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## ANCIENT SOURCES, MODERN PROBLEMS: A METHODOLOGICAL ANALYSIS OF THE HATAM SOFER'S POSITION ON BRAINSTEM DEATH

In an earlier article,<sup>1</sup> I analyzed the significance of the *sugya* in *Yoma* (85a) and Rashi's commentary thereon for the issue of brainstem death. I proposed that pre-modern halakhic sources which address medical topics must be assessed in light of Thomas Kuhn's model of scientific paradigms. For Kuhn, the meaning of a scientific term is a function not only of its relationship with a particular referent, but also of its position within a given paradigm—a network of terms, theories, and applications that defines scientific discourse during a given period in history. Kuhn famously defined a scientific revolution as a *paradigm shift*—a reordering of the relationships between these elements that enables scientists to better answer questions about the workings of nature.

In light of Kuhn's model, the challenge in applying pre-modern halakhic texts—such as Rashi's reference to heart function—to contemporary medical issues is that different paradigms are *incommensurable*, meaning that there cannot be a strictly precise translation of terminology from one paradigm to another. This does not rule out the possibility of using such texts, but it does mean that scientific discourse alone cannot provide a definitive explanation for what they should mean in the context of modern medicine. I proposed that a more conclusive factor in determining the meaning of Rashi's comment is its position in relation to other texts within the halakhic canon, which also functions as a paradigm:

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<sup>1</sup> "Ancient Sources, Modern Problems: A Methodological Analysis of Rashi's Position on Brainstem Death," *Tradition* 45:4 (2012): 9-23.

just as scientific terms and theories are defined by their relationships with other elements within a scientific paradigm, our understanding of halakhic texts is powerfully shaped by the way they relate to—and are in turn cited (or not cited) by—other halakhic texts. Textual legal canons like halakha differ from scientific canons mainly in that they are normative rather than descriptive; hence they are far more resistant to paradigm shifts as our perceptions and perspectives change over time.

In this article, we will continue this line of analysis in examining the responsum of R. Moshe Sofer (*She'elot u-Teshuvot Hatam Sofer, Yoreh Deah* #338) on determining the moment of death. We will then consider some of the broader implications of Kuhn's model of scientific paradigms for contemporary halakhic adjudication.

### Paradigm Shifts and Halakhic Interpretation

By the time that the responsum of the Hatam Sofer in question was written, the issue of how to determine death had been a source of controversy for over half a century. In the middle of the eighteenth century, the European medical establishment began to question whether any physical symptom short of the onset of decomposition could reliably establish death. Over time, popular pressure stemming from the fear of premature burial led secular authorities to enact laws designed to prevent this possibility, including mandatory postponement of burial. Due to the halakhic requirement of same-day burial, these laws became a point of conflict between the Jewish community and the secular authorities, as well as between *maskilim* (modernizers) and traditionalists within the Jewish community.

The Hatam Sofer's interlocutor, R. Tsevi Hirsch Chajes, was sympathetic to the perspective of the *maskilim*, and argued that concerns over the inadequacy of traditional signs of death were sufficient to permit normally questionable procedures. Specifically, he proposed that a doctor who is a *kohen* should be allowed to examine an individual presumed to be deceased in order to issue a death certificate. The Hatam Sofer, an outspoken opponent of religious reform, responded that such concerns were utterly unfounded. He maintained that the halakha defines a clear and reliable standard of death, leaving no reason to relax halakhic standards by postponing burial or allowing a *kohen* to come in contact with a corpse.<sup>2</sup>

<sup>2</sup> For the historical background of this conflict, as well as a comprehensive analysis of the debate between the Hatam Sofer and R. Chajes, see chapter 7 of Moshe Samet, *be-Hadash Asur min ha-Torah: Perakim be-Toledot ha-Ortodoksia* (Jerusalem: Dinur Center for Research in Jewish History; Carmel, 2005).

While the Hatam Sofer is unequivocal in his rejection of R. Chajes' argument, it is less clear what exactly constitutes the halakhic standard of death that he considers to be so definitive. Indeed, someone trying to piece together the Hatam Sofer's standard from the contemporary literature on brainstem death could be forgiven for thinking that he had formulated two antithetical positions. On the one hand, many of the scholars who refer to the Hatam Sofer's position cite a passage which seems to require three criteria—cessation of movement, pulse, and breathing—to determine an individual's death: "...But in any case that the deceased is immobile like a stone and has no pulse, if afterward respiration ceases, we have only the words of our holy Torah [to rely on and determine] that he is dead..."<sup>3</sup> On the other hand, R. Avraham Kahana Shapira, in his article explaining the Israeli Rabbinat's 1986 ruling to allow the removal of vital organs from brainstem-dead individuals, states that the Hatam Sofer requires only cessation of respiration. R. Shapira omits any reference to the aforementioned passage, citing instead a passage found toward the beginning of the responsum:<sup>4</sup>

It's without a doubt that when the Torah commands, "If an individual is liable for capital punishment and is put to death... you shall not leave his body overnight on the gallows, rather you shall bury him [on that day]" [Deut. 21:22-23]—such that one who violates this violates both a positive and a negative commandment, that we are given a standard by which to determine death. Perhaps there was [such] a tradition among the early scientists even though it has been forgotten among contemporary doctors... or if they did not have such a tradition from scientists, then Moses must have received such a standard as a tradition from Sinai, or they based themselves on the verse, "All in whose nostrils was the merest breath of life" [Gen. 7:22], [to establish] **that life is determined exclusively by breath of the nostrils, as is explained in Yoma (85a)** and as ruled by the Rambam and the *Tur/Shulhan Arukh*.

<sup>3</sup> For example, see R. Ahron Soloveichik, "Death According to the Halacha," *Journal of Halacha and Contemporary Society* 17 (1989), 42; Abraham Sofer Abraham, "Kevi'at Zeman ha-Mavet: al He'arot ha-Orekh le-Hablatat Mo'etset ha-Rabbanut ha-Rashit le-Yisrael," *Asia* 42-43 (1997), 82-83; Yitzchok A. Breitowitz, "The Brain Death Controversy in Jewish Law," *Jewish Action*, Spring 1992, 64-65; and Avraham Steinberg, "Kevi'at Rega ha-Mavet," *Noam* 19 (1977): 210-238. Steinberg subsequently offered a different assessment of the Hatam Sofer's position, which we will analyze below.

<sup>4</sup> "Kevi'at Mavet Mohi al pi ha-Halakha," *Asia* 53-54 (1994): 17-20, emphasis mine.

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And to claim, as you [R. Chajes] did, that [the case] of one trapped under a fallen building is not comparable [to other cases of death] seems to me highly questionable, for is the verse [which mentions] “the merest breath of life” referring to a case of a fallen building? Moreover, the opposite is known to be the case, that when people die suddenly there is more reason to be concerned that they only seem to be dead out of confusion... **and even so, when [such a person] stops breathing, we no longer violate Shabbat [on his behalf]. Therefore this principle applies to all deceased individuals, for this is the standard that has been accepted since the founding of our nation, and all the winds in the world cannot move us from the position of our holy Torah.**

Before we consider how contemporary authorities draw on the Hatam Sofer’s responsum in the debate over brainstem death, we need to explain how the Hatam Sofer himself incorporated two seemingly contradictory assertions in a single responsum. How can both of these statements—one requiring only cessation of breathing, the other mandating absence of breathing, movement, and pulse—both reflect “the words of the Holy Torah”?

This question needs to be analyzed on a number of levels. First, if the Hatam Sofer initially states that the only indicator of life and death is respiration, what is his source for the criterion of pulse? It is clearly not the *sugya* in *Yoma* (85a), since the Hatam Sofer mentions neither pulse nor heart function in his analysis of that *sugya*. Rather, in his subsequent analysis, the Hatam Sofer cites a passage from *Moreh Nevukhim* (Guide to the Perplexed) in which Maimonides implies that life can persist for some time even in the absence of respiration. Maimonides cites the way “some of the Andalusians” understand the illness that befell the son of the woman of Zarephath, the boy whom Elijah miraculously revived (I Kings 17), based on the language of the verse, “...and his illness grew worse until there was no breath left in him” (v. 17). The Andalusians explain that the boy had no discernible breathing but did not actually die, “as happens to people struck with apoplexy or with asphyxia deriving from the womb, so that it is not known if the one in question is dead or alive and the doubt remains a day or two.”<sup>5</sup> The Hatam Sofer elaborates on the Andalusians’ explanation in light of Nahmanides’ commentary on the phrase *va-yafag libbo* (“and his heart went numb”) in Genesis 45:26: Nahmanides explains that Jacob’s heartbeat (as well as his breathing) *literally* stopped

<sup>5</sup> *The Guide to the Perplexed*, vol. 1, trans. Shlomo Pines (Chicago and London: University of Chicago Press, 1963), 92.

when he heard that Joseph was alive. The Hatam Sofer explains that, unlike Jacob, the son of the woman of Zarephath stopped breathing even as his heart continued to beat.<sup>6</sup> It is at this point in the responsum that the Hatam Sofer mentions the tripartite diagnosis of death that we referred to above.

A more fundamental question about the Hatam Sofer's shift in position is: What prompted him to interpret the sources in this way, given that neither Maimonides nor Nahmanides identify heart function as a vital sign independent of respiration? R. Shlomo Goren suggests that the Hatam Sofer is simply trying to resolve a contradiction between Maimonides' implication in *Moreh Nevukhim*, that life can persist in the absence of breathing, and his position in the *Mishneh Torah* (*Hilkhot Shabbat* 2:18, which the Hatam Sofer cites earlier in his responsum), that absence of breathing alone determines death. However, R. Goren concedes that the Hatam Sofer's addition of heart function as a criterion for establishing death is still a significant innovation, since it does not feature in earlier halakhic codices.<sup>7</sup> It seems likely, then, that the Hatam Sofer was also influenced by non-textual concerns, and that he may have been making a small concession to contemporaneous anxieties that traditional means for establishing death were insufficient.<sup>8</sup>

But the main point that we should make about the discrepancy between the Hatam Sofer's two statements is that within the historical context in which he was writing, the difference between them would have been perceived as minimal. Practically speaking, in the early nineteenth century, requiring cessation of pulse as well as respiration would result in a difference of at most a few minutes in the estimated time of death. Equally important is the fact that these two formulations—'Death is determined by cessation of breathing,' and 'Death is determined by cessation of movement, pulse, and breathing'—occupied the same *ideological* space within the Hatam Sofer's milieu: in the polemic against delayed burials, both effectively meant, 'Death need *not* be determined by the onset of decomposition.' The lack of a meaningful difference between

<sup>6</sup> The Hatam Sofer contrasts the boy's condition more directly with the biblical case of Nabal, Abigail's first husband, of whom the text states, "and his heart died within him and he became like a stone" (I Sam. 25:37). The Hatam Sofer interprets this verse to mean that Nabal's heartbeat stopped but he continued to breathe.

<sup>7</sup> "Hagdarat ha-Mavet ba-Halakha," *Shanah be-Shanah* (1974), 127-128.

<sup>8</sup> This proposal is convincingly made by Eytan Shtull-Leber, "Rethinking the Brain Death Controversy: A History of Scientific Advancement and the Redefinition of Death in Jewish Law," accessible at <http://deepblue.lib.umich.edu/bitstream/2027.42/77671/1/eytansht.pdf>, 52-55.

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these two formulations is evidenced most directly by the way the Hatam Sofer's responsum is cited by other rabbinic authorities who predate the contemporary debate over brainstem death. Without exception, nineteenth- or early twentieth-century *posekim* who cite this responsum present the Hatam Sofer's ruling in one of two ways: either that halakha determines death by cessation of respiration alone,<sup>9</sup> or that halakha accepts some unspecified standard of death prior to the onset of decomposition.<sup>10</sup> That these scholars neglect to mention the Hatam Sofer's reference to pulse certainly indicates that they did not consider it a significant element of his position, but that in turn only reflects the fact that they did not perceive it as a *distinct* element: they simply saw little difference between defining death as cessation of breathing and pulse or as cessation of breathing alone.

As in our earlier analysis of *Yoma* (85a) and Rashi's commentary, we see here how historical context undermines what seem to be innocent hermeneutic assumptions. It is not that a contemporary context provides an inaccurate perspective for assessing the meaning of the Hatam Sofer's responsum: the fact that legal texts retain their authority beyond their original historical context obliges us to make sense of the Hatam Sofer's words in the context of modern medicine. However, we should recognize that the deep fault line we have identified within the text of the responsum emerges only as a result of the seismic shift in context between the Hatam Sofer's time and our own. In the mid-twentieth century, the technological advances that have enabled us to sustain patients under increasingly dire circumstances created a new conceptual paradigm, one which situates respiratory and cardiac definitions of death in an *oppositional*—rather than synonymous—relationship. It is our tendency to think inside this paradigm that causes us to perceive the Hatam Sofer's addition of pulse as a departure from his initial, respiratory definition of death.

As we observed regarding Rashi's commentary, the incommensurability of different paradigms makes it difficult to state conclusively what the Hatam Sofer's responsum should mean for the issue of brainstem

<sup>9</sup> R. Avraham Tsevi Hirsch Eisenstadt (1812-1868), *Pithei Teshuva*, *Yoreh Deah* 357:1; and R. Yosef Shaul Nathanson (1808-1875), *Divrei Sha'ul ve-Yosef Da'at*, *Yoreh Deah* 394:3. R. Nathanson does mention heartbeat as a sign of life, but not in the context of his citation of the Hatam Sofer. Moreover, he contradicts the Hatam Sofer (without saying so) in asserting that heartbeat is always coterminous with respiration, and concludes that one need verify only cessation of respiration in order to declare an individual to be dead. Contrast with Soloveichik, 43.

<sup>10</sup> R. Shalom Moshe Gagin (d. 1883), *Yismah Lev*, *Yoreh Deah* #9; and R. Shalom Mordechai Schwadron (1835-1911), *She'elot u-Teshuvot Maharsham* 6:124.

death. It is a moot question whether nineteenth-century *posekim* would have made more of the Hatam Sofer's reference to pulse had there been a significant practical ramification to considering it, but the fact of the matter is that historically the Hatam Sofer's ruling was perceived by generations of authorities as advocating a respiratory definition of death. The question we face, then, is how to best weigh the competing forces that shape the meaning of the Hatam Sofer's responsum, and I do not believe that there is a single right answer.

On the one hand, we might conclude that the weight of these earlier *posekim's* interpretation is decisive. This seems to be the approach taken not only by R. Shapira, but also by R. Moshe Feinstein, who cites the Hatam Sofer's responsum as support for his assertion that death is determined by cessation of breathing.<sup>11</sup> This approach reflects the notion we developed in our analysis of Rashi, that our understanding of any given halakhic text is invariably shaped by the way it is cited in other halakhic texts. Simply put, no text can be completely divorced from the textual canon that imbues it with significance and authority. On the other hand, we might decide that because these earlier *posekim* could not have anticipated the problem of brainstem death, the canonical form of the text should carry more weight: if we find something in the text that speaks more directly to the circumstances at hand, then that should determine the meaning of the responsum as a whole. This would appear to be the assumption of those authorities who cite only the Hatam Sofer's tripartite definition of death.

Yet it seems to me that the most preferable approach is to find an interpretation that takes both of the Hatam Sofer's formulations into account. Not only does this approach respect earlier scholars' understanding of the text, it also acknowledges and seeks to explain the apparent contradiction within the text itself.

<sup>11</sup> "...And if they see that [the patient] is not breathing, this is the indication of death that one may rely on without hesitancy; and see [*She'elot u-Teshuvot*] *Hatam Sofer, Yoreh Deah* #338 who explains at length" (*She'elot u-Teshuvot Iggerot Moshe, Y.D.* 3:132). R. Feinstein's disregard for the Hatam Sofer's reference to pulse is even more conspicuous in his earlier responsum on this topic (*Y.D.* 2:146): even though R. Feinstein is addressing the significance of residual heart activity (which had been detected by an ECG in a non-breathing patient), he cites only the Hatam Sofer's analysis of *Semahot* 8:1 (see below), *not* his reference to the cessation of pulse.

For a more extensive analysis of R. Feinstein's responsa, see my essay, "The Position of Rabbi Moshe Feinstein on Brainstem Death: A Reassessment," in the forthcoming *Brain Death and Organ Donation — A Conversation about Science and Ethics*, ed. Zev Farber, IRF Halakha Series 1 (Jerusalem: Koren, 2013).

### Resolving the Internal Contradiction

Among the scholars who actually cite both of these passages, some imply that the tension we have described between the two formulations of the Hatam Sofer's ruling is simply overstated. For example, in one of his many articles on this topic, R. J. David Bleich presents the Hatam Sofer's position as follows:

The Hatam Sofer, *Yoreh De'ah*, no. 338, states that a patient may be pronounced dead only if three criteria are manifest: 1) the patient lies as an "inanimate stone"; 2) no pulse beat is discernible; and 3) respiration has ceased. The Hatam Sofer adds the forceful statement: "These are the three clinical symptoms of death which have been transmitted to us from the time that the nation of God became a holy people. All the forces in the universe will not cause us to deviate from the position of our Holy Torah."<sup>12</sup>

Although R. Bleich refers here to both of the aforementioned passages, he indicates that the vehement statement in the passage cited by R. Shapira ("...and all the winds in the world cannot move us from the position of our holy Torah") should actually be understood as a reference to the tripartite diagnosis found later in the responsum.

Unfortunately, R. Bleich's interpretation relies on a rather loose translation from the Hebrew. A more precise translation of the passage he quotes is: "...and even so when [an individual] stops breathing, we no longer violate Shabbat [on his behalf]... for this is *the standard* which has been accepted since the founding of our nation." It is clear that the phrase "for this is the standard" (*she-zehu shiur*) is referring to the single physical symptom mentioned earlier in the same sentence (cessation of breathing) rather than to the group of symptoms mentioned at the end of the following paragraph (cessation of movement, pulse and breathing). There is certainly no indication in the Hebrew of "three clinical symptoms."<sup>13</sup> Thus R. Bleich's attempted resolution only

<sup>12</sup> "Survey of Recent Halakhic Periodical Literature," *Tradition* 16:4 (1977), 135. Although elsewhere R. Bleich presents the Hatam Sofer's position differently (see n. 14), this summary of the Hatam Sofer's position appears virtually unchanged in the repeated republications of this article: "Current Responsa, Decisions of Bate Din and Rabbinical Literature," *Jewish Law Annual* 3 (1980), 121; and "Neurological Criteria of Death and Time of Death Statutes," in *Time of Death in Jewish Law* (New York: Z. Berman Publishing Co., 1991), 56-57.

<sup>13</sup> Even as an editorial emendation, the insertion of the word "three" seems completely unwarranted.



underscores the fact that these passages do not seem to present a unified position.<sup>14</sup>

R. Eliezer Waldenberg (*She'elot u-Teshuvot Tszits Eliezer*, 9:46) proposes what appears to be a more substantive resolution:

Behold we have a clear and established law in the writing of Rabbi Moshe Sofer of blessed memory that the Jewish People have a received tradition regarding the standard of death from the moment they became a nation and received the Torah at Sinai. And that is that everything depends on the breath of the nostrils, and thus all the winds in the world cannot move us from this [position]. However, even in declaring that this is all, [he adds the words] “when [the individual] lies like an inanimate stone and has no pulse...” With this he intended to exclude cases where we perceive some pulse or other movement, since then we need to be concerned that he is an exception.

R. Waldenberg insists that although cessation of breathing is the main indicator of death, it is decisive only if the other two conditions mentioned by the Hatam Sofer are fulfilled; otherwise we are concerned that this may be one of the exceptional cases of individuals who survive for extended periods without perceptible breathing. This last point is a reference to another source cited by the Hatam Sofer, *Semahot* 8:1:

One may go out to the cemetery to inspect the deceased for three days [following the burial], and this is not considered [emulating] the ways of the Amorites. There was a case where they checked on the deceased [and discovered that he was alive], and he lived for another twenty-five years and then died. [It also happened to] another individual, who subsequently fathered five children and then died.

This is one of the sources cited by *maskilim* (originally by Moses Mendelssohn) to show that halakha recognizes that traditional standards of death are not always reliable. The Hatam Sofer dismisses these episodes as “the kind of remote event that happens once in a thousand years,” and insists that such occurrences are no reason to delay burial. Nonetheless, R. Waldenberg detects a note of uncertainty in the Hatam Sofer’s voice,

<sup>14</sup> Elsewhere (“*Simanei Mita*,” *ha-Pardes* 51:4 [1977], 15-16), R. Bleich explains that the Hatam Sofer’s statement defining death by cessation of breathing alone is inconclusive, since he himself is unsure whether or not the inference from the verse “All in whose nostrils was the spirit of the breath of life” is a full-fledged *derasha* (inference with the force of Biblical law).

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and suggests that this accounts for his addition of the criteria of movement and pulse.<sup>15</sup> Based on this, R. Waldenberg (ibid. 17:66) interprets the Hatam Sofer to mean that brainstem death is not an acceptable halakhic standard, since the patient's heart will continue to beat as long as he is kept on a ventilator and other life-support apparatuses.

Unlike R. Bleich, R. Waldenberg acknowledges the straightforward meaning of each of the conflicting passages. Yet in his final assessment, he, too, eviscerates the meaning of the passage cited by R. Shapira: when the Hatam Sofer identifies cessation of breathing as the definitive indicator of death, according to R. Waldenberg he is really only referring to one of *three* required indicators. Like those authors who cite only the Hatam Sofer's tripartite definition of death, R. Waldenberg essentially renders the Hatam Sofer's initial definition of death irrelevant to the overall meaning of the responsum.

A variation on R. Waldenberg's interpretation is offered by Avraham Steinberg in his defense of the Israeli Rabbinat's 1986 ruling to accept brainstem death. Like R. Waldenberg, Steinberg accepts the straightforward meaning of each passage, and concludes that both cessation of respiration and pulse are needed to establish death, but he does a better job at integrating both into a unified ruling:

We may say that the Hatam Sofer's reason for adding the issue of pulse is not to add another essential criterion (since it is not mentioned at all in the Talmud or later Rabbinic authorities) but rather the addition of a condition to confirm that cessation of breathing is final and irreversible.<sup>16</sup>

According to Steinberg, the Hatam Sofer's initial definition of death establishes that cessation of respiration is the primary indicator of death, and the additional criteria found in his subsequent definition are intended to be subsidiary to it. Cessation of pulse (and of movement) is not independently significant; its function is only to establish that the cessation of breathing is irreversible.

Steinberg's interpretation has been criticized as violating the literal meaning of the Hatam Sofer's language,<sup>17</sup> but this critique exactly misses

<sup>15</sup> R. Waldenberg also notes that this interpretation of the Hatam Sofer's position dovetails with the responsum of the Maharsham (see above, n. 10), in which he explicitly states that other signs of life would undermine cessation of breathing as an indication that death had occurred.

<sup>16</sup> "Kevi'at Rega ha-Mavet ve-Hashtalat ha-Lev," *Or ha-Mizrah* 36 (1987), 60.

<sup>17</sup> R. Bleich ("Kevi'at ha-Mavet al yedei Hafskat Pe'ulat ha-Moah [Teshuvah la-Hasagot]," *Or ha-Mizrah* 37 [1988], 89) refers to it dismissively as "*divrei neviut*" ("prophecy").

the point. When we apply the Hatam Sofer's ruling within a very different set of circumstances than the one he addresses, we cannot simply "read the words." Situating the Hatam Sofer's ruling within a contemporary medical context requires us to *translate* his language into modern terminology in order to prevent the responsum from being internally inconsistent. Steinberg effectively translates the term "pulse" as "a physiological sign that indicates that cessation of breathing is irreversible"—a definition that would include the cessation of brainstem function, but would ironically not include an actual pulse in instances where it did not indicate the possibility of restoring autonomous respiration. In truth, this is not as much of a stretch as it might seem. As Steinberg himself notes, in the overwhelming majority of cases, even contemporary medical practitioners establish death based on cessation of breathing only in conjunction with cessation of pulse. Only when a patient is being mechanically ventilated would the heartbeat not be a reliable indicator of whether independent respiration can be restored. Regardless, the advantage of Steinberg's interpretation is clear: he alone manages to preserve both passages as independently significant elements of the Hatam Sofer's position.

### **Skepticism, Halakha, and Modernity**

By this point in our analysis, perceptive readers may have noticed that we have sidestepped an obvious question: If the pre-modern sources we have analyzed were composed within scientific paradigms radically different from our own, why should we assume that they speak to contemporary issues at all? Rather than trying to translate Rashi's or the Hatam Sofer's words into modern terminology, let us simply acknowledge that they were speaking a different language and judge contemporary issues on their own terms.

I raise this question not only because it emerges naturally from the model of interpretation we have described, but also because I have heard this sentiment expressed by a number of scholars over the past few years, most extensively by R. Natan Slifkin.<sup>18</sup> No doubt some readers will find this avenue of inquiry deeply subversive, but let us acknowledge that discomfort with the question does not discredit it. If we take the conclusions of

<sup>18</sup> R. Slifkin's comments can be found on his blog, *Rationalist Judaism*, <http://www.rationalistjudaism.com>. Among the relevant posts are: "The Critical Ramifications of Correctly Identifying a Scientific-Halachic Issue," Jan. 10, 2011; "Dismissing Rashi, Undermining the Chasam Sofer," Jan. 12, 2011; "Summary of the Life/Death Issue," Jan. 13, 2011; "Missing the Obvious," Jan. 29, 2011; "Analogy Vs. Inference," Feb. 25, 2011; "Was Chasam Sofer Actually Correct?," May 8, 2011.

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modern science seriously, we cannot dismiss apparent conflicts between science and halakhic texts simply by appealing to dogma. Indeed, for all of the divisiveness that the controversy over brainstem death has generated, I see an upside to the conflict in the way it has brought attention to fundamental questions about the relationship between science and halakha.

The skeptical argument we have formulated potentially reflects a number of different challenges to the use of pre-modern halakhic texts in contemporary adjudication, each of which I would like to explore in turn:

### 1) *Lack of Authority*

First, skepticism regarding the use of pre-modern texts may reflect the idea that the *authority* of a halakhic text is limited by the scientific assumptions on which it is based. I addressed this concern in my earlier article, where I proposed that one of the essential differences between the dynamics of law and of science is the notion of legal canonicity: in contrast to scientific texts, legal texts and principles retain their authority potentially indefinitely. Legal adjudication is precisely the process by which these legal texts are applied to new cases and issues.

There is, obviously, much more to discuss in terms of the particular dynamics of legal canonicity within halakha.<sup>19</sup> Every legal system has its own rules for determining how texts become recognized as canonical, for resolving contradictions between canonical texts, and for deciding how canonical texts may be overruled or repealed.<sup>20</sup> The fact that, for much of its history, halakha has lacked anything resembling a central body of authority means that these rules are far less formalized within halakha than they are in other legal systems. Moreover, halakha has a strong tradition of preserving conflicting opinions within its canonical texts,<sup>21</sup> adding an additional layer of complexity to questions about the relative authority of sources within the canon. However, none of these issues changes the fact that halakhic discourse operates with the overwhelming assumption that canonical texts—texts whose authority has been established and accepted—retain

<sup>19</sup> Moshe Halbertal offers an extensive analysis of halakhic canonicity in *The People of the Book: Canon, Meaning, and Authority* (Cambridge, MA: Harvard University Press, 1997).

<sup>20</sup> The notion that legal systems are defined by such “rules of recognition” and “rules of change,” among other types of rules, is posited by H.L.A. Hart in his seminal work, *The Concept of Law* (Oxford: Oxford University Press, 1961). Hart is addressing the definition of law in general, but his analysis is equally applicable to the dynamics of canonicity in text-based legal systems.

<sup>21</sup> This predilection is famously articulated and analyzed in Mishna *Eduyot* 1:4-6.

their authority until proven otherwise, and that process of proving otherwise almost invariably involves invoking other canonical texts deemed to be more authoritative.<sup>22</sup> The responsum of the Hatam Sofer is a (completely typical) case in point: the importance of this responsum having been well established before the contemporary controversy over brainstem death (both by the Hatam Sofer's personal clout and by the fact that other nineteenth-century authorities cite it prominently), no one in the current debate argues that the Hatam Sofer's words carry no authority.

## 2) *Irrelevance*

Of course, the continued authority of a text like the Hatam Sofer's responsum does not guarantee that it will play a decisive role in determining the status of brainstem death. We can articulate a second skeptical premise as follows: even if we concede in theory that legal texts remain in force beyond their specific historical circumstances, in practice it seems preposterous to address cutting-edge medical concerns using texts that reflect antiquated scientific assumptions or technological limitations. How can Rashi inform our perspective on cardiac activity if he had in mind a completely different model of the heart's function? How can the Hatam Sofer's responsum shed light on the status of brainstem-dead individuals if the technology that allows us to sustain such patients did not exist at that time? In other words, acknowledging the continued authority of these texts does not guarantee their continued *relevance*: we might consider them—like so many other halakhic texts—to be applicable only to circumstances that we no longer encounter, still “on the books” but irrelevant for modern halakhic observance.

Before we address this second skeptical premise, we should note that the very distinction between authority and relevance clarifies a point of ambiguity in R. Slifkin's critique of the use of pre-modern sources. R. Slifkin repeatedly observes that no contemporary *posek* would actually follow the Talmud's ruling in *Yoma* (85a): whereas the Talmud rules that we stop digging out a victim trapped under rubble on Shabbat as soon as we detect no nasal respiration, nowadays we would continue extracting

<sup>22</sup> This is not to say that halakhic rulings are never called into question based solely on changes in scientific knowledge, but it does explain why this phenomenon is so rare and so fraught with controversy. For one such example, see the recent debate in these pages between R. Slifkin and R. Bleich over the issue of piscatorial parasites (“Communications,” *Tradition* 44:4 [2011]: 79-81; “Survey of Recent Halakhic Periodical Literature,” *ibid.*: 55-75).

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even a non-breathing victim as long as there exists the possibility of resuscitating him through assisted respiration, mechanical ventilation, CPR, etc... In several places, R. Slifkin's language suggests that this discrepancy means that modern *posekim* have effectively overruled the Talmud's decision, whether or not they choose to admit it.<sup>23</sup> This assessment seems to undermine the *authority* of the Talmud's ruling, making it similar to other laws whose rationale is clearly based on antiquated scientific assumptions, such as the prohibition of handling on Shabbat a newborn delivered during the eighth month of pregnancy based on the assumption that such an infant was not viable.<sup>24</sup> Yet elsewhere Slifkin makes clear that he considers the Talmud's ruling to be fundamentally correct, and that it merely reflects the technological limitations of the period, when there was no way to resuscitate a non-breathing individual.<sup>25</sup> From this perspective, the Talmud's ruling remains authoritative in theory but is simply *irrelevant* for contemporary practice.

Upon further consideration, however, the Talmud's ruling may be more relevant than R. Slifkin suggests. Even nowadays, there are many emergency situations in which neither medically trained personnel nor life-support apparatus are available, making such cases comparable to the circumstances faced in the time of the Talmud. Thus an even more precise assessment of the Talmud's ruling would be that the *range* of cases to which it applies has been restricted by recent advances in emergency medicine. Whereas in the time of the Talmud any non-breathing individual would be considered dead based on the absence of nasal respiration, nowadays the Talmud's ruling would apply only to cases in which his respiration could not be restored for one reason or another. The pertinent question, then, is how to determine exactly which cases are comparable to the case addressed by the Talmud; in other words, *which* reasons for not being able to restore the victim's breathing would make a case similar enough to the Talmud's scenario for its ruling to apply?

Anyone familiar with the process of adjudication will recognize this sort of determination—"To what range of cases may we apply a given rule?"—as among the most basic reflexes of legal interpretation. Indeed, it is precisely this aspect of legal interpretation that resolves the second skeptical premise that we've articulated: pre-modern halakhic texts can be made relevant to contemporary circumstances in the same way that *any* legal text can relate meaningfully to cases other than the one it was

<sup>23</sup> "Missing."

<sup>24</sup> "Summary," "Was Chasam Sofer," "Critical Ramifications."

<sup>25</sup> "Summary," "Analogy."

formulated to address. In instances where the gap between the original case and the target case is substantial, the process of applying the original ruling to a new set of circumstances is best thought of as a process of *translation*—of reformulating the text in the terminology of a contemporary paradigm, a concept we discussed in our analysis of Rashi and the Hatam Sofer. In the case of the Talmud in *Yoma*, this translation consists of paraphrasing the Talmud’s ruling in a way that reflects its newly restricted range of application. For instance, a minimalist approach to the Talmud’s ruling might yield the following paraphrase: “The absence of nasal respiration is sufficient to determine death only when there are no *technological means* available to restore that respiration.” Obviously, this formulation would support R. Slifkin’s assertion that the *sugya* in *Yoma* tells us nothing about how to determine death in a modern hospital setting.

However, as we’ve already observed, there is never a perfect one-to-one correspondence between the terminology of different paradigms. Hence there can be no one exclusive way to reformulate the Talmud’s ruling in modern terms; given a range of possible formulations, there are no strict standards to determine which is “closer” to the meaning of the text in its original context. It would be equally legitimate to paraphrase the Talmud’s ruling as, “The absence of nasal respiration is sufficient to determine death whenever there is no *possibility* of restoring that respiration.” This formulation would include not only a case where we possess no means of resuscitating the patient, but also a case where the patient’s condition has deteriorated beyond the point where his breathing can be restored, such as an individual whose brainstem can no longer support autonomous respiration. In other words, we may translate the Talmud’s ruling into the principle that *death is determined by the irreversible cessation of autonomous respiration*.

At the heart of R. Slifkin’s critique is an argument about language. In asserting that the Talmud’s ruling is irrelevant to contemporary medical issues (if only because of the technological limitations of the Talmud’s time), he implies that the language of one conceptual paradigm cannot speak meaningfully to the circumstances of a different paradigm. From this perspective, when we apply the Talmud’s rulings on medical issues to contemporary problems, we are not translating them as much as superimposing our own opinions on the Sages’ words.<sup>26</sup> Yet a study of scientific revolutions reveals that paradigm shifts do not uniformly undercut our ability to use the language of previous paradigms. It is certainly true that scientific revolutions render many terms useless; for example, the discovery

<sup>26</sup> “Dismissing Rashi,” “Missing,” “Analogy,” et al.

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of the circulatory system made earlier terms associated with heart function, such as “vital heat” and “pneuma,” obsolete. Yet every scientific revolution leaves at least some of the terminology of the previous paradigm intact. This is not because our understanding of those terms has not changed—the very fact that they are situated within a new paradigm means that they will necessarily be subject to new distinctions and categorizations. Nonetheless, these terms retain enough of their earlier meaning to continue to be functional within the context of the new paradigm.

This is true of the concept of respiration that is implicit in the Talmud’s ruling in *Yoma* (85a). Although scientific and technological advances have greatly enhanced our understanding of respiration and allowed us to conceive of the possibility of reviving a non-breathing patient, the essential conception of breathing that the Talmud’s ruling rests on—a process that draws a crucial, life-sustaining substance into the body—has not been challenged by modern medicine. Hence the Talmud’s ruling remains relevant to contemporary practice *even if* the rationale for that ruling is inexorably linked to a pre-modern paradigm of physiology, since the pertinent aspect of that paradigm is consistent with the way we understand respiration today. This is not to say that the process of translating texts from one scientific paradigm to another is straightforward, only that it is often more intuitive than R. Slifkin makes it out to be.

### 3) *Indeterminacy*

In the context of legal adjudication, however, the ability to translate pre-modern texts into modern terms is not enough: the prescriptive nature of law demands that the judge arrive at a single, definitive ruling. This is the real problem created by Kuhn’s notion of incommensurability. Does Rashi’s reference to “heart,” when applied to our current state of knowledge, refer to the heart organ or to the respiratory system? In emphasizing pulse, does the Hatam Sofer’s responsum establish that heart function alone is a dispositive sign of life, or only that it serves to indicate whether cessation of breathing is final? How can we know for sure how the Talmud’s ruling regarding a victim buried under rubble should be applied in a modern hospital setting? In other words, even once we have resolved the problems related to the authority and relevance of pre-modern legal texts, we may formulate a third skeptical argument based on their *indeterminacy*: What good does it do to cite these sources if they cannot conclusively determine what the halakha is?



The assumption behind this question is, of course, that the law in a given case is—or should be—strictly determined by halakhic texts, suggesting a deductive model of halakhic reasoning. Admittedly, this model is reflected in the writings of some contemporary philosophers of halakha,<sup>27</sup> and its appeal is obvious: ideally a halakhic ruling should reflect the single, absolute divine will. A full consideration of the arguments for and against this model is obviously beyond the scope of this study; however, our analysis suggests that a deductive model of halakha is inadequate to explain the way pre-modern sources are applied to issues like brainstem death: the incommensurability of different scientific paradigms prevents us from drawing absolute conclusions from these earlier texts.<sup>28</sup> This sort of indeterminacy forces us to reconsider what it means for halakha to be a divine legal system: it does not mean that halakhic texts necessarily yield singular legal conclusions, but rather that the results of the process of halakhic adjudication have divine sanction, notwithstanding the possible indeterminacy of the sources on which that process is based.<sup>29</sup>

On this view, rather than asking, “What do these texts themselves say about brainstem death?” (nothing, because they were never applied to this issue), it seems more accurate to ask, “What aspects of these texts can *we reasonably make relevant* to brainstem death?” In other words, we invoke traditional sources in contemporary bioethical contexts not to prove what the halakha *is* as much as to formulate an argument for what the halakha *should be*.<sup>30</sup> In constructing such an argument, we are constrained—often severely—by the network of other texts within which these sources are situated, and it is this factor that ultimately determines how convincing our argument will be, both to ourselves and to others.

<sup>27</sup> For example, see Bleich, *Contemporary Halakhic Problems*, vol. 1 (New York and Hoboken: Ktav and Yeshiva University, 1977), xvii: “In order to understand the manner in which halakhic rulings are formulated, it is necessary to focus attention upon the deductive process by means of which definitive rulings are derived from fundamental principles.”

<sup>28</sup> For a more extensive analysis of the problem of indeterminacy in Jewish bioethics, see Louis Newman, “Woodchoppers and Respirators: The Problem of Interpretation in Contemporary Jewish Ethics,” *Modern Judaism* 10:2 (1990), 17–42.

<sup>29</sup> Again, a full explication of this idea is beyond the scope of this article.

<sup>30</sup> R. Slifkin himself articulates a similar idea (see “Analogy”), but seems not to appreciate its implications for his other assertions about the use of pre-modern sources with regard to brainstem death.

#### 4) *The Limitations of Halakhic Reasoning*

Obviously this conception of halakhic adjudication creates its own set of challenges, one of which constitutes a final skeptical question: If we are merely looking for texts to frame an argument, why deliberately choose texts that must be translated from outmoded conceptual paradigms? We should note that, up until this point, we have related to only one of the factors that made the determination of death a contemporary problem—the advent of mechanical ventilation—and the complexities that ensue from the fact that it is (understandably) not mentioned in pre-modern sources. Yet there is another factor that has forced us to reevaluate how death is determined, a change even more fundamental than mechanical ventilation, which is also entirely absent from traditional halakhic sources: modern medicine’s understanding of the role of the brain. Shouldn’t this encourage us to consider a non-halakhic paradigm to analyze this issue, such as the secular bioethical approach, which emphasizes neurological functioning as the primary indicator of life?<sup>31</sup>

It is certainly true that within the past generation, a number of Orthodox scholars have suggested that not all bioethical questions are best addressed through traditional halakhic analysis. Instead, they have proposed that our approach to these issues may be informed by aggadic texts, hashkafic (i.e., philosophical or theological) factors, or even ideas articulated by secular bioethicists. In some cases, the changes wrought by modern medicine are so radical that one strains to find any halakhic sources that speak to the issues they raise.<sup>32</sup> In others, the halakhic sources themselves explicitly reflect circumstances or conceptual paradigms that are no longer pertinent in a modern medical setting.<sup>33</sup> In other words, these scholars argue that the turn to non-halakhic texts and concepts is justified when halakha does not provide a viable paradigm for addressing a particular dilemma.

<sup>31</sup> Slifkin, “Summary.”

<sup>32</sup> For example, see R. Ezra Bick’s critique of R. Bleich’s analysis of maternal identity in cases of in vitro fertilization (“Ovum Donations: A Rabbinic Conceptual Model of Maternity,” *Tradition* 28:1 [1993]: 28-45) and R. Bleich’s response (“Survey of Recent Halakhic Periodical Literature,” *Tradition* 28:2 [1994], 52-57). For more recent analysis, see Alan Jotkowitz, “On the Methodology of Jewish Medical Ethics,” *Tradition* 43:1 (2010): 38-55; and “Chimeras and the Limits of Casuistry in Jewish Bioethics,” *Hakirah* 11 (2011): 149-158.

<sup>33</sup> Judah Goldberg persuasively argues that this is the case regarding the issue of sharing negative health information with a patient (“Towards a Jewish Bioethic: The Case of Truth-Telling,” *Tradition* 43:2 [2010]: 9-29).

The matter of what constitutes a viable paradigm is, of course, subject to debate. For example, perhaps a lack of relevant sources simply means that the question at hand should be relegated to the halakhic category of *safek* (uncertainty), with its attendant set of procedural rules.<sup>34</sup> However, our analysis suggests that none of this discussion is germane to the issue of determining death. There is no shortage of halakhic sources that relate directly to the determination of death, and the central idea reflected in those sources—that cessation of breathing is an essential indicator of death—is consistent with contemporary medical procedures for diagnosing death, which universally require cessation of spontaneous respiration. Indeed, if we assume that halakha accepts a respiratory definition of death, every patient diagnosed as brainstem dead by standard medical criteria is also considered dead by halakhic criteria.<sup>35</sup> This is not to say that the halakhic and secular bioethical positions are completely equivalent: whereas halakhic sources, beginning with the Talmud in *Yoma*, strongly suggest that cessation of breathing alone is a sufficient criterion to determine death, secular bioethicists view it as a necessary but insufficient indicator of cessation of brainstem function. Hence it is conceivable that, at some point in the future, as-of-yet unforeseen advances in medical technology will generate questions that would be answered differently from halakhic and secular bioethical perspectives. However, the current proximity between halakhic and secular standards demonstrates that halakha provides a paradigm for this issue that is no less viable in a modern medical context than the one formulated by secular bioethicists.

Given the availability of two viable paradigms, what would motivate us to adopt specifically a halakhic perspective? Secular bioethics certainly offers itself as an earnest alternative to halakha in addressing medical dilemmas. We may propose that an essential aspect of halakhic observance in the modern era is the choice to allow halakhic texts to shape our perspective when faced with contemporary problems. No less than our ability to decide whether or not to heed the Torah's impassioned plea to "choose life" (Deut. 30:19) in the face of competing value systems, the decision to allow halakhic texts to define our identity and our actions is a matter of *behira hofshit* (free will). To remain true to halakhic observance in the modern world is to accept the canon of halakha as a vibrant and relevant source of authority, one that continues to speak to our experiences even across shifts in scientific paradigms.

<sup>34</sup> Bleich, "Survey" (1994), 56.

<sup>35</sup> Edward Reichman, "Don't Pull the Plug on Brain Death Just Yet," *Tradition* 38:4 (2004), 65-66.

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Of course, the process of determining how traditional halakhic texts are relevant to contemporary issues is the purview of the *posek*, and in choosing to submit to the authority of halakha, we are in large part choosing to accede to the *posekim*'s application of the sources. Yet ultimately the relationship between the *posek* and the halakhically observant community is reciprocal: the community's acceptance of the *posek*'s rulings is critical to making them canonical—part of the network of texts that constitutes the 'paradigm' of halakha. Thus while on a personal level we each choose for ourselves to remain faithful to the dictates of halakha, as a community we choose which *posekim* and which rulings will become authoritative. The responsibility for making the canon of halakha dynamic and relevant to modern life is incumbent upon us all.

### Conclusion

It would be naïve to assume that the debate over the halakhic status of brainstem death will be resolved in the foreseeable future, and I hardly expect this analysis to end the discussion. What I hope it will accomplish, beyond to advocate for specific interpretations of the sources we have examined, is to facilitate a more open discussion about the way halakhic texts generate meaning in a modern framework. Too often the debate has been caught between extreme hermeneutic visions: halakhic texts are seen either to address modern issues unambiguously or not to address them at all. The analysis I have presented suggests a third path: in utilizing these texts to address contemporary issues, the *posek* infuses old texts with new meaning.