnasah*. Even if we insist that the other-directed character of certain professional labors is by itself *not* enough to furnish a rationale for *madda* study, one could, as noted earlier, run the Torah u-Madda argument in two steps. First invoke the need for *melakhah* and *parnasah*; then, at a second stage, incorporate

responsibility to others as an element in the choice of professions. The point is, once you opt, by whatever rationale, to engage in a livelihood, you confront the question of why your choice of livelihood should not be dictated by a sense of responsibility to others rather than personal *parnasah* alone. To be sure, R. Shimon bar Yoḥai suggests that, if Israel were to do the will of God, our “work would be done by others.” Yet even supposing that we regard this view as normative—a dubious proposition in light of views which regard *melakhah* or *ummanut* as intrinsically valuable⁶⁸—not everyone who quotes it would relish subjecting it to an empirical test, and in present circumstances even the anti-*madda* camp is patently not trying to disengage themselves from professions. Some are, of course. But R. Shimon bar Yoḥai’s promise will be fulfilled only when *Israel*, the nation as a whole, does the will of God. In the real world of today, that precondition stands nowhere near being satisfied.⁶⁹

In all frankness, any extreme position in the Torah u-Madda controversy gets caught in a difficulty. Suppose, on the one hand, that individual study is the highest choice. In that case a Jewish society in its own land could not exist without some people making choices other than this putatively highest one. On the other hand, suppose that the highest choice requires pursuit of *madda* in a profession. Then yeshivot face a potential brain drain, imperiling *barbazat Torah*; and no responsible Torah u-Madda advocate wants to see yeshivot anything less than thriving. Neither extreme view seems cogent, then. For the same reason, no single choice of profession could be put forward as the right course for all.

A reasonable suggestion, I think, is that we stop talking about “highest” or “best” choices for *all* Jews. Claiming that a particular choice is always *higher than* another quickly invites a fallacious and dangerous inference: that no other choice is even *legitimate*. Talk of “highest choices” egregiously oversimplifies matters by papering over considerations pertaining to the needs and character of a society. It is better to speak of multiple options, of best choices *for a given individual*, those being a function of personal ability and proclivities. (To return to *Hullin 92a*, it isn’t *asur* to become a farmer.) If economists speak of an “invisible hand” that guides individual choices, in a way that makes those choices coalesce for the common good even though they are not necessarily made with the common good in mind,⁷⁰ can’t believing Jews similarly make room for an invisible hand in *their* faith? Individuals make diverse choices of careers based solely on personal inclinations and talents; yet divine puppeteering ensures that—assuming we allow diversity as we should—all elements necessary for a society to function will in fact flourish. The fusion of Adam I and Adam II could take place in society as a whole, even if not in each individual.⁷¹

No catalogue of objections to Torah u-Madda would be complete without reference to the standard indictments: that university training and professional involvement are fraught with risks to spiritual health and that, in any event, they produce *bittul Torah*. Since others have addressed these charges, I confine myself here to replaying one familiar comment about the risk argument. *In potentia*, the risk argument is a universal trump card which critics like to flash so as to squelch any and every attempt to justify secular study; no matter how vital secular study appears to be, no matter how potent a case sympathizers construct for it, someone might say that this *prima facie* case for study is outweighed by the negatives. But this reaction is glib. Why not weigh potential risks in conjunction with potential benefits and with the need to carry out other obligations?⁷² If the benefits of professional involvement by *frum* Jews are great and the religious imperative strong, maybe these can outweigh the risks significantly—even as the need to earn a living apparently outweighs certain risks even according to opponents of *madda* study.⁷³

V. Is Initiative a Secular Value?

We come now to what is probably the most fundamental accusation that can be levelled at the Torah u-Madda camp's stance on practical *madda*: that, by calling upon Jews to materially improve the world through natural means, the Torah u-Madda camp sells out to the values of modern secularism.

This criticism takes its cue from a familiar polarity: human initiative is at odds with *bittahon*. Extensive involvement with *madda* as a guide to life means immersion in the natural order; and immersion in the natural order seems either to betoken an already low level of trust in God, or to engender diminution of existing trust. A *locus classicus* for such concerns is a view of Ramban. According to Ramban, certain practices and modes of inquiry, notably divination, sorcery, astrology, and, to some extent, medicine, though they are “scientifically” valid and effective means of bringing about certain practical results, ideally should not be pursued because they violate the necessity to be *tamim* (wholehearted) in one's trust in God. To seek aid from nature, rather than from God, is to opt out of a providential relationship; and Jews who so opt are made prey to the moral indifference of the natural order: “He leaves them [the weak in faith and other sinners] to natural occurrences [*hiniham le-mikrei ha-tev'aim*].”⁷⁴

If, for Ramban, nature is the locus of divine *providence*, for Ramban, nature is the locus of divine *punishment*. Subjection to nature represents a *withdrawal* of providence; only in the miraculous, the contra-natural, does providence reside. The contrast between Ramban and Ramban

becomes particularly vivid when we examine how each understands the prohibitions against divination, magic, and soothsaying laid down in Deuteronomy 18. For Rambam, those practices are “*sheker ve-khazav*,” and the Torah banned them precisely because of their foolishness. Consequently, what the Torah promotes in that chapter (and what constitutes *temimut*) is scientific rationality and its practical implementation—while what the Torah prohibits is scientific irrationality. But for Ramban, the situation is just the reverse. The Canaanite practices *are* efficacious. By banning them, the Torah prohibits practical use of scientific *rationality*, while promoting practical use of scientific *irrationality*—a refusal to consult science for purposes of prognostication or manipulation of the environment. Casting scientific rationality aside and confronting life with consummate trust is the essence of *temimut*.⁷⁵

Significantly expanding on Ramban’s requirement of trust, luminaries such as the Ḥazon Ish and Rav Eliyahu Dessler amplify a doctrine known as *hishtadlut*. Engage in *some* practical labor, they counsel, but keep it to a minimum, especially in the economic sphere, and leave the rest to God. Whereas Ramban recognizes an autonomous sphere of nature, the Ḥazon Ish and Rav Dessler embed their discouragement of worldly activity in a distinctive metaphysical theory according to which God is directly responsible for all natural effects. Human efforts (like other events within nature) accomplish little or nothing; only God is a true cause of things.⁷⁶ Aggressive effort, consequently, evinces not only lack of *bittahon*, but hubris, a severely inflated conception of human power—not to mention a *cognitive* delusion, a mistake in the realm of *hashkafah*, about what causes things to happen in the universe. In sum, human endeavor threatens to erode both religious feeling (feelings of trust or humility) and religious belief (in God’s supreme causal agency) or else signals a prior deficiency in these areas. Ḥazal criticized Yosef for asking the *sar ha-mashkim* to remember him unto Pharaoh; the request displayed a lack of trust in God since it represented a use of desperate natural means of rescue, a panic-driven form of *self-help*.⁷⁷

The involvement of the Torah u-Madda community in scientific and social scientific professions seems to leave them wide open to the Ḥazon Ish and Rav Dessler’s strictures. For how do Torah u-Madda advocates, in their *madda* endeavors, propose to solve the problems of life? They do so by expending prodigious effort in developing new forms of technology or medical care, advancing new theories of mind and personality, promulgating new notions of economic and political order. The complaint is that there is something wrong, un-Jewish, with this whole strategy. *It is secularization, so it will be said, which has accelerated cultural activity of this kind.*⁷⁸ Extensive use of human cognitive resources to improve the condition of humanity, therefore, signals the ascendance of modern secular values and the muting of Jewish ones. From a Torah standpoint,

people should not think that they control their own destiny so fully. Need we seek any more compelling explanation of the corruption that technology has bred than “*koḥi ve-‘ozem yadi ‘asah li et ha-ḥayil ha-zeh*”? Let the technological and cultural quest be the way of non-Jews, who do not enjoy special providence. “But as for you [the Jewish people]—not this has the Lord your God given you” (Deuteronomy 18:14). As for the argument of Rav Soloveitchik, a critic may retort: who in the fourteenth century would have thought of reading *Bereshit* as he suggests or of describing Adam the first in the enthusiastic tones of “Lonely Man of Faith”?

Let us try to reconstruct the anti-*madda* position based on this criticism. From the very outset we have been grappling with the fact that opponents of *madda* study often do utilize the natural order rather fully to further their goals (not simply to the extent demanded by the concept of *hishtadlus*), invoking *ein somekhn ‘al ha-nes* or sundry individual *mizvot* as their warrant.⁷⁹ What this suggests is that, for one reason or another, these individuals do not use *bittahon* in all walks of life, but rather value human initiative in *selective* fashion. They *consume* technology and medical or economic knowhow, profiting from the labors of others in these areas; yet they staunchly oppose Jews *producing madda* by practicing medicine or psychology, for example, or by personally engaging in the creation of new forms of technology, economics, or health care. Although they acknowledge initiative to be a value, they neither require nor encourage nor even permit it on the giving end, but only on the receiving end. In short: the anti-*madda* camp allows Jewish consumption of *madda* but not Jewish production; the Torah u-Madda camp allows (and encourages) both.

The gulf between the anti-*madda* and Torah u-Madda camps amounts to the difference between a strictly halakhic construal of initiative and a broad, hashkafically-based one. As classically presented in Halakhah, initiative equals compliance with *ein somekhn ‘al ha-nes*. But *ein somekhn* may be interpreted narrowly, as mandating use only of an *existing* body of knowledge to conduct one’s practical affairs. In some cases, a person will himself possess the relevant knowledge: knowing that Harlem is a threatening neighborhood, that fire is dangerous, that without work one will not be compensated, he must act with full attention to these natural constraints. In other cases, *ein somekhn* requires a person to consult and utilize *someone else’s* expert knowledge of medicine, psychology, or economics without studying it oneself. What *ein somekhn* does not seem to require is that one aggressively seek, out of a sense of obligation, to (1) personally acquire knowledge when he can use the knowledge of others; or (2) personally participate in expanding human knowledge with the aim of ultimately applying it to concrete situations and improving the condition of others. Using what you or

others know at a given time and confining yourself to *self-help* is initiative enough. Leave it to non-Jews to develop new modalities.

Such, at least, is the perspective of Torah u-Madda's opponents. The Rambam and Rav Soloveitchik, in contrast, quite clearly embrace a broader vision of human initiative, one that traffics with no distinctions of the kind just explicated. Initiative represents a generalized orientation toward ameliorating the evils of the world. Opposing the worry that medical care represents interference with God's will, Rav Soloveitchik states: "On the contrary, argues the Halakhah, God wants man to fight evil bravely *and to mobilize all his intellectual and technological ingenuity in order to defeat it*" (LMF, 53; italics mine). Here he implies that we must continually develop and apply new knowledge of nature. Strikingly, Rav Soloveitchik does not even so much as consider a distinction between the activist approach implicit in going to a doctor (being a consumer) and the activist approach implicit in administering care or doing research (*ibid.*); for him no such differentiation even comes to mind. Also, as we noted earlier, he quite prominently includes research activities within the ambit of Adam the first's mandate. Consumption of practical *madda* and production of practical *madda*—in all its forms—are thus governed by the same principles. Like Rambam, Rav Soloveitchik sees Halakhah as fostering a general orientation toward the evils of the world, and not as peddling a policy of taking without giving.⁸⁰

The upshot is clear: the notion that, while we can consume the fruits of research and care, it contravenes *bittahon* to pursue practical *madda* as a producer, may rest comfortably with halakhic definitions of initiative in terms of *ein somekhn*, but from the standpoint of logic and *hashkafah* it walks a thin and precarious line. Splitting between consumption of practical *madda* and its production is like waging a *zedakah* campaign by lining up recipients while outlawing donations. Again, of course, the alleged solution is that non-Jews will be the producers, but I cannot help wondering yet again whether those who would advocate the withdrawal of Jews from the arena of societal activity—this time on the grounds of *bittahon*—would really welcome such a development were it fully to come to pass. More significantly, where does this understanding of *bittahon* come from, and in particular do the sources tolerate a consumer/producer distinction of the sort the anti-*madda* position requires? The Rambam drew no such distinction, nor did Ramban.⁸¹ Turning to modern commentators, the Neziv (Rav Naftali Zvi Yehudah Berlin) stresses that by entering Erez Yisrael the Jews already in biblical times were moving from an arrangement by which God provides directly for their daily needs (*hanhagah nissit*) to one by which aggressive human endeavor is required even when divine providence operates (*hanhagah tiv'it*). Manifestly, theirs was the endeavor of producers, not merely that

This is not to say that Rav Dessler welcomes technology; far from it—his verdict on technology is harsh and negative. Technology, he submits, reflects arrogance and an idolatrous, nature-centered orientation (I, 270–77); he does not, in *this* context, insist on a balance between *bittahon* and *hesed*. Nevertheless, by injecting certain variations into Rav Dessler’s theology, we can with surprising ease conscript it to produce conclusions highly congenial to the Torah u-Madda camp. In our historical context, as Rav Soloveitchik makes so brilliantly clear, acts of *hesed* require knowledge of *madda* and a continuing quest for more knowledge. Once the use of *madda* to perform *modest* acts of *hesed* is legitimized—as it must be, since some forms of aid require some knowledge of nature, illusion though nature is—why should one not study *madda* for the purpose of promoting the welfare of others and contributing to *yishuv ha-’olam*? Are *such* efforts *too* deleterious to *bittahon*? Why?

Rav Dessler, for his part, seems to construe *hesed* narrowly: if you already *have* the tools and the knowledge to help some *specific* individuals, then you have a *hiyyuv* to do so. But to develop those tools and that knowledge in order to help *unspecified* individuals long range, individuals who may not even be in existence yet—this is not in the category of *hesed*. Exactly here lies the point that a Torah u-Madda advocate can with utter justice deny. We cannot shirk our responsibility to humanity *just* by claiming that we don’t have the wherewithal to help; after all, we could *work on* having the wherewithal. Wouldn’t someone’s undertaking to learn first aid for the purpose of joining the Hatzoloh ambulance corps count as developing the *middah* of *hesed*—and not just his first successful rescue attempt?

In light of this possibility that Rav Dessler’s theology can be pushed in a whole other direction, the fairest way to construe that theology, in my opinion, is to see it as *reconstructive* rather than *generative*. By that I mean that the theology begins with certain data in the form of rulings or principles which Rav Dessler *antecedently* accepts. Then, *given* the rulings, one works backwards to “reconstruct” the basis for the rulings by finding a combination of premises and principles from which the result *can* be derived *if those premises are developed a certain way*. For example, *if* one (1) endorses occasionalism; (2) values *bittahon*; (3) knows that *bittahon* is inappropriate when acts of *hesed* are involved, *and* (4) wants to resist those contentions of Rav Soloveitchik which push forward a pro-technological, Torah u-Madda stance, *then* one will define *hesed* narrowly. But suppose you adopt a broader definition of *hesed*; then you can come to rather different, indeed staunchly pro-*madda* conclusions, using the very same principles. And there is nothing standing in the way of this broader definition unless you are *already* convinced that the conclusions *it* generates—that Jews should study *madda*—are

false.⁸⁷ The anti-*madda* position does not follow directly from the principles of a *bittahon* orientation, but only from an *ad hoc* and tendentious elaboration of those principles.

That human beings—including Jews!—should take responsibility for material control of their own destiny is, in brief, an idea much at home in Judaism. Not only does it dovetail beautifully with Rambam's point that responsible self-help gives concrete expression to our belief in providence, but it also grows naturally out of the more broadly based Jewish tradition of *hesed*. Human initiative need not and should not be consigned to the realm of modern secular values.

What becomes of *bittahon*, you ask? Wouldn't a Torah u-Madda advocate's exaltation of *hesed* oblige him to deny *bittahon* a place among Jewish values? By no means. First, Jews must supplement their practical endeavors with *mizvot*, or else the workings of providence may frustrate any and all human efforts. Second, we can readily define, in a positive way, the place *bittahon* occupies in an activist framework. I quote yet once more Rav Soloveitchik:

The doctrine of faith in God's charity, *bittahon*, is not to be equated with the folly of the mystical doctrine of quietism. . . . This kind of repose is wholly contrary to the repose which the Halakhah recommends: the one which follows human effort and remedial action. Man must first use his own skill and try to help himself as much as possible. Then, and only then, may man find repose and quietude and be confident that his effort and action will be crowned with success. The initiative, says the Halakhah, belongs to man; the successful realization, to God (*LMF*, 53).

Observe: this is precisely the notion of *bittahon* held *implicitly* by anti-*madda*ists who go to doctors or accept other benefits of the natural order. All Rav Soloveitchik is doing, in essence, is allowing that very same notion of *bittahon* to operate in the *producer's* decisionmaking as well as the consumer's.⁸⁸ The anti-*madda* camp, naturally, will not go along with the extension of this concept of *bittahon* from consumption to production. But why not? Granted that the extension may be a matter of ideological choice, don't the spirit of *ein somekhin* and of the Halakhah's battle against human suffering make the step seem just right?

VII. Conclusion

My goal in this essay has been to develop a particular model for Torah u-Madda, and that model has diverged in methodology and focus from what is customary. Defenders of Torah u-Madda generally highlight the role that *madda* study can play in individual development—as means of attaining *ahavat Hashem* and *yirat Ha-shem*, deepening Talmud Torah,

etc. These arguments are not one whit less cogent than they have always been; indeed, they generate a compelling version of Torah u-Madda that is different in emphasis from the one I have been putting forth here. Yet, real and important though these *individualistic* benefits of *madda* study may be, we dare not let them blind us to the impact of *madda* study on the quality of human life in the future and to its consequences for the fulfillment of responsibilities towards our own and the larger community. Pursuing science and social science represents the most obvious way of taking genuine stock of these consequences; and yet, to the extent that so many other domains of human knowledge are similarly vital to improving human welfare and the welfare of Jews, the ramifications of this approach extend far beyond the sciences and social sciences, touching virtually all areas of inquiry.⁸⁹

“Practical” activities should necessarily align themselves with a determinate world view.⁹⁰ While use of *madda* in practical life is not *logically inconsistent* with anti-*madda* attitudes about study, a Torah u-Madda outlook furnishes—in the eyes of its advocates—a more cohesive, satisfying framework within which to justify practical *madda*. A Torah u-Madda perspective, as presented here, begins by stressing the need to face up to our commitments to *madda* and our dependence on it—both its methods and its societal aims—with frankness and integrity. That perspective insists on employing a maximally plausible epistemology; it frowns upon exploiting behavior that one regards as errant; it stresses, with regard to choice of a profession, one’s responsibilities to others, and not merely to the financial or other concerns of one’s self and family; it fears divorcing technological progress from spiritual values; it wants Zionism to be realizable without fostering dependence on errant behavior or the contributions of non-Jews. As in all major, far-reaching disputes, there are replies to each argument for each piece of the perspective, and some of these arguments beg large questions; and, as in all such disputes, the other side has its own inner logic, its own framework, and its own telling points. But, again as in all major, far-reaching disputes, choice must be dictated not by one particular argument or one particular objection, but rather by a holistic assessment of the frameworks in their full form. On these terms, Torah u-Madda emerges strong and compelling. For ultimately, the Torah u-Madda perspective dares to confront and repel the challenge of secularism. The more one relies on practical *madda* oblivious of the problems we have raised, the more one is carving out a secular compartment within one’s life without constructing a rationale for it; but once we begin to invest human initiative with hashkafic value, we are on our way toward understanding the attraction of Torah u-Madda and encouraging, accordingly, not only the consumption of *madda* in practical life but also its production.

Needless to say, many crucial questions remain. How do we reconcile the ideal of *hesed* with the ideal of *study*? How can we best integrate a version of Torah u-Madda that is grounded in *yishuv ha-'olam* with one that centers on individual spiritual growth? How do we address the classic problems of spiritual risk and *bittul Torah*? Is it meaningful to speak of carrying out our responsibilities, when in fact whatever contribution we make to the world is tiny in the cosmic scheme? Or does all service to others constitute “improving the welfare of humanity,” in which case the thesis that Jews must contribute to humanity seems trivial and can be satisfied by any professional pursuit whatsoever? What about the materialistic motivations of many in “noble” professions? How can we stem the natural urge of a technological society toward self-glorification and moral indifference? I have sketched preliminary replies to some of these questions, but a great deal more work needs to be done. At the end of the day, though, the situation comes down to this.

On the one hand, many religious Jews seek to withdraw from secular society; on the other hand, their use of *madda* and its practitioners in their daily lives demonstrates that they, too, are participants in secular society—committed to and dependent upon its cognitive methods, its social arrangements, and its overall strategy for improving the human condition. What this bifurcation signals is a tacit acquiescence to the “privatization” of religion which secularism has aggressively sought to impose: religious objectives and ideas have no place in the societal enterprise of expanding human knowledge and applying it to life.⁹¹ True, the anti-*madda* camp sees providence as permeating the natural order; true, it acknowledges the halakhic necessity of benefiting from that order. But it assigns to the production of *madda* no clear religious purpose, and suggests no way of infusing *madda* with religious ideals. To the extent that it thus refuses to locate religious value in society’s scientific and technological labors, its exploitation of these labors and its trust in the cognitive methods they presuppose spells capitulation to a crucial part of the secularist agenda.

Torah u-Madda, in contradistinction, challenges us to resist the secularist incursion. It beckons us to bring Judaism into society and make it pervade life. Thrust into the larger societal arena, our tradition will galvanize us to fulfill our responsibilities—and, *be-siy'atta di-shemaya*, with divine guidance and aid, shape the world around us.⁹²

NOTES

1. Besides neglecting the “pragmatic” issue I am about to raise, a cognition-oriented approach to Torah u-Madda is limited in yet another way. Not all *madda* disciplines submit truth-claims to the extent that science, history, or philosophy do. With regard to some areas—art, music, literature—the critical issue (apart from straightforward halakhic questions about *bittul Torah* or *hirhur*, for example) is not whether certain *beliefs* are compatible or, alternatively, dissonant with Torah, but whether certain *experiences* are; that is, whether exposure to certain disciplines creates a more sensitive and spiritual person—a better *ben* or *bat Torah*—or instead has a corrupting influence. Further, even in the case of truth-oriented disciplines such as science or history, it is not only the *content* of *madda* that may harmonize or, alternatively, come into conflict with Torah; we also need to assess the cluster of attitudes, personality traits, and habits of mind that study of these disciplines encourages. Granted that analytical rigor and acumen are desirable in a student of Torah, critical detachment and a sense of intellectual autonomy and power may not be. Yehudah Halevi found the detachment of the scientist and the philosopher inimical to the development of religious fervor, and partly for this reason opposed attempts to base religion on philosophy (though not study of philosophy *per se*). Rambam, on the other hand, thought that knowledge of science and philosophy, coupled with total concentration on the object of knowledge, culminates in passionate love of God. See Halevi, *Kuzari*, esp. IV:13–16; Rambam, *Moreh Nevukhim* III:51, *Hilkhot Teshuvah* X:6. Such questions about character, orientation and the affective consequences of *madda*—in a word, about the use of *madda* in shaping personality—are certainly appropriate issues to place on the Torah u-Madda agenda, and it is crucial for a Torah u-Madda advocate to defend the kind of personality produced by his or her enterprise. There may be no means of settling these questions in a non-question-begging way. One’s evaluation of certain traits as positive or negative will presuppose a particular conception of virtue and a particular way of determining what pursuits lead to what traits. But be those problems as they may, preoccupation with issues about cognition and truth claims obscures the whole issue. Cf. R. Shalom Carmy, “To Get the Better of Words: An Apology for *Yir’at Shamayim* in Academic Jewish Studies,” *The Torah u-Madda Journal* 2 (1990): 7–24. Since my discussion of “practical *madda*” eventually will deal with the effect that the use of *madda* has on *bittahon* and with the desirability of *bittahon* in certain contexts, the “pragmatic” aspect of *Torah u-Madda* is entangled with issues about character. Hence the lengthy note!
2. See, e.g., *Pesahim* 64b; Yerushalmi *Shekalim* 6:3 and *Yoma* 1:4. In the Talmud, the principle is a subject of dispute, but it has wide applications in *pesak*. To cite a random example, Rav Moshe Feinstein, basing himself in part on *ein somekkin*, vigorously dismisses the objection that buying life insurance shows a lack of *bittahon* in God’s ability to provide for a person’s loved ones; he compares investing in insurance to pursuing a living. See *Iggerot Moshe, Orah Hayyim* II, #111, 189–90; IV, #48, 79–80. Also see Yehudah Levi, *Sha’arei Talmud Torah* (Jerusalem, 5747), 224–32. Parts of this book are available in English as *Torah Study: A Survey of Classic Sources on Timely Issues*, tr. Raphael N. Levi (New York, 1990). A lengthy halakhic discussion of *ein somekkin*—with copious references—may be found in R. Aharon Maggid, *Bet Aharon: Kelalei ha-Shas* (New York, 5732), VIII, 524–60. (I am indebted to Rabbi Joshua Hoffman for recommending this work and for sharing with me his research into *nissim* in Halakhah.) The countervailing principle to *ein somekkin*, “*shomer petayim Hashem*,” “the Lord watches over the simple,” which permits, on occasion, incurring risks (e.g., *Shabbat* 129b), will not affect the discussion to follow, nor

will sundry exceptions such as those in *Taanit* 21a, *Berakhot* 33a and *Kiddushin* 29b.

3. The *Midrash* insists that God “will bless you *be-khol mishlah yadekha asher ta’aseh*”—not if you sit idly. See *Sifrei* to Deuteronomy 28:20. A strong endorsement of economic effort, with appropriate *mekorot*, may be found in R. Moshe Meiselman, “Jewish Business Ethics,” *Oraisa* 1 (1989):49–63, esp. pp. 50–52. See also Y. Levi, 206–24.
4. Symptomatic of the need for more hashkafic treatment of this issue is the fact that discussions of the permission to seek and provide medical treatment often rest content with citing the *derashah* of R. Yishmael in *Bava Kamma* (85a) which confers such permission—without then returning to address the concerns about contravening God’s will that are cited by Rashi and Tosafot to explain the *hava amina*, i.e., why one might have thought that medical treatment is *not* permissible. Is the permission (and obligation) to seek and provide treatment just a *gezerat hakatuv*, lacking an inherent rationale? Or can we use the halakhah’s stress on initiative to derive a point of *hashkafah*? See Rabbi Moshe D. Tendler, “Rabbinic Comment: Risk-Benefit Ratios,” *The Mount Sinai Journal of Medicine* 51:1 (January–February, 1984): 60–64. For an interesting challenge to the standard opposition to reliance on *nes* in medical contexts, see R. N. Gotel, “ha-Tippul ha-Refui: Bein Behirah li-Kefiyah,” pt. I, *Or ha-Mizrach* 40:1 (Tishrei 5752):59–70.
5. Pierre Duhem, *The Aim and Structure of Physical Theory*, tr. Philip P. Wiener (N. Y., 1962), ch. VI; Thomas Kuhn, *The Structure of Scientific Revolutions* (2nd ed., Chicago, 1970), esp. chs. I–VII; W. V. O. Quine, “Two Dogmas of Empiricism,” *From A Logical Point of View* (New York, 1961), 37–42.
6. I am indebted to Prof. David Berger for helping sharpen an earlier formulation of the points in this section. In general, the reader should realize that the responses to the charge of inconsistency which are articulated and assessed in this essay do not necessarily or even typically mirror arguments that have actually been voiced in the controversy. As Professor Josef Stern put it to me, positions taken in the debate often reflect *attitudes* rather than *arguments*. It is my hope that, by evaluating hypothetical responses to *arguments*, we can get a clearer picture of what is at stake in the debate.
7. Actually, there are more forms of the charge. For instance, the familiar argument that we do not have to study secular subjects because all truths are found in Torah is rarely applied to decisions between stock investments or to choosing between two medications. See also n. 11 below.
8. Significantly, not *all* who oppose study of *madda* invoke the claim that *madda* is *unreliable*. Many oppose such study not for this reason but rather because it creates a risk of heresy in belief and laxity in *shemirat mitzvot*, or because it constitutes *bittul Torah*. In fact, the Hazon Ish took scientific findings about the design evident in nature and deployed them to show that *minut* is not only a religious failing but also an *intellectual* folly; certainly he did not, in this context, denounce the credentials of science. See Hazon Ish, *Emunah u-Bittahon* (Jerusalem, 5714), I. Cf. R. Elhanan Wasserman, *Kovez Ma’amarim* (Jerusalem, 5723), 12–13, where it is asserted that belief in God is intellectually obvious, but human desires lead people to reject it. Still and all, the attitude of “what do these scientists/scholars know?” is a very prevalent one, and a comparison of beliefs held by scientists and scholars with beliefs maintained in communities that are hostile to the pursuit of secular learning ineluctably yields the conclusion that, within those communities, science, scientific method, and scholarship are in many respects regarded as unreliable when *beliefs* are being evaluated. It is this position, I am suggesting, that sits uneasily with an extensive use of *madda* in practical life, unless one has mapped out a position that explains why *madda* methods might be an apt tool for studying some phenomena (those phenomena that are religiously

neutral or congenial) but fail miserably for others (those that are inimical to religious belief).

9. Principles of scientific method include the use of observation, induction, and controlled testing of competing hypotheses; they include as well a demand for simplicity, predictive success, and problem-solving capacity in devising explanations of phenomena. Dr. Carl Feit argues that Hazal accepted at least the rudiments of scientific method. See his "Darwin and Drash: The Interplay of Torah and Biology," *The Torah u-Madda Journal* 2(1990):25-27.
10. The argument is not anything so crude as, "you use a telephone, so you have to believe in evolution." Take evolution as an example of how the argument might unfold. Suppose someone just rejects evolution outright because of its ostensible conflicts with *Bereshit*, refusing to consider any of the harmonistic approaches that have been proffered by Jewish thinkers (e.g., Rav Kook, *Iggerot Ha-Reiyah* [alternatively vocalized *Iggerot ha-Reayah*] [Jerusalem, 5722], I, #91, #134). How will he then contend with the following assertion by a leading defender of evolutionary theory against its "creationist" critics?

Evolutionary biology is intertwined with other sciences, ranging from nuclear physics and astronomy to molecular biology and geology. If evolutionary biology is to be dismissed, then the fundamental principles of other sciences will have to be excised. All other major fields of science will have to be trimmed . . . to fit the Creationist's bill. Moreover in attacking the methods of evolutionary biology, Creationists are actually criticizing methods that are used throughout science. . . . There is no basis for separating the procedures and practices of evolutionary biology from those that are fundamental to all sciences.

See Philip Kitcher, *Abusing Science* (Cambridge, Mass., 1982), 4-5. Consider next this recent statement by Dr. Carl Feit: "the theory of evolution is a firmly rooted one, *on the level of* [my italics] quantum mechanics, relativity, electricity and other well established ways of explaining reality." See Feit, *op. cit.* (n. 9), 30. Will a rejecter of evolution be able to justify continued belief in quantum mechanics or relativity or electricity if Dr. Feit is right? This is not to say that there is no way to reject evolution on scientific grounds or at least to quarrel with Dr. Feit's or Kitcher's statements; but to do so, as I point out below, itself requires knowledge of *madda* and trust in its methods. The harmonistic approaches are available and deserve at least to be considered. See Rambam, *Guide of the Perplexed*, II:25, where the Rambam declares that he would be willing to embrace Plato's theory of creation *yesh mi-yesh* if reason were to demonstrate this doctrine, though he is emphatic that Aristotle's belief in the eternity of the world is irreconcilable with Torah. For a recent discussion of the Creation-Evolution issue, see the special section in *Jewish Action* 51:4 (Fall 5752/1991): 17-35, 62-67.

Admittedly, the theses of materialism and determinism that I cite as products of scientific method may be argued to be *metaphysical* contentions rather than *scientific* ones. This objection presupposes a distinction between metaphysical and scientific claims, a distinction that is not sharp and clear. Arguments for materialism and determinism may be developed using methods that are embedded in scientific theorizing and exemplified in theories that are clearly scientific. Cf. my cautionary remark below about extending scientific methods to metaphysical realms. Here again, knowledge of *madda* will facilitate drawing a distinction if one is to be made.

I am indebted to Rabbi David Horwitz and Prof. Caroline Peyser for their challenging comments on the epistemological issues discussed in this section.

11. Not only does the use of science in everyday life imply that scientific knowledge is generally trustworthy, so does the need for scientific knowledge in *pesak*. Hence the charge of inconsistency could be generated in another way.

It is good to recall that some of the permissive attitudes to scientific study in earlier *mekorot*—which occasionally are quoted to sanction scientific study even in right wing circles—were articulated pre-Darwin and pre-other threatening modern theories. In a contemporary context, the use of science is far more inimical to belief, and permitting its study is conceding something of significance to the Torah u-Madda school. Cf. the responsum by Rav Avraham Yizhak Bloch in Levi, *op. cit.* (n. 2), 336–37.

12. To be sure, *ein somekhin* does not carry with it a specific set of epistemological rules for defining *teva*; and indeed the attitude to *conventional* science in anti-*madda* circles is less than fully accepting. In communities hostile to secular study, we sometimes find a turning toward scientifically unconventional methods of practical guidance, such as palmreading and unorthodox medicine. It remains the case, however, that these communities trust science *as they define good science*. Moreover, by accepting unconventional claims about scientific matters on the basis of, say, anecdotal evidence alone, a person might be accepting *lower* standards for scientific proof than scientists do—and may thereby be barring himself from rejecting *other* claims of science on the grounds that they are not established well enough by scientific standards. Hence, a flight to unconventional science only strengthens the point: accepting certain methods as good enough for practical *madda* seems inconsistent with rejecting those methods as a cognitive source for answering other questions.
- The trend toward suspect techniques, incidentally, has elicited concern among rabbinic authorities. However, they do not invoke scientific criteria to discredit these methods (on pain, I speculate, of legitimating the authority of scientific method) but rather seek other grounds for disapproving of them, e.g., “*tamim tihyeh*.” See R. Yaakov Hillel’s very useful *Tamim Tihyeh* (Jerusalem, 5747), adapted in a too truncated English version called *Faith and Folly* (New York, 1990).
13. This last argument is used by Rav Kook to discredit claims by doctors about *mezizah* which conflict with Hāzal’s. See his *Da’at Kohen* (Jerusalem, 5729), #140–42. For more on the role of the fallibility of science in Rav Kook’s approach to Torah-science conflicts, see my “The Integration of Religion and Culture: Its Scope and Limits in the Thought of Rav Kook,” in *Rabbi Abraham Isaac Kook*, ed. L. Kaplan and D. Shatz (New York, forthcoming). A problem with this appeal to the fallibility of science is that it proves too much: that is, such an appeal should lead to suspicion about *all* present day theories and even about the validity of earlier *rejections* of theories (maybe the relinquished theories were correct after all). Nonetheless, recognizing that science’s fallibility can be documented by *madda* methods is an important step in handling challenges to *emunah*. In this case, a secularly well-based historical perspective helps rather than hurts the Torah position.
 14. See, e.g., the iconoclastic philosopher Paul Feyerabend, *Three Dialogues on Knowledge* (Oxford, 1991), esp. 47–123. For elaboration of the more widely accepted idea that pragmatic success implies cognitive reliability, see Hilary Putnam, *Meaning and the Moral Sciences* (New York, 1981), 18–38, and many of the essays in Jarrett Leplin (ed.), *Scientific Realism* (Berkeley, 1984). The connection between effectiveness and theoretical truth is also discussed insightfully in Rabbi David Horwitz’s article in this volume. Some of the contemporary discussion of this issue grows out of Freud’s argument that the “success” of psychotherapy proves the truth of its theoretical claims. In my opinion, Freud’s argument is flawed in a way that does not undercut the *general* connection between technological or predictive success and theoretical truth.

I do not consider here the reply that giving special privileges to science unfairly and unreasonably excludes other commonly accepted areas of human inquiry and

- culture, such as ethics and aesthetics; my rationale for this omission is that *those* criticisms are *especially* unlikely to issue from the anti-*madda* camp. For articulations of such charges of “scientism,” see Steven Wagner and Richard Warner, eds., *Naturalism: A Critical Appraisal* (University of Notre Dame Press, forthcoming in 1992), including my own essay there on the nature of epistemology.
15. Specialists in one field often belittle the force of the evidence for theories in another field. Thus, hard scientists disparage the credentials of theories in the social sciences; and scientists who reject evolution, who are so often showcased in religious apologetics, are generally not biologists. Whether this phenomenon is due to (a) peer pressure felt by specialists; (b) specialists’ biases toward the orthodoxies of their own field, as contrasted with the detached objectivity of non-specialists; or (c) non-specialists’ ignorance of data or underappreciation of the power of the regnant theories, is beyond my ability to determine.
 16. Most often, such apologetics will be produced for the purpose of *da mah she-tashiv la-apikoros*. The “theft” I describe represents another form of the use of errant behavior which I discuss below.
 17. For a balanced presentation of views on this subject, see Rabbi Yaakov Neuberger’s article in this issue. Also see Dov Frimer, “Kevi’at Abahut ‘al Yedei Bedikat Sugei Dam [be-Ma’arekhet A, B, O] be-Mishpat ha-Yisraeli u-be-Mishpat ha-Ivri,” *Assia* 9:3 (February 1983): 45–50.
 18. And, I would add, given that the superior cognitive source did not specifically tell you to use *that* calculator rather than another. *Nimshal*: It is not as if Torah specifically tells us to trust the methods used by the twentieth-century scientific establishment. If we choose to do so, it is because we find its *madda* methods compelling on *madda* grounds. In other words, the anti-*madda* camp has not grappled adequately with the question of why it accepts certain modern methods to *any* degree. Once it would start thinking about what makes these methods attractive, it might appreciate their power and as a result might feel the force of the epistemological problem we have been exploring.
 19. The criteria of “plausibility” and “coherence” that we have used to drive this position derive from philosophical reflection, and to that extent they beg questions about the reliability of philosophy and its pertinence to issues of *hashkafah*. But it equally begs the question *against* Torah u-Madda to dismiss such arguments, given that Rambam and others insist on the use of logic and philosophy in arriving at belief. As I noted earlier, each side will be able to explain *to itself*, given *its* position, why it rejects the other side’s position or arguments; but conversion of others will not come easily. A suggestive if slightly inexact parallel is afforded by arguments that try to refute skepticism about the physical world by appealing to scientific inquiry into perceptual faculties. Such inquiry explains how these faculties work, thereby showing that these faculties are reliable. Yet there seems to be an obvious circularity in such a justification, since scientists can only arrive at their conclusion that perception is reliable if they *already* trust perception when they conduct their investigation into perceptual faculties. Nevertheless, the circularity is mitigated by the fact that we do not know in advance whether scientific inquiry would confirm or disconfirm our trust in perceptual faculties. Thus our framework hangs together: we manage to explain *to ourselves* why the perceptual methods we use are good ones. But we cannot thereby convert a skeptic. See Michael Friedman, “Truth and Confirmation,” *The Journal of Philosophy* 76 (1979): 361–82.
 20. From the perspective of classical *mahshavah*, the split we find today between utilization of *madda* for practical ends and utilization of *madda* for intellectual ends is a bit curious. Let us take note of a classic dispute between Rambam and Ramban. The Rambam greatly encouraged such practical endeavors as seeking medical care, but then again he also encouraged study of science and trusted the
-

conclusions of scientific method on the cognitive plane. The Ramban, opposing Rambam, drove a wedge between cognitive commitments and pragmatic orientations: he allowed *belief* in the science of his time (astrology, etc.), but placed limits on its utilization in *practice*. Neither Rambam nor Ramban subscribed to a purely “instrumentalist” view of science that would sever practical success from truth. The contemporary anti-*madda* split, however—belief no, practice yes—is the opposite of that made by the Ramban; and in terms, at least, of the Rambam-Ramban dispute, the procedure of utilizing *madda* in practical living but not in forming belief is *la kemar ve-la ke-mar*.

For sources on Ramban, see below, note 75; for Rambam, see below, sect. III. I admit that my criticism is not perfect, since one of the reasons Ramban trusted astrology is that Ḥazal believed in it. (Cf. Rabbi Neuberger’s observations [in his article in this issue] about Ramban’s view of the limits of scientific method.) As regards Rambam, we should note, in fairness, *Guide* III:37, where Rambam acknowledges that some curative techniques may work even though we do not have a theory which would explain how and why that is so. See Rabbi David Horwitz’s article in this issue. These qualifications having been duly noted, I still believe that the contemporary bifurcation between belief and practice is neither well motivated nor well precedented.

21. Cf. *Berakhot* 35b: “When Israel does the will of God, their work is done by others.” Translated into our context (with some violence to R. Shimon bar Yoḥai’s original intent), what this means is that when some Jews make the choice not to pursue *madda*, there will be enough non-Jews and errant Jews to provide practical services to those in the more spiritually oriented part of the community. Cf. Y. Levi, *op. cit.* (n. 2), 235. The “consumer/producer” terminology is used by Dr. Norman Lamm in *Torah Umadda: The Encounter of Religious Learning and Worldly Knowledge in the Jewish Tradition* (Northvale, N.J., 1990), 50.
22. *Midrash Rabbah*, Numbers 22:3. In my reference to army service, I immediately shift from *tefillah* (mentioned in the *midrash*) to Talmud Torah (the contemporary focus).
23. Cf. R. Hayyim David Halevi, “Sherut Zevai ba-Halakhah,” *Torah She-be-al Peh* 13 (5731): 182. Alternatively (looking at it from the other camp): anyone who opts for full time yeshiva study has made the wrong choice, betraying his deficiency in *gemilut hasadim*.
24. See also Rabbi’s statement about tanners on *Kiddushin* 82b. The *Hullin* passage is of great importance to our topic because it asserts that a Jewish society needs diverse elements. See also the similar claims by the Rambam in his introduction to his commentary on the Mishnah, Seder Zer‘aim.
25. See R. J. David Bleich, “Experimental Procedures and Pikuah Nefesh: The Concept of Refuah Bedukah,” *Tradition* 25:1 (Fall, 1989):55; “Utilization of Scientific Data Obtained through Immoral Experimentation,” *Tradition* 26:1 (Fall 1991):65–76. According to Rabbi Bleich, Jews have no general grounds for opposing use of data from Nazi experiments—even though, ironically, many non-Jews oppose its use on moral grounds. Rabbi Bleich also discusses other examples of the use of errant behavior in Halakhah.
26. However, an emerging issue in the controversy over the validity of “brain-death” criteria lies precisely here: may those who do *not* regard a brain-dead patient as halakhically dead receive transplanted organs from such a patient? This problem may seem more severe than the one we have been considering because putting oneself on a list for transplants might constitute *geram reziḥah*. Notice, however, that, by the same token, a demand for professionals on the part of the Torah community should constitute encouragement of errant behavior. *Hillul ha-Shem*, however, would seem to be a potential problem only in the transplant case.
27. Cf. R. Bleich, “Utilization of Scientific Data,” 71, first open paragraph.

28. See the letter by Rav Yaakov Yisrael Kanievsky (“The Steipler Rav”) in *Karyana de-Iggerata* (Bnei Brak, 5746), #51, p. 67. There he maintains that medical training is permitted like any other *ummanut* but should not be pursued in a religiously loose atmosphere. Cf. n. 46 below.
29. In conversation, people have suggested other “*teruzim*” to me. I will present these, plus my responses, in the form of brief dialogues—in a way that I hope will explain why the response I suggest in the text is the best one available to the anti-*madda* camp.
- (A) “It’s not *asur* to him—it’s *asur* to me.” “Why are you different from him?” “Because I try to follow R. Shimon bar Yoḥai, he doesn’t.” “Do you really follow R. Shimon bar Yoḥai? Don’t you work on business deals all day? And are you now saying that anyone who wants to not follow R. Shimon bar Yoḥai is permitted not to? If so, what *are* you objecting to?”
- (B) “If someone is still *frum* even after going through university and professional training, he must be strong in *emunah*; for him, therefore, it was O.K. to go through all that.” “But how could he have gone originally? Did he know *in advance* that he could withstand the challenge? If he didn’t, shouldn’t it have been an *aveirah* anyway? Riding a horse on *shabbos* but *not* plucking from a tree is prohibited because of what it *might* lead to; it doesn’t become permissible retroactively by *not* leading to the transgression. In any case, are you now saying that you and your peers, who refused to go through this training, are not as strong in *emunah* as this fellow, and that’s why you went into the business world? Isn’t that a pretty damaging admission?”
30. Cf. R. Bleich, “Utilization of Scientific Data,” 72–73.
31. Contestable, because (a) in medical research an individual cannot pinpoint with precision the source of information that is being used to help him, whereas in health care an individual can choose whose services to use, and (b) the benefits to be gained from using professionals, particularly non-medical ones, are often not as vital as the benefits from using medical information; serviceable, because distinctions (a) and (b) are not rigidly drawn in halakhic sources.
32. Both quotations are from religious thinkers. The first is from Walter Wurzburger, “Confronting the Challenge of the Values of Modernity,” *The Torah u-Madda Journal* 1 (1989): 105–6; the second from Ian Barbour, *Religion in An Age of Science* (New York, 1990), I, xiii.
33. Dr. Norman Lamm aptly refers to technology as “a battering ram of modernity” which necessitates a confrontation with the surrounding culture. See his *Torah Umadda*, 50.
34. See *Guide of the Perplexed* II:48; III:25, 32. In a much discussed passage in III:51, Rambam depicts a different form of providence, called by commentators “individual providence” as distinct from the “general providence” described in the earlier chapters. This individual providence appears to work miraculously. I leave aside the much-debated question of how to interpret this passage and how to weave it properly into a broader presentation of the Rambam. Note, however, at a minimum, that this higher level of III:51 is attained only by concentrating on the scientific and philosophical knowledge which one has acquired through exercise of natural cognitive capacities.
35. Commentary to the Mishnah, *Pesahim* IV:9. See also *Hil. De’ot* IV:20. In the *Pesahim* source, Rambam points out that one can thank God for providing medicine just as one can thank God for providing food and drink—both reflect providence. “God provides food” for Rambam does not mean “God directly provides food”; it means that food has been made available through the mediation of the natural order, of which God is the ultimate cause. See *Guide of the Perplexed* II:48. For a rejoinder to the Rambam’s analogy to food and drink, see Hazon Ish, *Emunah u-Bittahon*, 65.

36. *Iggerot ha-Rambam*, ed. Y. Sheilat (Jerusalem, 1988), II, 480. An English translation of this letter by Ralph Lerner is found in *Medieval Political Philosophy*, ed. R. Lerner and M. Mahdi (Ithaca, New York, 1963), 227–36 (*Letter on Astrology*). Prof. Lawrence Kaplan has pointed out in conversation that the statement I quote is connected to *Guide of the Perplexed* III:32, where Rambam maintains that military training is needed for Jewish conquest.
37. For sources see R. Hillel, *Tamim Tihyeh*, cited in note 12.
38. For this use of “*temimut*,” see *Hil. ‘Avodah Zarah*, XI:16; also note Rambam’s understanding of “*ha-zur tamim pa’alo*” (Deuteronomy 32:4): God’s creation is perfect in the sense of exemplifying wisdom and purposiveness (see *Guide* III:25, 49 and II:28). See also *Hil. Yesodei ha-Torah* II:2. Cf. Isadore Twersky, *Introduction to the Code of Maimonides (Mishneh Torah)* (New Haven, 1981), 412, 420, 482.
39. For elaboration on this point, see Bernard Septimus, “Biblical Religion and Political Rationality in Simone Luzatto, Maimonides and Spinoza,” in *Jewish Thought in the Seventeenth Century*, ed. Isadore Twersky and Bernard Septimus (Cambridge, Mass., 1987), 399–434. Note especially Rambam’s assertion that the Torah “was intended to efface those untrue opinions from the mind and to abolish those useless practices which brought about a waste of lives in vain and futile things” (*Guide* III:49; see also III:29). In Professor Septimus’s paraphrase of Rambam’s position, “the prophets’ underscored the practical as well as the spiritual futility of Israel’s backsliding into idolatrous superstition” (Septimus, 407).
- I believe that the Rambam’s outlook as described here is intertwined with many aspects of his thought, especially his views on human responsibility, his understanding of *sakhar ve-onesh*, and his emphasis on acting *lishmah*. I dealt with these in an oral presentation at Yeshiva University that gave rise to this paper and hope to spell out the connections more fully on another occasion. On responsibility, see Jerome I. Gellman, “Radical Responsibility in Maimonides’s Thought,” in *The Thought of Moses Maimonides*, ed. I. Robinson, L. Kaplan, and J. Bauer (Lewiston, New York, 1991), 249–65. The Rambam’s emphasis on use of natural resources is also evident, I think, in his conception of *teshuvah* in *Hil. Teshuvah*, chs. V–VI. Finally, see R. Yizhak Abarbanel’s interpretation of Deuteronomy 8:17–18 in his *Commentary to the Torah* (Jerusalem, 5744), 92–93.
40. See *Guide of the Perplexed*, III:17–18. For discussion of this and other means of connecting providence to intellect, see Charles M. Raffel, “Providence as Consequent upon the Intellect: Maimonides’ Theory of Providence,” *AJS Review* 12:1 (Spring, 1987):25–71.
41. “The Lonely Man of Faith,” *Tradition* 7:2 (Summer, 1965):5–67 (henceforth *LMF*); “Majesty and Humility,” *Tradition* 17:2 (Spring, 1978): 25–37. Rav Soloveitchik’s views contrast with the Rambam’s in other ways too. First, unlike the Rambam, the Rav does not grapple with the issue of science’s epistemological credentials; in fact, he insists that cognitive clashes between religion and secular disciplines are not his concern and thereby invites the epistemological challenges I discussed earlier. See *LMF*, 8–9. A full response to secularism, therefore, would include both Rambam’s response to the epistemological problems and Rav Soloveitchik’s response to the issue of initiative.

Second, Rav Soloveitchik sees the modern movement toward technology, which reflects activism, as a dialectical antipode to spiritual movements, which require submissiveness and feelings of dependence. Rambam’s approach, on the other hand, maintains that religiosity is achieved *through* scientific activity and human initiative. By emphasizing the elements of Adam the first that I do, I am packing a religious character into his quest *per se*, which is more along the lines of Rambam than along the lines of the Rav. I do not think that my representation of the Rav’s

views will distort the Rav's meaning, especially not when accompanied by the present note.

While this essay was in press, *LMF* was issued as a book by Doubleday Press, testifying to its importance as an essay in religious and not simply Jewish thought.

42. See also passages like these: "Modern man reaching for the distant stars is acting in harmony with his nature which was created, willed and directed by his maker. It is a manifestation of *obedience* to rather than rebellion against God" (*LMF*, 16). In his later writings, Rav Soloveitchik places more and more stress on submission. But this shift does not reflect an abandonment of the activist ideal set out in *LMF*, only a greater emphasis on balancing it with humility.
43. Gerald J. Blidstein, "On the Jewish People in the Writings of Rabbi Joseph B. Soloveitchik," *Tradition* 24:3 (Spring 1989): 24.
44. Shubert Spero, "Towards A Philosophy of Modern Orthodoxy," *Modern Judaism* 6 (1986):83. The importance of conquering evil is also stressed in Prof. Marvin Fox's writing on the Rav. See his "The Unity and Structure of Rabbi Joseph B. Soloveitchik's Thought," *Tradition* 24:2 (Winter, 1989): 44-65.
45. See especially the lengthy note in "Lonely Man of Faith," 52-53, where he (1) sees the community-building endeavors of Moshe Rabbeinu as "majestic" as well as covenantal; (2) explains how Halakhah gives expression to "majesty." The fact that the Rav's description of the Adam-II community clearly fits a Jewish community reinforces the point that Adam-I, who is also said to be a part of every individual, is a Jewish type as well as a universal one. Note Fox's remark quoted in n. 80 below. As Rabbi Yosef Blau pointed out to me, the Rav's article "Confrontation," *Tradition* 6:2 (Spring-Summer, 1964): 5-29, clinches the point that for him *Jews* have a dual task; see esp. pp. 17-18. For an alternative reading of Genesis that, despite its explicit divergence from *LMF*, supports a pro-*madda* stance, see R. Jonathan Sacks, "Alienation and Faith," *Tradition* 13:4-14:1 (Spring-Summer, 1973): 137-62.
46. It is curious that encouragement to Jews to enter medicine as a profession is not often found in halakhic sources. See R. Yosef Blau, "Choosing a Profession: Some Halakhic Considerations," *The Torah u-Madda Journal* 1 (1989):23-33, pp. 28, 30-31; cf. the quotation therein (33, n. 24) from R. Jacob ben David Provenzali. R. Bleich, *Judaism and Healing* (New York, 1981), 13-16, explains that, while "society" must see to it that there are doctors, an individual incurs no obligation to become one. See R. Moshe Feinstein's analysis in *Iggerot Moshe, Yoreh De'ah* II (New York, 5733), #151, pp. 259-60. This approach dovetails with my later remarks about the need for diverse choices in a functioning Jewish society. Rabbi Blau's article is of relevance to this broader topic as well.

The Steipler Rav, in a letter called to my attention by Prof. Lawrence Kaplan, (*Karyana de-Iggerata* I, 212) proffers an intriguing—and remarkable—argument *against* becoming a doctor. Apart from concerns about *hillul shabbat*, *bittul Torah*, contact with women, etc., he notes that a doctor might violate imperatives of *piku'ah nefesh* more easily than an untrained person; for, in many cases, only the trained person has an obligation to save life, as only he has the skill and knowhow (p. 213). The fact that medical knowledge can be used to save lives thus becomes an argument *against* becoming a doctor! Notice that the same considerations should militate against joining the Hatzolah ambulance corps. (Doctors and ambulance volunteers have not only greater skills but, I would add, more knowledge of *who* needs assistance.) So as not to take the Steipler Rav's letter too far, I would urge the reader to note the context: he is addressing someone who is choosing between medicine and a rabbinical position. Cf. n. 28 above.

One might oppose medical study on *bittul Torah* grounds: simple professions, it will be said, are less diverting from Torah study than, say, medicine or psychology. But this cannot be held as an *a priori* thesis; rather, it must be tested

empirically. And, empirically, I see little evidence that Torah learning among doctors is less on the whole than among people in other professions. On the contrary, the *mizvah* aspect of medical practice might be expected to heighten one's sensitivity more than does the *mizvah* of *parnasah*, and our present generation of physicians indeed includes many *lamdanim*. The argument nonetheless reminds one of the "gezerah" allegedly issued to the Vilna Gaon by his father: don't learn pharmacology, because you may have to use it to save lives and thus lose time from Torah study. See R. Yisrael of Shklov, *Pe'at ha-Shulhan*, ed. A. Luncz (Jerusalem, 5671), introduction, 5a. Cf. Y. Levi, *op. cit.* (n. 2), 294.

47. To be sure, Rav Soloveitchik relates technological conquest to narcissistic, egotistical impulses in human beings (e.g., *LMF* 63 ff.). But he also recognizes that these impulses propel people to carry out their responsibilities; and in any case the egotism is neutralized when one combines the Adam-I orientation with the humbled outlook of Adam-II. See my brief discussion of this theme below.
48. Rabbi Ahron Soloveichik, *Logic of the Heart, Logic of the Mind* (New York, 1991), 50. Strengthening the argument is the fact that some sources link the need for *parnasah* to the needs of society. See Y. Levi, 212.

I recognize that people might justify entering business for personal profit by saying that personal wealth is a means to becoming a benefactor and supporter of vital causes and institutions. I heartily accept this rationale, acknowledge the need for philanthropists, and greatly admire anyone who sincerely enters business pursuits for this purpose. I question, though, how, once one conceives *parnasah* as a means to helping others, one could exclude *other* means of helping others from the range of legitimate professional pursuits. It is laudable to give money to build a hospital or a center for the handicapped, but incongruous to simultaneously think that preparing for a career on the staff of these institutions is not to be countenanced. For my response to the claim that non-Jews alone might work in such institutions, read on.

49. R. Schlesinger, *Lev ha-Ivri*, ed. H. Schlesinger (Jerusalem, n.d.), I, first introduction, 9–10. (I am indebted to Prof. Lawrence Kaplan for the reference.) Rav Schlesinger actually sets up two further categories, *kohanim* and *leviyim*, and *kohen gadol*.
50. Sigmund Forst, "Falling Idols," *Jewish Action* 51:1 (1990–91): 84. A moderate division-of-labor thesis may also be found in M. Breuer, *Pirkei Mo'adot* (2nd ed., Jerusalem, 5749), II, 609.
51. In a text in *Avodah Zarah* 2b, non-Jews claim that their construction of material conveniences enables Jews to study Torah. But this text does not supply a sweeping assertion that Jews must not be occupied with such endeavors. Cf. M. Breuer, 609.
52. See Norman Roth, "Theft of Philosophy" by the Greeks from the Jews," *Classical Folia* 22 (1978): 53–67.
53. N. Lamm, *Torah u-Madda*, 53. See also R. David Friesenhausen's plea:

How can a country function without [*ummanut*]? . . . When Hashem gathers the *nidhei yisrael*, there is no doubt that we will need all manner of *ummanut*; and if we remain as we are here today, I do not know how the country could function! Will Hashem open the windows of heaven to bring us *ummanim* from there? Or will we take them from the nations around us? That would not be a good thing!

See his *Mosedot Tevel* (Vienna, 1820), 76, paragraph 7. I am indebted to Prof. Shnayer Z. Leiman for this reference.

54. I first heard this link drawn in a lecture by Prof. David Berger. See also R. Natan bar-Haim, "Torah u-Madda U-Ma'aseh," *The Torah u-Madda Journal* 2 (1990): 1–6. I hasten to add reference to Rav Schlesinger's own love for and settlement in

Erez Yisrael and his endorsement of agricultural work in Israel. These activities and attitudes are at least mildly discordant with an extreme interpretation of the assertions put forward in *Lev ha-Ivri*, given the complexity of modern agriculture.

Clearly the Zionist argument presented here would not establish the propriety of a Torah u-Madda position in Galut. Accordingly, a compromise position is theoretically possible: Torah u-Madda for Israel, anti-madda for the Diaspora. The Hatam Sofer, in his *hiddushin* to *Sukkah* 36b (see also *Torat Moshe, Parashat Shofetim*) indeed introduces a distinction between Erez Yisrael and the Diaspora—only in Israel, he states, is Jewish labor appropriate according to R. Yishmael's view in *Berakhot* 35b. However, his assertions are obviously not equivalent to adoption of Torah u-Madda as the policy for Erez Yisrael, and so far as I can see, these assertions cannot be easily reconciled with the claim that Jews must not engage in *yishuv ha-olam*.

55. Rav Eliyahu Dessler, *Mikhtav Me-Eliyahu*, ed. A. Carmell and A. Halpern (Bnei Brak, 5725), I, 270. Rav Dessler's overall attitude to technology as expressed later in that section of *Mikhtav Me-Eliyahu* is admittedly far more negative than the quoted sentence suggests; see below. The quotation is also found in R. Yoel Schwartz and R. Yitzchak Goldstein, *Shoah: A Jewish Perspective on Tragedy in the Context of the Holocaust* (New York, 1990), 171–73, in the context of a broader discussion of the need for moral restraint in technology on pp. 166–77. Cf. also their citation from R. Yehudah Leib Girsht, *bi-Netivot ha-Zeman ve-ha-Nezah* (Jerusalem, 1955), 25–26: “Scientific research in itself . . . is certainly desirable and valid. This applies, however, only when these advantages are utilized by good people for righteous purposes.”
56. Cf. the plea of the distinguished scientist Alvin Radkowsky for Orthodox involvement in the sciences in “The Faith of an Orthodox Jewish Scientist Revisited,” *B'Or ha-Torah* 1 (Summer, 1982):21–33.

No doubt the preceding line of argument, based on the spiritualization of culture, displays some naivete. There is no such thing as, say, Orthodox engineering or *frum* microbiology. Discoveries and inventions by Orthodox Jews do not bear a specifically Jewish imprint, and lab results do not vary according to an experimenter's degree of religiosity. Still, a researcher's spiritual outlook can influence his or her choice of research problems and objectives; it can determine the degree to which he or she advocates or opposes specific lines of inquiry; it can suggest areas in which existing knowledge should or should not be applied (gene manipulation, weapons development, space exploration, immortality, senility, retardation, etc.) Cf. Azriel Rosenfeld, “Does the Halachah Impose Limits on Scientific Research?,” in *Encounter: Essays on Torah and Modern Life*, ed. H. Chaim Schimmel and Aryeh Carmell (New York, 1989), 130–38. And although no one can assert with confidence that Orthodox Jews can make an *enormous* impact on how particular disciplines develop, in either substance or moral direction, that objection could be in some measure a self-fulfilling prophecy. That is, the influence of Jews in professions and in our culture could increase if there were more *frum* people and Torah u-Madda were more widespread as an ideology.

We should bear in mind as well that it is not in the production of lab results or theories that a Jewish presence in professions and in culture would be most vividly felt. It is, rather, in the *reaction* to specific developments, both theoretical and practical, in the world of *madda*. And those who are in the best position to react with intelligence and sensitivity are people who understand the technological developments best because they actively participate in them and are in a position to influence peers.

Rav Kook went even further here by providing what is in effect an argument for some *madda* study by all *benei Torah*. Rav Kook did not obtain for himself an

expertise in a secular discipline, but the need for a *ben Torah* to feel the spiritual pulse of his culture was clear to him. He argued that:

While it is impossible for every *ben Torah* to become a certified scholar in all fields of the *madda'im*, it is possible for him to know the overall situation of the intellectual disciplines of the world and their influence on life—in order that he recognize the overall style of the spiritual character of his generation, so that he will know how to sustain and improve it.

See Rav Kook, *Eder ha-Yakar ve-'Ikvei ha-Zon* (Jerusalem, 5745), 129. How much more meaningful would be the reaction of one who is both a Torah scholar and understands the surrounding culture *in detail*.

The general approach to Torah u-Madda defended by Rav Hirsch and Rav Kook is also advocated by R. Jonathan Sacks, the British Chief Rabbi: “We cannot hope to perfect society without understanding society.” See his “Torah Umadda: The Unwritten Chapter,” *L'Eylah* 30 (September 1990): 14.

57. See “Majesty and Humility”; *LMF*, e.g., 51, 63. For a penetrating look at Rav Kook’s views on the relationship between scientific advances and spirituality, see Tamar Ross, “Immortality, Natural Law, and Perception in the Writings of Rav Kook” in L. Kaplan and D. Shatz, *op. cit.*, (n. 13).
58. See Rav Kook, *Iggerot*, I, #118, p. 148; #108, p. 132; #146, p. 188.
59. See his speech at the dedication of the Hebrew University, reprinted in *The Torah U-Mada Reader* published by Yeshiva University.
60. This approach has a halakhic basis. Rav Moshe Feinstein states that a person should prefer a *frum* psychotherapist or psychiatrist but not necessarily a *frum* physician—one heals through conversation, the other through medicine. See *Iggerot Moshe, Yoreh De'ah* II, #57, p. 77. Rabbi Yosef Blau pointed out to me that the availability of *frum* mental health professionals is desirable on therapeutic grounds as well. They understand *frum* patients better; and they can serve as consultants to non-*frum* professionals who are treating *frum* patients. Note also Rav Moshe Feinstein’s positive view of Hatzolah ambulance groups in *Iggerot Moshe, Orach Hayyim* IV, #80–81, esp. #81, end; see also *Yoma* 84b. I thank Rabbi Tzvi Flaum for pointing out the relevance of this latter responsum.
61. In a recently published letter, Rav Isaac Halevi Herzog beckons yeshivot to produce their own outstanding scientists in order to facilitate *pesak*. The letter appears in Frimer, *op. cit.* (n. 17), 49–50.
62. In truth, the lack of an explicit justification in the Rav’s writings for the appropriation of Western culture’s philosophical or literary achievements creates a paradox, formulated pointedly by Professor Blidstein: “The Rav is a *paradigm* of the synthesis of Jewish and Western culture, but he nowhere *prescribes* this move or urges its legitimacy” (Blidstein, *op. cit.*, 24). Without negating Blidstein’s point or the resolution he goes on to propose, it is worth noting that these achievements might be part of Adam the first’s activity just as economics, politics, and art are expressly said to be. The status of secular *values* in the Rav’s thought would seem to be problematic, however, because only the divine command can bind; see even the account of norms he gives in the very passage (*LMF*, 15) which expands the range of Adam the first’s activities.
63. Cf. M. Breuer, 609; in his approach, non-Jews’ ignorance of how their contributions help Jews is part and parcel of the division-of-labor arrangement.
64. For some purposes, it is important *not* to overstate the value of long term research. In a seminal responsum, Rav Yehezkel Landau, *Noda Biyehudah, Yoreh De'ah* #210, forbids performing an autopsy when no immediately identifiable sick person (*holeh lefanenu*) will benefit from the procedure. In the twentieth century, “*lefanenu*” might be construed broadly, but not so broadly as to justify autopsies out of a vague hope that some benefit for others will result. See, e.g., R. Bleich,

Judaism and Healing, 162–68. This having been stated, we may nevertheless reiterate that research which is not halakhically problematic may fall within Adam the first's responsibility despite the vague and general application of its results.

65. LMF, 22. The Rav's omission of any distinction between Jews and non-Jews may stimulate still more resistance to his views in many quarters. For the paragraph about cooperation suggests that Jews and non-Jews are equally engaged in a united, collaborative undertaking, and that picture rubs against sensibilities that prefer to keep the tasks of Jews and non-Jews separate. Cf. "Confrontation" (cited in n. 45).
66. A particularly moving passage, though certainly not the only one relevant here, is Rambam's closing peroration about the task of Leviyim at the end of *Hil. Shemitah ve-Yovel* (XIII:12–13). See also his assignment of the task of societal improvement to non-scholars in the introduction to the commentary on the Mishnah. Cf. *Hil. Gezeilah va-Avedah* VI:11.
67. See *Guide of the Perplexed*, III:54, end. I cannot enter here into the long-raging controversy over the precise character of this other-directed activity and over how to integrate this passage into the intellectualist-contemplative ideal which the Rambam champions earlier in III:54 and elsewhere. Interestingly, though, the other-directed activity is guided by and based on scientific and philosophical knowledge. It differs from the knowledge of crafts used in the introduction to *Perush ha-Mishnayot* as examples of how 'amei ha-arez serve wise men and settle the world.
68. See Y. Levi, 233–46.
69. Y. Levi, 275–76, makes this point as well. For more on R. Shimon bar Yoḥai and the famous discrepancy between *Berakhot* 35b and *Menahot* 99b, see Y. Levi, 233–46, and N. Lamm, 64–70.
70. Robert Nozick, *Anarchy, State and Utopia* (New York, 1973), 20–21, lists sixteen examples of invisible-hand explanations in various sciences.
71. Whether individual study *per se* should include secular subjects is, to reiterate, at right angles to our questions about the need to study such subjects for professional purposes.
I thank Dr. Yaakov Elman for his enlightening observations about the problems discussed in this and the next section.
72. On this point see Lawrence Kaplan and David Berger, "On Freedom of Inquiry in the Rambam—and Today," *The Torah u-Madda Journal* 2(1991): 37–50, esp. pp. 38, 46–47.
73. The anti-madda camp plays somewhat loosely with the notion of risk. For example, it often views computer programming as a religiously "safe" field. In truth, computers represent a fundamental challenge to any understanding of human intelligence as "special," and reference to them figures prominently in present day attempts to reduce the human mind to physical components and processes. Any field could be judged risk-free if we assume that the person studying it gives no thought to the problems it generates.
74. Commentary to Leviticus 26:11.
75. The main sources in Ramban for this general approach are: commentary to Deuteronomy 18:9, 13 and Leviticus 26:11; *Torat Hashem Temimah*, in *Kitvei ha-Ramban*, ed. C. Chavel (Jerusalem, 5724), I, 148–50; responsum in Chavel, I, 378–81 (note the delicate balance there between trust and *ein somekbin* in the use of astrology); *Torat ha-Adam*, in Chavel II, 41–48. References to other thinkers who adopt such a posture may be found in Rav Y. Hillel, *op. cit.* (n. 12), esp. in the early part of the book.

However, the Ramban's view is far more complex and open to interpretation than I have presented it in this paragraph. First of all, the claim that nature

represents a withdrawal of providence runs counter to the standard portrayal of Ramban as an occasionalist. Ostensibly, this standard portrayal is soundly based upon Ramban's stress on *nes nistar*, but Prof. David Berger has established that the depiction is erroneous. See his "Miracles and the Natural Order in Nahmanides," in *Rabbi Moses Nahmanides: Explorations in His Religious and Literary Virtuosity*, ed. Isadore Twersky (Cambridge, Mass., 1987), 107–28. Note especially his point that "Nahmanides' uncompromising insistence that providence is exclusively miraculous means that although God is constantly aware of everyone, he does *not* [emphasis mine] exercise providence when nature prevails" (p. 126). Ironically, it is precisely this interpretation of Ramban, which is not likely to be accepted in anti-*madda* circles, that I am enlisting to make a case for the anti-*madda* view in this context and to dramatize the difference between Rambam and Ramban.

In my own opinion, furthermore, Ramban's stance is nowhere near as extreme as I have made it out. Cf. n. 81 below.

76. Hazon Ish, *Emunah u-Bittahon*, esp. chs. 1,2; Rav Eliyahu Dessler, *Mikhtav Me-Eliyahu* (Bnei Brak, 5725), esp. I, 177–206. See also R. Moshe Hayyim Luzzato, *Mesillat Yesharim*, ch. 21. Such a view may also be found in the rationalist Bahya ibn Pakuda. See his *Hovot ha-Levavot*, *Sha'ar ha-Bittahon*.
77. *Bereshit Rabbah* 89:1 (to Genesis 41:1); note the interpretation of Hazon Ish, *Emunah u-Bittahon*, 20, according to which *hishtadlut* and *ein somekbin* would not license *desperate* measures such as the one Yosef adopted. Interestingly, it is sometimes asserted that *ein somekbin* is a *middat hasidut*, practiced only by those who out of humility think that they are not entitled to special protection. (See R. Aharon Maggid, *op. cit.* [n. 2], VIII, 539–40.) The view of Hazon Ish and Rav Dessler that the ideally pious person will use *bittahon* rather than natural techniques is a striking counterpoint to this approach.
78. See W. Wurzbürger, *op. cit.* (n. 31), 105–6. Cf. Rav Dessler, *Mikhtav Me-Eliyahu* I, 270 ff.
79. It is important to note that, in actual cases, the Hazon Ish was insistent that a person should seek medical care. See *Kovez Iggerot*, ed. R. S. Greineman (Bnei Brak 5706, 5750), I, #136–42.
80. It is interesting in this light to consider Prof. Marvin Fox's assertion that

The unifying principle in all of the Rav's work is his frequently stated conviction that the only legitimate source of Jewish doctrine is the Halakhah. As he has often expressed it, 'The halakhah is the objectification and crystallization of all true Jewish doctrine.' (Fox, *op. cit.*, 49).

Since, as we have seen, halakhic formulations of the need for initiative fall short of establishing a mandate to pursue technology and research, one must interpret the Rav's quoted statement in a complicated fashion if the halakhah is to "objectify and crystallize" the orientation of Adam the first. The following is one possible way to apply the statement to our present context. Halakhot governing initiative reflect an at least moderately activist orientation toward the conquest of evil and amelioration of the human condition. Since (1) a broadly activist orientation (i.e., one that encompasses technology and research) can also be justified on theological grounds, and (2) a broad reading of initiative is *consistent* with the Halakhah, therefore the Halakhah can be said to "objectify and crystallize" the broader orientation. But this is only a first and no doubt tiny step toward understanding the relationship between "true Jewish doctrine" and Halakhah in the Rav's thought.

81. More accurately, Ramban drew the distinction in reverse; see below, n. 86.

In general, the Ramban's position needs to be restated. Ramban clearly encourages even the pious to take initiative. See his commentaries to Genesis 6:19;

introduction to *Parashat Vayishlah*; Deuteronomy 20:9 (on the necessity of going to battle; cf. commentary to Job 36:7, in Chavel, *Kitvei ha-Ramban*, I, 108–9). Under pressure from these texts and certain other difficulties, I suggest that we not generalize from his remarks on *tamim tihyeh* and on medicine to a general posture against use of scientific knowledge in practice. Ramban instead may have singled out certain techniques (e.g., divination, medicine) as inappropriate for context-specific reasons—particularly in his role as an exegete, where his prime concern was with the case and text at hand. For example, since Hazal believed in the efficacy of the Canaanite practices listed in Deuteronomy 18 and of astrology, Ramban had no choice but to reject the Rambam's account of the laws in Deuteronomy 18 and then devise another. As for medicine, that is a traditional crux; further, as many have noted, Ramban's discussion of medicine starts with an assumed background—the collective righteousness of the Jewish people. Only at the end of his commentary to Leviticus 26:11 does he even seem to attribute to the righteous a refusal to consult doctors no matter what the degree of providence over the collective. Cf. R. Soloveitchik, "Lonely Man of Faith," 52–53.

We also find, upon close study of Ramban's explanations for the prohibitions in Deuteronomy 18, that, in places, his approach is actually near to the Rambam's. In particular, some of his arguments are based on the *unreliability* of diviners and soothsayers, at least *relative* to genuine prophets. If this is the reason for the prohibitions in Deuteronomy 18, then the prohibition is founded on the relative irrationality of the Canaanite practices. (Cf. especially Rambam, *Hil. Yesodei ha-Torah* X:3, where a virtually identical evaluation of *me'oninim ve-kosemim* is rendered.) The exact weight Ramban gives to this "unreliability" explanation, and the context to which he means to apply it, is unclear and requires some study. Yet, Ramban may himself have furnished the better known "*temimut*" explanation only because his argument that a *navi* is more reliable than a diviner would not account for why the prohibitions continue after the cessation of *nevu'ah*.

Finally, since it is intuitively implausible that Ramban would have opposed the use of weather predictions and economic forecasts, we should not formulate his opposition to the use of science in extreme terms.

I dwell on these points here because they cut against twentieth-century attempts to use Ramban in the service of a generalized stance against human initiative. See also Tamar Ross, "ha-Adam ve-Koah Behirato ha-Musarit be-Mishnat ha-Rav Dessler," *Da'at* 12 (Winter, 5744):123, n. 52.

82. Neziv, *Ha'amek Davar*, introduction to *Bemidbar*. See also the Hassidic interpretation of the sin of the *meraggelim* cited by Sacks, "Alienation and Faith" (n. 44 above), 161: "Canaan meant emergence, practical responsibility, the work of building up a nation; and the ten feared immersion in the secular and the hiding of the face of God from sight. . . . They saw Covenant and Majesty, distinct and opposed, and they trembled and held back. Caleb did not see it."
83. References in parentheses are to the Hebrew edition of *Mikhtav Me-Eliyahu*. The translations, however, are borrowed from Aryeh Carmell's English rendition of *Mikhtav Me-Eliyahu, Strive for Truth*, part two, (New York, 1985), 237–301, which includes some adaptation of the original. (I have not given precise page references to Carmell.) For an excellent analysis of Rav Dessler's thought, see Ross's article, cited in n. 81 above. Many of Rav Dessler's ideas develop themes that are common in the Musar movement. However, the similarities between Rav Dessler's views and arguments on such subjects as causality and free will, and the views and arguments of philosophers like David Hume and Immanuel Kant, is also striking and invites study. See Ross's article and also Carmell's remarks in *Strive for Truth* III, 172–73.
84. How much worldly endeavor is appropriate? The answer that is popularly associated with Rav Dessler is: minimal endeavor. He quotes Ramhal to this effect:

“once one has done a little work one can safely leave the rest to Hashem” (*Mesillat Yesharim*, ch. 21). And indeed Rav Dessler quotes the following formula of Rabbi Zundel of Salant:

“We have to do enough to ensure that the divine bounty which comes down to us from Hashem could possibly be attributed to some other cause . . . the minimum is therefore that amount of endeavor, however small, which permits the outside world to make the error of attributing the person’s livelihood to natural causes.” (I, 188)

However, Rav Dessler does not maintain that the advice to exert minimal effort is appropriate for all people; it depends on an individual’s spiritual level. The correct balance between trust and endeavor for a given individual is a function of that person’s recognition of Hashem’s supreme power. Now we might assume that only a person on a higher level should utilize great *bittahon*. Yet surprisingly, though this is the impression Rav Dessler usually conveys, it does not hold always: sometimes, people on low levels of faith ought to *reduce* natural endeavor, while people of *greater* faith may engage in it (see Carmell’s formulation, 297)! In this way Rav Dessler is able to explain the Ramban’s comments that Noah and Yaakov had to do whatever they could to achieve their goals, and that “a person should do all that is humanly possible and leave the rest to Heaven.” (See I, 200; see also Ramban’s commentary to Genesis 6:19 and the introduction to *Vayishlah*.)

85. There is another problem posed by the imperative to help others. If Hashem is the only true cause of events (or at least of events other than our choices: our choices are free), then our efforts cause nothing. My action of swimming out to save a drowning person is not the cause of his being saved, nor would my idleness be the cause of his death. How, then, could I sensibly be rewarded or punished for my action or inaction? This difficulty must be dealt with by making all rewards and punishments dependent on effort, not on causation of a result. We will receive credit or blame not for our deeds (*we do* nothing), but for our intentions. The problem is, however, that anyone who realizes that nature is an illusion and that human beings can’t really do anything (because God does all) will not even so much as try. The notion of effort makes sense only when one believes that one can bring about a result.
- To this Rav Dessler might reply (he doesn’t deal with the problem explicitly) that when one “makes the effort” to save another, he is not trying to *save* the person, but is really trying to influence God to extricate the person. A successful effort is, therefore, a possibility; for the effort counts as successful if God rescues the person. But if God is doing the saving, why should He wait for my effort? Why doesn’t He save the other person if he deserves to be saved? Why is God’s decision conditioned by mine? The answer may be that God would encourage total passivity if He were to save everyone who needs saving, and He therefore stays on the sidelines, as it were, until humans act. But what becomes of individual *zekhut*? As Prof. David Berger pointed out to me, analogous problems affect praying for someone’s welfare, and that may mitigate the force of the last set of questions.
86. The Ramban appears to have a different rationale for administering medical care. If someone consults a doctor, this in itself shows that he is not among the “*adat Hashem*” who place their welfare in God’s hands, and so the doctor need have no compunctions about trying to heal. See commentary to Leviticus 26:11.
87. Defining a parallel problem may reinforce this understanding of the character of Rav Dessler’s theology. For many or most people, worldly endeavor, we said, is necessary in order to provide a “test.” But if one *should* court the temptation of a false, irreligious belief that nature is real, why should one not court the temptation of other false beliefs, such as those you might glean from reading heretical books?

Why not small doses of heresy? If, as Rav Dessler implies in the context of discussing worldly endeavor, “meeting a challenge can strengthen a person morally,” (see Carmell’s version, 294), why shouldn’t challenges be invited on the cognitive plane as well?

The irony is clear. Both Rav Dessler’s position on the importance of *hesed* and his claim about “testing” create fertile ground for the study of *madda*. And here again: if one *starts* with the assumption that secular study poses risks that are too great, one will have to hold that study of secular works is *not* to be defended on the grounds that “meeting a challenge always strengthens a person morally.” But that isn’t to say that the *nissayon* idea cannot be parlayed by a *proponent* of secular studies into a rationale for such study (though of course Torah u-Madda advocates are hardly likely to argue for their position in this way).

88. Much, much more could be said by way of clarifying what *bittahon* means. The Hazon Ish roundly rejects as “a very old mistake” any notion of *bittahon* that requires, on the part of the *ba'al bittahon*, a belief that all will go well; according to the Hazon Ish, *bittahon*, instead, amounts to “the faith that there is no *mikreh* in the world, and that everything that happens under the sun is by way of divine decree” (*Emunah u-Bittahon*, 16–17). I suspect that, when our understanding of it is modified drastically to take account of the differences between their respective conceptions of *hashgahah*, the Hazon Ish and the Rambam could agree on this definition. For an elegant differentiation of various notions of *bittahon* and a moving attempt to construe *bittahon* in a way that eschews the “mistake” described by Hazon Ish, see R. Aharon Lichtenstein, “Le-Berurah shel Middat ha-Bittahon,” *De’ot* 45 (5736): 352–55.

One other point about the literature on *bittahon* needs to be stressed. Although Rav Dessler and the Hazon Ish do not intend the notion of *bittahon* to operate *only* in the economic sphere, this is consistently their main example. (For an application of Rav Dessler’s theory to medical treatment, however, see *Mikhtav Me-Eliyahu* III, 170–75.) And it is an example that may draw sympathizers for reasons having nothing to do with *bittahon*. It is easy to concur that one should not pursue economic endeavor aggressively simply because personal economic gain does not deserve to be made into an intrinsically valuable pursuit. One does not need to accept an occasionalist metaphysics to acquiesce to the anti-materialistic orientation of Rav Dessler and Hazon Ish. Therefore, anyone who condemns Jewish involvement in improving the human condition on the grounds that we are entering *ha-Kadosh Barukh Hu’s* terrain, but pursues wealth aggressively, is conveniently ignoring the *main* conclusion that Rav Dessler and Hazon Ish wanted to inculcate—namely, the impropriety of materialistic pursuits.

89. It may be objected that my arguments do not work against all versions of anti-*madda*. Some may concede the arguments, but insist they never had a quarrel with study of science or even social science; rather, they resisted only an extension of a *better* to the study of the humanities. Others will say they embraced university training all along, but only opposed placing *madda* study under one roof with Torah. Still others will say that they never opposed *madda* study, but only meant to say that “Torah only” is a higher ideal than “Torah u-Madda.” Some will contend that they always were in favor of developing *frum* professionals, but only on a selective, screened basis. Finally, others may accept my principles but point, quite justly, to the special needs of our society to develop *gedolim* and *benei Torah*. Obviously each of these variants of anti-*madda* needs individual treatment and assessment beyond anything I have offered. But the more extreme position that I have been presupposing in my critique is no straw man, and certain elements in that critique would call into question the more moderate positions as well. If the extreme position *is* a straw man, that itself is an important argument for Torah u-Madda in some form.

90. Dr. Will Lee proposed this formulation, along with making other stylistic and substantive suggestions.
91. This point about privatization was inspired by a provocative statement by Rabbi Jonathan Sacks:

The lack of appeal of Torah u-Madda in our time is a symptom of one of the most devastating effects of secularisation: *the privatisation of religion*. Judaism is experienced as a phenomenon of private life. . . . But we are far less sure what Judaism might mean in the public domain.

See Sacks, "Torah u-Madda" (n. 56), 14. See also N. Lamm, *op. cit.*, 12. R. Sacks's comment is not addressed to the same issue I am treating. Note as well that I do not need to claim that the conduct of the anti-*madda* camp is an *effect* of secularization but, instead, only that it represents tacit capitulation to it.

92. I am indebted to several people who provided valuable comments on an earlier draft of this essay: Rabbi Yosef Blau; Rabbi David Horwitz; Professors David Berger, Shalom Carmy, Yaakov Elman, Lawrence Kaplan, Will Lee, Charles Raffel, and Josef Stern; and Rabbi Dr. Jacob J. Schacter. Parts of this paper are based on an oral presentation at Stern College for Women on *bittahon* vs. initiative in the thought of Rambam and Ramban.