

ורפא ירפא

The Journal of Torah and
Medicine of the Albert Einstein
College of Medicine Synagogue
and RIETS

Volume IV



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Foreword by the Dean of RIETS

We are excited to present this fourth volume of the *Verapo Yerape* journal, under the editorship of: Rabbi David Shabtai, MD, a member of the Bella and Harry Wexner Kollel Elyon at the Rabbi Isaac Elchanan Theological Seminary (RIETS) at Yeshiva University; Rabbi Raphy Hulkower, MD, a resident at the Albert Einstein College of Medicine and RIETS graduate; Rabbi Yair Hindin, rabbi of the Einstein synagogue and RIETS graduate; Avi Friedman, Menachem Yondorf, Sefi Lerner, Daniel Poliak, and Peter Kahn, students of the Albert Einstein College of Medicine and members of the Einstein synagogue. We also express our appreciation for the efforts of the previous rabbi of the Einstein synagogue and previous editor of this journal, Rabbi Tzvi Sinensky.

The *Verapo Yerape* journal is an important contribution to the world of medicine and halakhah, which has been a burgeoning field of scholarship in recent years. During this past year, Dr. Shabtai published his groundbreaking volume, “Defining the Moment,” containing a meticulous analysis of the Talmudic sources relating to the debate regarding the precise definition of the moment of death according to Jewish law. These issues are not only interesting from an academic perspective, but are of crucial relevance in terms of their practical applications.

There are many contemporary questions that will require expertise in both medicine and halakhah during the years ahead. As new technologies and treatments develop, and new opportunities and challenges emerge in a multiplicity of medical fields, from the use of stem-cells and the practice of freezing embryos, to the parameters of genetic engineering, it is crucial that we develop our resources and talents to approach each issue thoroughly and sensitively from the standpoint of Jewish law and ethics.

Navigating the sources is not always an easy endeavor. To cite a case in point, with respect to end-of-life care, there is a fundamental tension captured by the Talmudic sources between the notion of prolonging life even for the most minute moment (*Yoma* 85a) and the notion of praying for “the celestial forces to vanquish the earthly forces” (*Ketubot* 104a) in order to enable a person to pass tranquilly

from this world when physical life in this universe is no longer bearable. Many rabbinic authorities grapple with these tensions and often resolve them in different ways, with important ramifications. It is the goal of those who have produced the present volume and the other volumes in this series to explore and elucidate these sources for the benefit of scholars, professionals and laypeople alike.

Recently, RIETS formed a rabbinic advisory board, comprised of Roshei Yeshiva from RIETS, to advise individuals with respect to Halakhah and Hospice issues, with a particular focus upon a new initiative undertaken at Calvary Hospital to provide hospice care to members of the Jewish community. This initiative was spurred through the persistent and compassionate efforts of Dr. Edward Burns, Executive Dean at the Albert Einstein College of Medicine, and is a wonderful example of the manner in which our medical school personalities at AECOM and our Jewish law experts at RIETS can work together for the benefit of the broader community. It is our hope that we will receive the necessary support from those who are interesting in supporting these endeavors to create an Institute of Medical Halakhah at RIETS in the near future.

We are indebted to President Richard M. Joel and Rosh HaYeshiva Rabbi Dr. Norman Lamm who have provided the leadership and encouragement necessary to bring our efforts to fruition. I also congratulate the editors and contributors of this volume, students in both RIETS and Einstein, for their top-notch scholarship and concomitant commitment to Torah values and ideals. We also recognize the constant and critical support of Dr. Edward Reichman, Editorial Advisor to the journal, Dr. Jeffrey S. Gurock of the Michael Scharf Publication Trust of the Yeshiva University Press, and, of course, Dr. Edward Burns. As always, we are grateful to Michael and Fiona Scharf for their benefaction which allows us to publish this journal of Torah and Science.

I am confident that you will enjoy the articles in this volume, both in terms of their scholarly substance and in terms of their Torah U'Madda synthesis.

*Rabbi Yona Reiss
Max and Marion Grill Dean of RIETS
7 Marcheshvan 5773*

Foreword by the Dean of AECOM

The vision of Torah U'Madda, while an ideal of human behavior, is rarely realized. The conventional approach of religious and secular curricula presented sequentially in most *yeshivot* perpetuates the duality of these philosophies rather than their intertwined essence. The mere fact that science, business and the humanities are taught by faculty attempting to bring the messages of universalism to their subject matter by definition excludes a Torah based perspective. Similarly, the classic literature of the Tanach, Mishnah and Talmud are taught diligently in a milieu of historical classicism that rarely engages modernity. There are, of course, noteworthy exceptions which must be lauded.

The field of Jewish medical ethics and law is one of these notable areas. Here is where the interplay of genetics, cloning, organ transplantation and medical economics with Gemara, *Shulhan Arukh* and *teshuvot* flowers. A steady crop of books from distinguished Rabbis is published regularly, but these are the works of true world class experts.

I am so proud that the members of the Albert Einstein Synagogue, Congregation Birkat Shmuel, named after Rabbi Dr. Samuel Belkin, the Yeshiva University President who built the Albert Einstein College of Medicine have successfully published four volumes of Verapo Yerape. This magnificent fusion of timeless Torah and futuristic *madda* is a highly successful series that is both scholarly an eminently practical. More importantly, it proves that our students and their highly regarded mentors have truly synthesized the essence of the Torah U'Madda dualism into a single entity of *kiddush Hashem*. Nowhere but here.

Edward R. Burns, M.D.

Executive Dean and Professor of Medicine

Albert Einstein College of Medicine of Yeshiva University

RABBI ASHER BUSH

Bone Marrow Donation in Halakhah

Introduction

On December 1, 2011, the Ninth U.S. Circuit Court of Appeals ruled that in certain cases, bone marrow donors may be paid.¹ This is in striking contrast to all other organ donations, regarding which federal law prohibits payments for organs. Those laws were enacted in order to protect vulnerable poor people from feeling pressure to sell their vital organs and possibly risk their lives in the process. The court ruled that the newer Peripheral Blood Stem Cell (PBSC) form of marrow donation, which takes the cells from the blood itself and not the bones, more closely resembles donations of blood plasma, which by law may be done for money. This ruling does not impact the older type of marrow donation, wherein the marrow is removed directly from the bones; it remains a crime to compensate donors for that process.²

1 *Flynn v. Holder*. For a full clarification of the medical ramifications of this ruling, see “Selling Bone Marrow-Flynn vs. Holder,” *New England Journal of Medicine* 366:4 (2012): 296-7.

2 The National Organ Transplant Act makes it illegal to buy or sell organs for profit; the penalty for breaking this law is a fine of \$50,000. And/or up to five years in jail.

Rabbi Asher Bush is the Rav of Congregation Ahavas Yisrael of Wesley Hills NY, a member of the Rabbinic faculty of the Frisch Yeshiva High School in Paramus, NJ, chairman of the Rabbinical Council of America's Vaad Hachacha, and author of *Responsa Sho'el B'Shlomo*.

The suit had been brought by a father whose son died of leukemia, claiming that the lack of sufficient numbers of bone marrow donors contributed to his son's death. Aside from the strictly legal issues, the suit highlights two major points: first, the lifesaving potential of these procedures, and second, the difficulty in finding enough individuals who are willing to become marrow donors. Approximately 30 percent of patients in need of a stem cell donor find a match within their families. The remaining 70 percent search a worldwide database of unrelated volunteer donors, who may be their "miracle match" willing to donate life-saving cells.³ According to the American Bone Marrow Donor Registry, the chance of finding a donor for a leukemia patient who does not have a suitable family member for transplant is 1 in 20,000, meaning that only 1 in 20,000 members of the general population are suitable to serve as donors for any given individual.⁴ As will be seen below, some of the reasons that people might hesitate to volunteer to serve as the older type of bone marrow donors do not apply to the newer PBSC procedure.

While these issues affect both the Jewish and general populations in equal measure, because the potential to find a match is often related to racial and ethnic background, it is more likely that a patient will find a match in a community (or

3 <http://www.dana-farber.org/How-to-Help/Donate-Bone-Marrow.aspx> (accessed August, 2012).

4 For this reason, large numbers of individuals must be tested so that matches can be found for the many patients in need. Given the large pool of potential donors who have been tested, donors can indeed be found for the significant majority of patients (although this does not mean that every one of these procedures is successful). According to the National Marrow Donor Program (http://marrow.org/News/Media/Facts_and_Figures_%28PDF%29.aspx, updated January 2012), 93% of Caucasian patients do find non-related donors, 73% of Asian-Americans find donors, and 66% of African Americans find matches. Individuals of mixed races often have extreme difficulty in finding a match. The National Marrow Donor Program (Donation FAQs) reports that "On average, one in every 540 members of the Be The Match Registry in the United States will go on to donate bone marrow or peripheral blood stem cells (PBSC) to a patient."

communities) that meet this criterion. Thus, this is a matter of public health and policy for the larger world which we are part of as well as an internal one for the Jewish community.

The purpose of this paper is to examine the issue of bone marrow donation from the point of view of Halakhah. While aspects of this topic have been addressed in detail elsewhere, other elements have escaped serious analysis. Additionally, the newer PBSC procedure is substantially different from the older bone marrow transplant procurement and in recent years accounts for the majority of these donations.⁵ These are changes that could potentially have significant ramifications in Halakhah, and both of these procedures will therefore be evaluated. We will first discuss the general halakhic issues relating to the obligation to save lives, followed by a basic presentation of blood donation procedure, regular bone marrow donation, and PBSC. Subsequently, each will be examined and evaluated in light of the halakhic sources and rulings.

Risk to the Life of the Rescuer

In the verse “*lo ta’amod al dam rei’akha*,” “You may not stand by the blood of your fellow,” the Torah clearly mandates active and personal involvement in the saving of lives.⁶ The Talmud in *Sanhedrin* elaborates on this *mitzvah*, stating that this obligation does not simply mandate actions; if needed, one must even spend one’s money in the course of saving lives.⁷ Surprisingly, there is no discussion about the very real question of whether one is obligated to risk his own life to save another’s. This is surprising because the cases mentioned by the Talmud include rescuing a drowning person and protecting a person

⁵ Since 2003, the majority of donors have been asked to donate PBSC; in 2007, this group constituted 72% of the donors. This information is reported in J.P. Miller et al., “Recovery and safety profiles of marrow and PBSC donors: Experience of the National Marrow Donor Program,” *Biology of Blood Marrow Transplant* 1 (9 Suppl) (Sept. 2008): 29-36.

⁶ *Vayikra* 19:16.

⁷ *Sanhedrin* 73a. Thus, it is necessary to hire workers or rent equipment in order to save a life.

from an attacking wild beast and from bandits. In each of these cases, it is quite possible that the rescuer may often be placing himself into significant danger.

In his comments to that passage, the Meiri explicitly writes that this *mitzvah* does not obligate risking one's own life in an attempt to save one's neighbor.⁸ R. Yosef Karo, however, cites a passage from the Talmud Yerushalmi that presents a significantly different approach, stating that the obligation to save another person also applies in cases in which the rescuer will be placing himself in *possible* danger. R. Karo explains that since this danger to the rescuer is "only" a possibility and not a certainty, while the danger to the other person is a certainty, the Torah obligates us to undertake the rescue despite the risk.⁹

Although R. Karo cites this view in his *Beit Yosef*, he does not codify it in the *Shulhan Arukh* and it is not accepted as authoritative by the great *Posekim*.¹⁰ Accordingly, the Sema writes that the silence of the Babylonian Talmud indicates that

8 *Beit Ha-Behirah*, *Sanhedrin* 73a.

9 *Beit Yosef*, *Hoshen Mishpat* 426. Ordinarily one cannot prioritize one life over another due to the rule of "*mai hazit di-dama didakh sumac tefei*." Each life is of equal value in the eyes of *Halakhah*. However, in this case, since one life will certainly be lost and the other is only a (minority) possibility, that logic no longer applies.

A similar idea is seen in the words of Rashi, *Sanhedrin* 71b, s.v. *yatza rosho*, in which he explains why an abortion is permitted to save the life of the mother but forbidden once the child's head has emerged. He also addresses the biblical account of Sheva ben Bichri, whose death seems to be in violation of these rules.

10 As explained by the Sema, *Hoshen Mishpat* 426:2 and the *Arukh Ha-Shulhan*, *Hoshen Mishpat* 426:4, this opinion is not accepted by the Talmud Bavli, as seen from its omission from the works of the Rif, Rambam, Rosh, and Tur; hence its omission from the *Shulhan Arukh*. This is also the understanding of the *Minhat Hinukh*, *mitzvah* 237. *ot* 2, who writes that this idea actually defies the general logic of the Talmud, as *safek pikuah nefesh* is deemed sufficient reason to exempt from *mitzvot*, and this should be true particularly in this case, in which the violation is completely passive. The *Arukh Ha-Shulhan* also views this omission by the *Rishonim* as acknowledgement that the Bavli rejected this ruling of the Yerushalmi. Strikingly, the *Arukh Ha-Shulhan* warns one not to be "too careful" when deciding not to save the life of another.

it rejects the idea that the *mitzvah* to save another person ever demands that the rescuer endanger himself, even if that danger is not certain.¹¹

Nevertheless, it is evident that a guarantee of safety is not necessary in order for there to be a *mitzvah* to rescue another person, as it is clear from the various examples mentioned in the Talmud that risk factors certainly may be present. Those activities whose risks are negligible to the point that they are not thought of as “risky” are precisely the activities that the Torah has obligated, even though there may be some slight risks involved.¹² For a qualified lifeguard, there still remains a risk to jump into a pool to save a drowning swimmer, yet it is not possible to suggest that he is not obligated to do so, as common sense does not group this kind of a rescue with “dangerous activities.”

Given this difficult balance, there could well be a tendency for a potential rescuer to go to an extreme when deciding whether to assume such risks, with the decision too often being not to embark on the rescue mission. With this in mind, many *Posekim*, including the *Mishnah Berurah*, caution not to be overly meticulous when making this evaluation.¹³

11 Sema, *ibid.* Presumably, this question is too significant to simply be ignored; as such, the “no comment” of the Talmud is taken to preclude such an obligation. Alternatively, as the *Minhat Hinukh* argues (*ibid.*), this ruling is in contradiction to the established ruling that even *safek pikuah nefesh* exempts from *mitzvah* obligations.

12 It should be pointed out that the Sages of the Talmud did not generally work with formal statistics as we know them, instead basing their evaluations on common sense or the common knowledge of the day. It is generally accepted that in almost all areas of Halakhah, statistics and expert opinions as used today have great value in making the determination as to whether a situation is deemed safe or excessively risky. It is also worth noting that certain activities are commonly viewed as “more risky” than others when in fact this is not true; a common example is the perception that air travel is more dangerous than automobile travel.

13 *Mishnah Berurah* 329:19: “One must evaluate well if the matter entails a possibility of danger and one should not be overly meticulous.” Similarly, the *Arukh Ha-Shulhan*, *Hoshen Mishpat* 426:4, writes: “One should evaluate the matter well and should not overly protect himself.”

Surrendering a Limb or Organ to Save a Life

Writing in the sixteenth century, R. David ben Zimra (Radvaz) addresses a question that may seem unfathomable to us in the modern era but has assumed great relevance for us today.¹⁴ A Jew had been seized by a despot and was sentenced to death. The despot offered a second Jew the gruesome choice of allowing the amputation of a limb (which would not jeopardize his life) in order to save the life of his fellow Jew. The question was asked whether this man was obligated to give up his limb to save the other person. Marshaling no less than six different sources, Radvaz writes that no such obligation exists, but it is permitted for him to do so; if a person were to do so, it would be viewed as a *middat hassidut*, an act of extra piety. In the event that giving up this limb would entail mortal risks, he would then enter the category of *hassid shoteh*, a pious fool.

While the idea of organ transplantation certainly never crossed the Radvaz's mind, his words serve as the primary source for the question of the permissibility of live donor transplants. Is there an obligation to donate an organ? Is it only a highly meritorious deed? Or is it perhaps not permitted at all? It is clear from this responsum that at no time is there ever a Torah based obligation to donate a limb or organ, even when there is no mortal danger to the donor and the donation will result in saving the life of the recipient.

Although the Radvaz's responsum may serve to provide clear guidance for cases of organ donation that entail full surgery to remove an organ, there are a number of other significant cases that may not be fully clarified through his words, as will be addressed below.

Enduring Pain to Save a Life

The question of whether the *mitzvah* of *pikuah nefesh* obligates a person to endure physical pain or discomfort in order to save the life of another is not directly addressed in the

¹⁴ *Teshuvot Ha-Radvaz* 2:1052.

classical sources, but it is likely the most important single factor in determining how bone marrow donations are viewed in Halakhah. A careful reading of numerous sources demonstrates that the *mitzvah* to save a life applies even in cases in which the rescuer may or will certainly experience physical pain or discomfort.¹⁵ Thus, for example, if a lifeguard needs to run

15 It should be noted that none of these may be the actual source or reason that the obligation exists in these cases, but are merely indications of the fact that the possibility or even guarantee of pain or discomfort would not serve as an exemption from this *mitzvah*.

There are two significant sources that do seem to indicate that a person would not be obligated to accept significant pain or discomfort in order to save the life of another. The *gemara* in *Nedarim* (80b) cites a Tosefta that states: “Regarding the [use of the] well belonging to the inhabitants of the city – [if the water can be used to save] their lives or the lives of others, their lives take precedence over the lives of others. Their animals or the animals of others – their animals take precedence over the animals of others. Their laundry or the laundry of others – their laundry takes precedence over the laundry of others. The lives of others or their own laundry – the lives of others take precedence. R. Yose says: Their laundry takes precedence to the lives of others.” The simple reading of this text seems to indicate that R. Yose is of the opinion that the avoidance of personal discomfort takes priority over saving the life of another. However, the Talmud explains that the result of lack of ability to launder clothing is not simply the discomfort of wearing soiled garments, but “*she’amumita*,” explained by Rashi to mean “*shiga’on*,” insanity. Thus, in the case under discussion, there may be a genuine fear of mental health issues that, rare as they may be, could be considered potentially life-threatening. Accordingly, the Netziv (*Ha’amek She’elah, mitzvah* 147:4) explains the *mahloket* to be whether one must accept the limited/obscure risk posed by lack of clean laundry in order to save the lives of others. The *Hafla’ah* (*Kuntres Aharon Le-Mesekhet Ketuvot* 80:12) dismisses the possibility that pedestrian concerns such as laundry could take precedence over risks to life and therefore concludes that in the case at hand, the inhabitants of the other city, although in danger, could find other sources of water.

Another source that seems, at first glance, to indicate that personal concerns may override the need to save the life of another is a view cited by the *Shulhan Arukh* (*Even Ha-Ezer* 80:12) concerning the obligation of a nursing woman to maintain a healthy and safe diet for the sake of her child’s health: “There are some who say that her husband cannot compel her [to avoid excessive or unhealthy foods] because of the potential danger to the infant, as the pain of her body takes precedence.” The commentaries on the *Shulhan Arukh* (*Helkat Mehokek* ad loc. 22; *Beit Shmuel* ad loc. 15) struggle

through an area where he will cut his feet in order to reach a drowning swimmer, the pain and bleeding associated with that limited injury do not justify refraining from saving the swimmer. Similarly, it would follow that the possibility of experiencing such pain or injuries would be required when offering help in medical situations.

As noted above, the Talmud provides three illustrations of the *mitzvah* of *lo ta'omod al dam rei'akha*: saving a person from drowning in a river, saving a person who is being mauled by a wild beast, and protecting a person from bandits. Little more is said about these cases, but it is difficult to imagine that the physical efforts required to accomplish any of these three rescue missions would not likely involve (at least) minor injuries and accompanying pain. In the case of the drowning person, this could include the discomfort of running on a rough rocky surface, cramping, and the physical strain of the rescue. In the case of the wild beast, it is hard to envision a rescue that would not demand close proximity to the animal, so that even a well-armed rescuer could likely receive bites, scratches, and other injuries. Only in the case of bandits might the mere appearance of a well-armed rescuer be an effective deterrent, although in many common scenarios, the use of force and fighting may also be necessary and injuries are quite likely as well.¹⁶

to explain how ensuring a woman's personal comfort could possibly be permitted if it jeopardizes her child's life. Rav Moshe Feinstein (*Iggerot Moshe, Yoreh De'ah* 1:145) concludes that this opinion should not be viewed as supporting the idea that one need not undergo discomfort to save the life of another. Rather, both the case in *Nedarim* and the case of the nursing woman pertain to situation in which the "other" will experience discomfort but will not be endangered if one fails to sacrifice on his behalf.

¹⁶ The *Sifra, Kedoshim* 4:8, presents a fourth case: a person who knows information that can save/aid another is not permitted to refuse to testify on his behalf. That case is significantly different than the Talmud's three cases (which are also quoted in the *Sifra*), as it does not include physical pain or injury. The Malbim explains that this case actually fits better than all of the others in context of the verse from which the *mitzvah* is learned. The first half of the *pasuk* commands, "*lo telekh rakhil be-amekha*;" the second half teaches that there are exceptions to this rule, as there are times when one

As understood by the Sema, as noted above, the dispute between the Talmud Bavli and Talmud Yerushalmi is only regarding whether the obligation to save another extends to cases in which the rescuer might be risking his own life in the course of the rescue mission. However, there is no question found regarding the matter of enduring pain and discomfort, and the *Rishonim* and *Aharonim* who explain this passage of the Talmud do not comment on or even acknowledge this omission. The classical understanding of this topic is that it is only the prospect of danger that generates an exemption according to the Talmud Bavli; the fact that lesser concerns, such as pain or discomfort, were never addressed in this context would seem to indicate that they were not viewed as reasons or justifications to exempt a person from the obligation to save his fellow.

The obligation to spend money in order to save someone's life also indicates that discomfort is not reason for exemption. Rashi does not limit this obligation to financial efforts, writing that one must pursue all angles to save the life of one's fellow. From his inclusive language, it can be inferred that he understands the obligation to spend money as including all methods of rescue.¹⁷ This is even more evident from the language of the Meiri, who states that any act that will not endanger the life of the rescuer is included in this requirement; a non-dangerous but pain causing situation or injury would certainly be included in this obligation as he explains it.¹⁸

Furthermore, as previously mentioned, the Radvaz offers six reasons why he believes that there is no obligation to sacrifice a limb even to save another person. Significantly,

should not refrain from speaking badly of others, as when his honest testimony will protect his fellow from an incorrect verdict in court. It may be for this reason that the *gemara* was compelled to use the idea of *aveidat gufo* as an additional source for the obligation to save another person, as the verse's obligation might be limited to "safe" activities such as courtroom testimony.

Rashi, *Sanhedrin* 73a, s.v. *ka mashma lan*: "Meaning that one should find any means to prevent the loss of his friend's blood." This is also the conclusion of the Netziv, *Ha'amek She'elah* 129:4.

¹⁸ *Beit Ha-Behirah, Sanhedrin* 73a.

however, at no point does he suggest the possibility of pain or discomfort as reasons for the exemption, even though in most cases such a procedure would presumably be quite painful.¹⁹

The status of *sakanat ever*, potential loss of a limb, is also relevant to this discussion. The *Shulhan Arukh* rules that in order to avoid violating a negative *mitzvah*, a person must give up all of his money if necessary, while for a positive *mitzvah* it is sufficient to spend up to 20% of one's resources.²⁰ The Shakh questions whether one must be willing to suffer *sakanat ever* for the sake of a *mitzvah*. Is the loss of a limb regarded in the same category as the loss of life, and therefore not required (or even permitted), or is it more comparable to the loss of property, which must be sacrificed for the sake of avoiding violation of a negative *mitzvah*?²¹ While the Shakh concludes that one need not sacrifice a limb in this context, his words clearly imply that discomfort or injuries of a lesser nature would not be excluded; they are not grounds for exemption from performing a *mitzvah*. Accordingly, one must be willing to suffer pain or discomfort for the sake of fulfilling the *mitzvah* of *lo ta'amod al dam rei'akha*, as well as every other negative *mitzvah*.²²

19 The Radvaz does apply the concept of “*ein onshin min ha-din*.” Just as we cannot administer corporal punishment based on the logic of a *kal va-homer*, there cannot be an obligation to allow the removal of a limb or organ based on a *kal va-homer*. This statement might lead to the conclusion that the Radvaz's exclusion of any obligation to surrender a limb also excludes the possibility of obligating the acceptance of pain. However, this does not seem to be a correct reading of the Radvaz. He is not arguing that there cannot be an obligation to surrender a limb, but merely that if such an obligation does exist, it cannot be based on the logic of *kal va-homer* and must instead have its own independent source.

20 *Shulhan Arukh*, *Yoreh De'ah* 157:1, *Orah Hayim* 656.

21 Shakh, *Yoreh De'ah* 157:3.

22 It should be noted that the Shakh was not specifically addressing the parameters of *lo ta'amod al dam rei'akha*, but was rather providing guidelines for all negative *mitzvot*. Of relevance to this discussion is the debate among the *Posekim* (*Pithei Teshuvah* YD 157:4, *Hiddushei R. Akiva Eiger* YD 157:1) regarding whether a *lav she-ein bo ma'aseh*, including *lo ta'amod al dam rei'akha*, should be viewed as a *mitzvat ase* or a *mitzvat lo ta'ase*.

R. Moshe Feinstein (*Iggerot Moshe*, *Yoreh De'ah* 2:174, part 4) assumes that

The conclusion that discomfort is not adequate reason to exempt one from the *mitzvah* of *pikuah nefesh* may also be drawn from the fact that it is explicitly noted as reason to exempt a person from the *mitzvah* of *sukkah*.²³ A “*mitzta’er*,” one who will experience discomfort if he dwells in the *sukkah* as required, is exempt from doing so;²⁴ since the requirement is “*teshvu ke-ein taduru*,” to dwell in the *sukkah* in the same manner as one dwells in his home, it is not considered a *mitzvah* to sit in the *sukkah* if one experiences discomfort.²⁵ The exemption rooted in discomfort uniquely applies to sitting in a *sukkah* and not to *mitzvot* in general. Thus, for example, if one finds that eating *matzah* or drinking four cups of wine at

the Shakh reasons that one is only obligated to sacrifice his property, but never anything more, by definition precluding giving a limb, which is worth far more to people than their money. While R. Feinstein does not say so explicitly, this might also preclude cases of significant pain or distress even when there is no loss of a limb. It may be for this reason that R. Feinstein (*Iggerot Moshe, Hoshen Mishpat* 1:103) writes that blood donations only involve minor discomfort. Were the pain to be more significant, he might have viewed such donations differently. Even according to this approach, however, the fact that the Shakh specifically writes about *sakanat ever* and does not mention pain or discomfort would require further clarification following the approach of R’ Feinstein.

23 This proof comprises a major portion of the responsum of R. Shmuel Wosner on the topic of blood donations; see *Shevet Ha-Levi* 5:219. This contrast is most strikingly seen in the Ran (*Sukkah* 27) who quotes the various opinions of the *rishonim* regarding the obligation to eat in the *sukkah* on the first night of Sukkot. Some say that just like *matzah* must be eaten at the *seder*, discomfort notwithstanding, so too the *sukkah* must be used in a case of discomfort. While even those who reject the idea of eating in the rain and discomfort on the first night still point out that even though many comparisons are to be made between the obligation of the first night of Pesach and the first night of sukkot, in this regard they are dissimilar, as only on the first night of Pesach must the *mitzvah* be done even in a state of discomfort, while on the first night of sukkot one is exempt.

24 *Sukkah* 25a-26a.

25 The *gemara* clearly only refers to discomfort caused by sitting in the *sukkah* that may be ameliorated by leaving the *sukkah*. Other types of discomfort, such as the emotional pain of a mourner, are not grounds to exempt a person from this *mitzvah*.

the *seder* leads to an upset stomach or the like, he would still be obligated to fulfill the *mitzvah*.²⁶ If the exemption of *mitzta'er* applies uniquely to *sukkah*, there would be no justification to exempt a rescuer from saving the life based on this concept.

A final indication that discomfort does not serve as a reason for exemption from the *mitzvah* of *pikuah nefesh* can be gleaned from that rather surprising comparison between the *mitzvah* of *pikuah nefesh* and that of *hashavat aveidah*, returning lost objects. The Talmud concludes that the *mitzvah* of *ha-*

26 The *Shulhan Arukh*, *Orah Hayim* 472:10, rules that one who dislikes or avoids wine must push himself to drink it in order to fulfill the *mitzvah* of drinking the four cups. The *Mishnah Berurah* (472:35) limits the application of this obligation somewhat, writing that the need to push oneself to drink does not extend to all cases of sickness, seemingly implying that the *halakhah* of “*mitzta'er patur min ha-sukkah* is not unique. In the *Sha'ar Ha-Tziyun* (52), however, he writes that the reasoning for this limitation is that drinking must be performed in a manner that demonstrates freedom (*derekh herut*), thus making it clear that any possible exemption in the case of the four cups is also unique and does not apply to other *mitzvot*.

R. Moshe Shick (*Teshuvot Maharam Shick*, vol. 8, *Orah Hayim* 260) addresses the question of whether a person may eat *matzah* if his doctor has warned him of potentially lethal consequences and struggles with the particular issue of eating or drinking in a case in which lesser sickness or bodily harm will result. He concludes that if a person is made ill or harmed at the moment that he eats or drinks a particular food, it is not considered a halakhically valid form of eating. If, however, the harm results only at a later point (such as cases of indigestion), it is considered a normal act of consumption and is valid to perform a *mitzvah*. Unlike the *Mishnah Berurah*'s explanation, which limits the exemption of discomfort specifically to the case of eating *derekh herut*, the Maharam Shick's explanation would apply to any area of halakhah, potentially exempting a person for reasons of discomfort in the realms of Pesach, Yom Kippur, or *kashrut*.

While the *Mishnah Berurah* based any possible exemptions for *matzah* and the four cups on unique *halakhot* of Pesach, and the *Maharam Shick* based his on the definition of an act of eating, this approach is not accepted by all, as is seen in *Helkat Yoav* (*Dinei Ones*, sec. 7) and other *posekim* who follow that approach; [*Nishmat Avraham* (HM 420:4) quotes *posekim* on each side of this debate]. According to these *posekim* one is exempt from any positive *mitzvah* if it will result in sickness; accordingly, the exemption of *mitzta'er* found in the laws of *sukkah* does not apply to cases of sickness, only to other forms of discomfort.

shavat aveida is actually the primary source of the obligation to save another person's life.²⁷ In an admittedly novel approach, R. Shlomo Kluger writes since *pikuah nefesh* is based on *ha-shavat aveidah*, the two *mitzvot* should be subject to the same limitations.²⁸ Accordingly, just as a person is not obligated to return a lost object in a case in which returning it would be beneath his dignity and he would not bother with the object even if it were his own, one is similarly not obligated to engage in an act of life saving if the act is beneath his dignity and it is not something the rescuer would do (or want done) were he to be in that same situation.²⁹ If we are to take this comparison seriously, it would seem that rather than creating an exemption, in more cases than not, it would help clarify and define the obligation. A person may not simply declare that it is beneath his dignity to return a lost object; rather, this decision need be based on how he would treat this lost object if was his own. By analogy, one is not exempt from saving others simply because it is beneath his dignity to do so; rather that decision too should be based on what he would do (or want others to do) if he were in a similarly life-threatening situation. In most cases, it is safe to say that one would indeed want others to endure discomfort in order to save his life. One would therefore be obligated to similarly endure discomfort in order to save someone else's life.³⁰

27 *Sanhedrin* 73a.

28 *Hokhmat Shlomo, Hoshen Mishpat* 426.

29 It should be noted that R. Moshe Feinstein (*Iggerot Moshe, Yoreh De'ah* 2:172, part 3) dismissed this notion as incorrect: "Begging forgiveness from these *ge'onim*, it is clear that this is a complete error... for if the honor of Heaven is pushed aside, as we see from the fact that all of the most severe prohibitions of the Torah, such as Shabbat and forbidden foods, are overridden to save the life of even the most unworthy, and even one who violates prohibitions due to his desires, how much more so that the honor of human beings is pushed aside, and even the honor of the greatest of the great." The major objections of R. Feinstein would likely not apply given the explanation we have offered for R. Kluger's position, according to which maintenance of one's dignity is not sufficient grounds for exemption.

30 There may be rare cases of extreme pain and suffering that a terminal

Given these sources, the premise that the *mitzvah* of *lo ta'amod al dam rei'akha* applies even in cases in which the rescuer will be forced to endure pain and suffering is accepted by a number of contemporary *Posekim*, including R. Shlomo Zalman Auerbach,³¹ R. Ovadia Yosef,³² and R. Shmuel Wosner.³³

Blood Donation

Blood donation is a mildly invasive procedure that saves countless lives, most commonly for accident victims and surgical patients who have suffered significant loss of blood. There is a 0% mortality rate and the side effects are quite minor, the immediate one being at worst short term minor pain, sometimes followed by bruising (found in less than 1% of donors). Unlike cases of organ donation, the body regenerates 100% of the blood (on average in 36 days).³⁴

The *Posekim* permit this procedure even though the process of blood donation requires making an injury and the Torah clearly prohibits *havalah*, injuring another person (or oneself).³⁵ The reason for this permissibility is twofold. First, the very definition of “injuring” may be limited to cases in which a needless injury is caused, but not those that are beneficial.³⁶ Such injury would be permitted even if it were not

patient may not want to endure. For possible examples, see *Iggerot Moshe, Yoreh De'ah* 2:174, part 3. This is not the norm, however, and likely not relevant to the present discussion.

31 This ruling is quoted in *Nishmat Avraham, Even Ha-Ezer* 80:1, in reference to bone marrow donations.

32 See *Yabia Omer*, vol. 9, *Hoshen Mishpat* 12, which addresses the matter of live kidney donations and in which R. Yosef analyzes many of the pertinent sources.

33 See *Shevet Ha-Levi* 5:119, in which R. Wosner rules that blood donation for a critical care patient is obligatory.

34 See MayoClinic.org, “Blood Donation: Risks” (accessed May 26, 2011); fda.gov, Vaccines, Blood & Biologics, “Fatalities Reported to FDA Following Blood Collection and Transfusion: Annual Summary for Fiscal Year 2009” (accessed August 2012).

35 *Bava Kama* 90b-91b; Rambam, *Hilkhot Hovel U-Mazik* 5:1.

36 R. Shlomo Zalman Auerbach (cited in *Nishmat Avraham, Yoreh De'ah*

lifesaving, as blood transfusion is. Second, in this case the pain, is minor.³⁷

R. J. David Bleich³⁸ and R. Mordechai Willig have gone further, ruling that in cases in which there is a critical patient who needs this particular blood for a transfusion (*holeh mesukan befanenu*), it is not only a *mitzvah*, but an obligation to donate blood. This is true both for plasma and platelet donation. The fact that there is some (minor) pain involved in this process did not deter these *Posekim* for viewing it as an obligation.³⁹ R. Hershel Schachter also accepts this approach, with

349:3[4]) permits donating blood due to its lifesaving purpose, adding that most likely it does not enter the category of *havalah* at all. R. Yehoshua Neuwirth (cited in *Nishmat Avraham*, *ibid.*) likewise permits blood donations based on his understanding of the Rambam, who indicates that an act is only labeled as *havalah* when it is done “*derekh nitzahon*” (in the manner of fighting/assault), but not if it is done for a constructive purpose, such as a medical one. This is likely the logic of R. Shlomo Zalman Auerbach as well. Accordingly, a person may undergo elective surgery to relieve pain and, by extension, may allow a minor injury to himself to help another. This explanation is not dependent upon the fact that the pain entailed is minor, but rather that these “helpful injuries” are not included in the basic prohibition of *havalah*.

³⁷ See *Iggerot Moshe, Hoshen Mishpat* 1:103. One of the factors mentioned by R. Feinstein is that the procedure is almost painless. However, it is not correct to say that the general prohibition of *havalah* only applies once a particular threshold of pain is passed and that it is permitted to inflict minor amounts of pain. More likely, R. Feinstein is looking at the larger picture, balancing the minimal amount of pain as compared to the lifesaving potential of a blood transfusion.

³⁸ *Contemporary Halakhic Problems*, vol IV, “May Tissue Donations Be Compelled?”, p. 284; see also the following footnote.

³⁹ Oral communication with this author, November 2006. This view is also quoted in the report on “Halachic Issues in the Determination of Death and in Organ Transplantation” of the Vaad Halacha of the Rabbinical Council of America, June 2010. The fact that neither R. Feinstein nor R. Auerbach issued such a ruling need not be taken as rejection of this idea, as neither of them addressed this specific question; they were only asked about general donations and not those needed for a specific patient. When asked, Dr. Abraham S. Abraham confirmed that this understanding is indeed consistent with the approach of R. Auerbach (written communication, March 2012).

his only reservations being in cases of procedures with greater risk factors and perhaps cases in which risks may not yet be fully known.⁴⁰ A similar approach is recorded in the name of R. Shlomo Zalman Auerbach.⁴¹

This question was subject to debate between two of the leading *Posekim* in Israel. While not directly addressing the issue of *havalah*, R. Shmuel Wosner views blood donation as a simple and safe procedure with lifesaving potential. Accordingly, he rules that when a critical care patient is in need of this particular (type of) blood, it is an obligation to donate, and failure to do so would be a violation of *lo ta'amod al dam rei'akha*.⁴² R. Eliezer Yehuda Waldenberg, in contrast, writes that while it is clearly meritorious to donate blood, there is no halakhic obligation to do so, even in cases in which a critical care patient is in dire need; accordingly, one would not be in violation of *lo ta'amod al dam rei'aka* if he did not give.⁴³ Significantly,

40 Oral communication with this author, December 2011. This could have implications for the PBSC procedure, whose long term risks may not yet be fully clear at this point.

41 See *Nishmat Avraham, Even Ha-Ezer* 80:1; also see notes 49/50.

42 *Shevet Ha-Levi* 5:219. R. Wosner notes that bloodletting was considered a healthy procedure in ancient times, and was certainly not considered dangerous. Although this procedure is no longer performed, the very fact that it was once deemed acceptable indicates that giving small quantities of blood is not considered as putting oneself into a possibly dangerous situation. Since R. Wosner does not address the issue of *havalah*, it is impossible to reach formal conclusions regarding his opinion, but it is highly unlikely that he would disagree with the previously explained understanding of *havalah*, as disagreeing would bring into question the permissibility of any surgical procedure performed purely to relieve pain. If R. Wosner indeed deemed such procedures forbidden, in the cases of transfusions which he permitted (and mandated), the prohibition of *havalah* would be suspended only due to the element of *pikuah nefesh*.

43 *Tzitz Eliezer*, 16:23. R. Waldenberg writes that since the Torah considers one's blood to be his source of life ("ki nefesh ha-basar ba-dam hi" – *Vayikra* 17:11), it is impossible to obligate a person to donate more than a *revi'it* of blood. R. Waldenberg further rejects R. Wosner's proof from the permissibility of bloodletting, as the *gemara* considers that process to be somewhat dangerous under certain circumstances, and in modern times, the process is not considered healthy. (This final point is related to the discussion of

R. Waldenberg's view is motivated by the potentially lethal results of the procedure;⁴⁴ he does not compare blood donation to surrendering a limb (which, based on the Radvaz's ruling, would never be obligatory), nor does he seem concerned with the degree of pain involved. Thus, were it not for his concerns regarding the risk entailed, it seems that R. Waldenberg would accept the premise of R. Vosner and the other *Posekim* cited above, who argue that donations of regeneratable body parts whose removal do not present lethal risks are viewed as obligatory when there is a *holeh mesukan befanenu*.

In more common cases, in which there is no such critical patient waiting for this particular blood, donation is a *mitzvah*,⁴⁵ but not an obligation.

Bone Marrow Donation

Like blood and platelets donation, the taking of bone marrow is a safe procedure with a 0% mortality rate,⁴⁶ and like other cases of live organ donor transplants, it is only performed in cases in which there is a patient with a critical need (*holeh mesukan befanenu*). Accordingly, it would follow that the same ruling that applies to blood and platelet donations should apply to bone marrow donation as well.

However, the standard process for the removal of bone marrow is far more complicated than that of blood donation. The collection of stem cells from bone marrow is a type of

nishtaneh ha-teva, whether nature has changed over time.)

44 R. Waldenberg did not maintain that blood donors have noticeable risks of mortality, but rather reached this conclusion based on the fact that *Chazal* viewed the loss of a *revi'it* of blood as potentially dangerous.

45 Clearly being an act of *hesed* and fulfilling the words “*ve-ahavta le-re'akha kamokha*”.

46 A report by the National Institute of Health states that “life-threatening complications for marrow donors have been rare; there were 13 reported in 4,800 (0.27% or 1 in 370) analyzed marrow donations.” See the website of the International Association of Living Organ Donors (accessed August 2012). Because donors are closely monitored in the days and weeks following donation, these rare cases are effectively treated and there have been no reported fatalities.

surgery that is performed in an operating room. Needles are inserted through the skin, generally into the back of the pelvic bones (usually entailing 1-4 small incisions), a process lasting one to two hours. This procedure would be extremely painful without anesthesia; approximately 75% are given general anesthesia and approximately 25% are given regional anesthesia (either spinal or epidural). Following the marrow collection, the donor is taken to the recovery room while the anesthesia wears off. When the donor is fully alert and able to eat and drink, he is released from the hospital. It is quite common that the donor feels sore or tender at the collection site for several days, and bleeding is also possible. General side effects of the procedure include fatigue, lower back pain, and stiffness while walking; pain and stiffness can last anywhere from a few days to a few weeks, but most donors are back to their usual routine a few days after the donation. The bone marrow naturally replaces itself within four to six weeks.

Long-term side effects are rare, but possible. The National Bone Marrow Donor Program (NMDP) reports that 98.5% of donors feel completely recovered within a few weeks. About 1.34% of bone marrow donors experience a more serious complication due to damage to a bone, muscle, or nerve in the hip area, or related to the anesthesia. As reported by the Mayo Clinic, the most serious risk associated with donation of bone marrow involves the effect of the anesthesia during surgery,⁴⁷ but such risks are statistically extremely limited.⁴⁸

47 "Blood and Bone Marrow Donation," www.mayoclinic.com/health/bone-marrow/MY00525.

48 See "Under the Knife: Study Shows Rising Death Rates from General Anesthesia," *Time* (Aug 4, 2011), which records that the mortality rate due to general anesthesia is approximately one in 250,000; this includes all patients, including emergencies, accidents, the elderly, and critical care patients, who have higher mortality rates. Bone marrow donors tend to be younger and healthier and therefore have a much lower risk. The morbidity rates of otherwise healthy patients are somewhat higher than the mortality rates, but remain statistically so insignificant that they should not present any issue in the eyes of the Halakhah. A more recent study of the mortality rates in America from 1999-2005 indicates a slightly higher mortality

Given that the lethal risks involved in bone marrow donation are so negligible, both R. Mordechai Willig and R. J. David Bleich rule that marrow donation is obligatory for the sake of a critical care patient, just as donation of platelets or plasma is.⁴⁹ R. Shlomo Zalman Auerbach addresses this matter in a similar manner, ruling that it is a great *mitzvah* to be a bone marrow donor. If the transplant will likely save the life of the recipient but there is some risk to the life of the donor, donation is not an obligation, but it is proper to beseech that he donate. However, if there is no risk to the donor, even if significant pain and discomfort will result, he is in fact obligated to donate bone marrow.⁵⁰ This distinction, although clear and logical, seems to leave the practical question unresolved, as bone marrow is not harvested without anesthesia and its associated risks. Dr. Abraham S. Abraham has clarified that R. Auerbach ruled that the miniscule mortal risks associated with general anesthesia are not to be considered halakhically meaningful, and fear of anesthesia would not be a valid reason to exempt one from this potentially lifesaving procedure.⁵¹

rate of 8.2 deaths per million, or approximately one in 122,000, but of the 2,211 deaths included in this study, in 241 cases (34 per year), anesthesia complications were the underlying cause and in 1,970 cases (281 per year), it was a contributing factor but not the underlying cause. Even assuming these higher statistics, the Halakhah would view the risks of anesthesia as negligible. See Gouhua Li, et al., "Epidemiology of anesthesia-related mortality in the United States, 1999-2005," *Anesthesiology* 100:4 (April 2009): 759-65. This article also notes that in the years 1948-1952, when mortality rates were first studied, the death rate was 64 per 100,000, which at the time was more than twice the mortality attributable to poliomyelitis.

49 See footnotes 37 and 38. See also the report on "Halachic Issues in the Determination of Death & in Organ Transplantation" of the Vaad Halacha of the Rabbinical Council of America, June 2010. As mentioned above, R. Hershel Schachter also accepts this concept, but is concerned with potential risk factors. At the same time, he argues that the determination of these factors is a medical matter and not a rabbinic one.

50 See *Nishmat Avraham, Even Ha-Ezer* 80:1.

51 Written communication with this author, March 2012.

Peripheral Blood Stem Cell Donation (PBSC)

Peripheral Blood Stem Cell donation is a simpler way to collect blood-forming cells for transplantation. The same blood forming cells that can be collected from the bone marrow are also found in the circulating (peripheral) blood. However, ordinarily there are only small numbers of these cells circulating in the blood. In order to facilitate the harvest of these cells from the blood itself, the potential donor receives injections of the drug filgrastim (a growth factor medication) to move more blood-forming cells out of the marrow and into the bloodstream.⁵² These injections are given for four days immediately preceding the donation; on the fifth day, the final dose is given immediately prior to the donation of the blood cells. The blood is removed from the donor through a process called apheresis, whereby a needle is placed in one arm and the blood is passed through a machine that separates out the blood-forming cells. The remaining blood is returned to the donor through the other arm, similar to the procedure used in the procurement of platelets.

Unlike bone marrow transplants, this is a non-surgical procedure, avoiding both the significant pain and the other risk factors associated with the older process. While there are some side effects from this process, they result more from the preparation for donation than from the donation itself. Donors may experience headaches, bone pain, or muscle aches, similar to those accompanying a cold or flu, during the several days prior to blood collection. These are possible side effect of the filgrastim injection and they disappear shortly after the donation. Other side effects may include nausea, trouble sleeping, and

52 Filgrastim is commonly marketed as Neupogen. "It is used for preventing infections in people undergoing chemotherapy or receiving bone marrow transplants. It is also used to stimulate the release of more stem cells in the blood to make stem cell collection and transplantation more successful. Filgrastim is approved for use in both adults and children. Off-label filgrastim uses may include the treatment of aplastic anemia and neutropenia caused by non-chemotherapy medications." Kristi Monson, PharmD; Arthur Schoenstadt, MD, eMedtv.

fatigue. Less than 1% of donors have an allergic reaction to filgrastim, which may include skin rashes or shortness of breath.

Unlike in the therapeutic use of filgrastim, in the case of PBSC, it is only used for a brief, five-day period. Nevertheless, the question remains regarding any possible long-term effects related to the short-term use of filgrastim. An early study of 200 individuals who had received filgrastim in preparation of PBSC found that two of them developed acute myelogenous leukemia (AML) 4-5 years following filgrastim exposure. However, it is important to note that the recipients of the bone marrow from these two donors were their siblings, each of whom were suffering from acute myelogenous leukemia.⁵³

National Marrow Donor Program donor consent

53 Dennis L. Confer, John P. Miller, "Long-term safety of filgrastim (rhG-CSF) administration," *British Journal of Haematology* 137:1 (April, 2007): 76-80. They write: "It is well known that siblings of persons with leukemia have a 2-5-fold increased annual incidence of leukaemia (Pottern et al, 1991; Shpilberg et al, 1994; Rauscher et al, 2002). In some families, multigenerational occurrence of leukaemia, in the absence of any known syndrome, e.g. Fanconi anaemia, suggest direct inheritance of susceptibility genes (Segel & Lichtman, 2004). Given these patterns, the contribution of filgrastim exposure to the development of acute leukaemia within families remains speculative. Documenting the safety of filgrastim as a mobilizing agent for PBSC donation has long been a matter of importance for the transplant community, particularly in the context of donation made by volunteer, unrelated adult donors. Since 1997, the NMDP has maintained an Investigational New Drug (IND) application accepted by the Food and Drug Administration for manufacture of PBSC products from unrelated donors. Filgrastim is administered for PBSC mobilization at a total dose of c. 10ug/kg donor weight per day for 5 days. Under the IND protocols, every donor provides informed consent for the research, which includes agreement for the perpetual annual follow-up. Among 4,015 donors who have passed the first anniversary of their PBSC donation, we have accumulated 9,785 years of follow-up (range from 1-9 years with 897 donors equal or more than 4 years). Twenty cases of cancer have been reported, occurring in various organ systems, consistent with the age-adjusted US incidence of cancer in adults and in support of the applicability of data obtained from the NMDP follow-up (Ries et al, 2006). There have been no reports of leukaemia in this donor cohort, which US statistics suggest should comprise 9% of all malignancies in this age group."

forms approved by the Institutional Review Board contain the following information:

Normal individuals are at risk for developing cancer, including leukaemia, lymphoma or other blood diseases throughout their lifetime. It is unknown whether filgrastim increases or decreases an individual's risk of developing cancer. The data being collected during follow-up will help establish if there are any positive or negative long-term effects from receiving filgrastim. Based on limited long-term data from healthy people who have received filgrastim, no long-term risks have been found so far.⁵⁴ At this point, it is correct to say that any suggestion that the short term use of filgrastim has any long term side effects is without any basis, statistical or anecdotal. Any data that does exist regarding this matter indicates that there are no increased risks whatsoever.

Testing

While a significant number of bone marrow donors are family members who are tested specifically in order to aid their loved ones, far more donors are unrelated volunteers (approximately 70%). Typically, these donors are found in databases assembled as a result of community testing drives, in which large numbers of people provide a small DNA sample through a swab on the inside of their cheek. The data is evaluated and stored for future use. The process is simple, painless, and there is no fee to the donor (although the process can cost up to \$100).

The chance of any given person who is tested actually becoming a donor is extremely small (1 in 20,000, or 0.005%). Accordingly, even when there is a critically ill patient (on whose behalf the marrow drive is being held), it would not be deemed a case of *holeh mesukan befanenu*. As such, all opinions would agree that being tested cannot be ruled obligatory.⁵⁵ However,

⁵⁴ Ibid.

⁵⁵ It should be noted that R. Moshe Feinstein similarly ruled (*Iggerot Moshe, Yoreh De'ah* 2:151) that there is no obligation for a person to study medicine

it must be borne in mind that it is only through this “long-shot” process that any of the non-related volunteer donors can be found for this lifesaving procedure. Given the gravity of the situation when there is a patient in need, even lacking any formal obligation, it is highly meritorious for healthy individuals of the proper age to be tested.

Accordingly, it would be most proper for the organized Jewish community to encourage and facilitate bone marrow testing so that when there are patients in need, appropriate matches can be found. This includes providing locations for testing drives to take place, publicity and encouragement by synagogues, schools, and community organizations, and, perhaps most importantly, active rabbinic encouragement. Additionally, financial resources are needed to cover the cost of approximately \$100 needed for each test.

Related to this is the possible matter of appropriate compensation for donors. As mentioned in the introduction, by law, organ donors may not be paid for their organs, and in practice, they also do not pay any of the costs involved in the donation. All medical procedures are covered by the National Bone Marrow Donor Program (NMDP) or by the donor’s medical insurance, including travel and other non-medical costs. The only potential cost to the donor is time taken off from work. Typically, the entire process, travel time included, involves about 30 to 40 hours, equaling approximately one week of work. In cases in which the costs of lost work or child

in order to become a doctor or a lifeguard in order to save lives. The obligation to save lives only exists when a person presently has the ability to do so. In the case of bone marrow testing, when matches are so statistically rare, the words of R. Feinstein are even more true; while every doctor has reason to expect that he will save lives once he is in practice, most of those tested will never become bone marrow donors. Nevertheless, just as there is clearly a major societal need that there should be properly trained doctors, lifeguards, and the like, so too there is clearly a need for bone marrow donors. It should also be noted that since marrow testing only involves a brief, one-time test, one might argue that there is a stronger obligation than in the cases of studying medicine or lifeguarding, which involve extensive education and/or training.

care might prevent bone marrow donation, barring legal impediments, it would be most appropriate for the community to help defray these expenses as well. Additionally, given the recent court ruling permitting payment to PBSC donors, were payments to be a determining factor in a potential donor's willingness to donate, this too might be a good use of communal funds.

Conclusion

As has been demonstrated in this paper, a very strong case exists to argue that marrow donation, both the surgical removal of bone marrow and PBSC, are halakhically obligatory once a match has been established. This is indeed the opinion of a number of leading *Posekim*, some having ruled so directly and others by implication. Even though this ruling is not accepted by all *Posekim*, it is quite likely that the matter should still be viewed as no less than a *safek de-oraita* (a doubt about a matter of Torah law) which by definition would mandate following the stricter possibility.

Perhaps more compellingly, this is literally the chance of a lifetime for both the recipient as well as the donor. For the recipient, these bone marrow cells are likely the difference between life and death; for the donor, it is his opportunity to do the "most important" *mitzvah* – to save a life. Aside from those in the medical or related fields, it is almost unheard of that a person has the chance not only to "not stand by the blood of his brother," but to provide blood for his brother. The risks that come along with being a donor are statistically negligible, and in almost all cases, the pain and discomfort are short lived. To refrain from saving a life out of fear of this pain or these limited risks would be to miss an opportunity that rarely presents itself. To paraphrase R. Akiva as he awaited martyrdom at the hands of the Romans, "All my life I have spoken about the great value of this action. Now that the opportunity has come before me, how can I pass it up?!"

RABBI EDWARD REICHMAN, M.D.

*Are Two Heads Really
Better Than One?
Halakhic Issues Relating
to Conjoined Twins and a
Two-Headed Person*

Introduction

Conjoined twins are identical twins whose bodies are joined or do not fully separate *in utero*. They can be joined along virtually any part of the body and are categorized by the specific point of connection, such as the chest, abdomen, back, or head, and have been known to exist since antiquity.¹ In the

1 On the history of conjoined twins, see G. M. Gould and W. L. Pyle, *Anomalies and Curiosities of Medicine* (New York, 1896), 167-89; H. H. Wilder, "Duplicate twins and double monsters," *American Journal of Anatomy* 3:4 (1904): 388-472 (which includes a fascinating discussion on the physiological theories of development of conjoined twins); J. Bondeson, *The Two-Headed Boy and Other Medical Marvels* (Ithaca, NY, 2000). See also the National Library of Medicine online exhibit, "From Monsters to Modern Medical Miracles: Selected Moments in the History of Conjoined Twins from Medieval to Modern Times," <http://www.nlm.nih.gov/hmd/conjoined/> (accessed May 12, 2012). The Mutter Museum in Philadelphia has a permanent exhibit with artifacts and images explaining how conjoined twins develop, including examples of famous conjoined twins of the past and present. The autopsy of the famous Siamese twins, Eng and Chang Bunker, was performed at this museum, and a cast of their bodies is on

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modern era, it has become possible to successfully separate conjoined twins, depending on the nature of the shared vital organs. Such procedures, which invariably attract media attention, are among the most complex in the surgical arsenal and require a concert of interdisciplinary services. These cases often create correspondingly complex ethical dilemmas.²

While there has been occasional discussion of the phenomenon of conjoined twins in halakhic literature,³ contem-

display. For a current review of incidence of conjoined twins, see O. M., Mutchinick, et. al., "Conjoined twins: a worldwide collaborative epidemiological study of the International Clearinghouse for Birth Defects Surveillance and Research," *American Journal of Medical Genetics, Part C, Seminars in Medical Genetics* 157C:4 (November 15, 2011): 274-87.

2 For a recent example, see M. Lee, et. al., "The bioethics of separating conjoined twins in plastic surgery," *Plastic and Reconstructive Surgery* 128:4 (October, 2011): 328e-334e.

3 For discussions of conjoined twins in rabbinic literature, see Tuvia Cohen, *Ma'aseh Tuvia* (Venice, 1708), section *Olam Katan*, chapter 6; Y. Reischer, *Shevut Ya'akov* 1:4; C.Y.D. Azulai, *Mabzik Berakhah, Yoreh De'ah* 13, no. 5; Y.Y. Shmelkes, *Beit Yitzhak, Yoreh De'ah* 99, no. 3-4; Y.M. Glassberg, *Zekhor Berit Le-Rishonim (Helek Milu'im)*, (Cracow, 5652), chapter 5; H.J. Zimmels, *Magicians, Theologians and Doctors* (London, 1952), 71-73; W.M. Feldman, *The Jewish Child* (London, 1917), 129-30 and 137-9; Y. Ba-Gad, "On the Two-Headed Baby" (Hebrew), in his *Nahalei Ha-Eshkolot*, vol. 1, 74-89; D. Sperber, "Two-Headed Monsters," in his *Magic and Folklore in Rabbinic Literature* (Ramat Gan, 1994), 13-14; Yosef Potzanovsky, *Pardes Yosef, Bereishit*, no. 38; D.A. Mandelbaum, *Pardes Yosef Ha-Hhadash, Bamidbar*, p. 13, no. 14; N. Slifkin, "Two-Headed Men and Other Mutants," in his *Sacred Monsters* (Brooklyn, NY, 2007), 209-16. Dr. Abraham Abraham has written a number of substantive halakhic discussions on issues relating to conjoined twins in the second edition of his *Nishmat Avraham* (Jerusalem, 2007); see index, "te'umei sayam." The most comprehensive essay on conjoined twins in rabbinic literature is J. D. Bleich, "Conjoined Twins," in his *Bioethical Dilemmas* (Hoboken, NJ, 1998), 283-328. The present essay contains much new material not discussed in the aforementioned sources and should be considered a supplement to these excellent contributions.

There is a midrashic approach (see *Eruvin* 18a) that Adam and Havah were created as conjoined beings, but this is, by definition, not a case of conjoined twins, as conjoined twins are derivative from one embryo and are always identical twins. Of course, the formation of the human being at the very time of creation must be viewed with a different lens. We therefore do not explore this midrashic thesis in this essay.

porary discussions focus primarily on the issue of surgical separation with reference to a specific case, which will be addressed below. This halakhic question has been thoroughly addressed and will only be referenced here. There are, however, other halakhic issues that relate to conjoined twins and whether they have the status of one or two people. This essay will focus on these issues.⁴

Pidyon Ha-Ben

A variant of conjoined twins is the two-headed child, or dicephalic type, where there are two heads, but no duplication of other major organs.⁵ If such a child was a firstborn of an Israelite family, what would the *halakhah* be regarding *pidyon ha-ben*, redemption of the firstborn? This issue is discussed in what is perhaps the most famous passage in early rabbinic literature dealing with conjoined twins:

Plimo inquired of Rebbe: In the case of one who has two heads, on which of them does he don *tefillin*? Rebbe indignantly said to him: Either rise and go into exile or accept excommunication upon yourself! Meanwhile, a certain man came and said to Rebbe: A child that has two heads was recently born to me. How much money must I give to the *Kohen* for this firstborn's redemption? A certain elder then came and taught Rebbe as follows: The father is obligated to give the *Kohen* ten *sela'im*.⁶

⁴ The halakhic discussions on conjoined twins have also been applied to other halakhic matters. For example, R. Eliyahu Posek, in his work on the laws of *lulav* and *etrog*, *Eitz Ha-Sadeh* (published by his son in 5697), uses the case in *Menahot* 37a and the responsum of *Shevut Ya'akov* on conjoined twins as proofs in his discussion of the halakhic status of a "twin" *lulav* and a "twin" *etrog*.

⁵ For a history of dicephalic twins specifically, see J. Bondeson, "The Tocci Brothers and Other Dicephali," in his *The Two-Headed Boy*, 160-88.

⁶ *Menahot* 37a-37b (based on Artscroll translation).

The *gemara* then discusses the basis for the ruling. A child that is “*nitraf*” within 30 days of birth does not require redemption. A child with two heads should presumably be similar to this excluded category and should not require any redemption, let alone a double redemption! Why, then, is a payment of ten *sela'im* required? The *gemara* answers that the Torah makes the *mitzvah* contingent specifically on the head count (*gulgolet*). As there are two heads in this case, each head requires redemption.

There are a number of interpretations of this passage, some based on different definitions of the word “*nitraf*.” Some explain the passage according to Rashi, who defines “*nitraf*” as “killed,” whereas others explain it according to Tosafot, who explain that it implies that the child was rendered a *treifah*.⁷

R. A. Neumark posits a novel, although historically anachronistic, approach to the passage in *Menahot*.⁸ He contends that the passage refers not to a child with one body and two heads, but to a set of full, conjoined twins, with two full bodies and two heads. Furthermore, these conjoined twins are surgically separable, but will not survive connected. Since they are two complete, separable bodies, any discussion about or application of the specific law of *treifah* called “*yeter*” (duplicate organs) does not apply in this case, as that principle only applies to one body with duplicate organs, not to two separable bodies. The question of the *gemara* is thus based on a doubt re-

⁷ *Treifah* is a category/status of animals that are diagnosed with terminal conditions with a prognosis of less than twelve months. For discussion of how the term *treifah* applies to humans and whether its use is exactly analogous to animals, see A. Steinberg, *Entzyklopedia Hilkhatit Refu'it*, s.v., “*treifah*”; Y. Robinson, “*Treifah* for Human Beings” (Hebrew), *Assia* 56 (September 1995): 30-34.

For lengthy discussion on the point of argument between Rashi and Rabbeinu Tam, see Yaakov Schick, *Yashresh Yaakov* (Budapest, 5684), 14-16; S. Goldman, “Explanation of the Positions of Rashi and Rabbeinu Tam for a Firstborn *She-Nitraf* within Thirty Days and Redemption of a Firstborn with Two Heads” (Hebrew), *Ha-Darom* 72-73 (Elul 5762): 139-49; A.Y. Neumark, “Born with Two Heads” (Hebrew), *Kol Torah* 14:31, vol. 11 (*Av* 5720): 5-6.

⁸ A.Y. Neumark, *ibid.*

garding if this set of twins is considered a general *treifah*, since they will die soon without intervention, but could live full lives if separated. R. Neumark wrote this thesis in 1960, when surgery for separation of conjoined twins had recently become a reality.

Irrespective of the interpretation of the passage, the conclusion appears to be that for a two-headed child, one is required to give the *Kohen* ten *sela'im*. Rashi explains that in a usual case of twins, only five *sela'im* are given, since one twin's head opens the womb first. However, in the case of dicephalic twins, it is possible that both heads exit the womb simultaneously, and thus ten *sela'im* are required.

Regarding practical Halakhah, *Tur* accepts the passage in *Menahot* as authoritative and maintains that for a two-headed child, ten *sela'im* are indeed given to the *Kohen*.⁹ However, this conclusion is not mentioned either by Rambam or *Shulhan Arukh*. R. Yaakov Reischer states in his responsum on a case of twins conjoined at the head (craniopagus) that despite the connection of the skulls, they are clearly two distinct individuals with two distinct bodies and faces. Thus, ten *sela'im* would be required for redemption. If, however, they were delivered feet first (breech), he stipulates that only five *sela'im* would be required, presumably because one head would clearly exit the birth canal first.¹⁰

Dr. Abraham S. Abraham points out that today, the question of *pidyon ha-ben* for a two-headed baby is moot and has no practical relevance, as these babies are invariably delivered by cesarean section, thus exempting them from the requirement of redemption.¹¹

9 *Tur*, *Yoreh De'ah* 305. See also Rosh, *Bekhorot* 8:5; *Hatam Sofer*, *Yoreh De'ah* 294.

10 Parenthetically, given the anatomical configuration of the craniopagus twins described by R. Reischer, they would certainly have been born breech and would have required only five *sela'im* for redemption.

11 A. S. Abraham, *Nishmat Avraham* (2nd edition, Jerusalem, 5767), *Yoreh De'ah*, 305, no. 5, n. 4.

Tefillin for Conjoined Twins

The initial question that begins the famous Talmudic passage above about the two-headed child is about *tefillin*. After the appearance of the father of a newborn two-headed child, the discussion quickly shifts to the topic of *pidyon ha-ben*, never again to return to the original question. Thus, the *gemara's* question about which head should don the *tefillin shel rosh* remains unanswered. A number of rabbinic authorities in recent times have ventured to resolve this halakhic dilemma.

R. Moshe Rosen points out the inconsistency in the way the *gemara* addresses *pidyon ha-ben* and *tefillin* for the two-headed child. While the *gemara* queries whether one should pay for the redemption of one or two children in the case of the two-headed child, with respect to *tefillin*, the *gemara* assumes that only one of the heads should don the *tefillin*, simply asking, “on **which** [head] should he place the *tefillin*?” Why is it obvious that only one head should bear the *tefillin*? Perhaps both heads are required to wear *tefillin*! R. Rosen posits that since there is but one body, the placement of a second *tefillin shel rosh* would constitute a violation of *bal tosif* (adding to the *mitzvah*).

If only one *tefillin shel rosh* is to be worn, the question then turns to preference. Just as there is a primary and secondary hand, perhaps there is a primary and secondary head. In addition, perhaps the *tefillin shel rosh* should be placed on the head in closer proximity to the hand that bears the *tefillin shel yad*. Alternatively, since the right has greater importance in many areas of halakhah, perhaps the right head should bear the *tefillin*. It is because of the absence of clear guidelines, according to R. Rosen, that the *Gemara* asks, “on which [head] should he place the *tefillin*?”¹²

R. Binyamin Fleischer likewise mentions the notion that *bal tosif* would preclude the wearing of *tefillin* on both heads. However, if each head is to be viewed as an independent

12 *Nezer Ha-Kodesh* (New York, 5719), n. 59.

person, he counters, *bal tosif* would not apply. He rejects this counterargument by citing the *Shitah Mekubetzet* on *Menahot*, which recounts a story in which Shlomo Ha-Melekh poured water on one head of a two-headed person; the other head experienced the pain as well. This seemingly proves that the two heads are in fact one unified body. As such, the concern for *bal tosif* would still apply.¹³

R. Efraim Grunblatt was troubled by the same question as R. Rosen (although he does not quote him). Why is it, he asks, that while the *gemara* allows for the possibility of requiring redemption for both heads, when it comes to *tefillin*, the assumption is that only one head should bear the *tefillin*? After all, the Torah states that “they [*tefillin shel rosh*] should be a sign between your eyes,” and both heads possess a pair of eyes.¹⁴ R. Grunblatt argues that based on the principle prevalent in the laws of *treifot*, all duplicate organs are considered removed or absent, and one would not fulfill the *mitzvah* if the *tefillin* is placed on a head that is considered halakhically absent.¹⁵

13 *Shavei Binyamin* (New York, 5694), n. 14. See also Y.Y. Schmelkes, *Beit Yitzhak, Yoreh De'ah* 1:99, who compares the case of a child born with two male reproductive organs and the requirement to undergo two circumcisions to the case of *tefillin* for the two-headed boy. Like R. Rosen and R. Fleischer, he adopts the approach of *bal tosif*.

14 This same logic might dictate the necessity for two pairs of *tzitzit* for a two-headed person, as the verse says, “*lo taturu... aharei eineichem*,” “do not stray after your eyes.” Since each head possesses a separate pair of eyes, each should thus be required to wear a separate pair of *tzitzit*. I have not seen anyone address this issue, arguably for obvious reasons.

15 R. Grunblatt also uses the case of the two-headed child in *Menahot* to offer a whimsical proof that it is not possible to read the *haftarah* twice on the same Shabbat. The *gemara* assumes that only one head can don the *tefillin* in order to prevent the future potential conflict at the bar mitzvah of the two-headed child. If each head were allowed to wear *tefillin*, then each would claim the right to recite the bar mitzvah *haftarah* with its attendant blessings! From the fact that *tefillin* is limited to one head, we see clearly that the *haftarah* can only be read once. (One can only speculate if Rebbe's response to this proof of R. Greenblatt would have been similar to his response to Palimo, although I suspect Rebbe would have thoroughly appreciated the

I would suggest that there is a possible practical difference between the position of R. Rosen and R. Fleischer, on the one hand, and that of R. Grunblatt, on the other. According to R. Rosen and R. Fleischer, if the two-headed person wished to wear “Rashi” *tefillin* on one head and “Rabbeinu Tam” *tefillin* on the other, this might not constitute a violation of *bal tosif*, as the obligation is fulfilled with one of the two pairs. However, according to R. Grunblatt, donning two pairs of *tefillin* simultaneously has no halakhic value, as one (and possibly both) of the heads is considered legally absent. Thus, there would be no halakhic utility in placing the *tefillin* of Rashi and Rabbeinu Tam on the two heads.

While the above discussions are examples of legal analyses of the Talmudic passage about a two-headed child, a number of rabbinic authorities have discussed the issue of *tefillin* with respect to specific cases of conjoined twins that they themselves observed. While the twins mentioned in these cases are not Jewish, the question is addressed as if they were. In his responsum regarding craniopagus twins (joined at the head), R. Yaakov Reischer concludes that without doubt, each should don *tefillin* on their respective heads, as there are two complete bodies.

R. Chaim Elazar Shapira observed a case of twins on display in Vienna with two upper bodies, but one shared body from the waist down (a form of dicephalous twins).¹⁶ In his work on the laws of *tefillin*, R. Shapira finds it difficult to consider this anomaly as one legal person, since there are two separate hearts and heads. He therefore concludes that each twin should don his own *tefillin shel rosh*, with the *tefillin shel yad* worn on the corresponding left hand, adjoining their respective hearts.¹⁷

intellectual exercise.)

16 Based on the anatomic description, location, and historical period, I suspect that he observed the famous Tocci brothers, who were exhibited widely at that time.

17 *Ot Hayim Ve-Shalom*, section *Ot Hayim* (on *tefillin*) 27:9, no. 13. R. Shapira also offers other explanations as to why both heads should don *tefillin*.

The Reason for Rebbe's Response

When Palimo in the Talmudic passage inquires of Rebbe about the applicability of the laws of *tefillin* to a two-headed child, Rebbe responds in a way reminiscent of a teacher frustrated with a difficult student whose absurd question distracts the class from the day's intended lesson: "Either go into exile or accept upon yourself a curse!" The simple explanation is that Rebbe assumed Palimo was mocking or making folly of the halakhah by mentioning a ludicrous example, one that could not possibly occur.¹⁸ In fact, Tosafot comment that "in this world, there is no such thing."¹⁹ Similarly, R. Yitzchak Or Zarua (13th century) includes this case of the two-headed baby in a list of Talmudic cases that he considers purely hypothetical with no basis in factual reality.²⁰

These comments are somewhat difficult in light of the fact that the passage continues with a story of a man who had a two-headed child.²¹ As to the historical veracity of this statement, while there were sporadic, rare cases of conjoined twins noted from antiquity onwards, it is quite possible that many areas of the world were indeed unfamiliar with this congenital anomaly until accounts were published and disseminated in the medical literature.²²

While a student's distraction may merit a response, Rebbe's particular response seems more severe than such a common circumstance would dictate. What then compelled Rebbe's extreme rebuke? Commentaries have suggested anatomical, homiletic, and magical explanations.

R. Menashe Klein suggests that Palimo and Rebbe ac-

18 See Rashi, *Menabhot* 37a, s. v., *oh*.

19 Tosafot, *Menabhot* 37a, s.v., *oh*.

20 *Or Zarua*, vol. 2, *Hilkhot Aveilut*, end of 424 (pp. 173-4 in the Zhitomer, 5622 edition).

21 See D. Sperber, "Two-Headed Monsters," 13-14, where this question is discussed.

22 For example, there is an illustration of conjoined twins in one of the first printed treatises on obstetrics, the *Rosengarten*, by Eucharius Rosslin, printed in 1513.

tually held differing views regarding a particular *halakhah* of *treifot*. A *treifah* is a person or animal that has a terminal condition with a prognosis of less than twelve months. Most rabbinic authorities maintain that if a designated *treifah* does, in fact, live longer than twelve months, the original *treifah* designation was clearly invalid. The only possible exception is the category termed “*yeter*,” regarding which the accepted legal principle is that “*kol yeter ke-natul dami*,” additional or duplicate organs are considered as if removed or absent, rendering a *treifah*. According to Rashba, *treifot* in the *yeter* category are able to survive longer than the twelve month period, but are nevertheless considered to have a full legal status of a *treifah*. Others disagree and maintain that the *yeter* category is no different than other *treifah* categories, and such a *treifah* cannot survive beyond twelve months.

According to all opinions, R. Klein explains, a two-headed person would fall into the *treifah* category of *yeter*. Palimo, in accordance with Rashba’s understanding, maintained that it is possible for one in the *yeter* category to live longer than twelve months while still being considered a *treifah*. It was therefore appropriate for him to ask about *tefillin*, a law that would only apply to the child when he reached thirteen years of age. Rebbe, however, did not agree with the position of Rashba, maintaining that such a child, being a *treifah*, could not possibly survive to bar mitzvah, when the question of *tefillin* would be relevant. Rebbe therefore considered Palimo’s question heretical, as Palimo was overtly rejecting the words of *Hazal* as Rebbe understood them and thus merited an extreme response.

R. Klein further suggests that *Hashem* orchestrated the appearance of the man with the two-headed child, and the subsequent statement of “*hahu saba*” (identified with Eliyahu Ha-Navi), to affirm that Palimo’s position is in fact not heretical and it is in accordance with halakhic tradition that this type of *treifah* can survive to the age of bar mitzvah.²³

23 A similar approach is suggested by S. Goldman, “Explanation of the

R. Yaakov Epstein bypasses the anatomical discussion, preferring a homiletic interpretation of Rebbe's response. He interprets Palimo's question as follows: If one is of two heads, or two minds, with his thoughts both on the heavenly matters of prayer and on worldly matters as well, is he allowed to put on *tefillin*? This explains the severity of the response of Rebbe, immediately ostracizing Palimo. Since one clearly should refrain from wearing *tefillin* if his thoughts are impure, Rebbe answered angrily that one should subjugate his thoughts and his heart, expel any impure thoughts, and be receptive to the holy thoughts of prayer.²⁴

R. Meyer Blumenfeld invoked the case in *Menahot* of the two-headed boy to teach a lesson to a one-headed bar mitzvah boy. In a bar mitzvah sermon on the *haftarah* of *Parshat Bamidbar*, R. Blumenfeld employs a homiletic idea similar in concept to R. Epstein, comparing the different lands of the Diaspora to the two heads of one body. If, as in the case of Shlomo Ha-Melekh, when hot water or suffering is endured by "one head," the Jews in one land, and the "other head," the Jews in the other lands, cry out in pain, this is a sure sign that we are ready for the redemption.

He further applies the idea of two heads to certain Jews whose behavior reflects a dichotomy between their presence in both the Jewish and non-Jewish world at the same time – as if living with two heads. The question goes beyond whether they can put on *tefillin*, he argues, and is rather a fundamental question as to the nature of their Judaism. Is it possible to remain a Jew with two heads? Turning his attention to the bar mitzvah boy, R. Blumenfeld concludes that the people that received the Torah on Mount Sinai were of one head, and he enjoins the young boy to continue in that vein.²⁵

R. Chaim Elazar Shapira suggests another explanation for Rebbe's response. Tosafot mentions that the two-headed

Positions of Rashi and Rabbeinu Tam," 139-49.

²⁴ *Beit Yaakov* (1933), 87-88.

²⁵ M. Blumenfeld, *Netivot Nevi'im* 2 (Brooklyn, 1965), 97-99.

child presented to Shlomo Ha-Melekh as originated from Ashmadai, the king of the demons. Such a creature was therefore considered a product of demons, witchcraft, and sorcery, matters clearly prohibited by the Torah. Rebbe's response reflected his complete and utter rejection of these prohibited endeavors, the ultimate source of such a creature. Palimo was concerned about the existence of such sorcery amongst the Jewish people, thus prompting him to ask such a question.²⁶

An alternate explanation reinterprets the phrase "rise and go into exile" as a suggestion, rather than a punishment. According to *Seder Ha-Dorot*, quoting the *Zohar*, in the place to which Kayin was exiled, the children had two heads. When Rebbe said, "rise and go into exile," he suggested that Palimo go to the same place of exile that Kayin went to; there, where people have two heads, he would be better able to find an answer to his question.²⁷

Inheritance

The issue of inheritance, while not mentioned in the Talmudic discussion, is raised by Tosafot in his brief recounting of the midrashic story regarding Shlomo Ha-Melekh.²⁸ According to the expanded version of the *midrash*,²⁹ Ashmedai, the king of the demons, raised up from the netherworld a man with two heads to display to Shlomo Ha-Melekh. Shlomo requested that he return the person to his place of origin, but this was apparently no longer possible. The two-headed person remained in this world, married a woman, and begat children of both the two-headed and one-headed variety. Upon the death of the father, the two-headed son requested two portions of inheritance. When brought before Shlomo, he covered one of the heads and poured scalding water on the other. When both heads simultaneously cried out in pain, he declared them one

26 *Minhat Elazar, Nimukei Orah Hayim* 27:9.

27 J.D. Bleich, "Conjoined Twins," 311, n.25.

28 Tosafot, *Menahot* 37a, s. v., *kum gali*.

29 *Otzar Ha-Midrashim* (Eisenstein), 533.

person, with one share of inheritance.

The logic behind this proof is not explicitly stated. Perhaps Shlomo's sole purpose was to experimentally determine if they had two separate nervous systems, as he believed this to be the criterion for their individuality. It is equally possible that this was a dramatic method of publicly verifying a decision that Shlomo arrived at for other reasons.

The German government in the early 20th century concurred with the decision of Shlomo Ha-Melekh, although for different reasons. The parents of a set of dicephalous twins petitioned the German government for public assistance for two mouths to feed. Despite support from the medical community, the government rejected their claim, stating that twins that could not be surgically separated were legally considered as one person.³⁰

R. Yitzhak Yehudah Schmelkes heard of the case on display in Vienna of the twins with one shared lower body.³¹ Unlike the Talmudic case of one body with two heads, these twins had separate upper bodies. R. Schmelkes seems inclined to consider them as two halakhically separate people for matters such as counting for a *minyan* and entitlement to inheritance, as they have separate hearts and upper bodies.³²

R. Reischer addresses a case of twins conjoined at the head, with two complete bodies, concluding that as two complete individuals, they are obviously each entitled to separate shares of inheritance.³³

R. Yaakov Hagiz (17th century) comments on the halakhic status of a unique form of conjoined twins he observed in Italy. One twin appeared as a normal adult, while the second, smaller twin was connected at the waste, with its legs reaching only to the knees of the other. He reports that this smaller,

30 J. Bondeson, "The Tocci Brothers," 182.

31 Again, these were likely the Tocci brothers who were personally seen by Rabbi Shapira.

32 *Beit Yitzhak*, *Yoreh De'ah* 99, no. 3-4.

33 *Shvut Yaakov* 1:4.

parasitic twin had no apparent sensation. R. Hagiz considers this twin a *goses*, with its attendant halakhic ramifications, including rights to inheritance. (It is somewhat remarkable that R. Hagiz labeled the parasitic twin a *goses*, a term given to one whose death is imminent, given the fact this twin survived for many years.) He also considers whether the parasitic twin would require *milah* and whether, upon seeing this unusual being, one should recite the blessing of “*meshaneh ha-beriyot*,” which is recited upon unique or unusual creatures.³⁴

We thus have discussions in rabbinic literature about inheritance for four unique types of conjoined twins – two forms of dicephalous, craniopagus, and parasitic.

Marriage of Conjoined Twins

The famous Siamese conjoined twins Chang and Eng Bunker, who were joined at the chest wall but had completely separate bodies, married different wives (sisters, in fact), and maintained separate families. The Godina twins, born in 1908, were joined at the sacrum (pyopagus) and married identical (although not conjoined) twins. The success with which these sets of twins navigated this unique marital arrangement was apparently not shared by another earlier set of conjoined twins. Rabbeinu Gershon ben Shlomo of Arles (13th century), father of Ralbag, records a story in the name of Avicenna (the Persian physician) of a pair of female conjoined twins anatomically similar to the Bunker twins. One of the twins wished to marry, but the other refused, out of concern for her modesty during the course of marital relations. When the twins presented the case before a judge, the judge devised a Solomonic solution to determine if one twin had the right to marry against the will of the other. After the twins were seated, he asked one to rise and walk across the room. With great effort, she was able to partially stand, but her sister remained seated. He then asked the other sister, who had requested to marry, to perform the same

³⁴ *Halakhot Ketanot* 1:245.

action. She stood with ease, forcibly carrying her sister with her across the room. Having satisfactorily determined that the sister requesting marriage was the dominant twin, he acceded to her request and allowed the marriage. Shortly thereafter, however, the non-dominant twin died, purportedly due to anger and shame. With her passing and decomposition of the body, the remaining dominant twin died as well.³⁵

R. Yaakov Reischer addresses the halakhic issues that arise regarding marriage in his responsum regarding craniopagus twins. In a case of male conjoined twins, he maintains that it is prohibited for one of them to marry, as the woman's lying in bed, by necessity, with the other twin might potentially lead to adultery. Furthermore, there is a general prohibition against cohabitation in the presence or view of others. For this latter reason, it would likewise be prohibited for a set of female-female conjoined twins to marry, even though the concern for adultery may not technically apply.³⁶ He adds that even in a place where it is accepted custom for one to have two wives, it would still be prohibited to marry conjoined twins, since cohabitation in the presence of another is prohibited.

According to Yosef Potzenovsky,³⁷ the *beit midrash* in the European city of Liske housed an old copy of R. Reischer's *Shvut Yaakov* that contained the handwritten marginalia of R. Akiva Eiger. In his notes, he queries that if the twins were female, there would be a prohibition of marrying two sisters, and one need not resort to the secondary prohibition of public marital relations.

In his approbation to the published responsa of R. Reischer, R. Yosef Shaul Nathanson asks the identical question

³⁵ See *Sha'ar Ha-Shamayim, ma'amar shemini*. This story is repeated by others. See, for example, Tuvia Cohen, *Ma'aseh Tuvia*, section *Olam Katan*, chapter 6.

³⁶ R. Reischer also applies this logic to a set of male-female conjoined twins, although this combination is not physiologically possible. Conjoined twins are the product of the splitting of a single embryo, and by definition are always identical and of the same gender.

³⁷ *Pardes Yosef, Bereishit*, n. 38.

as R. Eiger, wondering why R. Reischer did not invoke the prohibition of marrying two sisters as an obvious reason why marrying conjoined twin sisters would be prohibited. He suggests that perhaps conjoined twins are considered a legal *treifah* and the prohibition of marrying two sisters does not apply to a *treifah*.³⁸ For this reason, R. Reischer does not mention the prohibition of marrying two sisters in this case.

R. Yosef Dzialofsky, however, claims that R. Nathanson extrapolated incorrectly from the *gemara's* statement that the prohibition does not apply to a *treifah*. In the case under discussion there, the fetus was nonviable, but in the case of viable conjoined twins, there is no reason that the prohibition of marrying two sisters should not apply, even if they may be considered a *treifah*.³⁹

I would suggest a different answer to the question of R. Eiger and R. Nathanson as to why R. Reischer did not mention the prohibition of marrying two sisters. R. Reischer introduces the concept of engaging in marital relations in front of others as the main reason to prohibit a set of male conjoined twins from marrying one woman; he extends this logic to a set of female conjoined twins as well. Since the conjoined twins (of the configuration discussed by R. Reischer) are separate individuals, it is technically and halakhically permissible for a man to marry one of them. The only issue that would preclude this arrangement is, as R. Reischer mentions, the prohibition of public marital relations violated by the conjoined sister, which applies even in locations where it is customary to marry two women. The prohibition of marrying two sisters would not in any way preclude a man from marrying *one* of the twins, and R. Reischer thus did not deem it necessary to mention this prohibition.⁴⁰

38 See *Niddah* 23.

39 *Yad Yosef* (Lublin, 1911), *hashmatos* n. 86. For another approach to the question of R. Eiger and R. Nathanson, suggesting that this was a case of conjoined twins who converted, see R. E. Waldenberg, *Tzitz Eliezer* 17:49, and his discussion of *Beit Yitzhak* there.

40 This is my interpretation of the phrase “even in locations where one can

There is one reported case in the early 20th century of a set of pyopagus twins (fully formed twins joined at the sacrum and positioned back to back), Rosa and Josepha Blazek, who were rumored to have married the same man.⁴¹ In this case, had the characters been Jewish, the man would have been in violation of the prohibition of marrying two sisters, as well as the prohibition of engaging in relations in public.

The aforementioned discussions about the marriage of conjoined twins refer to twins with complete, although connected, bodies. The marriage of dicephalous twins, with two heads and one body, would require a different analysis. While the case that was brought before Shlomo Ha-Melekh was of a two-headed child that was the product of the marriage of a woman with a two-headed man, there is no specific discussion about the halakhic aspects of such a marriage, perhaps since this was a creature of the netherworld. There is an historical account of dicephalous twins who married a single wife, “with whom they were said to live in harmony.”⁴²

A two-headed person has only one set of reproductive organs, and, according to the decision of Shlomo Ha-Melekh, is legally considered one person with two heads. There would therefore be no concern about adultery or the marriage of two sisters, as discussed above. However, it remains a question as to whether R. Reischer’s concern for cohabitation in public would apply in this case. Technically, the spouse of a two-headed person is engaging in relations with one individual, yet each head has a different brain, personality, and set of eyes.

The famous Tocci brothers – who had two separate bodies above the waist and one shared common body below, with one set of reproductive organs – married two separate women. Bondeson mentions discussion in the contemporary

marry two woman.” I recently saw that R. Schmelkes provides a similar answer in *Beit Yitzhak, Yoreh De’ah* 1:99, no. 4.

41 J. Bondeson, “The Biddenden Maids,” in his *The Two-Headed Boy and Other Medical Marvels*, 154.

42 Idem., “The Tocci Brothers,” *ibid.*, 167.

newspapers and medical journals about the legal ramifications of this marriage, including questions of paternity, such as which twin would be considered the father of which child, and inheritance.⁴³ This configuration demands yet another unique analysis with respect to marriage. R. Yitzhak Yehudah Schmelkes argues that if this configuration were present for female sisters, the *kiddushin* of either one of the sisters would be invalid, as it would be a marriage for which consummation is legally impossible. Since the sisters would share one set of reproductive organs, the man would violate the prohibition of cohabitation with his wife's sister. This is a form of adultery and a more severe violation than cohabitation in public.⁴⁴

Criminality and Conjoined Twins

In his discussion of the case of a parasitic twin, R. Hagiz ponders what the punishment would be for one who murders the parasitic twin. He concludes that the parasitic twin would be considered a *goses*, with all its ramifications; one is guilty of homicide for the murder of a *goses*, despite his poor prognosis. Based on the historical period, location, and description of R. Hagiz, it is clear that he is referring to the Colloredo brothers, Lazarus and his parasitic twin Baptista, who were born in Italy in 1617.⁴⁵ While R. Hagiz pontificated regarding the punishment for murdering the parasitic twin, this actually had practical relevance for the Colloredo brothers. There are accounts of Lazarus, the normal size twin, striking a man and killing him after the man had teased him in public. Lazarus was sentenced to death, but was reprieved after he claimed that if he were killed, his brother, who was innocent of this crime, would be unjustly murdered as a result.⁴⁶

43 Ibid., 181.

44 *Beit Yitzhak*, *Yoreh De'ah* 1:99, no. 4.

45 On the Colloredo brothers, including illustrations and poems about their life, see J. Bondeson, "The Two Inseparable Brothers and a Preface," in his *The Two-Headed Boy and Other Medical Marvels*, vii-xxii.

46 Ibid., ix-x.

A similar case of obfuscation of criminal culpability relating to conjoined twins is found in the fictional work of Mark Twain, *Those Extraordinary Twins*. Dicephalus twins, Count Angelo and Count Luigi Capello, were accused of kicking another person and were put on trial for assault. The defense lawyer, Pudd'nhead Wilson, in seeking acquittal, claimed that it is impossible to say which of the twins did the kicking, and that the guilty twin could not be punished without incarcerating the innocent brother.⁴⁷

R. Schmelkes concurred with the judge in the Colorado case, ruling that if one of the conjoined twins commits a sin punishable by lashes or death, one cannot administer the punishment, as an innocent person (the non-guilty conjoined twin) would be punished as a result. He compares this to the case of a pregnant woman who is sentenced to death for a capital crime, where the fetus is killed prior to the execution of the death sentence. However, once the woman is in labor and the fetus is a separate entity, one no longer has license to take its life and must wait until after birth to execute the mother. Since the twins are halakhically separate people, one cannot punish the innocent twin on account of the guilty one.⁴⁸

Separation of Conjoined Twins

There are rare accounts of attempts at separating conjoined twins in pre-modern times, one dating back as early as 945 C. E.⁴⁹ With advances in imaging and surgical techniques over the last few decades, the separation of conjoined twins has become less rare, although not common. The halakhic aspects of the separation of conjoined twins have been amply explored

⁴⁷ See M. Twain, *Those Extraordinary Twins*, chapter 5. Twain based his story on the famous contemporary set of dicephalous twins, the Tocci brothers. See J. Bondeson, "The Tocci Brothers and other Dicephali," in his *The Two-Headed Boy and Other Medical Marvels*, 180.

⁴⁸ *Beit Yitzhak*, *Yoreh De'ah* 1:99, no. 4.

⁴⁹ See G. M. Gould and W. L. Pyle, *Anomalies and Curiosities of Medicine*, 172-3; R. M. Van der Weiden, "The first successful separation of conjoined twins (1689)," *Twin Research* 7:2 (April 2004): 125-7.

in the medical halakhah literature and will not be revisited here.

The index case which sparked interest in the halakhic world was the birth of a set of twins joined at a six-chamber heart that were born to a religious Jewish couple in Lakewood, New Jersey in 1977. It was determined that without surgical intervention, the twins would die. Furthermore, surgery could possibly save one of the twins, but this required the sacrifice of the other. The medical and halakhic issues were varied and complex, but the main ethical/halakhic issue was whether it was permitted to sacrifice one twin to save the other. R. Moshe Feinstein was approached by the couple to render a decision in this case, and his lengthy discussions with the chief surgeon, Dr. C. Everett Koop, over the days before the operation are now part of the medical halakhah lore.⁵⁰ The decision was made to allow separation. For reasons unknown to me, R. Feinstein did not commit this decision to writing in his published responsa, *Iggerot Moshe*, although his son-in-law, R. Moshe Tendler, later published an account of the decision process.⁵¹ Despite the lack of a printed responsum, rabbinic authorities subsequently commented on what was known to be the decision of R. Feinstein.⁵² Dr. Koop recently reminisced about this landmark case

50 An article from the *Philadelphia Inquirer* describing this chapter, D. Drake, "The Surgery: An Agonizing Choice – Parents, Doctors, Rabbis in Dilemma," *Philadelphia Inquirer* (October 16, 1977), has been reprinted in *Jewish Medical Ethics* 4:1 (February 2001): 14-21.

51 R. Moshe Tendler, "*Ki-She-Dobin Nefesh Mipnei Nefesh*," *Le-Torah Ve-Hora'ah: Sefer Zikaron* (New York, 5749), 114-122; idem., "Unpublished Responsum: 'So One May Live,'" in his *Responsa of Rav Moshe Feinstein: Care for the Critically Ill* (Hoboken, NJ, 1996), 125-33 and 209-13.

52 R. Dovid Povarsky, *Bad Kodesh* 4:51; R. J.D. Bleich, "The Separation of Siamese Twins Joined at the Heart" (Hebrew), *Be-Netivot Ha-Halakhah*, vol. 3 (*kuntres ha-refuah*); idem., "Conjoined Twins," in his *Bioethical Dilemmas*, 283-328; M. Halperin, "Siamese Twins: Rav Feinstein's Ruling and the Subsequent Controversy," *Jewish Medical Ethics* 4:1 (February 2001): 26-27. For other halakhic discussions on the separation of conjoined twins, see R. M. Sternbuch, *Teshuvot Ve-Hanhagot, Hoshen Mishpat* 893; A. Steinberg, "Siamese Twins" (Hebrew) in *Sefer Assia* 2 (Jerusalem, 5741), 246-51; R. M.M. Klausner, "Killing One Fetus to Save the Remaining Ones" (Hebrew), *Ateret Shlomo* 1 (5756): 255-66; (Hebrew);

in a discussion with students at the Chabad Center of Dartmouth College, where he teaches.⁵³

Abortion of Conjoined Twins

While the halakhic literature on conjoined twins dates back to Talmudic times, there is one issue relating to conjoined twins which appears nowhere in pre-modern rabbinic literature – abortion of conjoined twins. While rabbinic discussions on abortion date back to antiquity, the issue of abortion for conjoined twins is a product of the modern era and the advent of medical ultrasound imaging, which allows visualization of the anatomic features of the fetus or fetuses *in utero*.⁵⁴ In the pre-modern era, a woman could not have known prior to birth if she was carrying a set of conjoined twins. A number of contemporary rabbinic authorities address the halakhic permissibility of aborting fetal conjoined twins.

R. Levi Yitzchak Halperin was asked whether a woman carrying conjoined twins is allowed to perform an abortion or whether she should carry the twins to term and attempt surgical separation.⁵⁵ Initially, he queries as to whether the twins are considered two separate beings or one being with duplicate organs. He brings proof from the story of Adam and Havah,

D. Stein, "On the Topic of Conjoined Twins" (Hebrew) *Beit Yitzhak* 32 (2000): needs page number; A.N. Tzucker, "On the Topic of Conjoined Twins" (Hebrew), *Hakirah* 5 (Fall 2007): 33-39; A. Enker, "Necessity: Do Numbers Ever Count" (Hebrew) in his *Ikarin Be-Mishpat Ha-Pelili Ha-Ivri (Fundamentals of Jewish Criminal Law)* (Jerusalem, 2007), 389-448.

53 See A. Levy, "Former Surgeon General Looks Back at Hallmark Case Influenced by Rabbinic Law" (April 24, 2009) at http://www.chabad.org/news/article_cdo/aid/880801/jewish/Surgeon-General-Addresses-Dartmouth-Students.htm (accessed May 12, 2012).

54 See, for example, T.C., Mackenzie, et. al., "The natural history of prenatally diagnosed conjoined twins," *Journal of Pediatric Surgery* 37:3 (March 2002): 303-9; R.M. Nomura, et. al., "Conjoined twins and legal authorization for abortion," *Revista da Associacao Medica Brasileira* 57:2 (March-April 2011), 205-10.

55 See L.Y. Halperin, "Pregnancy Termination for Siamese Twins" (Hebrew), in his *Ma'aseh Hoshev* (Jerusalem, 5757), vol. 3, ch. 8, pp. 147-50.

who, according to some *midrashim*, were created as conjoined beings. Citing the case of the two-headed child presented to Shlomo Ha-Melekh, he wonders if Shlomo's test reflected a specific attempt to determine whether each twin had a unique and separate sensori-nervous system, which is what defines an individual being, or whether this was simply an effective, dramatic demonstration of his decision, which was based on other criteria.

R. Halperin distinguishes between different forms of anatomical connection. If the twins are not connected by any vital organs and would be surgically separated with relative ease, then they would be considered two separate, potentially viable fetuses. As such, abortion would be prohibited. If, however, they share vital organs, such as a heart, as well as a common nervous system, there are three possible scenarios and approaches. R. Halperin hastens to note that this is a very general overview, and that any actual case would require much greater analysis given the complexity of the issue.

1) Considered as two fetuses, with one healthy and one a *treifah*: This approach would apply to a case similar to that of the Lakewood twins, in which the shared heart rested primarily in the chest of one twin, with one twin considered dominant or primary and the other one weaker and secondary.⁵⁶ The dominant twin is viewed as a "*shalem*," healthy fetus, while the secondary twin carries the legal status of a *treifah*. In this approach, according to R. Halperin, abortion would be prohibited without exception, as there is no *heter* to sacrifice the healthy fetus along with the *treifah*. However, it would be permitted to selectively abort the secondary twin if it were possible to preserve the dominant fetus in the process. To my knowledge, such a procedure has not yet been attempted.

2) Considered as two fetuses, both with the status of *treifah*: According to this position, even if one twin is domi-

⁵⁶ Of course, this is a simplification; anatomical position does not necessarily reflect physiological dominance.

nant and the other secondary, we would consider both twins to have the status of *treifah*. In this case, there would be room to consider the possibility of abortion, as one would be sacrificing one *treifah* at the expense of another *treifah*, both of equally inferior status. However, it is possible that surgical separation of the twins after birth would change the status of one twin from a *treifah* to a “*shalem*.” Would we consider this potential upgrade in legal status – which would only possibly occur through a risky surgical operation after birth – enough to preclude an abortion *in utero*? R. Halperin leaves this difficult question unanswered.

3) Considered as one fetus with the status of *treifah*: If we consider the conjoined bodies as one fetus with some duplicate organs, then it would have the status of a *treifah* (based on the principle that “*yeter ke-natul dami*,” a duplicate organ is considered as if that organ is removed or absent). Given the poor prognosis both *in utero* as well as if the fetus survives to birth, R. Halperin would in principle allow an abortion in this case. However, each case would require its own unique legal analysis before any decision is rendered.

While R. Halperin’s discussion is hypothetical, when he was asked whether it is permissible to perform an abortion in a specific case of conjoined twins who shared a heart, his answer was affirmative. He added an important proviso that another rabbinic judicial authority must concur with the decision.⁵⁷

R. Menashe Klein was also asked a practical question about the permissibility of abortion for a woman who was found on ultrasound to be carrying a child with two heads (and one body).⁵⁸ As a preface to his consideration of terminating the pregnancy of a deformed or defective child, he cites three references reflecting the attitude and actions of rabbinic figures when faced with the birth of a child with congenital

57 See Y. Stein and L.Y. Halperin, “Siamese Twins Seen on Ultrasound During Pregnancy” (Hebrew), *Ha-Berakhah* 6 (*Tamuz* 5771): 15-18.

58 *Mishneh Halakhot, Mahadurah Tinyana*, 6:37.

anomalies or with halakhic stigma. R. Ada bar Ahavah had a child with an anatomical effect of his genitalia rendering him a *petzuah dakah* and infertile. He fasted for him and he died.⁵⁹ Similarly, according to some, when a legal bastard (*mamzer*) is born, there is a custom to not recite the usual prayer, “sustain this child...,” as we do not genuinely wish to sustain such a child. Some suggest that one should even specifically pray that this child should die. In the same vein, R. Yitzhak ben Yehudah Ha-Levi mentions that with the birth of a severely deformed child, people often pray for the child’s death.⁶⁰ R. Klein makes it clear that while there may be cases in which one is permitted to pray for death, under no circumstances is it permitted to physically hasten the death of a child with any deformity or stigma.

With this preface, he launches into a discussion about the status of a two-headed fetus, defining such a fetus as a *treifah*, and therefore entertaining the possibility of abortion. He concludes, in accordance with the position of Rashba, that even though a two-headed fetus is designated as a *treifah*, it can still potentially live well beyond the twelve-month period. Given the projected longevity, R. Klein concludes that abortion is clearly prohibited.⁶¹

Conclusion

There is more to the rabbinic literature on conjoined twins than separation alone. Rabbinic authorities over the centuries have observed and commented on a variety of types of conjoined twins, including craniopagus, dicephalus, and parasitic. Issues such as redemption of the firstborn, *refillin*, inheritance and criminal liability were addressed in pre-modern times, while modern authorities have newly addressed the issues of separation and abortion. Depending on the anatomi-

59 *Yerushalmi, Shabbat* 19:2 (17a), cited by Rabbeinu Hananel, *Shabbat* 135a. It is not clear if R. Ada bar Ahavah fasted or if R. Abin fasted.

60 *Pan'e'ah Raza*, end of *Beha'alotkha* on the verse “*al na tehi ka-met.*”

61 *Mishneh Halakhot, Mahadurah Tinyana*, 6:37.

cal configuration and the issue under consideration, conjoined twins have been considered halakhically at times either one or two people. This is reminiscent of the two-headed twins in Mark Twain's *Those Extraordinary Twins*, who would ask to get paid for two when they worked, but traveled the railway with just one ticket.

I would suggest that we might learn about the separate identity of conjoined twins from a *midrash* about the events of *Har Sinai*. In commenting on the use of a singular verb in describing the people of Israel, the *midrash* states that the Jews at *Har Sinai* were united, "*ke-ish ehad be-lev ehad*," as one person with one heart. One could perhaps learn from here that in order to be considered *ish ehad*, one person, one must have *lev echad*, one heart; it is the heart that creates the separate identity. This conclusion is in agreement with the position of Shlomo Ha-Melekh, who considered the two-headed person one being, perhaps since there was only one heart. This would also be consistent with the *psak* of R. Moshe Feinstein allowing the sacrifice of one twin to save the other, although for a different reason. Since in that case the twins were joined at and shared one heart, albeit a 6-chambered heart, they would perhaps be considered *ish ehad*, one person, and it is permitted to amputate part of the body to save the rest.⁶²

Eschewing the legal implications of this idea and invoking the conceptual and homiletic analysis, in the vein of Rabbis Blumenthal and Epstein above, we look forward to the time when the disparate heads of the Diaspora and the divergent halakhic approaches reflected in the two heads will one day unite under a single-minded Sanhedrin, when we will genuinely be "*ke-ish ehad be-lev ehad*," with the rebuilding of the *Beit Ha-Mikdash* speedily in our time.

⁶² I think I have a good idea how Rebbe would have responded to this idea had I mentioned it in his class.

RABBI TZVI SINENSKY

Hormonal Birth Control Therapies and Vesatot

Artificial forms of estrogen and progesterone are widely used as contraceptives and for treatment of a number of medical conditions.¹ A number of these treatments “override” the natural menstrual cycle and independently determine the onset of menstrual bleeding. This external manipulation raises numerous *halakhic* questions.² Prominent among them is the impact of such therapies on the rules of *vesatot*, the days during which a couple must avoid marital relations in anticipation of the onset of menses.³ Since hormonal intervention changes the

1 I am indebted to Dr. Deena Zimmerman, who reviewed and greatly enhanced an earlier draft of this article, especially its medical content. Thanks as well to Mrs. Tova Warburg Sinensky and Mrs. Atara Eis, who offered valuable feedback.

It goes without saying that there are many critical halakhic issues surround a woman's decision to begin a course of hormonal contraceptives. A question concerning such a decision should be brought to a halakhic authority.

2 Examples include the status of breakthrough bleeding as *dam niddah*, as well as *bedikot* and *tevilah* while wearing a contraceptive “ring” that is placed inside a woman's body.

3 According to some views, the couple must even avoid all physical contact during these days; see *Terumat Ha-Deshen* 247; *Beit Yosef* 184; *Shulhan Arukh* 184:2; *Bah* 184; and *Shiurei Shevet Ha-Levi* 184:6.

In general, a woman calculates the time of her *veset* from the last time she experienced a menstrual flow. The following month, she observes the same Hebrew date (*yom ha-bodesh*), the same interval as between the last two

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time that a flow is anticipated, it stands to reason that there may be a need to reevaluate these calculations for women taking medicinal hormones. This article seeks to summarize the medical background and then review the various pertinent *halakhic* issues.

The human menstrual cycle is divided into two parts, separated by ovulation (the release of an ovum or egg). In the first half, the predominant hormone released by the ovary is estrogen. In the second half, the predominant hormone is progesterone, which is released by the cells surrounding the developing egg follicle. A decrease in the progesterone level leads to the shedding of the uterine lining. Menses are said to have occurred when this shedding takes place as a result of the interaction of natural hormones produced by the body. Bleeding due to the cessation of externally provided hormones is known as withdrawal bleeding.

There are three types of hormonal treatments relevant to our discussion. The most common is a combination of estrogen and progesterone.⁴ Traditionally, these are administered through “the pill” or OCP (oral contraceptive pills). Today, however, hormonal contraceptives are available in other forms as well, such as a patch placed on the skin or a ring imbedded in the vaginal canal. These treatments are generally designed to last for three weeks, followed by a “break” of a week. This break consists of either stopping use of the medication or the use of an inactive pill, or placebo. Withdrawal bleeding generally begins two to three days following the final active pill. It is also possible to extend the administration of the pill and avoid

times she began to menstruate (*haflagah*), and the thirtieth and/or thirty-first day (*onah beinonit*). The *Poskim* debate a number of matters in regard to these days, including what exactly is proscribed, what portion of the day to observe, how many *bedikot* to perform each day, and whether the *onah beinonit* also includes the thirty-first day.

⁴ While the terms “estrogen” and “progesterone” are often used in the singular, each in fact represents a class of hormones. The difference between different brands of medication often lies in the particular form estrogen or progesterone used.

breakthrough bleeding. This technique has been packaged into forms of pills meant to be taken continuously for 80-84 days.

Another type of medication contains only progesterone. This medication can be used at the end of a cycle to delay the onset of menses; by keeping the progesterone level artificially high, the shedding of the uterine lining is prevented. Certain forms of progesterone can also be used as a contraceptive. Progesterone-only contraception seems to work by way of numerous mechanisms, including changing the hormonal balance to suppress ovulation and altering the cervical mucus, uterine lining, and fallopian tubes in ways that diminish the likelihood of fertilization. A progesterone-only hormone in tablet form is generally known as the “mini-pill.” Progesterone-only contraception is also available as an injection given every three months.⁵

When taken alone, progesterone is much less effective than combined estrogen and progesterone treatments. Additionally, progesterone-only birth controls notoriously lead to relatively high incidences of breakthrough bleeding. For these reasons, progesterone is generally prescribed for nursing women, due to the concern that estrogen may reduce the amount of breast milk produced.⁶ Doctors may also prescribe progesterone for women who experience weight gain, persistent nausea, headaches, elevated blood pressure, premenstrual syndrome symptoms, chloasma (slight pigmentation changes of facial skin), and mood changes while taking combination pills.⁷

Progesterone-only contraceptives are meant to be taken in a non-interrupted fashion. When taken to delay menses,

5 These injections, however, are likely to lead to irregular bleeding. Furthermore, unlike the mini-pill, the injection's effects remain in the woman's body for a minimum of six months.

6 Progesterone is also used in the hormonal form of the intrauterine device. However, in that case, its effect is meant to be local and not systemic, and it is thus irrelevant to our discussion.

7 See <http://uhs.berkeley.edu/home/healthtopics/PDF%20Handouts/Progestin-Only%20Contraception%20Pill%20or%20Minipill%20Reference%20Guide.pdf>.

withdrawal bleeding typically begins two to four days after the cessation of medication. This bleeding is often heavier than a typical period. When used as contraception, a number of patterns are possible: the woman may continue to menstruate regularly; she may experience lighter, irregular bleeding; or, a possibility that becomes more likely with an increased length of use, she may experience no period at all.

A third class of hormonal therapies is estrogen-only medication, which is sometimes used as hormone replacement therapy for those experiencing bothersome perimenopausal symptoms. A woman who takes estrogen and interrupts the treatment may experience breakthrough bleeding.

With this medical background in hand, we can identify five questions regarding the interface between medically-administered hormones and *vesatot*:

1. When a woman begins taking these hormones, does she continue to observe her previous *vesatot*? Does it matter whether the previous *veset* was a *veset kavua* (an “established” three-fold pattern) or a *veset she-eino kavua* (a one- or two-fold pattern)? Should we rule more strictly with regard to the *onah beinonit* (thirtieth day) than the *veset haflagah* (duration between menstruations) and *veset ha-hodesh* (monthly calculation), as we find elsewhere in *hilkhot niddah*?⁸

2. A woman who has concluded a cycle of a combined estrogen and progesterone treatment will expect to bleed fairly soon afterward. As such, must such a woman refrain from cohabitation and/or other forms of intimacy shortly after completing that course of treatment? If so, when do those restrictions begin?

⁸ For example, a woman who has not established a *veset kavua* and neglects to perform a *bedikah* during the *onah* (twelve-hour time span) of her *veset ha-hodesh* or *veset haflagah* need no longer perform that *bedikah*, whereas a woman who fails to carry out that inspection during her *onah beinonit* and wishes to be permitted to her husband must do so afterward; *Shulhan Arukh* 189:4.

3. After a woman bleeds while undergoing hormonal therapy (without having established a *veset kavua*), must she observe the *veset ha-hodesh*, *veset haflagah*, and *onah beinonit*, as must a woman who menstruates without hormonal intervention?

4. Does hormonal therapy generate its own *veset*? If so, what are its parameters?⁹

5. What rules govern a woman who concludes a course of treatment? Need she concern herself with any previous *vesatot*, either those originating during the therapy or beforehand?

Previous Vesatot for a Woman Beginning Medication

After a number of months of use, a woman who is consistently taking active pills generally does not experience breakthrough bleeding.¹⁰ It would therefore seem logical to compare this situation to that of other women who are not expected to menstruate, the halakhic concept of *mesulakot damim*.

The *mishnah* addresses the status of a woman who is not bleeding due to pre-adolescence, menopause, pregnancy, or breastfeeding, ruling that such a woman who does experience menstrual bleeding need not be concerned with the possibility that the flow began earlier than the moment she first noticed the bleeding, as she is considered *mesuleket damim*. The

9 This question is only applicable to combined estrogen and progesterone treatments, which dictate the timing of menstruation. Progesterone pills, in contrast, do not induce a woman's period, and are therefore clearly unable to generate a *veset kavua*. Similarly, a woman who bleeds while taking progesterone must observe *vesatot* like a woman who experiences typical menstruation – she must observe the *veset ha-hodesh*, *veset haflagah*, and *onah beinonit*.

10 At the beginning of use of contraceptive hormones, many women experience unexpected bleeding or staining, referred to as breakthrough bleeding. This type of unpredictable bleeding, however, is not the focus of this paper. Furthermore, staining (the most common occurrence) is not generally used for the establishment of *vesatot*; see *Shulhan Arukh* 190:54.

mishnah further clarifies that the status of a pregnant woman as *mesuleket damim* begins after only three months, once her fetus is recognizable (*hukar ha-ubar*).¹¹

A number of outstanding *Aharonim* debate whether the requirement of *hukar ha-ubar* remains in force nowadays, as contemporary women generally do not bleed during the first trimester. R. Akiva Eiger,¹² *Avnei Neizer*,¹³ *Hatam Sofer*,¹⁴ and *Shevet Ha-Levi*¹⁵ maintain that this *halakhah* continues to apply. R. Moshe Feinstein, on the other hand, claims that *nishtanu ha-teva'im*, nature has changed, and consequently a woman who has confirmed her pregnancy need not observe *vesatot*.¹⁶ *Sidrei Taharah* rules stringently in accordance with R. Akiva Eiger,¹⁷ as does R. Hershel Schachter.¹⁸ This seems to be the more commonly accepted opinion.¹⁹

Another possible precedent is that of *hayta be-mahava*, a woman hiding in a cave due to fear. The *gemara* asserts that this fear is so effective in restraining the flow of blood that even

11 *Niddah* 7a. All Talmudic references are to *Masekhet Niddah*; all *Shulhan Arukh* references are to *Yoreh De'ah*.

12 *Teshuvot Rabbi Akiva Eiger, Mahadurah Kama* 128.

13 *Avnei Nezer, Yoreh De'ah* 238.

14 *Teshuvot Hatam Sofer, Yoreh De'ah* 169.

15 *Shevet Ha-Levi* 3:114.

16 *Iggerot Moshe, Yoreh De'ah* 3:52. It is noteworthy that in another responsum (*Yoreh De'ah* 4:17:1), R. Feinstein recommends that one act strictly, in deference to the opinion of R. Akiva Eiger. The editor's note in the responsum, however, asserts that despite this comment, R. Feinstein regularly ruled leniently on this matter.

17 *Sidrei Taharah* 194:7.

18 R. Zvi Sobolofsky, *The Laws and Concepts of Niddah* (New Milford, CT: Maggid, 2011): 308.

19 R. Binyamin Forst, *The Laws of Niddah: A Comprehensive Exposition of Their Underlying Concepts and Applications*, 1st ed. (Brooklyn, NY: Mesorah Publications, 1997): 372. In practice, this debate is somewhat moot, as most women today have only established a *veset she-eino kavua*, which is uprooted after a single subsequent menstruation. Since most women do not know that they are pregnant until after that first *veset* has passed, in contemporary circumstances, there is little practical difference between R. Akiva Eiger and R. Feinstein.

one who subscribes to the view that *vesatot de-orayta* (carry biblical force) will agree that such a woman need not be concerned for her previous *vesatot*. Furthermore, the *gemara* compares this woman to a *me'uberet*.²⁰

The *Rishonim* and *Poskim*, however, dispute whether the comparison to *me'uberet* is complete. Whereas Rashba maintains that such a woman need not perform a *bedikah* at all,²¹ others assert that a woman must perform a *bedikah le-khathila* if she wishes to engage in *tashmish* while hiding in the cave, even though a *me'uberet* is fully exempt from performing such a *bedika*.²² *Shulhan Arukh* rules stringently in accordance with the latter view.²³

The *Aharonim* explain this distinction in one of two ways: a) We are not fully certain that the woman hiding in the cave will not menstruate;²⁴ b) When she joins with her husband for the purpose of *tashmish*, the woman may forget her fear and therefore menstruate.²⁵

How do these precedents apply to a woman undergoing hormonal therapy? At first glance, these two instances seem to suggest that a woman who begins a course of treatment need not be concerned for earlier *vesatot*. She is entering a situation in which she is not expected to menstruate, and we should thus be able to apply the status of *mesuleket damim*. The precedent of *hayta be-mahava* similarly buttresses this conclusion. This is certainly true according to Rashba, who maintains that a woman hiding in a cave is entirely *mesuleket damim*, but it seems clear that even Rashba's disputants would agree in our case, as neither of the two possible reasons for stringency applies. We are quite certain that a woman on the pill will not menstruate in accordance with her previous pattern, and the concern that she may forget her fear while engaging in *tashmish* is obviously

20 *Niddah* 9a.

21 Rashba, *Torat ha-Bayit* 7:3.

22 Meiri 9a, s.v. *af*; *Tur* 184; see also *Teshuvot Shevet Ha-Levi* 3:120.

23 *Shulhan Arukh* 184:8.

24 *Beit Yosef* 184; *Shakh* 184:21.

25 *Taz* 184:11; *Kreiti U-Pleiti* 184:9; *Shulhan Arukh Ha-Rav* 184:27.

inapplicable to our case.

Based on these arguments, R. Shlomo Levi,²⁶ R. Hershel Schachter,²⁷ R. Zvi Sobolofsky,²⁸ and *Be'er Moshe*²⁹ rule that her earlier *veset* should be ignored. R. Ovadia Yosef also rules leniently, although he adds that “*ha-mahmir tavo alav berakhah*.”³⁰

One might argue that there remains a concern for breakthrough bleeding in many of the aforementioned hormonal therapies. Indeed, I have heard this argument utilized by colleagues in defense of the position that a woman must concern herself for previous *vesatot* even while taking a contraceptive. This claim, however, is difficult to accept, as any breakthrough bleeding is entirely irrelevant to her previous pattern and therefore does not constitute an argument in favor of observing those earlier *vesatot*.³¹

A celebrated responsum of Radbaz, a sixteenth-century authority, seems to prove precisely the opposite of the argument we have outlined. Radbaz received the following question: A woman had drunk a potion intended to delay her period for ten to twenty days. In light of the concern that she might menstruate at any point during that time, must she observe *vesatot* for all those days? Radbaz rules that once she passes the day of her original *veset*, she need not be concerned for such a possibility. Implicit in his ruling is the assumption that even after beginning to drink the potion, she must continue to observe her previous *veset*.³²

26 R. Shlomo Levi, “*Hashpa’at ha-Shimush be-Gelulot al din Vestot*,” *Tehumin* 3 (5742): 181.

27 R. Sobolofsky, *The Laws and Concepts of Niddah*, 308.

28 Ibid. See also R. Sobolofsky’s lecture on birth control and *hilkhot niddah*, available at:

<http://bcbm.org/live/lecture.php?710072/R.%20Zvi%20Sobolofsky/Birth%20Control%20&%20Niddah/Gruss>.

29 *Be'er Moshe* 6:137.

30 *Taharat ha-Bayit* 1:18, p.116.

31 See, however, the opinion of R. Yehuda Herzl Henkin, cited below.

32 *Teshuvot Ha-Radbaz* 8:136.

Based on Radbaz's ruling, a number of contemporary *Poskim* rule stringently with regard to hormonal therapy, including Dayan Weiss,³³ R. Menashe Klein,³⁴ and R. Shmuel Vosner.³⁵ These authorities grant, however, that once a woman has established a *veset kavua* with birth control pills, she may ignore any previous *vesatot*. In other words, birth control pills are surely no less potent than "natural" menstruation. Furthermore, R. Elyashiv, R. Vosner, and R. Yosef rule leniently in the case of a *kallah* whose *veset* falls out on her wedding night.³⁶ In this situation, we can combine the fact she may be considered a *mesuleket damim* with the opinion of most *Rishonim* that we generally permit *tashmish* during the *onat ha-veset* for the sake of a *mitzvah*.³⁷

In further support of the stringent view, it may be noted that not all women immediately start cycling according to the pill; some will retain their previous cycle for the first month. It is therefore difficult to establish what the *veset* should be. For this reason, R. Yehuda Herzl Henkin rules in accordance with the aforementioned *Aharonim* that we must remain concerned for any previous *vesatot* throughout the first three months that the woman takes hormones.³⁸ During this time, we observe any pattern of bleeding. After three cycles, if a pattern has been established, she should concern herself only with that newly established *veset kavua* and not with any previous bleeding.

How do those who rule leniently respond to the proof from Radbaz? R. Yosef explains simply that Radbaz's potion was presumably far less potent than hormonal therapies, whose

33 *Minhat Yitzhak* 1:127.

34 *Mishneh Halakhot* 7:123.

35 *Teshuvot Shevet Ha-Levi* 4:99:9; see also *Shiurei Shevet Ha-Levi* 184:8:2. *Hut Shani*, p. 38 *ot* 7, and *Keneh Bosem* 3:57-58 also rule strictly.

36 *Shiurei Shevet Ha-Levi*, *ibid.*; R. Elyashiv quoted in *Levushei Oz*, 57; see also *Ma'adanei Asher* 15:2; R. Shlomo Zalman Auerbach, cited in *Minhat Shlomo* 2:74:1.

37 *Beit Yosef* and *Shulhan Arukh* 184:10.

38 See <http://www.yoatzot.org/question.php?id=5421>. See also <http://www.yoatzot.org/question.php?id=2849>

efficacy is beyond question. It is therefore logical to argue that Radbaz would agree that a birth control pill is able to uproot a prior *veset*, even as a late medieval potion cannot.³⁹

Reflecting more generally, one can suggest along the lines of R. Yosef's comment that the debate centers in part on the interface between Torah and medicine. To what extent do we rely on modern medical findings to rule leniently with regard to a previously established *veset*? Indeed, Dayan Weiss explicitly argues that we cannot rely on the claims of modern medicine in this regard.⁴⁰ R. Hershel Schachter, in contrast, maintains that "if a woman takes a pill which removes her period, then **we can rely on the doctors** and can assume that she is *mesuleket damim*."⁴¹ Indeed, for this reason, R. Shlomo Levi suggests that with the improved efficacy of the pill, even Dayan Weiss might have ruled leniently under current conditions.⁴² At the same time, R. Henkin buttresses his stringent view with an opposite understanding of the scientific factors at play.

It is important to stress that in numerous instances, this controversy is purely academic, as in many cases, a woman will begin taking her placebo pills – and begin bleeding – before her previous *vesatot* arrive. Whether or not these *halakhot* are applicable will depend on the length of her previous cycles, the duration of the time before she bleeds, and how soon after her last period she begins the course of hormonal therapy.

A Woman Who Has Not Established a *Veset Kavua* on the Pill

What *halakhot* govern a woman who has just begun hormonal treatment? Must she concern herself with the possibility that she may bleed soon after stopping her active pills? If so, how soon after her final active pill must she be *poresh*?

In the case of the combined pill, many authorities re-

39 *Taharat ha-Bayit* 1:18, p.117.

40 *Minhat Yitzhak* 1:127.

41 R. Sobolofsky, *The Laws and Concepts of Niddah*, 308.

42 *Supra* n. 26.

quire a woman to separate from her husband beginning forty-eight hours after her final active pill.⁴³ Others, based on alternative medical opinions that anticipate bleeding a bit earlier, require *perishah* thirty-six hours after the final active pill.⁴⁴ Since the model for this *veset* is *veset ha-guf*, which can only be established with a three-fold pattern,⁴⁵ this *halakhah* would apply until a woman has established a three-fold pattern while on the pill.

Vesatot After Bleeding

As noted above, a woman will typically menstruate shortly following her final active pill. In a typical scenario of a twenty-eight day cycle, the woman will bleed prior to the onset of the *vestot* observed by one who has not established a *veset kavua* – the *veset haflagah*, *veset ha-hodesh*, and *onah beinonit*. Nevertheless, a woman who extends a pill pack beyond thirty days or who takes a pill that lasts for up to eighty-one or eight-four days will reach these *vesatot* before bleeding due to hormonal influence. Must such a woman observe these three *vesatot*?

R. Forst rules that such a woman need not observe the *veset haflagah* or *veset ha-hodesh*, but she must nevertheless observe the *onah beinonit*.⁴⁶ I have heard of colleagues who require such a woman to observe all three *vestot*, and others who rule leniently that such a woman need not observe any of these *vestot*. In sum, it would seem that this question is subject to a wide range of views and remains unresolved.

A Veset Created by Hormonal Therapy

What is the nature of a *veset* created by hormonal ther-

43 R. Sobolofsky, *The Laws and Concepts of Niddah*, 241; R. Shlomo Levi, *Sha'arei Orah*, 236.

44 R. Elyashiv Knohl, *Ish Ishah*, 105; R. Warhaftig, as reported by Mrs. Noa Lau.

45 *Shulhan Arukh* 189:23.

46 R. Forst, *The Laws of Niddah*, 367 and n. 35.

apy? Here, as earlier, we must consider two possible precedents. The *gemara* addresses the case of a woman who experiences menstrual bleeding shortly after jumping (*veset ha-kefitzot* or *veset ha-ones*).⁴⁷ The *Rishonim* debate the status of such a *veset*. Rashi,⁴⁸ Ba'al Ha-Maor,⁴⁹ Ramban,⁵⁰ and *Tur*⁵¹ rule that a *veset ha-kefitzot* alone suffices to establish a *veset*, while Tosafot,⁵² Ra'avad,⁵³ and Rashba⁵⁴ assert that a *veset ha-kefitzot* can only establish a *veset* in conjunction with a pattern of days. *Hagahot Maimanivot* adopts an intermediary position, claiming that one should consider a three-fold pattern of *kefitzot* as a *veset she-eino kavua*.⁵⁵ *Shulhan Arukh* rules that a *veset ha-kefitzot* is only significant in conjunction with a *veset ha-yamim*,⁵⁶ while Rema rules in accordance with *Hagahot Maimanivot's* compromise position.⁵⁷

The *mishnah* rules along similar lines that a woman who experiences menstrual bleeding after stretching, sneezing, sensing pain in her stomach or abdomen, non-menstrual bleeding, or being seized by a fever has established a *veset*.⁵⁸ The *gemara* applies this ruling to a woman who eats garlic, onions, or pep-

47 *Niddah* 11a.

48 Rashi ad loc., s.v. *ela*. It is unclear whether Rashi expresses this view as a halakhic conclusion or only an explanation of the *gemara's* *hava amina*. See Rashi 15b, s.v. *ela*; Rashba 11a, s.v. *ela*; *Darkhei Moshe Ha-Arukh* 184:11; *Hagahot Ve-He'arot* 184:87.

49 *Hasagot Ha-Razah, Sha'ar Ha-Vesatot* 19.

50 *Hilkhot Niddah* 6:13.

51 *Tur* 189:17.

52 Tosafot 11a, s.v. *ela*; 63b, s.v. *akhla*.

53 *Ba'alei Ha-Nefesh, Sha'ar Ha-Vesot* 3:27.

54 *Torat Ha-Bayit* 7:3.

55 *Hagahot Maimoniyot, Hilkhot Issurei Bi'ah* 8:3.

56 *Shulhan Arukh* 189:17.

57 Rema *ibid*.

58 *Niddah* 63a. It is important to note, however, that *Shulhan Arukh* rules (189:23) that no such *veset she-eino kavua* exists. In other words, a woman who experiences one or two such incidents establishes no *veset* at all; only a woman who undergoes this process on three occasions has established a *veset*.

pers and shortly afterward becomes a *niddah*.⁵⁹ (This is generally termed a *veset ha-guf*.) Tosafot wonders why the *gemara* fails to also mention the case of *veset ha-kefitzot*, suggesting that a *veset ha-kefitzot* is not efficacious unless it is accompanied by a *veset ha-yamim*, and is therefore not listed with those factors that establish a *veset* independently.⁶⁰

What is the logic to differentiate a woman who eats various foods from one who jumps? Tosafot explains, “Because the blood does not come through exertion, but on its own (*memeila*).”⁶¹ How can we understand this distinction? What difference does it make what caused the blood to flow? Either way, the link between the action (jumping or eating) and the bleeding has been confirmed! One interpretation is that a natural process, such as eating, is simply more likely to induce bleeding than jumping.⁶² It is not clear, however, that this is a plausible reading of Tosafot. Alternatively, assuming that *vesatot* are merely rabbinic in nature,⁶³ perhaps *Hazal* did not institute this *takanah* in a case of *tirha* because it is a *milta de-lo*

59 *Niddah* 63b.

60 Tosafot, ad loc., s.v. *akhla*.

61 Ba'al ha-Ma'or (*Hasagat ha-Razah le-Ba'alei ha-Nefesh, Sha'ar Tikkun ha-Vesot*, 3:19) advances a similar approach, suggesting that in the case of jumping, the blood flows “against her will,” whereas in the case of eating, it is not considered “*ones*” because she enjoys eating.

62 *Badei ha-Shulhan* 189:169. In his *Shiurei Shevet Ha-Levi*, R. Wosner makes a similar point. He argues that even one who advocates for the position that *vesatot de-orayta* will admit that a *veset ha-ones* is merely *mi-derabanan*, as it is uncommon and therefore a less likely cause of bleeding than other forms of *vesatot*.

Badei Ha-Shulhan quotes *Malbushei Taharah* 189:46 as having understood that a *veset ha-guf* is simply more likely to induce bleeding than a *veset ha-ones*, as it is highly implausible to claim that every time a woman jumps she will subsequently menstruate. It is much more likely that her jumping hastens her expected menstruation, rather than independently causes a woman to bleed. His interpretation, however, seems to be independent of Tosafot. In any case, it would appear difficult to read Tosafot in this way.

63 See Tosafot 16a, s.v. *ve-Rav Nahman*; *Beit Yosef* 184, s.v. *ve-davka*; *Shulhan Arukh* 184:9.

shekhiha, an uncommon event.⁶⁴

Finally, we might understand Tosafot's distinction against the backdrop of the nature of *vesatot* in particular and the principle of *hazakah* more generally. In an article in Yeshiva University's Kollel Elyon Torah journal, R. David Hellman develops an innovative understanding of the principle of *hezkat gimel pe'amim*. *Hazakah* indicates that we assume that the "natural state of affairs" has not changed. For example, the category of *hazakah de-mei'ikara*, which stipulates that the most recent status of an object remains unchanged, is built upon this notion. We adopt the most natural or obvious interpretation of events, even if it is not necessarily more likely than any alternative. Similarly, the principle of *hezkat gimel pe'amim* establishes that since an event took place on three occasions, it is natural to assume that the event will occur once again.⁶⁵

This analysis may help explain Tosafot's enigmatic distinction. *Vesatot*, which operate on the basis of *hezkat gimel pe'amim*, only apply to instances in which the intrinsic nature of the event at hand is such that it will replicate itself in the future. If the reason we expect that event to occur once again is extrinsic to the nature of that event, the principle of *hazakah* is inapplicable. Tosafot therefore can be understood as follows: A woman who eats garlic or similar foods has simply triggered the natural process of menstruation, but that process remains intact. A woman who jumps, however, has "forced" the blood to flow in a way that operates outside the regular process of menstruation. For this reason, the principle of *hezkat gimel pe'amim* is inapplicable to a *veset ha-kefitzot*.⁶⁶

Whatever the explanation for Tosafot's distinction,

64 *Shiurei Shevet Ha-Levi* 189:17:5.

65 *Kol Zvi*, vol. 11, 566-76.

66 This approach may help account for the explanation of the Ba'al ha-Ma'or, cited in footnote 13. A woman who jumps and as a result menstruates will bleed against her will. This is therefore viewed as an unnatural process and does not fall under the rubric of *vesatot*. One who eats sharp foods and menstruates, however, enjoys consuming those foods. This instance is therefore viewed as natural and is subject to the *halakhot* of *vesatot*.

Rashba and Ra'avad implicitly disagree, equating between *veset ha-akhilot* and *veset ha-kefitzot* and ruling that neither establishes a *veset* unless accompanied by a *veset ha-yamim*. As a matter of practical Halakhah, *Shulhan Arukh* omits *veset ha-akhilot*, while the Rema notes this *veset*.⁶⁷

Accordingly, how should we relate to a *veset* of a woman who stops taking active medication? Are these cases comparable to a *veset ha-akhilot*, *veset ha-kefitzot*, or neither?

Since Rema rules in accordance with Tosafot's distinction between *veset ha-ones* and *veset ha-guf*, it would appear that the question of hormonal therapy hinges on the three interpretations of Tosafot we outlined above. If the difference between the two is based on the extent of the connection between the physical activity and menstruation, in the case of hormonal therapy, where that connection has been definitively established, the proper model would be that of a *veset ha-akhilot*. Similarly, if the distinction depends on whether or not this particular linkage is common or uncommon (that is, *kefitzot* are uncommon, so *Hazal* issued no decree), it would seem likely that the *takanah* of *vesatot* would similarly apply to hormonal therapies, in which we commonly find a link between the ingestion of pills and menstruation.⁶⁸ Finally, according to R. Hellman's approach, which would suggest that *vesatot* only apply to a process that is "natural," one might argue that *vesatot* would not apply to hormonal treatments, which require the insertion of an external hormone into one's body.⁶⁹

As a matter of practical Halakhah, *Poskim* unanimously maintain that birth control pills do indeed establish a *veset*.⁷⁰ This would in turn generate a leniency, since in all cases of

67 *Shulhan Arukh* and Rema 189:23.

68 One could argue that since hormonal therapies did not exist at the time of *Hazal*, the category of *vesatot* was not included in the *takanah*. This suggestion, however, seems to be contradicted by Radbaz cited above and does not find support in contemporary *Poskim*.

69 It is noteworthy, however, that pills differ from *akhilot* in that it is not the "eating" that brings about the bleeding, but the lack of eating.

70 See, for example, Dayan Weiss, R. Elyashiv and R. Wosner cited above.

a *veset kavua*, a woman need not concern herself with a *veset haflagah* or *veset ha-hodesh*. For example, if a woman takes a pill that generates cycles of 81 or 84 days, she would not need to observe any *vesatot* that fall out approximately a month after menstruation.

Given this unanimous ruling, we can raise three further questions:

What is the *halakha* after a woman has established a three-fold pattern (*veset kavua*) on the pill?

What if a woman switches hormonal treatments? What if she changes the dosage of the same treatment?

What if a woman takes her final active pill but does not bleed at the expected time? Must she continue to be *poresh* and, if so, for how long?

After Establishing a *Veset Kavua*

Based on our analysis, it would emerge that once a woman establishes a *veset kavua*, she has established a full-fledged *veset ha-guf* and can certainly disregard any previous *vesatot*. Following that model, she would therefore establish a pattern by determining the amount of time between her last active pill and the beginning of her menstruation. Once she has established such a pattern, she must perform a *bedikah* and abstain from sexual relations during that *onah*. This would apply even if a woman took active pills for a shorter or longer period of time during that particular month.⁷¹ It would similarly seem that even a woman who does not bleed during consistent *onot* might still establish a negative *veset* (also known as a *veset hatzi-kavua* or *veset Terumat ha-Deshen*).⁷² For example, if a woman on three consecutive occasions does not bleed less than 48 hours after concluding her active pills, she need not be concerned for the possibility of menstruation for those 48 hours

71 See <http://www.yoatzot.org/question.php?id=10531>.

72 See *Terumat Ha-Deshen* 247; *Havot Da'at* 186:3; *Iggerot Moshe* 2:72; and *Badei Ha-Shulhan* 186:25 with regard to whether or not a *veset hatzi-kavua* can override an *onah beinonit*.

after completing her next round of active pills.

Changing the Regimen

A variation in the brand, hormonal level, or time of ingestion can affect the timing of a woman's bleeding. If such a woman has already established a *veset kavua*, but changes the dosage or type of medication, does she continue to follow her previously established *veset*? In such a scenario, it would seem reasonable that the answer depends on the nature of the change. If the dosage increases, it would appear that the *veset* remains intact. If, however, the dosage decreases, the previously established *veset* would no longer be reliable and such a woman must therefore be *poresh* twenty-four to thirty-six hours after her final active pill.

A Woman who does not bleed

What is the rule concerning a woman who does not bleed at the anticipated time? There appears to be some debate regarding this matter. Some maintain that such a situation is analogous to a typical *veset*, in which once the *veset* has passed there is no reason to be concerned.⁷³ According to this approach, as soon as the woman's typical range of days passes, she no longer need be concerned. For example, a woman who typically begins to bleed between two to three days after her final active pill need not be concerned once the third day has passed. Others, however, maintain that she must continue to be *poresh* until there is no longer a significant medical possibility that she will bleed.⁷⁴ It is worth noting as well that there may be greater room for leniency for higher-dosage pills, as the chances that a

73 R. Ovadia Yosef, as quoted by R. Benny Lau; R. Yaakov Warhaftig, as quoted by Mrs. Noa Lau.

74 R. Mordechai Willig, personal conversation, 6/7/2012. Doctors at a Puah Conference in 2008 presented a range of views on this matter, with some maintaining that a woman will typically not bleed after five days beyond her final active pill, while others claimed that it is feasible that a woman will bleed up until seven days afterward.

woman will not bleed rise as the dosage increases.

Upon Completing a Regimen

What is the status of a woman who stops taking the pill? Must she concern herself with any previously established *vesatot*? At first glance, one might claim that any previous *vesatot* are irrelevant. The *halakhot* of *me'uberet* and *menikah*, however, may indicate otherwise. Based on the *gemara's* discussion,⁷⁵ the *Rishonim* assert that whereas a post-menopausal woman need not return to her previously established *vesatot*, one who completes her period of pregnancy or nursing must return to her previous *veset*. Despite this general agreement, the *Rishonim* debate this *halakha's* precise parameters. Rashba rules that after a woman completes her pregnancy and nursing, she immediately returns to any previous *vesatot*. Rashba quotes (and rejects) a second view that a woman must observe the earlier *veset* only if she continues to bleed on that same date. For example, if a woman had previously established a *veset* on Rosh Hodesh, she must continue to observe that *veset* only if she once again menstruates on that same date.⁷⁶ Ramban adopts an intermediate position, ruling that the woman must observe the earlier *veset* once she continues bleeding, but she need not bleed again specifically on that same date.⁷⁷ *Shulhan Arukh* rules stringently in favor of Rashba,⁷⁸ while Shakh⁷⁹ and Taz⁸⁰ adopt the intermediate position of Ramban.

The general principle accepted by all *Rishonim* – that a *me'uberet* and *menikah* return to their previous *vesatot* – leads R. Shlomo Levi to conclude that a woman who has completed her hormonal routine returns to her previous status as a *niddah* with regard to *vesatot*.⁸¹ Others suggest, however, that although

75 *Niddah* 10b.

76 *Torat ha-Bayit* 7:3.

77 Ramban, *Hilkhot Niddah* 6:8.

78 *Shulhan Arukh* 189:34.

79 *Shakh* 189:75.

80 *Taz* 189:31.

81 *Supra* n.26, 185.

the woman need not observe past *vesatot*, she must be concerned for the *onah beinonit* following her most recent bleeding while on the pill.⁸²

A third opinion maintains that once a woman concludes her hormonal treatment she no longer need concern herself with any prior bleeding, as there is no medical reason to assume that previous bleeding is in any way determinative once a woman has concluded her course of hormonal treatment. She will thus start to calculate *vesatot* from the first menses that she has the cycle after stopping the hormones.⁸³ This is in contradistinction to the assumption of the *Rishonim* that a woman who has completed her pregnancy or nursing returns to her previous pattern. Because there is no reason to assume that a woman who completes her course of birth control pills returns to a previously established *veset*, the precedent of *meuberet* and *menikah* is irrelevant.

In the final analysis, however, this debate is generally moot. The *Noda Bi-Yehudah* rules that this entire discussion is inapplicable to a *veset she-eino kavua*.⁸⁴ Since most women today do not establish a *veset kavua* without hormones, it would seem that the question of whether or not a woman who completes her hormonal treatment must continue to observe a *veset kavua* is largely impractical.

Conclusion

We have encountered a range of opinions with regard to the *halakhot* of birth control and *vesatot*. *Poskim* have disputed numerous questions in this regard, and underlying at least one of these questions seems to be a broader debate as to how determinative modern medical findings are with regard to these *halakhot*. It is my hope that a better understanding

82 *Ma'adanei Asher* 5:15; R. Yaakov Neuberger, as heard in a lecture in 2012.

83 *Keneh Bosem* 189:23; R. Sobolofsky, *The Laws and Concepts of Niddah*, 241; R. Forst, *The Laws of Niddah*, 368.

84 Quoted in *Pithei Teshuvah* 189:32.

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Medical Care for a Child on Shabbat

The Torah identifies the purpose of the commandments as “*Ve-hai ba-hem*,” “And you shall live by them,”¹ and the Sages interpreted this verse as the source for the rule that the goal of saving a life overrides almost all of the commandments of the Torah.² The principle of “*pikuah nefesh*” is so fundamental that one is obligated to desecrate Shabbat in order to save the life of someone in danger or in a potentially dangerous situation. Moreover, one who is zealous to save a person in such a situation is deemed praiseworthy.³

Jewish law classifies patients into five categories according to the severity of their illness in order to determine which actions one is permitted to perform on Shabbat on their behalf. When it is a child who is ill, the guidelines are based on these same categories, but are more lenient. These five categories are:

- (1) *Holeh she-yesh bo sakanah* – an individual with a life endangering illness.
- (2) *Sakanat ever* – an individual whose limb is in danger.
- (3) *Holeh she-ein bo sakanah* – a bedridden patient whose life is not in danger.
- (4) *Holeh be-miktzat* – an individual with a minor illness.
- (5) *Mihush* – a person with slight pain or discomfort.

1 *Vayikra* 18:2.

2 *Yoma* 85b. Several verses are offered as the source for *pikuah nefesh*, but all are rejected in favor of Shmuel’s suggestion, cited here.

3 *Yoma* 84b.

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of these issues will lead to greater enlightenment and a fuller observance of the commandments which there is a danger or a possible danger to a person's life, one is obligated to provide all medical needs for the patient, even if this involves desecrating biblical prohibitions on Shabbat. Thus, all forbidden labors of Shabbat may be violated on behalf of a *holeh she-yesh bo sakanah*. It is actually preferable that a Jewish adult, who has a greater level of obligation to observe Shabbat, be the one to desecrate Shabbat, as opposed to a non-Jew or child, in order to demonstrate the importance of this ruling.⁴

In a case of *sakanat ever*, the patient's illness is not life-threatening, but it may result in complete or partial loss of function of a limb. On Shabbat, a non-Jew may perform any medically necessary action on behalf of this patient, including one that violates a biblical prohibition.⁵ A Jew may violate a rabbinic prohibition for the sake of the patient, but may not violate a Biblical prohibition.⁶

The category of *holeh she-ein bo sakanah* includes patients who are not in a life-threatening situation but are bed-ridden or are suffering to the point that their entire body is weakened.⁷ One may ask a non-Jew to perform any action on behalf of such a patient, including one that will violate a biblical prohibition. A Jew, however, may perform only a rabbinic prohibition, and only if it is done with a *shinui*, in a manner that differs from the standard performance. If a non-Jew is not available and a Jew is unable to use a *shinui*, the action may be carried out in its usual manner.⁸

Holeh be-miktzat refers to a person with a minor illness, such as an ailment or wound. This affliction causes pain and

⁴ Rambam, *Mishnah Torah, Hilkhhot Shabbat* 2:3; *Shulhan Arukh, Orah Hayim* 328:12.

⁵ In general, a Jew is not permitted to ask a non-Jew to carry out any act that is biblically forbidden on *Shabbat*; see *Shabbat* 121a, *Shulhan Arukh Orah Hayim* 307:2.

⁶ *Shulhan Arukh, Orah Hayim* 328:17.

⁷ *Ibid.*

⁸ *Hayei Adam* 69:12; *Mishnah Berurah* 328:102.

discomfort to a specific limb or to the patient's entire body, but does not weaken him or her to the point of being bedridden or at risk of losing function in a limb. A Jew may not violate Shabbat on behalf of someone with a minor illness, but he may ask a non-Jew to violate a rabbinic prohibition in order to provide care for the patient.⁹

Finally, the category of *mihush* describes a person who experiences slight pain or discomfort, but is able to function normally. A Jew is forbidden from performing or asking a non-Jew to perform any act in violation of Shabbat, whether a biblical or rabbinic prohibition, on behalf of this person.¹⁰

Like an adult, a child whose life is in danger or whose life may become endangered is considered a *holeh she-yesh bo sakanah*, and one is permitted – and even encouraged – to desecrate the Shabbat in order to do everything possible to help the child. A child who is bedridden due to sickness but is not in life-threatening danger is treated as a *holeh she-ein bo sakanah*. The status of all other children is subject to debate.

A Child as *Holeh She-Ein Bo Sakanah*

The Talmud presents two scenarios in which a child is treated more leniently than an adult based on a child's inherently weaker constitution.

The Talmud in *Yevamot* 114a presents a situation in which a child is permitted to drink milk from a non-Jewish woman or from a non-kosher animal, both of which are considered to be impure and therefore forbidden to an adult, and the child may even drink this milk if it was milked on Shabbat (“*ve-afilu be-Shabbat*”).¹¹ The child is granted a special exception because a child's life may become endangered if he or she

9 *Shulhan Arukh, Orach Hayim* 307:5; Rambam, *Mishnah Torah, Hilkhot Shabbat* 6:9.

10 *Shulhan Arukh, Orach Hayim* 328:1.

11 Milking an animal is prohibited on Shabbat because of the prohibition of *mefarek*, removing food from an inedible substance that surrounds it, which is a derivative of the forbidden activity of *dash*, threshing. See Rambam, *Mishnah Torah, Hilkhot Shabbat* 8:7.

does not have milk. Furthermore, unlike an adult, who requires evaluation by a doctor or expert to determine the severity of his or her illness, a child does not need a specific evaluation. Rather it is assumed that without milk, his or her life will become endangered. There is thus an overarching rule permitting the consumption of this milk without requiring a case by case evaluation of the situation.

Another scenario is discussed in *Shabbat* 141b. Although it is biblically prohibited to carry an item in a public domain on Shabbat for a distance greater than four *amot* (about 1.7 meters), carrying a child is not a biblical transgression due to the principal of “*hai nosei et atzmo*,” a living person carries his own weight.¹² Here, the Talmud concludes that a person is permitted to carry his son while the child is holding a rock in his hand, even though carrying a rock is forbidden, because there is a danger that the child will become sick otherwise.¹³

This situation is particularly intriguing, as the child is not yet sick and does not have the status of *sakanat nefesh*, life-threatening danger. This is a situation of *sakanat holi* – the child is at risk of becoming sick – yet that is a strong enough reason to permit the parent to carry the child on Shabbat.

These scenarios clearly indicate that some degree of leniency applies in the care of children on Shabbat, but their practical application is unclear. Later decisors debate the extent to which a child is treated differently than an adult. Their debate is centered on an ambiguous statement of Rema:

It is permitted to tell a non-Jew to cook food for a child who has nothing to eat, because the needs of a child are comparable to a sick person whose life is not in danger (*holeh she-ein bo*

12 It is, however, a rabbinic prohibition. When a biblically prohibited act that can normally be executed by one person is carried out by two people, the transgression is only forbidden rabbinically. In the present case, the adult can technically carry the child on his or her own, but the concept of “*hai nosei et atzmo*” indicates that the child is partially carrying his or her own weight; it is as if both parties are carrying the child together.

13 Rashi, *Shabbat* 141b, s.v. *she-yesh lo gi'agu'in al aviv*.

sakanah).¹⁴

R. Avraham Yeshaya Karelitz (*Hazon Ish*) notes that the situation described by Rema is difficult to define. If a child truly has no food to eat, he is considered a *holeh she-yesh bo sakanah*, as his life is in imminent danger. If the child has access to food, he should not be considered a *holeh* at all. *Hazon Ish* offers two possible situations in which a child has the unique status described by Rema. In the first instance, the child is suffering from “*re'avon shel sha'ah mu'etet*,” a temporary lack of food. In the second instance, food is available for the child to eat, but it is not the optimal food for his or her medical situation, and eating the available food will cause intestinal upset. In both of these circumstances, one may ask a non-Jew to prepare food on behalf of the child on Shabbat. If a non-Jew is unavailable, a Jew is permitted to prepare the food himself.¹⁵

What is the extent of this leniency? Does it apply only to the provision of food, as described explicitly by Rema? The author of *Issur Ve-Heter* permits a non-Jew to carry out any action on Shabbat that provides for any need of a child.¹⁶ As proof, he cites the fact that the rabbis exempted children from any prohibition on Yom Kippur that could potentially hinder their growth (“*kol midei de-it rabota li-yonka lo gazur bei rabbanan*”). R. Avraham Chaim Naeh (*Ketzot Ha-Shulhan*) similarly writes that a child is considered to be a *holeh she-ein bo sakanah* in all realms. As an example, he cites a scenario in which one may ask a non-Jew to light a fire for a child who is afraid of the dark.¹⁷

R. Yitzhak Ya'akov Weiss (*Minhat Yitzhak*) concurs with these views, citing as proof the case in *Shabbat*, which allows one to care for the non-dietary needs of a child as well. In his view, this indicates that a child is considered a *holeh she-ein*

¹⁴ Rema, *Orah Hayim* 328:17.

¹⁵ *Hazon Ish*, *Orah Hayim* 59:4.

¹⁶ *Issur Ve-Heter* 59:28.

¹⁷ *Ketzot Ha-Shulhan* 7:134:18.

bo sakanah with regards to all of his or her needs.¹⁸ In contrast, R. David ben Yisroel Tzvi Ortenberg (*Tehilla Le-David*) writes that Rema is referring only to the provision of dietary needs for a child.¹⁹

Another debate amongst twentieth century *Poskim* concerns the maximum age at which a child is treated as a *holeh she-ein bo sakanah*. According to Jewish law, there are several defining ages regarding laws that apply to children. At the age of two to three, a child is considered to have reached “*gil hinukh*,” the age at which one begins to understand the implications of what he has been taught. When a boy turns thirteen or a girl turns twelve, he or she reaches the age of one who is now halakhically responsible for his or her actions. When a child reaches the age of nine to ten, he or she begins to prepare for this age of responsibility. For example, a child at this age will begin to fast for at least part of the day on Yom Kippur, in order to prepare for the time when he or she will be obligated to fast. Regarding the status of *holeh she-ein bo sakanah*, *Hazon Ish*²⁰ and R. Shlomo Zalman Auerbach²¹ maintain the most stringent opinion, limiting the status to children under the age of two to three years. As support, *Hazon Ish* cites the view of Tosafot, who maintain that the Talmud’s permission to give a child otherwise forbidden milk applies only to a child under the age of three, whose life would otherwise be in danger.²² The life of an older child would not be endangered and the exception therefore does not apply in such a case.²³

18 *Minhat Yitzhak* 4:124.

19 *Tehillah Le-David*, *Hilkhos Shabbat* 328:24.

20 *Hazon Ish*, *Orah Hayim* 59:3.

21 *Nishmat Avraham*, *Orah Hayyim*, p. 205.

22 *Shabbat* 121a, s.v. *shma mina*.

23 Rabbi Michael Chizkiyah, *The Halachic Guide to Medical Practice on Shabbos* (Michigan: Targum/Feldheim, 2005): 120 n. 8. Rabbi Chizkiyah argues that *Hazon Ish* should be interpreted in a more limited matter, as only referring to the case in *Yevamot*. This is because *Hazon Ish* only specified the age of two to three with regards to this case, and cites the ruling that one should to treat a child as a *holeh she-ein bo sakanah* separately, without specifying an age limitation. Furthermore, Gra further differentiates

R. Eliezer Yehuda Waldenberg (*Tzitz Eliezer*) is more lenient, contending that a child is considered a *holeh she-ein bo sakanah* until the age of six.²⁴ As support, he cites R. Ya'akov Emden, who discusses the Talmud's permission to break down a door on Shabbat if a child is locked behind it.²⁵ In that context, R. Emden defines a child as one who still needs his or her mother, and posits that this refers to a child younger than six years old.²⁶

Minhat Yitzhak offers an even more lenient approach, including a child up to nine years of age in the category of *holeh she-ein bo sakanah*.²⁷ This determination is based on a ruling that a young child does not fast on Yom Kippur so that he will not become sick;²⁸ Rambam states that this refers to a child under the age of nine.²⁹ *Minhat Yitzhak* adds that if one is able fulfill the child's needs without relying on this leniency, one should do so.

R. Simcha Bunim Cohen cites the *Kuntrus Et La-Ledet*, who challenges this comparison between Shabbat and Yom Kippur. A leniency is applied to Yom Kippur, he argues, because it is a fast day; any child under nine is therefore permitted to eat. On Shabbat, however, the rules are more stringent and a child is only considered a *holeh she-ein bo sakanah* until the age of three, unless the child has a particularly weak constitution, in which case there would be a special exemption.³⁰ *Shemirat Shabbat Ke-Hilkhatah* agrees with *Minhat Yitzhak* that a child is considered to have the status of a *holeh she-ein*

between the case in *Yevamot* and the general ruling by stating that Rema's Talmudic source is *Shabbat* 141b, which he understands is dealing with a six to seven year old, and not the case in *Yevamot*. *Hazon Ish's* stance on *holeh she-ein bo sakanah* is therefore unclear.

24 *Tzitz Eliezer*, section 8, *siman* 15, chapter 12:7.

25 *Yoma* 84b.

26 *Sefer Mor U-Ketzi'a, Orah Hayyim* 328.

27 *Minhat Yitzhak* 1:78; 9:35.

28 *Yoma* 82a.

29 Rambam, *Mishnah Torah, Hilkhos Shevitat Asor* 2:11.

30 R. Simcha Bunim Cohen, *Children in Halacha* (Brooklyn, NY: Mesorah Publications, 1993), p. 82n32.

bo sakanah until the age of nine or ten, but specifies that this determination is based on the particular constitution of the child.³¹

R. Ben Zion Abba Shaul maintains the most lenient opinion, ruling that any child under the age of thirteen has the status of a *holeh she-ein bo sakanah*. He even goes so far to say that if a non-Jew is not present, a Jew is permitted to override a biblically prohibited action for the sake of the child, provided it is carried out with a *shinui*.³²

Ketzot Ha-Shulhan writes that the category of *holeh she-ein bo sakanah* is not limited to a specific age group. Rather, the determination of which child falls into this category is based on the child's dependency on a specific type of food. Even if a child is older than three years of age, if he requires a special type of food, he is treated as a *holeh she-ein bo sakanah*. This applies in all realms and is not limited to provision of food. Thus, the determination of whether a non-Jew may light a fire for a child who is afraid of the dark is based on the child's fear, not a set age limit.³³

Based on the sources discussed thus far, it is evident that most authorities apply the status of *holeh she-ein bo sakanah* to all needs of a child, not only his or her dietary needs. One may therefore request of a non-Jew to perform a biblically prohibited act on behalf of a child or violate a rabbinic injunction oneself, if done with a *shinui*. Additionally, we have seen that there is much debate regarding the age limit for the application of this law.

Notably, while Rema's statement permits one to treat a child as a *holeh she-ein bo sakanah*, one should ideally not rely on this leniency. Every effort should be made to prepare food and any other items that may be required by the child before Shabbat, only relying on this leniency if the situation neces-

31 *Shemirat Shabbat Ke-Hilkhatah* 37:1.

32 *She'elot U-Teshuvot Or Le-Tzion* 2:36:4.

33 *Ketzot Ha-Shulhan* 7:134:18.

sitates.³⁴

Practical Applications of Treating a Child as a *Holeh She-Ein Bo Sakanah*

The following topics are discussed extensively by the halakhic authorities based on the above sources. They are presented here briefly, with a focus on the practical application in caring for a child on Shabbat.

Food Preparation

One should ensure that suitable food is prepared for a young child prior to the beginning of Shabbat. If appropriate food is not available, one is permitted to ask a non-Jew to prepare the food on Shabbat, and the non-Jew may violate any biblical prohibition in his preparation.³⁵ If a non-Jew is not available, a Jew is permitted to violate the Shabbat in order to prepare food for the child. Additionally, if the child only has access to food that may cause him or her gastrointestinal distress, one may ask a non-Jew to prepare food or may prepare food himself if a non-Jew is not available.³⁶

If a non-Jew prepares food on Shabbat and the child will only eat if his parent feeds him, the parent is permitted to do so, even though carrying or moving the food violates the rabbinic prohibition of *muktzah*.³⁷

Medication

There is a rabbinic prohibition against preparing or taking medication on Shabbat. This ruling was instituted in order to prevent one from overriding the biblically prohibited act of

³⁴ *Shemirat Shabbat Ke-Hilkhatah* 37:1.

³⁵ *Rema* 328:17.

³⁶ *Hazon Ish, Orach Hayim* 59:4.

³⁷ *Mishnah Berurah* 328:17:58. *Muktzah* literally means “set aside” and refers to the prohibition of moving an object that was not prepared prior to Shabbat for use on Shabbat itself. This prohibition generally includes objects that are unlikely to be used or needed on Shabbat and objects that came into existence on Shabbat.

tohen, grinding, while preparing the medication on Shabbat.³⁸ However, one is obligated to prepare and administer medication to a *holeh she-yesh bo sakanah*, and it is permitted to prepare and provide medication for a *holeh she-ein bo sakanah* as long as no biblical prohibitions are transgressed in the process. If part of the process requires violation of a biblical prohibition (for example, grinding herbs or cooking a substance), a non-Jew is permitted to carry out this activity on behalf of the sick person.³⁹

Thus, a child is permitted to take medication on Shabbat and a Jew may prepare medication for the child as long as no biblical prohibitions are transgressed. A non-Jew may carry out a biblically prohibited activity in order to prepare medication for the child.⁴⁰

Vitamins

In order to prevent the grinding of substances to form medication on Shabbat, the rabbis also instituted a prohibition against the consumption or use of any substance or engagement in any activity specifically employed for the purpose of *refuah*, healing. This prohibition does not apply to a *holeh she-yesh bo sakanah* or to a *holeh she-ein bo sakanah*. Furthermore, if a substance is also used by healthy people for a purpose other than healing, its use is permitted on Shabbat.⁴¹

There is a dispute as to whether vitamins are considered *ma'akhal beri'im*, substances that are normally consumed by healthy people, which are permitted on Shabbat, or if their use is specifically for *refuah*. R. Yosef Dov Soloveitchik views vitamins as *ma'akhal beri'im*, and therefore permits their consumption on Shabbat.⁴² *Shemirat Shabbat Ke-Hilkhatah*, how-

38 *Shabbat* 53b; Rashi, s.v. *gezeirah mishum sehikat sammanim*.

39 One who is *holeh be-miktzat* or *mihush be-alma* is not permitted to prepare or take any medication on Shabbat.

40 *Shulhan Arukh* 328:37; *Shemirat Shabbat Ke-Hilkhatah* 37:9.

41 *Shulhan Arukh* *ibid*.

42 R. Chaim Jachter, citing R. Yosef Adler, at [Koltorah.org](http://www.koltorah.org): Taking Medicine on Shabbat-Part I. <http://www.koltorah.org/ravj/medicONshabbat1>.

ever, does not view vitamins as *ma'akhal beri'im* and therefore forbids their consumption by a healthy person on Shabbat, even if he or she takes them on a daily basis.⁴³ R. Moshe Feinstein distinguishes between a healthy and weak person, writing that it is permissible for a healthy individual to take vitamins in order to prevent illness, but a weak person who wishes to strengthen him or herself is forbidden from taking vitamins on Shabbat.⁴⁴

Despite the differences in opinion regarding an adult, all are in agreement that a child who is prescribed daily vitamins is permitted to continue taking them on Shabbat.⁴⁵

Applying Oil to Skin

Due to the prohibition against using any substance for a medical purpose on Shabbat, it is forbidden to apply oil to one's body for the purpose of healing.⁴⁶ However, since this is a rabbinic prohibition, one is permitted to apply oil for the therapeutic benefit of a *holeh she-ein bo sakanah*. Since, a child always has this status, one is permitted to spread oil on a baby in areas that have been irritated by a diaper and on the scalp of a child with dermatitis.⁴⁷ One should be careful not to use a thick ointment, as doing so would violate the biblical prohibition of *memare'akh*, spreading.⁴⁸ Rather, one should use oil that is liquid and runs or add oil to a thicker ointment to create a less viscous consistency.⁴⁹

When applying oil, one should place the oil directly onto the child and then spread it with one's hand or a cloth. One should avoid pouring the liquid onto the cloth prior to

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43 *Shemirat Shabbat Ke-Hilkhatah* 34:20.

44 *Iggerot Moshe, Orach Hayim* 3:54.

45 *Shemirat Shabbat Ke-Hilkhatah* 37:4.

46 *Shulhan Arukh* 327:1; *Mishnah Berurah* 1.

47 *Shemirat Shabbat Ke-Hilkhatah* 37:6.

48 *Memare'akh*, spreading, is a derivative of the prohibition of *memabek*, smoothing.

49 *Shemirat Shabbat Ke-Hilkhatah* 37:6.

spreading it on the child, as this may lead to violation of the biblical prohibition of *sekhitah*, squeezing.⁵⁰

Other Halakhic Issues Unique to Children on Shabbat

Weighing and Measuring

It is forbidden to precisely measure or weigh items on Shabbat, as this is considered *uvdah de-hol*, a weekday activity.⁵¹ There are several exceptions to this rule, including measuring or weighing for the purpose of a *mitzvah* and in order to care for a sick person.⁵² One is therefore permitted to measure and weigh food for a child or to weigh a child if it is necessary to monitor his weight for medical purposes.⁵³ In a similar vein, a mechanical (mercury) thermometer may be used to measure the temperature of a sick person on Shabbat.⁵⁴

Fever

A patient who has a high-grade fever and malaise for which the cause has not yet been determined or a low-grade fever associated with a known internal disease, such as pneumonia, should be treated as a *holeh she-yesh bo sakanah*, and one may desecrate Shabbat to care for him or her. Halakhic authorities debate the degree of fever that is considered “high” enough in an adult to warrant Shabbat desecration. However, when a child presents with a fever with an unknown source,

50 *Shemirat Shabbat Ke-Hilkhatah* ibid. *Sekhitah*, squeezing, is a derivative of the prohibition of *melaben*, laundering.

51 *Shulhan Arukh* 306:7; *Mishnah Berurah* 34.

52 *Shulhan Arukh* ibid.

53 *Shemirat Shabbat Ke-Hilkhatah* 37:5.

54 While all authorities agree that a mechanical thermometer may be used, there is a dispute regarding whether a plastic strip thermometer with a color-coded scale may be used. One is not permitted to use a battery powered digital thermometer unless there is potential danger to the sick person's life. See R. Michael Chizkiah, *The Halakhic Guide to Medical Practice on Shabbos*, 200.

any degree of fever is considered potentially dangerous and one may desecrate the Shabbat as needed.⁵⁵

Dr. Avraham Steinberg details the degree of fever that is considered dangerous from a medical standpoint based on the age of the child. He writes that any degree of fever is serious in an infant up to six months of age. In older children, a fever above 39°C (102.2°F), a fever over 38°C (100.4°F) lasting more than 24hrs, a fever over 38.5°C (101.3°F) that fails to respond to antipyretic medication, or a fever associated with shaking chills is considered potentially dangerous. In these situations, the child is treated as a *holeh she-yesh bo sakanah* and Shabbat may be desecrated.⁵⁶

Umbilical Cord

If an infant's umbilical cord starts to bleed, one is permitted to place a powder on the area to stop the bleeding.⁵⁷ One may also replace an old bandage with a new, clean one.⁵⁸ If necessary, one may desecrate the Shabbat in order to stop the bleeding, as the child is considered a *holeh she-yesh bo sakanah*.⁵⁹

Carrying a Child

Due to the biblical prohibition to carry any item in a public domain for a distance greater than four *amot* or to transfer an item between a public and a private domain on Shabbat, one is not permitted to carry or transfer an infant or child who is unable to walk on his or her own.⁶⁰ Because of the principle of “*hai nosei et atzmo*,” however, one who carries a child who is able to walk independently only transgresses a rabbinic prohibition. A parent may assist a child to walk if he is able to walk

55 *Shemirat Shabbat Ke-Hilkhatah* 32:11n30; *Hazon Ish, Orah Hayim* 59:4.

56 R. Avraham Steinberg, *Encyclopedia of Jewish Medical Ethics* (Jerusalem: Feldheim Publishers, 2003), 873.

57 *Shulhan Arukh, Orah Hayim* 328:28. *Shulhan Arukh* permits the placement of wine on a wound to stop bleeding.

58 *Ibid.* 328:27; *Mishnah Berurah* 90.

59 *Shemirat Shabbat Ke-Hilkhatah* 37:12.

60 *Shulhan Arukh, Orah Hayim* 308:41; *Mishnah Berurah* 154.

on his or her own, even with difficulty, if the child lifts one foot after the other so that at least one of his feet is constantly acting as a support.⁶¹

If a child is sick and there is a possibility of *sakanat nefesh*, one is certainly permitted to carry him or her to receive medical care, even if the child is unable to walk independently. One is even permitted to transport the child in a stroller, as the stroller is subsidiary to the child. However, one should remove items from the stroller that are not necessary for the child's health and one should also ensure that the child is not holding any items that are unrelated to his or her health.⁶² If the child is irritated, he or she may hold a toy or other item that will help pacify him or her.⁶³

A child who is sick but is not in life-threatening danger and who is able to walk independently may be carried in a public domain, as the child is considered a *holeh she-ein bo sakanah* and one is therefore permitted to perform a rabbinic prohibition on his behalf. A child who is a *holeh she-ein bo sakanah* but is unable to walk alone may be carried in a *karmelit*, a semi-private domain, as the transgression is then rabbinic in nature.⁶⁴

Turning on a Heater or Air Conditioner

There are certain situations in which the health of an individual may be affected by the temperature, and one may therefore ask a non-Jew to turn on a heater or air conditioner. In countries where the cold is so severe that a healthy person may suffer and become ill, one is permitted to ask a non-Jew to turn on the heater. If the temperature is appropriate for a healthy adult, but a child is present, one may ask a non-Jew to turn on the heater and an adult is permitted to benefit from

61 *Shulhan Arukh* *ibid.*

62 *Shemirat Shabbat Ke-Hilkhatah* 18:57 (2011 edition).

63 *Ibid.*, n.223.

64 *Ibid.*

EPHRAIM METH

May Physicians Strike?

Secular law currently entitles many segments of the labor force to strike in order to improve their work conditions or salary, but health care providers are often excluded from this right. In fact, such strikes are deemed illegal in a number of countries. A recent strike by health care providers in Israel prompts the question of how Halakhah views such activities.¹

This question must be analyzed from two perspectives. From the point of view of monetary law, may providers of critical services – such as doctors or school teachers – renege on their contracts? From a health angle, may providers of life-saving services – such as doctors, nurses, and paramedics – fail to fulfill their obligations to society? Many *Poskim* forbid doctors from striking because such action constitutes a forbidden breach of contract, permitting strikes only if the doctors' contracts are up for renewal.² In the present article, we will explore the issue of whether or not doctors are permitted to strike from the health angle alone. In particular, we will suggest that physicians must consider five variables when determining whether or not to absent themselves from work.

To arrive at these variables, we will consider some rationale justifying four practices prevalent in our communities. Why are doctors permitted to take non-essential vacations?

1 This article should not be relied on for practical Halakhah. Its purpose is to discuss conceptual questions that have been somewhat neglected by earlier authors on this subject. It does not purport to be comprehensive or conclusive.

2 See *Minhat Shlomo* 1:87; *Nishmat Avraham, Hoshen Mishpat* 333:1.

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Why are people allowed to train for vocations other than healing? Why are governments allowed to support institutions other than hospitals? And why may individuals donate to causes that do not save lives? Each of these practices, theoretically, increases the likelihood of a preventable death occurring. To justify each practice, we will suggest four factors that, when present, might neutralize the obligation to prevent a preventable death. We will subsequently weigh how much support each of these factors finds in the Talmud and halakhic literature, and then we will determine which of these factors, if any, is present when physicians strike.

Hence, we will first explore the possibility that large groups, i.e. communities or nations, need not sacrifice their welfare to prevent a preventable death.

Second, we will explore the converse possibility, that individuals need not sacrifice their welfare to prevent a preventable death.

Third, we will explore the possibility that once the likelihood of a preventable death occurring falls below 0.1% or below some similar threshold, we need not concern ourselves about it.

Fourth, we will explore the possibility that we need not act to prevent the death of people far, far removed from our knowledge, our time, and our place, people who may not be ill, who may never become ill, and, if they do become ill, whose symptoms and circumstances may never become known to us.

In response to a doctors' strike in Israel in 1983, many *Poskim* ruled that some stages of this strike were against the Halakhah in light of the *Shulhan Arukh's* statement that anyone who abstains from healing is comparable to a murderer.³ Even if other doctors are available, the doctor whose services were sought out is held liable for his refusal to provide them, since perhaps he and only he was the agent through whom *Hashem* was willing to heal this patient.⁴ Others also claimed

3 *Shulhan Arukh, Yoreh De'ah* 336:1.

4 See R. Mordechai Halperin, "*Piskei Halakhah Mi-Yemei Shevitat Ha-Ro-*

that the doctors were forbidden to strike because they thereby fail to perform the *mitzvah* to heal the ill.⁵

These arguments are somewhat difficult understand. According to this reasoning, doctors should take only the minimum vacation time necessary for their continued efficiency, and be on duty at all other times.⁶ Moreover, why does the obligation to save lives not demand that every Jew attend medical school, or at least study medicine during his or her spare time?⁷

R. Moshe Tendler poses a related question. Why are governments permitted to pay for libraries and universities, rather than channel their money into bigger and better hospitals that will save more lives? R. Tendler suggests that the obligation of society towards its ill or endangered members is weaker than the obligation of individuals towards their ill or threatened compatriots.⁸ As proof, he cites the Talmudic passage forbidding the community to spend inordinate sums on redeeming captives, lest it become impoverished;⁹ the community's financial well-being is deemed more important than the life of an individual captive. This proof is somewhat problem-

fim Be-Beit Ha-Holim Shaarei Tzedek," *Assia* 37, <http://www.medethics.org.il/articles/ASSIA/ASSIA5/R0051030.asp>.

5 See R. Moshe Steinberg, "*Shevitat Rofim Le-Or Ha-Halakhah*," *Assia* 37, available at <http://www.medethics.org.il/articles/ASSIA/ASSIA3/R0031341.asp>; R. Yitzchak Zilberstein, "*Sekhar Ha-Rofei Be-Halakhah*," available at <http://www.medethics.org.il/articles/ASSIA/ASSIA5/R0051024.asp>; R. Chaim David Ha-Levi, "*Shevitat Ha-Rof'im Be-Halakhah*," *Barkai* 2 (5745):22-33; and R. Mordechai Lopez, "*Ha-Shevitah Be-Halakhah*," *Torah She-Ba'al Peh* 25 (5744):85-93.

6 See Dr. Fred Rosner, *Biomedical Ethics and Jewish Law*, available at <http://books.google.com/books?id=T7w2oAmohpEC&q=vacations+not#v=snippet&q=vacations%20not&f=false>, who concludes that "this question requires additional deliberation and consultation with competent rabbinic authorities."

7 See *Teshuvot Hatam Sofer, Yoreh De'ah* 336.

8 R. M.D. Tendler, "*Ba'ayot Be-Kedimah Be-Hatzalah*," in *Kevod Ha-Rav* (Student Organization of Yeshiva, NY, 1984), 167-9; see also R. Ido Rechin, "*Hotza'at Mamon Le-Tzorekh Hatzalat Hayim*," *Tehumin* 29 (2008):69-74.

9 *Gittin* 45a.

atic, however, as the Halakhah follows an alternate ruling in that passage forbidding even individuals from expending inordinate sums on captives, lest the kidnappers make a habit of kidnapping for extortion.

R. Tendler also cites the Talmudic passage permitting residents of an upriver city to launder their clothes in the river, even though this expenditure of water deprives a downriver city of life-critical drinking water.¹⁰ Apparently, some members of society may reap benefits at the expense of even life saving benefits to others. This passage, too, is not particularly compelling, since the Talmud understood that clean laundry is also life-critical.¹¹ In the final analysis, then, we are left with our original question: why doesn't society allocate all its resources to save lives?

Perhaps the *mitzvah* to save life is incumbent only on individuals, rather than on the Jewish nation as a whole.¹² Hence, while individuals are obligated to exhaust their bank accounts in order to save lives, the nation collectively is not thus obligated. If the participation of Jews in professions other than medicine, or the provision of doctors with adequate benefits, are viewed as societal rather than individual values, then perhaps they outweigh the obligation of *pikuah nefesh*.

Still, how can you and I retain savings accounts? Why does the *mitzvah* of saving life not require us to donate our savings (beyond what we need for survival) to hospitals? R. Ido Rechnitz suggests that we are not obligated to decrease our

10 *Nedarim* 80b.

11 R. Naftali Tzvi Yehudah Berlin (Netziv), *Ha'amek She'eilah* 147.

12 R. Rechnitz, "*Hotza'at Mamon*," cites numerous authorities who view *pikuah nefesh* as devolving upon the individual, not the collective. See, however, R. Shlomo Goren, "*Shevitat Rofim Le-Or Ha-Halakhah*," available at <http://www.hebrewbooks.org/pdfpager.aspx?req=52116&pgnum=43>, who views *pikuah nefesh* as devolving on the collective, rather than on discreet individuals. R. J. David Bleich, "Physicians' Strikes," *Tradition* 21:3 (1984): 80-84, views *pikuah nefesh* as devolving upon both the individual and the collective.

standard of living in order to save someone's life.¹³ As proof, he cites the Rambam's ruling that a nursing woman may eat foods that endanger her offspring and is not obligated to restrict her diet for the baby's safety.¹⁴ For instance, if the baby is allergic to milk, and the mother absolutely must have her daily coffee with milk or her monthly milkshake, she is halakhically permitted to partake of the dairy foodstuff, regardless of her baby's health. It seems that the Rambam gives a mother's standard of living precedence over her baby's health. R. Rechnitz acknowledges, however, that many authorities opine that the Rambam only permitted eating "harmful" foods when doing so would not endanger the baby's life; he would forbid the mother from eating foods that might place her child in danger. R. Rechnitz cites an additional proof from the law that one need not give more than one fifth of his assets to charity, even to save a life.¹⁵ This proof, too, is shaky, since it may only apply to circumstances in which parting with more than one fifth of one's possessions will endanger his livelihood and his ability to weather future crises.

In my view, there are two reasons that individuals are not obligated to give up all of their funds or change their career plans for the sake of saving lives. First, perhaps the probability that we will make a difference is below the threshold that requires us to act for saving life. After all, the *Hatam Sofer*¹⁶ ruled that we need not delay burial even though there is a once-in-a-thousand-years chance that the deceased is really alive. Similarly, what is the probability that our attending medical school or donating our savings to a hospital will actually result in saving someone who otherwise would have died? There are

13 R. Rechnitz, *ibid*.

14 *Hilkhot Ishut* 21:11, as interpreted by *Beit Shmuel, Even Ha-Ezer* 80:15.

15 *Ketuvot* 50a, as interpreted by R. Yosef Shalom Elyashiv, cited in R. Yitzhak Zylberstein, "Horim Zekeinim Ve-Kibbudam," *Kol Torah* 43 (2000): 232. See also *Tzitz Eliezer* 18:40.

16 *Teshuvot Hatam Sofer, Yoreh De'ah* 338. R. Hershel Schachter, in *Ginat Egoz* ch. 16 (Flatbush Beit Midrash, 2007), paraphrases the *Hatam Sofer* as dismissing any probability lower than one in a thousand as insignificant.

presumably enough people who voluntarily enroll in medical school to meet the community's needs. Given the present enrollment, hypothetically, fewer than one in a thousand people will die due to dearth of doctors. Therefore, no individual can be compelled to attend medical school. If, for whatever reason, more people begin to die due to dearth of doctors, then indeed we might be obligated to attend medical school until the number of deaths decreases. Similarly, a doctor is not obligated to be available at all times if his absence will likely not affect the population's health.

Accordingly, we can suggest three variables that affect the question of whether or not a particular physician may strike:

1. A physician whose absence will not lower the quality of life-saving care in his hospital or city, since other physicians who specialize in his field remain in the hospital, may strike. However, a physician who has no one to cover for him and whose presence is therefore critical may not. This seems to be the opinion of R. Yitzhak Weiss,¹⁷ who rules that doctors may strike only if the hospitals retain enough staff to save any patients who are in danger.
2. Similarly, doctors who are directly involved in saving lives may be more constrained than doctors who are necessary for saving lives but who are not directly involved in the process. For example, even if a radiologist's absence may lead to loss of life, if the chances of someone dying due to his absence are lower than one in a thousand, he may be permitted to strike.
3. *A fortiori*, doctors who specialize in life-saving fields, such as emergency medicine, may be even more constrained in their permission to strike, while doctors whose specialty has less impact on saving lives (such as ophthalmologists or dermatologists) may be less constrained.

17 Cited in Halperin, "Piskei Halakhah," *ibid.*

In spite of this approach's advantages in explaining the halakhic sources and the prevailing practice of Jewish communities, it does not resolve the question entirely. While many hospitals are likely operating at peak efficiency, there are probably some hospitals that are not. Why are we not obligated to donate our savings to those hospitals?

To answer this question, we must suggest a second reason that society is permitted to build libraries instead of hospitals and that doctors are permitted to take vacations. Perhaps our obligation to save life is more diffuse when we are distant from the life that must be saved. Halakhah demands that we spend all our energy and money to save a dying person who lies before us, and even to save a dying person who calls and entreats us on the phone for help,¹⁸ but we may have less of an obligation to save a dying person who to us is only a faceless statistic.

According to this reasoning, doctors are permitted to strike for the same reason they are permitted to take vacations. Just as they may take vacations because no one is personally entreating them for medical intervention, doctors may strike because no one is personally asking them for intervention. However, this line of reasoning introduces a fourth variable that physicians must consider before absenting themselves from work:

4. If the physician's services were specifically requested by the patient or his agent, the physician is obligated to heal the patient, since the patient is no longer a faceless statistic. A physician who was not asked for by name has fewer obligations. Clearly, if a patient with symptoms of a heart attack asks that a vacationing cardiologist examine him, the doctor may not refuse to do so.

The obligation to save an unspecified patient or victim

18 Rambam, *Hilkhhot Rotze'ah* 1:15, writes that if one hears evil men plotting to murder someone, he must inform the intended victim. This indicates that once one knows that a discreet individual is in danger, one is obligated to save him, even if he is out of eyesight.

may depend on how we define the scope of the *mitzvah* of *pikuah nefesh*. The Rambam lists *pikuah nefesh* obligations as deriving from three *mitzvot*: do not stand idly by your when your friends' blood is spilled; cut off the hand of a would-be murderer (to save the would-be victim); and do not have mercy on the would-be murderer.¹⁹ Are these *mitzvot* broad mandates to increase the quantity of human life-force in the world, or are they primarily inter-personal obligations demanding fealty of one human towards his fellow and intra-personal obligations demanding cultivation of merciful personality traits? A mandate to increase life would require us to act even to save a faceless statistic, while the mandate to act with fealty and loyalty towards our compatriots might not require action unless the victim's identity is somewhat known to the doctor.

The *Sefer Ha-Hinukh* offers an unambiguous formulation in this regard, suggesting four reasons we are obligated to save lives. First, the victim cries out to *Hashem*, and *Hashem* answers the victim by commanding us to save him. Second, *Hashem* wants Jewish society to be a civil society, and this requires us to save oppressed and endangered members of society. Third, if you switched places with the victim, you would want him to save you; civility demands that you save him. Fourth, *Hashem* "did not bring [the world] into being for nothingness; he created it to be populated."²⁰ These formulations offer no room to differentiate between victims whose identities are known and victims who remain faceless statistics. Our positions as *Hashem's* agents, our responsibility to maintain a civil society, and the value of ensuring a populated world demand that we save anyone who is in danger.

The prohibition against suicide and the obligation to save people who attempt suicide, in spite of the fact that those victims did not want to live, indicates that *pikuah nefesh* is obligatory for the purpose of preserving life, not out of fealty to friends or for inculcating compassion.

19 Ibid.

20 *Sefer Ha-Hinukh*, *mitzvot* 420-421.

Along similar lines, R. Eliezer Waldenberg permits ambulance drivers to return their ambulances to town on Shabbat because there is a high probability that the ambulance will be needed there to save a life.²¹ Clearly, then, *pikuah nefesh* does apply even to faceless statistics.

In contrast, *Hatam Sofer's* ruling forbidding autopsies unless a life stands to be immediately saved²² seems to support the idea that the *mitzvah* of *pikuah nefesh* does not apply to saving a faceless statistic. Otherwise, *pikuah nefesh* of an anonymous future beneficiary of this autopsy would render the autopsy permissible. One may argue, however, that the *Hatam Sofer* was skeptical of any future life-saving benefit emerging from the autopsy; were there a halakhic *statistical certainty* that life would be saved – that is, if this autopsy had a one in ten thousand chance of saving life – *Hatam Sofer* would have permitted it even though the beneficiary is neither present nor known. Indeed, a number of *Poskim* have permitted autopsies in instances in which the procedure was deemed statistically vital to future salvation of life.²³ On the other hand, *Hatam Sofer* argues that we may not manufacture surgical equipment, produce medicines, or train medical students on Shabbat, since the statistical likelihood that these activities will save life does not outweigh the *mitzvah* of Shabbat. In these cases, the medical student's violation of Shabbat will almost certainly help him save endangered patients sooner and with greater expertise, yet *Hatam Sofer* forbade such Shabbat violation.

Finally, there is a fifth variable that impacts on whether or not a physician may participate in a strike:

5. A physician who began treating his patient may be obligated to continue providing care, whereas one who did not begin the course of treatment may not be obligated

21 *Tzitz Eliezer* vol. 8, 94.

22 *Teshuvot Hatam Sofer, Yoreh De'ah* 336, based on *Teshuvot Noda Be-Yehudah* 2:210.

23 See R. Chaim Navon, "Autopsies," available at <http://vbm-torah.org/archive/halak66/06halak.htm>, for a summary of the relevant positions.

to do so.

One source for the *mitzvah* of saving life is the verse, referring to a lost object, “you must return it to him.”²⁴ If one must return a lost object (*hashavat aveidah*), he certainly must return lost health.²⁵ R. Yosef Shalom Elyashiv argues, based on this parallel, that just as one need not spend all his wealth to return a lost object, he need not impoverish himself to save a life.²⁶ One may similarly argue that although one who did not pick up a lost object has no obligation to return it, one who picked up the object and thereby began the process of returning it is obligated to complete the process. For example, if one finds a lost wallet and brings it to his house to determine its owner, he becomes obligated to care for and guard the wallet; he may not decide to opt out of his *mitzvah* and throw the wallet out because the burden caring for and guarding it becomes onerous.²⁷ Similarly, a doctor who began treating his patient may not strike if that will result in the patient’s deterioration.

On the other hand, although derived from a single verse, the obligations to heal the sick and return lost objects may differ. For instance, one is exempt from returning a lost object if doing so is beneath his dignity, while one is not exempt from saving lives even if he suffers loss of face. “Returning” a life is not identical to returning an object. Indeed, for this reason, the Talmud writes that one must spend money to save someone else’s life, even though one needs not spend money to return someone else’s lost object. Furthermore, one may kill a person who is trying to destroy someone else’s life, while one may not kill a person who is trying to destroy someone else’s property.

Furthermore, even if we accept the parallel between *hashavat aveidah* and *pikuah nefesh*, perhaps each step of the healing process is an independent act of *hashava*, so that once

24 Devarim 22:2

25 *Sanhedrin* 73a.

26 Cited in Zilberstein, “*Horim Zekeinim*,” *ibid.*

27 *Bava Metzia* 26b, 30b.

one step is complete, the doctor has no obligation to begin the next step. After all, it is expected that many health-care professionals, each in his or her area of expertise, will shepherd the patient until he or she is totally cured.

Conclusion

The subject of physicians', nurses', and paramedics' strikes is a painful one. We all have immense appreciation, *ha-karat ha-tov*, for the helpfulness, kindness, and expertise of our health-care providers. We believe that they deserve a standard of living commensurate with their intellectual prowess, expended effort, and nobility. Moreover, health-care providers should be offered salaries that encourage gifted students to flock to the field, to ensure that we do not face a shortage of such life-critical professionals. Yet, maintenance of our own standard of living, which is also often rightfully deserved, may preclude us from providing health-care providers with their due. This is particularly true in socialist countries, such as Israel, where our collective responsibility towards health-care providers must be balanced against all the other priorities of well-balanced government.

Hashem has blessed us with a standard of comfort that exceeds any attained by our ancestors. We pray that He increase our blessing and fulfill the promises of "I am *Hashem* your healer"²⁸ and "I will remove illness from your midst."²⁹

28 Shemot 15:26

29 Shemot 23:25

PETER KAHN

*But the Earth He Has
Given to Mankind?
Toward a Theology of
Synthetic Biology*

Man in the story of creation does not occupy a unique ontic position. He is, rather, a drop of the cosmos that fits into the schemata of naturalness and concreteness... While the background of man's existence is his involvement in the natural biological occurrence, his vistas are almost endless. His origin is the earth, the mother of the wildflower and the insect; his destiny, destination and goal are placed in the sublime heights of a transcendental world.¹

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1 R. Joseph B. Soloveitchik, *The Emergence of Ethical Man*, ed. Michael Berger (Jersey City, NJ, 2005), 13.

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Man's Relationship with Nature as Derived from a Theology of Creation

History is replete with stories of man's war against nature. Judaism in particular very directly addresses this conflict, starting as early as the third chapter of Genesis. Even in the earliest beginnings of history, it is the fate of human beings to struggle with nature so that we may thrive. In the broader context of humanity, we still struggle against the very forces Adam sought to control during his sojourn on this earth. Indeed, although humanity has defeated many of the scourges that have plagued us since the primeval age, we ultimately remain powerless before the forces of nature and its equalizing might. Just as Adam was forced to struggle with the earth to yield his food, we must similarly grapple with the structures of nature to enhance human survival and quality of life.

In modern history, man's struggle with nature has played out in the realm of science. On occasion, man has been clearly successful – e.g. Jenner's insightful vaccination project to eradicate smallpox² – while in others, we have been roundly defeated –for example, in our quixotic battle against multiple and extensive drug resistant tuberculosis (M/XMDR-TB). Despite these advances, a complete and comprehensive success in the sense of a total mastery of nature ultimately escapes us. Nonetheless, there have been triumphal marches toward that goal as modern science has developed. Modern science, as distinct from its earlier predecessors, presently exercises unprecedented levels of control over the biological processes that represent the most fundamentally natural aspects of our existence – life and death. Its disciples have created life in petri dishes and have ended lives using injections of substances invented by its adherents. We have also been witness to and are fortunate to be the beneficiaries of unmatched mastery over other areas in nature as well, ranging from the food we eat to the ways in which industry functions. Aristotle, arguably the founder of

² On this point, see the *Tiferet Yisrael, Boaz, Avot 3:14* for an astonishing description of Jenner among the righteous of the nations.

the study of biology, could never have envisioned such a degree of success in his descriptions of the functioning of science.³

While the fruits of this labor have thus far indeed been of indisputable benefit to humanity, there exists a far larger question about the process used to arrive at this juncture. The exploratory process of science ought to stimulate discussion on the myriad of ethical, moral, and religious issues that are attendant upon such developments.

Approaching this question from a theological perspective, the first two chapters of Genesis illustrate a divinely ordained, deeply symbiotic relationship between man and the earth. As part of the Divine partnership, God thrusts man into this symbiotic relationship with the earth and requires man to show appropriate care in how he relates to the earth. Man is created from dust, depends on the earth for his sustenance, and ultimately, at the end of his days, returns to the very earth from whence he came. The very *mitzvah* of burial, R. Soloveitchik explains, “indicates the validity of the demand the earth makes upon man. She insists upon the return of a part of her own self.”⁴ The *mitzvah* of burial is a final reinforcement of our inextricable link to the ecosystem of nature.

Similarly, inasmuch as man is dependent upon the earth, the Torah notes that earth itself is even more dependent on man than we would have imagined. In the absence of man to work the soil, there was no vegetation upon the earth.⁵ Man also has the ability to defile the earth and contaminate it with sin;⁶ depending upon the way in which man behaves toward the earth, he can either “corrupt and defile nature, or sanctify her.”⁷

Our connection with nature runs even deeper. As one of the doxologies of Judaism, the *keriat shema* recited twice daily

3 Cf. Aristotle’s *Physics* (in particular books I and II) and *On the Parts of Animals* for his descriptions of the scientific method and biology, respectively.

4 Soloveitchik, *The Emergence of Ethical Man*, 52.

5 Genesis 2:5.

6 Cf. Leviticus 19:29 and 18:25.

7 Soloveitchik, *The Emergence of Ethical Man*, 58.

contains yet another formulation of this mutually interdependent relationship.⁸ Man has the ability, should he choose to so utterly corrupt himself such that the natural order of the universe may be upended in the process. Of course, this inversion of nature in response to man's sins implies an extraordinarily deep connection between man and nature. If man behaves in accordance with the laws of the Torah, then nature will follow the regular patterns set forth by God at creation.⁹ In the event that man is unwilling to do so, nature responds by withholding the bounty required for a successful harvest.

This notion of an intrinsic connection between man's behavior and natural processes may begin to explain the inability of science to fully penetrate the deepest mysteries of the natural world. Despite billions of dollars invested in supercomputers, weather measuring apparatuses, and countless years of inquiry, science remains unable to formulate "rules" of how weather functions. Notably, R. Nachman Cohen postulates that it is a scientific impossibility to properly understand the true science of rain given these verses in the Torah; the real

8 "It will be that if you hearken to My commandments that I command you today, to love Hashem, your God, and to serve Him with all your heart and with all your soul, then I shall provide rain for your Land in its proper time, the early and the late rains, that you may gather in your grain, your wine, and your oil. I shall provide grass in your field for your cattle and you will eat and you will be satisfied. Beware for yourselves lest your heart be seduced and you turn astray and serve gods of others and prostrate yourself to them. Then the wrath of God will blaze against you; He will restrain the heaven so there will be no rain, and the ground will not yield its produce; and you will be swiftly banished from the goodly Land that God gives you" (Deuteronomy 11:13-17, Artscroll translation).

9 Expanding upon this notion of the natural laws of creation, the Talmud notes in two locations (*Sanhedrin* 60a and *Kiddushin* 39a) that God wished to maintain the separateness of species from the start of creation. In discussing the prohibition of *kilayim*, the Talmud notes that these laws are referred to as "statutes decreed from of old," perhaps implying that the laws separating species are among the foundational laws of creation. This interpretation of these two pieces of the Talmud is adopted by R. Shlomo Amar, "*Tzema-him Trangeniyim Le-Or Ha-Halakhah*," *Tenuvot Sadeh* 23 (1999):17, and *Torah Temimah*, Leviticus 19:19, n. 130.

cause of rain in the world is the actions of Jewish people the world over.¹⁰ It would seem that there is an ontological and epistemological point here; we cannot know about the weather since it is in the hands of God to interpret our behavior and construct the weather accordingly. Regardless of whether one accepts this position, it highlights the undeniable link between nature and man, which is even deeper than mutually dependent. Man, by virtue of his deeds alone, causes various actions and reactions on the part of nature. Indeed, the earth is described as spitting out inhabitants who are unworthy of dwelling on its land.¹¹

The theology of creation that derives from Genesis suggests a covenantal relationship that is created by the very act of God's creative word. Human beings have been placed at the pinnacle of creation, but attendant upon this position are weighty responsibilities of nurturing God's created order. God, man and nature are covenantally bound from the very beginning of creation. Certainly, this implies that the actions of the scientists and the technologist must be conducted within the strictures of this covenant. As in all divinely ordained covenants, violations of the terms only lead to tragedy.

The creation chapters in Genesis note the inherent connection between man and nature. On the one hand, man is entitled to "fill the earth and subdue it;"¹² on the other, he is also obligated to "work it and guard it."¹³ The nature of this responsibility-privilege combination implies a unique system of requirements for man. He is seemingly allowed to do as he pleases with the nature that has been created for him,¹⁴ but he is also required at the same time to preserve it and to serve as its sole protector.¹⁵ As with many matters in the realm of theol-

10 Nachman Cohen, *Tractate Ta'anis: Commentary and Study Guide, Master a Mesikhta Series* (New York, 1985), 6-7.

11 Leviticus 18:25.

12 Genesis 1:28.

13 Ibid. 2:15.

14 Ramban, Genesis 1:28.

15 See *Midrash Kohelet Rabbah* 7:13.

ogy, the key to this apparent paradox is the function of human intent. In these two chapters, God notes that man is free to rule over nature when it comes to areas of his own need, such as providing sustenance for his family. Thus, for example, the Torah permits killing certain animals for food. In contrast, if the same action is not necessary, this person might even be, in some sense, culpable for murder.¹⁶ On the one hand, man is entitled to take the life of an almost limitless number of animals for his own consumption; on the other, man is prohibited from destroying fruit bearing trees when laying siege to his enemies.¹⁷ This reflects the significant ethical boundaries that are laid upon human beings, despite their elevated role in the natural order.

Antithetical Approaches to the Jewish Theology of the Man-Nature Relationship

Each of the two sides of the coin – “fill the earth and subdue it” and “work it and to guard it” – has been perverted into an ideology antithetical to Jewish thought.

The modern movement of deep ecology represents the second school of thought. Led by Arne Næss, deep ecologists maintain the position that man and nature each have value in and of themselves, regardless of their utility to any other organism.¹⁸ Nature is due respect in much the same way that humans are due respect and is due equal standing in the moral sphere. In essence, deep ecology is universalism expanded to the deep-

16 See *Sefer Ha-Hinukh, mitzvah 186*: “And the matter is that God did not permit the flesh of animals to humans with the exception of atonement or other human needs such as food, medicine, or any other human need. To kill animals, without any human benefit, however, is considered wonton destruction and murder. Even though it is not akin to killing a human, due to the dignity of man and his special status, nevertheless the scripture treats such killings as murder since animals were only permitted to be killed for human use...”

17 Deuteronomy 20:19.

18 Arne Næss and David Rothenberg, *Ecology, Community, and Lifestyle: Outline of an Ecosophy* (New York, 1990).

est reaches of the universe. A forest, therefore, has similar rights to humans and cannot simply be destroyed on a whim for a human need. The preservation of the “natural” universe, in Naess’ perspective, must be viewed as an ethical obligation and priority.

In the minds of those who hold such a view, we, as adherents of modernity, have sinfully objectified nature. Synthetic biology – the construction and redesign of biological systems or components – for devotees of this position, is among the worst wrongs possible; we are using nature for our own needs while not recognizing the value inherent in each of the objects we are manipulating. It is almost as if man has elected to play with very advanced Legos. The deep ecologist would consider these types of biology to be profoundly unethical, since one must fully objectify nature to manipulate it in this fashion.

Upon further investigation, adherents of deep ecology are unmasked as either pantheists or extreme Augustinians. Næss and his colleagues veer toward a pantheistic view, according to which humans and nature are part of one all embracing reality and the distinction between nature and other species is diminished. Such a view would certainly be rejected by any Jewish theologian as erroneous and deeply troubled. Interestingly, Næss would be in good company with Spinoza, who found himself excommunicated by the Jewish community. Other deep ecologists veer toward a radical Platonic philosophy akin to that of Augustine, who believed that the various species and types of creations are immutable and are correlated with platonic forms.¹⁹ Such a view would imply not only the rejection of evolution, but also that altering any of the species in any way is tantamount to blasphemy and rebellion against God. A deep ecologist might erroneously believe that we have no mandate to be involved with nature or use any of its parts to better the human condition. This philosophy is a dangerous system of beliefs that would allow almost none of modern sci-

19 Allan Fitzgerald and John C. Cavadini, “Creation,” in *Augustine Through the Ages: An Encyclopedia* (Grand Rapids, MI, 1999), 253, 652-653.

ence or medicine to be practiced.

Deep ecology, in effect, has imposed upon us a false dichotomy. It has demanded that we either accept its propositions about the sacredness of nature or reject the notion of nature's value and simply plunder her. Judaism, in contrast, honors the intrinsic value of nature as God's creation but also allows for human manipulation and development of the elements found within it. The deep ecologists often speak of the sacredness of the earth and all of the species within it; Judaism of course, would agree, but only in the sense that the earth and its species have this great value because they are the products of God's creation. Man, by default, is prohibited from using various parts of the earth without divine approval. God, however, has granted such license to mankind, as long as humans operate within the parameters of the creation covenant. We may thus use the resources of the earth in any way that is permitted.

The sources we have seen indicate that man has a dual role as both protector and beneficiary of nature. As such, in Jewish thought, Halakhah is the mediating factor that allows man to recognize where the line between outright domination of nature and creative partnership with God lies. In the absence of Halakhah, God's revealed will for how man ought to act, man would be left directionless and unsure of the permissible or forbidden. Thus, the theology of creation does not call for the termination of the project of synthetic biology, but rather its appropriate direction using the tools of Halakhah as the compass with which to navigate.

Judaism's embrace of a partnership between man and God is certainly not adopted by many in scientific fields, who instead suggest that science is able to function without the divine and glorify the goal of "fill the earth and subdue it." Such an arrogant claim is both erroneous and theologically troubling.

Man's struggle against the elements of nature is an inherent reminder of our human imperfection and the ontologically entailed yawning gap between Creator and created. Al-

though we continuously wrestle with the limitations imposed upon us by dint of our humanity, the devout recognize a special duty to avoid the arrogant claim of “My strength and the might of my hand made me all this wealth.”²⁰ Human beings, impotent before the raging waves of a tsunami or the destructive lava of a volcanic eruption, are dependent upon the grace and benevolence of God to ensure their continued existence.

Inherent in this creative partnership between God and man is an understanding that God reigns supreme to man; man is the inferior creative partner. God creates the natural framework in which man works, and He constructs the materials with which man creates. Man, in turn, is obligated to remain subordinate to the One who brought these items forth in the first place.²¹ Our inferiority implies the recognition that we are not the masters of nature and must instead work only within the bounds prescribed by God.

The antithetical position of scientism arrogantly posits that the march of scientific progress obviates the need for a “god of the gaps.” Of course, theologically, God is not in the gaps alone, but is the ultimate source of all the materials with which the scientist works. Properly speaking, then, science is a branch of religious investigation; as we come to know nature,

20 *Deuteronomy* 8:17.

21 R. Dr. Norman Lamm, *Faith and Doubt: Studies in Traditional Jewish Thought* (Jersey City, NJ, 2006), 178, explains that just as the Talmud notes that an artisan gains monetary rights to the vessel on which he works by dint of improving it (*Bava Kama* 99a), humans, as divinely sanctioned artisans, are commissioned to effect improvements upon this world. Nevertheless, he notes that man “never has the title over his own creations; he has no mastery over the world. Despite his investment of labor and talent, the world, even as perfected by him belongs to the original Owner. No matter how extensive and ingenious man’s scientific and technological achievements in the transformation, conquest, and improvement of nature, he cannot displace the rightful Owner who provided the material in the first place. Moreover, not only does man not have proprietorship over raw nature, but also he is not even the absolute master of his own creations, the results of his magnificent *yezirah* (creative powers). He may not undo what he himself did, for once he has done it, it belongs to the Owner and not to the artisan.”

we come to know more of the Creator through His work.²² Furthermore, science, by its very nature, deals with controlled experiments involving humanity's ability to manipulate what we can control through direct examination. Hence, science deals only with those items that are ontologically inferior to the human. God, certainly, is excluded from any such scientific investigations, since He can in no way be controlled through direct examination.²³ Although we may be able to gain piecemeal knowledge of God's role in the world through science, humanity is ultimately powerless before the infinite power of the divine and His consequent inscrutability.

The crucial point here is that scientism unjustifiably views God as the mere "Hamburger Helper" of the cosmos. God is invoked along the lines of Laplace, as a placeholder for future adequate explanations that science will someday deliver.²⁴ Of course, such a view begs the question against traditional theism of any sort in which God is understood to be ultimately transcendent and infinite in every respect. Scientism depends upon a conception of divinity that is inconsistent with the robust notion of God postulated by any of the three major western religions.

22 Cf. Psalms 19:1 and Rambam, *Hilkhot Yesodei Ha-Torah* 2:2.

23 This argument, which is akin to what might be called a reverse ontological argument, runs as follows:

- a) Science is our sacral mode of knowing.
- b) The crux of science is the controlled experiment.
- c) We can control only what is inferior to us.
- d) Conclusion: Science discloses only our inferiors from which God is excluded by definition.

See James Proud and Karl Johnson (eds.) *The University and the Church: Essays in Honor of William Alexander Johnson* (New York, 2005), 109.

24 The dialogue between Napoleon and Laplace is reported to have been as follows:

Napoleon: You have written this huge book on the system of the world without once mentioning the author of the universe.
Laplace: Sire, I had no need of that hypothesis.

See John J. O'Connor and Edmund F. Robertson, *Quotations by Pierre-Simon Laplace*, available at <http://www-history.mcs.st-andrews.ac.uk/~history/Quotations/Laplace.html> (accessed January 2012).

To summarize, there are two questions at play, that of arrogance and that of futility. The scientist is obliged to avoid the problem of arrogance while also recognizing the ultimate futility of his battle against nature.

The Rabbinic Notion of Positive and Negative Divine Partnership

The Rabbis of the Talmud were particularly sensitive to the tension between the twin imperatives of “fill the earth and subdue it” and “work it and to guard it,” noting that man’s position in the world is as a partner in creation:

R. Hamnuna said: He who prays on the eve of the Sabbath and recites “and [the heaven and the earth] were finished,” Scripture treats him as though he had become a partner with the Holy One, blessed be He, in the Creation, for it is said, “*va-yekhulu*” (and they were finished); read not “*va-yekhhulu*” but “*va-yekhalu*” (and **they** finished).²⁵

By reorienting himself from the model of domination of nature²⁶ to the role of partner with the Creator of the world in the ongoing recreation of nature, the scientist learns about his dual role as a created being and as a partner in creation. The Rabbis would have us view nature not as an enemy, but as a project on which we continuously work with our Divine Partner.²⁷ Thus, on the Sabbath, man partners with God by

²⁵ *Shabbat 119b*. For additional sources on this matter, see Genesis 17:1 and *Tiferet Yonatan* and *Beit Ha-Levi* ad loc. See also *Kiddushin* 30b.

²⁶ As Ramban notes (Genesis 1:28), “Man has been given the power and rulership over the land to do as he pleases with the animals, to build and destroy that which has been planted and to mine copper from its mountains.” The likely reading of this comment is that man has been given an unlimited license to use nature in whatever way he sees fit.

²⁷ Certain radical critics in environmental circles allege that the major Western religions are a central cause of our abusive relationship with nature. Clearly, in light of the Rabbis’ statements, the Jewish tradition understands

refraining from engaging in creative work.

While this negative form of partnership is one of limits, partnership also involves positive aspects of engaging in action. The *gemara* notes that God wished to create certain items during the six days of creation, yet refrained from doing so to allow existential space in which Man would be able to partner with Him:

R. Yose said: Two things He decided to create on the eve of the Sabbath, but they were not created until the termination of the Sabbath. At the termination of the Sabbath, the Holy One, blessed be He, inspired Adam with knowledge of a kind similar to Divine [knowledge], and he procured two stones and rubbed them on each other, and fire issued from them. He also took two animals and crossed them, and from them came forth the mule.²⁸

The teaching of R. Yose reveals that God invites man to participate in a positive form of partnership in which man actively builds and engineers to help complete Creation. But when man functions within this realm, he must do so *only* with the intent of advancing the human condition. The role of the scientist, therefore, is to function within the specific boundaries set forth by God at creation (the model of negative partnership), while also working toward perfecting creation using the tools available to him (the model of positive partnership). Man has a dual role of guardian of nature and improver of his own condition

From the perspective of science, this dual role of positive and negative partnership presents boundaries that would otherwise not be present, but also provides for an uplifting

human beings to be in a partnership with God in the nurturance and development of creation, making this attack unwarranted and fallacious.

28 *Pesahim* 54a.

partnership in which the forces of nature are remolded to better suit the conditions of man in each generation.²⁹ From the perspective of religion, only through such a partnership is man permitted to approach nature in an effort to subdue its forces. Indeed, it is precisely this invitation from God to partner with Him that allows man to engage in both science and healing. We must be cognizant that as guests, such an invitation entails limits of what is acceptable practice.³⁰ Thus, while we as humans have been called upon to function within the realm of the divine, we must, ipso facto, tread lightly.

The implications of these ethical insights are quite broad when viewed in relation to modern civilization. A large portion of our industry devoted to procuring food for humans would likely be judged to be in deep violation of the ethics derived from God's law. It is eminently reasonable to imagine that we could feed the human race quite effectively and appropriately without the slaughter of a massive number of cattle.³¹ While the precise definition of "need" regarding use of animals may not always be uniform or concrete in all cases, it is nevertheless incumbent upon man to ensure that the questions raised above remain at the forefront of his mind whenever animals are utilized for human purposes.

In other words, the crux of this theological issue is one of human intent. If to sustain oneself in what one considers to be a reasonable manner, one must consume certain quantities of meat, this would be considered within the bounds of the acceptable. If, however, one approaches the consumption of meat in a gluttonous or excessive fashion, such an attitude places his actions outside of the realm of ethical behavior. The par-

29 *Midrash Tanhuma, Tazria 5*, clearly indicates that this was the position of R. Akiva.

30 Examples of such limits include the prohibition of *kilayim* (forbidden admixtures), *bal tashbit* (unnecessary destruction of wildlife), and *tza'ar ba'alei hayim* (causing needless pain to animals).

31 For example, the massive amounts of grain used for cattle could be diverted to human consumption, the land used for growing additional grain and the resources used for development of additional food sources.

ticularly Western practice of eating beef on the scale to which Americans have become accustomed would likely earn such an American the appellation of a “*naval be-resbut ha-Torah*” (scoundrel with Torah license).³² In other words, although such a person does not explicitly violate any law, he is nonetheless viewed as a gluttonous and perhaps repugnant person. Tradition can judge behavior to be deeply unethical even though it may not be a direct violation of Jewish law, and one must consider this point in the context of practices that modern man takes for granted.³³ Indeed, the entire corpus of *kashrut* can be viewed as reflecting the ethical sensibilities of restraint and avoidance of excess, including extraneous violence and maltreatment of animals.

Beyond restrictions on outright destruction of nature, man, as a partner in creation, is subject to more subtle, nuanced strictures restricting his interaction with nature. The very nature of the commandment regarding *kilayim* – prohibiting grafting of one plant onto another or mating animals of two different species – indicates that the plan of creation was to preserve the separateness of each of the species of creation and to allow them to flourish in accordance with their *telos*. It is not simply a rule; it is rooted in a view of the world and the nature of creation. There are areas of nature in which we do not have the right to do as we please.³⁴ Thus, R. Samson Ra-

32 See Exodus 16:12 and Rashi ad loc. See also *Kli Yakar*, Genesis 27:3, and Abarbenel, Isaiah 11:8.

33 One could also imagine that the monoculture crop cultivated on many farms for the purposes of standardizing French Fries in certain fast food chains would be troubling; see Michael Pollan, *The Botany of Desire: A Plant's Eye View of the World* (New York, 2001), 195-218. Although man has been given the right to subdue and use nature for his own needs, it is possible to imagine that standardizing French Fries is not a valid purpose for which to use nature.

34 Ramban, in his commentary to Leviticus 19:19, notes that a person who inappropriately meddles in creation by producing forbidding admixtures “denies Divine participation in creation,” a truly grave sin. See *Hullin* 127a for another example of God's displeasure with those that ruin the plan of creation.

phael Hirsch notes that after the human responsibility of not destroying nature, the second responsibility of humanity is to “Respect the Divine order in God’s creation.”³⁵

In light of the tension between our powerlessness as humans and our relative success in various areas of science, and in light of the man-God creative partnership, the question before us as we begin our investigation of synthetic biology is one of limits. In other words, given that the natural phenomena have traditionally been taken to be the expression of the Divine Will, how must the pious scientist proceed in a discipline whose inherent goal is to combat the natural forces of the world? Furthermore, are there any limits as to what types of science or experiments may be performed? Finally, is there any room left for the Creator in a world in which scientism, the belief that science can and will ultimately conquer all, reins supreme?

Application of Rabbinic Theology to Synthetic Biology

Of late, the human struggle against nature has taken a remarkable turn with the advent of synthetic biology and its associated technologies. Synthetic biology is a systematic approach to biology, in which new organisms are engineered, created, and manipulated to achieve very specific ends. These ends range from discovery of new drug targets to applications in biological computing. Yet, for all that synthetic biology has thus far accomplished, the true potential of synthetic biology remains untapped. Starting with the genomic revolution and continuing throughout the twenty-first century, synthetic biology represents the next wave of advances in humanity’s quest to better restructure nature in the most optimal way for human thriving. Man is not content with a mere coping with the rules and limitations of nature; we wish to change the rules of the game altogether.

³⁵ *Horeb: A Philosophy of Jewish Laws and Observances*, ed. I. Grunfeld (New York, 1994), *Hukkim*, ch. 57.

The ancient philosophers spoke of the inevitability of death and the eventual breakdown of biological systems. In the age of synthetic biology, however, biological components, systems, and organisms are modified to push these very limits. The primary project of this endeavor has been to design and produce specialized biological systems using components already familiar to science. Through altering various components of these systems, novel functionalities can be obtained and employed. Cats can be made to glow in the dark using jelly-fish proteins, foods can be made pest resistant, and man can be injected with a whole host of artificially created pharmaceuticals. Organisms can be used to identify new pharmaceutical targets, produce biofuels, or as components of biological computational systems.³⁶

Whether or not there has been a net-gain for humanity as a whole from these “advances” seems to be a question that has already been resolved in favor of synthetic biology. In terms of its application, the question borders on the academic, since we have long passed the point of no return. Synthetic biology is here to stay and we, the community of the faithful, must examine its implications. The use of items belonging to nature presents us with the very same question we have previously encountered; to what extent may we modify, employ, or draw upon the resources of nature in science?

Craig Venter, perhaps one of the most influential figures in the area of synthetic biology, has very openly described his lofty goals. His aim is nothing short of a revolution in the way humans function. In much the same way robotics and automation set out to fundamentally alter the nature of what it means to be human, Venter seeks to do precisely the same in

36 See Ahmad S. Khalil and James J. Collins, “Synthetic Biology: Applications Come of Age,” *Nature Reviews Genetics* 11:5 (2010): 367-79; Priscilla E.M. Purnick and Ron Weiss, “The Second Wave of Synthetic Biology: From Modules to Systems,” *Nature Reviews Molecular Cell Biology* 10:6 (2009):410-22; W. Weber and M. Fussenegger, “Emerging Biomedical Applications of Synthetic Biology,” *Nature Reviews Genetics* 13: (2011): 21-35. for additional projects in which synthetic biology has been engaged.

the realm of biology. A recent article in *The New York Times* profiled some of his recent accomplishments and aspirations and noted with admiration:

In the menagerie of Craig Venter's imagination, tiny bugs will save the world. They will be custom bugs, designer bugs — bugs that only Venter can create. He will mix them up in his private laboratory from bits and pieces of DNA, and then he will release them into the air and the water, into smokestacks and oil spills, hospitals and factories and your house. Each of the bugs will have a mission. Some will be designed to devour things, like pollution. Others will generate food and fuel. There will be bugs to fight global warming, bugs to clean up toxic waste, bugs to manufacture medicine and diagnose disease, and they will all be driven to complete these tasks by the very fibers of their synthetic DNA.

“Some senior biologists, who in theory should know better than anybody else, keep talking about the importance of the cell,” he shrugged. “They argue: ‘Well, the cell contributed something. It can't just be the DNA.’ That's like saying God contributed something. The trouble for these people, it *is* just the DNA. You have to have the cell there to read it, but we're 100 percent DNA software systems.” He pointed out that when his lab inserted the DNA of one organism into the cell body of another, the cell became a different organism.³⁷

37 Wil S. Hylton, “God of Small Things,” *The New York Times* (June 3, 2012).

Venter's dismissal of any Divine contribution to creation eerily mirrors the Cartesian philosophy of mechanism, which is diametrically opposed to the theology that we have developed above. Cartesian and post-Cartesian notions of mechanism maintain that the body is a mere machine, animated by the natural laws of physics and chemistry. Accordingly, the body and nature are merely objects to be manipulated and acted upon, in whatever way outside forces deem necessary or proper. Indeed, mechanism is the main conclusion emerging from the philosophy of radical mind-body dualism, which holds no special place for the spiritual and holy; those matters are relegated to the shamans of bygone times.

Venter would likely be well at home with the crass scientists of the following amusing and ironic witticism:

One day, a group of scientists got together and decided that man had come a long way and no longer needed God. So they picked one scientist to go and tell Him that they were done with Him. The scientist walked up to God and said, "God, we've decided that we no longer need you. We're to the point that we can clone people and do many miraculous things, so why don't you just go on and get lost." God listened very patiently and kindly to the man, and after the scientist was done talking, God said, "Very well, how about this. Let's say we have a man-making contest." To which the scientist replied, "OK, great!"

But God added, "Now, we're going to do this just like I did back in the old days with Adam." The scientist said, "Sure, no problem" and bent down and grabbed himself a handful of dirt. God just looked at him and said, "No, no, no. You go get your own dirt!"³⁸

38 William L. Pasieczny, *Get Your Own Dirt!* available at <http://www.gety->

The punch line of this joke, of course, reminds us that no matter how far we may advance scientifically, we are always left with the fundamental gap between the divine act of *creatio ex nihilo* and the *creatio ex material* of humanity. The realization of the difference between human and divine creation harkens back to a point raised earlier; man is to be viewed as a partner with the Divine in all of his endeavors, but not as a creator in and of himself. To state the concept more frankly, man is beholden to God.

The position of Judaism on such a matter could not be farther from mechanism and its implications. Judaism views the body and soul as one unit,³⁹ and any separation or strong Cartesian dualism must be rejected. The body is not a machine to be manipulated, and nature was similarly not created to be massaged by man infatuated with his apparent power over the forces of nature.

As with the vast majority of topics in these briskly developing areas on the cutting edge of science, Halakhah and Jewish theology have much to contribute. Below, we will attempt to elicit from Halakhah the appropriate guidelines for the conduct of synthetic biology and genetic engineering. This essay does not represent, however, a rationalization of whatever biologists happen to pursue.

Principles of Synthetic Biology Derived from Jewish Theology

An important Talmudic principle is relevant to this discussion. In numerous places, the Talmud notes that microscopic objects are not within the purview of Jewish law. Thus, although there is a prohibition against consuming insects and other creeping creatures, we need not worry about the nearly infinite number of these living beings in the air we breathe. In

ourowndirt.com/ (accessed January 2012). Thanks are due to R. Dr. Edward Reichman for bringing this joke to my attention.

39 Cf. *Sanhedrin* 91a-b.

our case, since the various items treated by synthetic biology are subvisual, any discussion of synthetic biology and Judaism is likely limited to the realm of theology. Accordingly, there are no explicit halakhic requirements that apply. R. Shlomo Zalman Auerbach maintains, however, that the category of subvisual is not a purely empirical one; it describes a halakhic category that includes those objects to which man pays no attention. Synthetic biology and genetic engineering are *not* subvisual, since the scientist interacts with the items in a concrete manner, as one would with objects that were visible. By treating the objects as such, the scientist indicates that he relates to them as if they exist, and the Halakhah therefore relates to them in this way as well, even though they are microscopic. According to this view, halakhic principles would also serve as guidelines for the endeavor of synthetic biology.

If we do not accept R. Auerbach's definition, we are left with only theological principles that must be applied as best as possible as situations are encountered. Due to the lack of textual basis and the absence of visibility, the theology presented here is perhaps the extent of the guidance available to science at the moment.⁴⁰

Given the notions of positive and negative partnership developed above, and given that we function with the world as Divinely commanded creations, two principles can be derived that guide scientific exploration in synthetic biology:

1. As a derivative of positive partnership with the Divine, any work on synthetic biology must be undertaken with the goal of improving the condition of humanity. Man has been instructed to actively participate in the completion of Divine creation, in much the same way that Adam was taught to give birth to fire. Man therefore is allowed to create within the natural world,

⁴⁰ In the discussion in the *Nishmat Avraham* (*Yoreh De'ah* 180-189) on this topic, he relates primarily to theological concerns, quoting theology from great *poskim* such as R. Yosef Shalom Elyashiv.

so long as the primary principle is the improvement of humanity.

2. As a derivative of negative partnership with the Divine, the science performed must not have the possibility of extremely adverse effects upon humanity or nature.

What do these principles entail? In order to full explicate their meaning, I will present a series of cases that will provide perspective on the extremes of these principles.⁴¹

With regard to the first goal, the project must realistically be expected to engender positive change on the part of human beings throughout the world, in much the same way that Venter's projects attempt to improve the condition of humanity. Of course, these principles function together; the goal of improving humanity must be balanced by whatever risks are posed to humanity and nature. In addition, given the notion of partnership elaborated above, the intention of the scientist must not be one of upending or eliminating God from the world of nature, a goal akin to the sin of those who constructed the Tower of Babel. Remaining within the boundaries of the general theology from which these two principles are derived, the scientist must never act with the goal of eliminating God from the world.

How should we understand the reference to risk in the second principle? Certainly, short-term risks of a high probability for widespread harm to people and nature are unacceptable.⁴² For example, the introduction of projects of biological warfare aimed primarily at destroying the world or humanity is forbidden.⁴³ On the other hand, research projects where the risk is remote and unlikely can certainly be entertained and pursued. Consider a case in which a researcher genetically in-

41 The more detailed and technical application of these principles rests in the area of Halakhah, which is not the focus of this work.

42 Perhaps we could define such risks in line with the proposal of *Noda Be-Yehudah*, vol. 2, *Yoreh De'ah* 210, with regard to autopsies – in other words, certainty that the release of this agent will cause immediate death.

43 This article does not examine the intricacies of the question of self-defense; we speak here of the initiation and perpetuation of biological warfare.

serts a gene into a bacterium, enabling it to break down oleaginous compounds in the ocean. Some deep ecologists would object to such a manipulation and would raise objections to the inappropriate use of nature to satisfy human needs. In the view of Judaism, however, the goal of preserving the oceans without significant risk of damage to humans or the planet would be sufficient warrant for engaging in this type of scientific project. Hence, this project would be appropriate to pursue given the benefits to both humanity and nature.

As others have noted,⁴⁴ the second guideline does presents its share of problems when it comes to synthetic biology. As opposed to radioactive or toxic materials, substances or life forms prepared through the techniques of synthetic biology are frequently able to self-replicate. If one cell were to be particularly dangerous, there is nothing to stop that cell from naturally proliferating, much as a cancer cell might. The potential damage that may result from synthetic biology is indeed frightening to contemplate. For example, one can imagine a synthetic virus used to inject genetic material into certain cells that later cannot be stopped by modern medicine. One need not look farther than the recent news for the following ominous research findings:

Scientists have long worried that an influenza virus that has ravaged poultry and wild birds in Asia might evolve to pose a threat to humans. Now scientists financed by the National Institutes of Health have shown in a laboratory how that could happen. In the process, they created a virus that could kill tens or hundreds of millions of people if it escaped confinement or was stolen by terrorists... The most frightening research was done by scientists at the Erasmus Medical Center in Rotterdam, who sought to

44 Jonathan B. Tucker and Raymond A. Zilinskas, "The Promise and Perils of Synthetic Biology," *The New Atlantis* 12 (Spring 2006): 25-45.

discover how likely it is that the “bird flu” virus, designated A(H5N1), might mutate from a form that seldom infects or spreads among humans into a form highly transmissible by coughing or sneezing. Thus far the virus has infected close to 600 humans and killed more than half of them, a fatality rate that far exceeds the 2 percent rate in the 1918 influenza pandemic that killed as many as 100 million people. Working with ferrets, the animal that is most like humans in responding to influenza, the researchers found that a mere five genetic mutations allowed the virus to spread through the air from one ferret to another while maintaining its lethality.⁴⁵

Given these types of threats, the researcher must build in some failsafe means of ensuring that the cell will destroy itself before dividing out of control. Through the use of such constraints, many experiments can be rendered safe and permissible.

Additionally, since the technologies of synthetic biology are so new, society is unable to completely and totally analyze the risks that may be inherent in synthetic biology.⁴⁶ This concern need not paralyze science, but given the uncertainties inherent in this field, the ethical scientist is obligated to exercise extreme caution and use conservative judgment when delineating parameters for research.

Furthermore, science must address concerns of accidental release, untoward side effects, and malicious use of technologies. Only once these concerns are appropriately addressed in each experiment can criterion number two be fully satisfied. These concerns combined ought to give scientists tremendous pause before embarking on whatever experiment they wish to

45 “An Engineered Doomsday,” *The New York Times* (January 8, 2012).

46 *Ibid.*

conduct.

Both principles outlined above must be upheld in any case of research in order to be deemed ethical and sanctioned by Judaism. It must be reasonable to believe that human good will be enhanced through the knowledge gained from the project, and there must be a reasonable expectation that no significant harm will be done to either humans or nature itself. The bird flu experiment mentioned above would be allowed, given the potential benefit to humans, but if that very same virus attacked only birds and poultry, posing no risk to humans, research would be disallowed based on both principles – the research would have no benefit to humans and would also pose a risk to the human good by the potential accidental release of this virus.

Jewish theology, in its reliance on the two principles mentioned above, provides for a broad spectrum of possible research, leaving science largely unfettered in its activities in its continuing march to serve humanity. Indeed, the prevailing approach in this realm appears to be one of permissibility in the absence of other countervailing factors. Even so, these principles also provide boundaries to prevent science from committing ethical lapses, prodding the scientist to carefully review his aims and methods before proceeding. Ultimately, the judgment rests with the community of ethical scientists in dialogue with theological authorities as they consider particular cases.⁴⁷

Theology does not offer an exact decision procedure for every case that may come before it. What it can offer, however, is a system of principles grounded in religious and ethical values that provide the parameters within which decisions should be made. The parameters may not specify a precise solution, but they certainly prevent falling into serious error. Rabbis are

⁴⁷ In Jewish law, the Rabbis are able to make various laws to suit the needs of the time. Thus, although it may be permissible to develop items such as the atom bomb in order to defeat enemies, it is entirely conceivable that the Rabbis would enact guidelines to prevent the misuse of such technology, including the mandatory destruction of all atomic devices following a conflict.

not features of most laboratories, and the ethical scientist must therefore be entrusted with these decisions as they arise. Science, in turn, must not operate in a vacuum and is obliged to work collaboratively with ethical and religious authorities.

Certainly, theologians and halakhists need to engage in more detailed work to address the level of appropriate risk when it comes to such research. This, of course, points to the need for Jewish thinkers to be properly informed about science. If synthetic biology is relegated to the realm of the subvisual, then only Jewish theology governs the work of the ethical scientist, as he is not constrained by any halachic requirements. If, however, these matters are not relegated to the realm of the subvisual, then a detailed halakhic response is needed to specify the operative principles and guidelines.⁴⁸ I suspect, however, that any such specifications and stipulations will ultimately rely on the theology we have discussed here.

48 For a summary of many of these sources, see *Nishmat Avraham, Yoreh De'ah* 180-189 and J. David Bleich, *Bioethical Dilemmas: A Jewish Perspective Vol 2* (Southfield, MI, 2006), 133-163.

DANIEL POLIAK

*Metzitzah Ba-Peh Under
the Microscope:
An Ancient Rite from a
Modern Perspective*

The Mishnah in *Shabbat* records that the penultimate act of the *brit milah* process is “*motzetzin*,” sucking of the blood from the wound.¹ The accompanying Talmudic passage highlights the therapeutic importance of *metzitzah*, admonishing a *mohel* who refrains from sucking, since abstaining is perceived to be dangerous. Consequently, a *mohel* who fails to perform this stage of the process is forbidden to practice circumcision.² While the Mishnah and Gemara refer to this act by the gerund “*motzetzim*” and do not specify a requisite oral component, linguists conclude that this suction procedure refers to one performed orally – *metzitzah ba-peh*.³

The Talmud indicates that *metzitzah ba-peh* was man-

I thank R. Dr. Edward Reichman for his assistance in the research and organizing processes.

1 *Shabbat* 19:2.

2 *Shabbat* 133b.

3 Robin Judd, “Circumcision and Modern Jewish Life: A German Case Study, 1843-1914,” in Elizabeth Wyner Mark (ed.), *The Covenant of Circumcision* (Hanover, NH, 2003), 148; Jacob Katz, *Divine Law in Human Hands: Case Studies in Halakhic Flexibility* (Jerusalem, 1998), 361, 376.

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dated along with bandaging and applying cumin salve for therapeutic purposes. Dr. Mordechai Halperin, a prominent Jerusalem *mohel* and physician and Chief of Medical Ethics of Israel's Ministry of Health, astutely observes that "from this *gemara*, it seems fairly clear that medical considerations are the only reasons for *metzitzah*."⁴ Since the Talmud omitted the theory for its medical determination, modern-day scholars and physicians have sought to determine the curative and prophylactic objectives of *metzitzah ba-peh* in light of both contemporaneous and modern-day medical knowledge. Currently, *mohalim* either perform the traditional rite with or without direct oral contact (by utilizing a glass tube), or abstain from the practice.⁵

Over the last two centuries, the renewed interest in proposing rationales for *metzitzah* has been a response to a rise in the number of reported complications attributed to the procedure. While suggesting *ta'amei ha-mitzvot* (the underlying rationale for religious rites) is a philosophically controversial pursuit often fraught with anachronistic arguments, proposing motivations for *metzitzah* differs, as the Talmud itself indicates that the practice has a rabbinically-instituted medicinal objective.⁶ From a historical perspective, this endeavor is particularly prone to pitfalls of hindsight bias in which, in the words of medical historian Sherwin Nuland, "seemingly valid clarifications of the past's effects on the present may be more suggestive than certain, and sometimes entirely wrong."⁷ Nonetheless, it

4 Mordechai Halperin, "The View from Israel," *Jewish Action* (Winter 2006): 34. Others consider *metzitzah* to be an integral part of *brit milah*, maintaining that it should continue to be preformed regardless of the validity of its therapeutic aspect. For a list of those who adopt the latter approach, see Avraham Steinberg, "Laws of Sucking the Blood (*Metzitzah*)," *Encyclopedia of Jewish Medical Ethics* (Jerusalem, 1998), 202-3n. 165.

5 For an overview of opinions concerning the use of a tube instead of direct oral contact, see Shlomo Sprecher, "Mezizah be-Peh—Therapeutic Touch," *Hakirah* (2006), 34, n. 49; 47-49.

6 Haleprin, *supra* n.4,34.

7 Sherwin Nuland, "Bad Medicine," *The New York Times* (8 July 2008): Accessed online (<http://www.nytimes.com/2007/07/08/books/review/Nuland.html?pagewanted=print>) 16 September 2012

behooves us to review the rationales for the institution of *metzitzah* as proposed by scientists this past century.⁸

The Salve of Saliva

Even after the advent of advanced anti-sepsis techniques and the proliferation of carbolic acid, a minority of late nineteenth-century and early twentieth-century physicians extolled the antiseptic value of saliva. Throughout the final decade of the nineteenth century, Dr. Naphtali Klein routinely published in the annual *ha-Me'asef* journal that his fellow French physicians erroneously dismissed the importance of *metzitzah ba-peh*. He claimed that saliva poses no harm, and in fact serves as an anti-septic. Additionally, Klein (mistakenly) contended that by rinsing his mouth with a copious amount of alcohol or wine immediately before *metzitzah*, the *mohel* neutralizes the potency of any oral infections.⁹ Although modern science contradicts the tenets of this explanation, Klein, a respectable Parisian physician, publicized his dangerous beliefs through the robust Jewish press.

Post-Operative Healing

Others have proposed that *metzitzah* was instituted to prevent hemorrhaging. In a lengthy ode to the benefits of circumcision, the nineteenth-century American physician Peter Charles Remondino warned against “too rashly judging those old shepherds of the Armenian plains for adopting a practice

8 Speculation has not been reserved for scientists, as rabbis have also proposed rationales for *metzitzah*. See “*Kuntres Ha-Metzitzah*” in the 1962 New York reprint edition of *Sedei Hemed*, vol. 8, 236–80 and 433–50, as quoted in Sprecher supra, 17 n.5.

9 Naphtali Klein, “Section 22,” *Hameasseph* (1895); “Section 181,” *Hameasseph* (1897); “Section 111,” *Hameasseph* (1898). Quoted in Samuel Kohn, *Die Geschichte der Beschneidung: bei den Juden* (Cracow, 1903), 185, 187. Noting that it was a practice among some *mohelim* to first rinse with alcohol, Kohn warns of the dangers of exposing a fresh wound of an eight day old to alcohol.

which to them was calculated to avert subsequent dangers.”¹⁰ He then proceeded to argue that the Hebrews “feared haemorrhage (sic),” and suction would cause “the depletion of the vessel for some distance.” Thus, “the ancients” who “perform[ed] the operation with rude implements” and without “haemostatic remedies or appliances, naturally followed the best means at their command.”

A similar theory was developed by Mordechai Halperin in the twenty-first century following the 2005 herpes outbreak. After adducing proof from a thirteenth-century circumcision compendium that explains that *metzitzah ba-peh* must be performed to prevent blood from clotting in the infant’s penis, and based on a novel reading of Rambam’s *Mishnah Torah*, Halperin speculates that the act prevents rare instances of hypoxia that could cause penile necrosis.¹¹ He explains that the pressure gradient caused by vigorously sucking creates the appropriate pressure gradient to restore the required blood supply.¹²

Alternatively, some contemporary scientists have sought to incorporate germ theory, a notion that was foreign to even medieval physicians, to explain the intended benefit of *metzitzah ba-peh*. Since ancient medicine did not recognize the importance of sterilization, Dr. Cyril Fine, an adherent of the practice of traditional *metzitzah* who himself claimed to have performed over 25,000 circumcisions, notes that in antiquity, *mohalim* often exposed the open wound to numerous contagions present on their rudimentary surgical instruments. Indeed, due to the body’s inflammatory response, the third day following surgery was known to be the most painful day for the patient. Fine postulates that *metzitzah* rids the body of foreign bodies and infectious agents that spread through the blood-

10 Peter Charles Remondino, *History of Circumcision from the Earliest Times to the Present* (Philadelphia, 1891), 154.

11 Rambam’s formulation is as follows: “After [circumcision and *peri’ah*], the mohel suctions the area sufficiently until blood flows from places far away from the wound; he does this in order that the child not be endangered.” (Mishneh Torah, Hilchot Milah 2:2)

12 Halperin, *supra* n.4, 34-5.

stream following the procedure. Thus, patients who received *metzitzah ba-peh* did not experience increased pain or body temperature on the third day following surgery.¹³

A similar idea was developed in the late nineteenth century by Samuel Kohn, a physician and *mohel* in Vitebsk (present day Belarus), who wrote that since the ancient rabbis observed that surgery was followed by inflammation and fevers, *metzitzah* was instituted as a prophylaxis. Similar to Rambam's prescription, Kohn asserted that *metzitzah* was used throughout the Middle Ages in venues other than circumcision, and he postulated that the rabbis instituted the practice to limit the amount of blood in circulation in order to stymie disease.¹⁴ In Kohn's day, the concept of Humorism had recently lost favor among physicians; stating that a motivation for *metzitzah* was to limit blood was likely an attempt to use contemporary concepts to understand the institution of the ancient rite.

A Hellenistic Model

Others seek to understand the rationale for *metzitzah* by placing it in its historical-medical context. Shlomo Sprecher objects to Halperin's alleged forced reading and unscientific theory, and instead develops a working theory based on Hellenistic medical knowledge.¹⁵ Pathology, according to the Greeks, was predicated on the precarious balance of the four vital humors; blood's propensity to "spill out and stagnate" made

13 Cyril Fine, "*Hom Ha-Yom*" (Hebrew), *Ha-Shabbat Tzohar* (October 23, 2010): 2, 8. In this article, explaining Avraham's encounter with the three angels in Genesis 18:1-3, Fine notes that the phrase "*hom ha-yom*" does not relate to the heat of the day, but rather Avraham's febrile state, as this encounter occurred three days following his circumcision.

A project report of Operation Abraham, a joint initiative by Israeli and Senegalese physicians to promote adult male circumcision in Africa, reports that Fine is considered the grandfather of adult male circumcision in Israel. See Inon Schenker and Adama Nadir, *Training Healthcare Teams in Scaling-Up Male Circumcision for HIV Prevention in Africa* (Project Report, Jerusalem, 2009).

14 Kohn, *supra* n.8, 174.

15 Sprecher, *supra* n.7, 19-22.

it prone to cause disease.¹⁶ Therefore, the Hippocratic Corpus taught that:

[A]ll wounds draw their inflammation and swelling from the surrounding parts, because of the blood flowing into them. In every recent wound...it is expedient to cause blood to flow from it abundantly, for thus will the wound and the adjacent parts be less attacked with inflammation... When the blood flows, they become drier and less in size, as being thus dried up.¹⁷

Sprecher states that this became a predominant view in ancient medicine, and Hippocrates's theory on the risks of coagulation were adopted and promulgated by Galen. The Talmud often concurred with Galen's teachings, and thus it also adopted an "imbalance of humors" perspective of pathology. Interestingly, Sprecher notes that R. Nahum Rabinovitch reports that Rambam also prescribed *metzitzah* for snake-bite victims because *metzitzah* was purported to prevent inflammation.¹⁸ Sprecher thus elegantly illustrates how the rationale for *metzitzah* was consistent with, and a product of, Hellenistic medical knowledge and practice.

Conclusion

Throughout the ages, *brit milah* has been the bête noire of those seeking to undermine Jewish ritual. Indeed, from a homiletic perspective, it appears that the *mitzvah* was destined to garner increased scrutiny. When God introduces the commandment to Avraham, He implores him to "Walk before Me and be

16 Guido Majno, *The Healing Hand: Man and Wound in the Ancient World* (Boston, 1991), cited in Sprecher, 19.

17 Ibid.

18 Nachum E. Rabinovitch, *Mishnah Torah im Perush Yad Peshutah, Sefer Ahavah* (Jerusalem, 1984), vol. 2, 1274, quoted in Sprecher, *ibid.*, 21.

whole (*tamim*).”¹⁹ Ibn Ezra interprets “*tamim*” as unflinchingly accept *brit milah* without asking for its rationale, apparently perceiving that the physical representation of our Divine covenant might be called into question.

Our discussion has demonstrated that although the precise mechanism attributed to protection conferred by *metzitzah ba-peh* may not have been apparent or accurate in Mishnaic times, empirical evidence may have propelled *mohalim* to institute seemingly efficacious practices. Medical students are introduced to the tenets of “cultural competency,” and often assume that seemingly obscure, traditionally-inspired remedies are confined to immigrants from remote and exotic locales. The evolution of *metzitzah ba-peh* reminds us of our own heritage’s therapeutic traditions. As science develops and the medical history of antiquity comes to light, we are given new perspectives to understand and evaluate the motivations of our ancestors and place their actions in its historical context.

¹⁹ Genesis 17:1.

YEHUDA TURETSKY

Prayer and the Terminally Ill Patient

Introduction

Advances in modern medicine have led to better health care and quality of life than were ever possible in previous generations; they have increased life expectancy rates throughout much of the world and contributed greatly to physician and patient understanding of many illnesses. These improvements have also led to situations that rarely existed in previous eras, as patients are informed that they suffer from a terminal illness and are left to cope with the information.

Several studies have assessed the role of prayer in such circumstances from a medical perspective.¹ The purpose of this article is to address a variety of issues that arise regarding prayer and the terminally ill patient from a Torah based outlook, hopefully lending insight into the role and function of prayer in such contexts. While this is not a comprehensive analysis of all the relevant issues, this article has numerous implications for the ideal form and type of prayer to be offered and can serve as a springboard to assess different questions relating to one's orientation during prayer in these unfortunate circumstances.

Prayer in Times of Crisis

There are several indications that prayer has a unique

1 See, for example, E.J. Taylor and F.H. Outlaw, "Use of Prayer Among Persons with Cancer," *Holistic Nursing Practice* (2002): 16(3), 46-60, and L.B. Bearon and H.G. Koenig, "Religious Cognitions and Use of Prayer in Health and Illness," *The Gerontologist* (1990): 30(2), 249-253.

status and function in times of crisis, which clearly has specific relevance for terminally ill patients and those impacted by their illness. It is important to clarify if there is an obligation to pray in such situations, as well as to relate to the precise relationship between prayer and crisis.

Is there an obligation to pray?

The *Rishonim* debate whether one is biblically obligated to pray each day. Rambam maintains that such a requirement exists,² while Ramban disputes Rambam's position and argues against a biblical obligation to pray daily.³ However, Ramban, at least as understood by later authorities, equivocates whether there is nevertheless a biblical obligation to pray in troublesome or crisis situations (what he calls an "*eit tzarah*"). *Magen Avraham*⁴ notes that *Semak* also maintains that one is biblically required to pray in crisis situations.⁵ According to both Ramban and Semak, however, it is not entirely clear what qualifies as a troublesome situation and if it is limited to severe or communal calamities.⁶

There is an oral tradition that R. Yitzchak Zev Soloveitchik would often offer short prayers, even in the middle of

2 *Hilkhot Tefilah* 1:1; *Sefer Ha-Mitzvot*, positive commandment 5. See also *Ta'anit* 2b; *Sefer Ha-Hinukh*, *mitzvah* 433; and *Smag*, positive *mitzvah* 19.

3 Ramban, glosses to *Sefer Ha-Mitzvot*, positive commandment 5. Support for his approach can be found in *Berakhot* 21a and *Sukkah* 38a. Many *Rishonim* accept Ramban's view; see, for example, Rashi, *Berakhot* 20b. For a possible limitation of Ramban's view, see *Hiddushei Ha-Gra* *Ha-Levi* on Rambam, *Hilkhot Tefilah* 4:1.

4 *Magen Avraham*, *Orah Hayim* 106:2.

5 *Semak*, *mitzvah* 11.

6 See *Sefer Ha-Hinukh*, *mitzvah* 433, in the name of Ramban and the discussion in *Ishei Yisrael* 7:1:11, p. 61, regarding whether Ramban's position is limited to communal tragedies or extends to individual crises.

According to R. Soloveitchik, *Worship of the Heart* (Hoboken, NJ: Ktav Publishing, 2003), 30-33, and *Reflections of the Rav* (Hoboken, NJ: Ktav Publishing, 1993), 80-81, the entire debate between Rambam and Ramban regarding whether there is a biblical obligation to pray daily is based on mutual agreement that one is obligated to pray in crisis situations. They differ specifically in regard to the type of crisis that necessitates prayer.

conversation with another person. Some view this as a possible reflection of a more ambitious understanding of Rambam that necessities prayer at even minimal amounts of crisis and trouble.⁷ If one accepts such a position, a terminally ill individual would undoubtedly be required to pray for his illness to go away, and the same might also be true for other people directly impacted by the illness.

Another possible source for prayer in such situations emerges from Rambam's rulings in *Hilkhot Ta'aniyot*. Rambam maintains that an obligation to pray exists whenever a calamity befalls an entire community.⁸ He later adds that just as a community fasts for their calamities, an individual should fast and pray for mercy if such a misfortune occurs.⁹ As such, individuals suffering from terminal illnesses should pray in fulfillment of this *halakhah*.¹⁰

Aside from the ill individual's own prayer, it is possible that others are obligated to pray on his behalf.¹¹ *Sefer Hassidim* maintains that because all of the Jewish People are responsible for each other, all are obligated to pray when someone is ill.¹² Similarly, R. Alexander Ziskand appears to argue that praying for an ill individual is a fulfillment of the commandment to

7 See *She'arim Be-Tefillah*, 31.

8 *Hilkhot Ta'aniyot* 1:1.

9 Ibid. 1:9. Rambam assumes the prayer would be part of the formal fast day service. See also *Tur, Orach Hayim* 569; *Shulhan Arukh* 569:1.

10 While these authorities mention the need to fast in the face of personal crisis, many ill patients would be prohibited from fasting because of the potential health risk involved. Similarly, while not referring to this particular context, many authorities caution against fasting nowadays unless it is mandated by Halakhah, as fasting often impinges on one's ability to effectively pray, study Torah, and perform *mitzvot*. They therefore maintain that it is better to pray and learn more than engage in fasts. For a discussion of the appropriateness of fasting nowadays for one who would otherwise be engaging more substantively in prayer and Torah study, see R. Moshe Tzuriel, *Otzrot Ha-Mussar*, vol. 1, 115-16.

11 For a discussion of sources that maintain that others are obligated to pray, see *Bi-Torato Yehegeh*, vol. 2, 105-6.

12 *Sefer Hassidim*, no. 753. He is referring to the halakhic category of *arvut*; see *Shevuot* 39a.

love one's fellow Jew.¹³ R. Moshe Feinstein also significantly expands the number of people obligated to pray, maintaining that one is obligated to pray whenever one is aware that an individual is ill, and all the more so when asked to pray on behalf of a sick person.¹⁴ R. Feinstein powerfully proves that the prayer of any individual may be accepted, regardless of personal piety or observance, so long as they believe in God.¹⁵

That such an obligation exists reflects a powerful perspective on prayer's relationship to crisis. It highlights one's dependence on *Hashem* and the need to turn towards God when presented with terrible news. According to R. Feinstein, such an obligation may exist for even those individuals who are not directly impacted by the illness. While not all people are medical professionals or in positions to provide direct care to the patient, all have the power and obligation to pray.¹⁶

Prayer and Crisis: What Causes What?

The above mentioned sources clearly highlight the

13 *Yesod Ve-Shoresh Ha-Avodah, sha'ar* 1, chapters 7-8. The requirement of "ve-ahavta le-rei'akha kamokha" (*Vayikra* 19:18) is attributed significant status in rabbinic literature; see Rashi ad loc. and *Shabbat* 31a. R. Ziskand's approach is based on a fairly ambitious understanding of this commandment. For a discussion of the opinions of various *Rishonim*, see *Minhat Asher* on *Vayikra*, 276.

14 *Iggerot Moshe*, vol 8, *Yoreh De'ah* 4:51. He proves this from the laws of visiting the sick, in which the primary *mitzvah* is to pray on behalf of the sick individual. In this regard, see *Nedarim* 40a; *Shabbat* 12a-b; *Rema, Yoreh De'ah* 335:4; *Shulhan Arukh, Yoreh De'ah* 335:5; and *Iggerot Moshe, Yoreh De'ah* 1:223.

15 R. Feinstein notes that the prayer of scholars is particularly potent. The Talmud (*Bava Batra* 116a) instructs someone with a sick person in his house to ask a scholar to pray on behalf of the ill individual. Since the likelihood that the prayer will be accepted is greater, R. Feinstein cautions such scholars to pray for people when requested to do so, as they have a special obligation to pray because of the efficacy of their prayers. Regarding who qualifies as a scholar, and in particular the inspiring words of R. Feinstein about his own status, see the end of the aforementioned *teshuvah*.

16 For further discussion of the connection between prayer and crisis, see *Shearim Be-Tefillah*, 26.

unique status of prayer as a response to crisis. Indeed, the Jewish people prayed as a result of their misfortunes while subjected to servitude in Egypt,¹⁷ and many biblical figures prayed because of their infertility.¹⁸ The connection between crisis and prayer is clear. As R. Soloveitchik observed:

Only distress warrants prayer. If the mind is not haunted by anxiety, not plagued by *tzarah*, narrowness and constriction, if neither fear nor forlornness assault of the mind, then prayer is a futile gesture.¹⁹

According to R. Soloveitchik, it is calamity and anxiety that allows for and generates authentic prayer. The troublesome situation, which for Ramban and *Semak* may lead to a biblical obligation to pray, not only changes the status of the prayer; it also allows for a more intense and powerful prayer.

Others have offered a related but fundamentally different approach to that of R. Soloveitchik.²⁰ They, too, point to a link between troublesome experiences and prayer, but they emphasize that the reason for the crisis itself is to inspire prayer and increase closeness to God. Because of the crisis, a person becomes closer to *Hashem* through prayer, and that is the ultimate reason why the crisis came about in the first place.

Irrespective of these different perspectives, the terminally ill individual and those aware of and impacted by the illness are in a unique position to pray. The rest of the article will relate to one's orientation during prayer, the content of prayer, and whether it is ever appropriate to stop praying.

17 *Shemot* 2:23. See the comments of *Or Ha-Hayim* ad loc.

18 See, for example, *Bereishit* 25:21.

19 *Worship of the Heart*, 29.

20 *Siftei Rennanot*, 83-85, cites formulations of this perspective from R. Yechezkel Levenstein (*Tefillat Hannah*, 27) and R. Chaim Friedlander (*Siftei Hayim, Mo'adim*, vol. 2, 181) and brings support from *Hazal* for such an approach.

Belief in the Acceptance of Prayer

Those who are terminally ill or have terminally ill family members are often faced with a tension regarding the ideal orientation to have during prayer. On the one hand, it is the belief in the efficacy of prayer that generates the desire to pray; such a powerful conviction offers encouragement and hope, and at times even confidence in the future. However, many are cautious to place too much hope in their prayers being accepted, in case, God forbid, the patient does not experience a complete recovery. This tension emerges clearly in certain statements of *Hazal*.

Hazal state in numerous contexts that there are ways to ensure that one's prayers will be answered. The Talmud states that anyone who lengthens his prayer will not have his request returned empty handed,²¹ and the Talmud Yerushalmi reaches a similar conclusion.²² The Talmud also states that while the gates of heaven may be closed, the gates of tears are always open,²³ and that one should go to a Torah scholar if someone is sick at home, as the scholar's prayers will undoubtedly be answered.²⁴ Indeed, halakhic authorities have even questioned whether one may violate the Shabbat to ensure that a scholar will pray on a sick person's behalf, a possible indication of the confidence in the efficacy of that prayer.²⁵

21 *Berakhot* 32b.

22 Yerushalmi *Berakhot* 4:1. It is not entirely clear what the Talmud means when it refers to lengthening prayer. R. Yaakov Chaim Sofer, "*Be-Inyan ha-Marbeh bi-Tefillah*," *Yeshurun* 3 (1997): 395-96, maintains that it does not refer to spending a long time on individual words and praying with increased intensity. Instead, it refers to multiple prayers and continuing to beseech the Almighty that one's prayers be answered. He finds precedents for his understanding in the Talmud itself (*Berakhot* 55b) and the writings of Netziv (*Ha'amek Davar*, *Devarim* 9:19), R. Y.Y. Kanievsky (*Hayei Olam* 2:2842), and others. R. Sofer also relates to the apparent tension in *Hazal* between praise of lengthening prayer and the Yerushalmi's criticism of excessively long prayers (Yerushalmi *Bikkurim* 2:1).

23 *Berakhot* 32b.

24 *Bava Batra* 116a.

25 See, for example, R. Yehuda Shaviv's discussion in *Asia*, available at

While these and other sources offer much encouragement, they also raise a fundamental question for those whose prayers are not answered. If, for example, the gates of tears are never closed, how is one to understand prayer that is offered while crying but apparently not accepted? Three perspectives to this question will be outlined below, shedding light on various possible orientations towards prayer in such circumstances.²⁶

One approach is that *Hazal* should not be understood literally. They did not intend to convey that one will surely be answered, but instead that following certain guidelines will increase the likelihood that the desired result will be achieved. This general perspective is offered by R. Moshe Feinstein in relating to the implication of the Talmud's statement (as understood by Rashbam) that promises that a prayer recited by a Torah scholar on behalf of a sick individual will be answered. R. Feinstein notes that the prayers of various Tannaitic figures were not answered, leading him to suggest that the Talmud means simply that it is more likely that a Torah scholar's prayer will be answered, not that success is guaranteed.²⁷ According to this approach, one's orientation should be hopeful that the prayer will be answered if one follows *Hazal's* suggestions for effective prayer, but realistic about the fact that the prayer may not be answered as desired.

Another perspective is that God does not answer prayers in the affirmative if it is not in the best interest of the suppli-

<http://www.daat.ac.il/daat/kitveyet/assia/refua-2.htm>. Alternatively, this allowance may reflect the extent to which one must go to find a cure, even if it involves transgression of a prohibition. When exactly one is allowed to violate the Shabbat on behalf of an ill individual is beyond the scope of this article.

²⁶ While other possible perspectives exist, these appear to be three primary approaches towards this issue.

²⁷ *Iggerot Moshe*, supra n.14. This may reflect a general perspective, according to which certain statements of *Hazal* are not meant to be taken literally. For more on this, see, for example, *Taz, Yoreh De'ah* 242:1; R. Tzvi Hirsch Chajes, *Mavo Ha-Talmud*, chapter 19; and R. Ovadiah Yosef, *Me'or Yisrael, Shabbat* 12b.

cant.²⁸ In other words, God always responds to the prayer, but sometimes He answers in the negative. One prays based on one's perspective, but God responds based on a broader vision. As the Talmud observes, "all that God does is for the best,"²⁹ and that may entail the rejection of certain prayers. As such, the supplicant's orientation is one of fervent desire for the prayer to be accepted, with the recognition that God is in control and may, in fact, respond in the negative.

According to this view, it would seem that even apparently negative events should be viewed positively, as they are clearly part of God's plan no matter how distressing or unwanted. However, such an approach may be somewhat difficult to understand, as Halakhah demands that one respond to certain events as negative, not as positive events not properly understood. The Talmud's statement that "one must bless God for the bad just as he blesses Him for the good"³⁰ strongly implies that certain events are in fact negative. Similarly, the notion of punishment for sins indicates that not every decree from heaven is positive, nor should it be accepted as such.³¹ Thus, it would seem that prayer may be rejected even if this is detrimental to the supplicant.

A third perspective argues that all prayers are answered, but not always for what the person requests. *Sefer Hassidim* quotes an opinion that even if one's prayers do not appear to be answered, the prayers will in fact have an effect for the supplicant and his descendents in the future.³² Thus, as the Talmud

28 See *Midrash Tanhuma, Terumah* 9.

29 *Berakhot* 60b.

30 *Ibid.* 54a. See below, n.42, for Dr. Moshe Halbertal's explanation of the prohibition to pray for miracles, which relates to this Talmudic statement.

31 A more thorough discussion on this topic is beyond the scope of this article.

32 *Sefer Hassidim*, no. 387, cited in *Siftef Renanot*, 80. *Mabit, Beit Elokim*, chap. 15, maintains a similar view, and this appears to have been the view of the *Hazon Ish* according to certain oral traditions; see *Tivkha Yabi'u*, vol. 2, 286. R. Reuven Margoliot, *Mekor Hessed* (Commentary to *Sefer Hassidim*, ad loc.), notes a possible source for this view in the Yerushalmi (*Berakhot* 4:3).

states, appropriately recited prayers are indeed answered – just not always for the person for whom the prayers were made. According to this approach, one’s orientation when praying for a terminally ill individual involves an awareness of the potential impact of the prayer and the possibility of the ill individual being cured, with the understanding that the prayers are never in vain, as they will stand for the supplicant and his descendents in the future.

All of these perspectives relate to a fundamental question about *bitahon* (trust in God), regarding which a major debate persists regarding what one must believe while undergoing difficult circumstances. *Hazon Ish* famously maintained that trust in God does not require one to believe that everything will turn out for the best or that a cure will come, but rather that God is always in control, no matter what happens.³³ Others, however, reject his view.³⁴ For them, trust in God does in fact demand the belief that everything will work out and all will be healed. These are two very divergent views with implications for one’s orientation during prayer.

Praying for a Miracle and Giving up Hope

In particularly unfortunate situations, terminally ill patients or their family members may be informed that from a medical perspective, there is nothing more that can be done for the patient. In such circumstances, there is little room for hope barring a miracle, and an important question that then

33 *Emunah U-Bitahon*, ch. 2. For a discussion of *Hazon Ish*’s view, in particular the possibility of alternate readings of his approach, see R. Daniel Stein, “The Limits of Religious Optimism: The Hazon Ish and the Alter of Novardok on Bittahon,” *Tradition* 42:1 (Summer 2010): 31-48, and the response to his article by R. Gidon Rothstein on the RCA’s blog Text and Tradition, available at <http://text.rcarabbis.org/what-makes-a-belief-%E2%80%98traditional%E2%80%99-the-case-of-bittahon-by-gidon-rothstein/>.

34 For sources in the *Rishonim* that appear to reject *Hazon Ish*’s view and a lengthy discussion of his opinion, see R. Moshe Tzuriel, *Otzrot Ha-Mussar*, vol. 1, 325-32.

emerges relates to the status of praying for a miracle from a halakhic perspective.

The *mishnah* states that praying for an event that has already occurred is a prayer in vain. Thus, for example, one who prays that his pregnant wife will give birth to a boy offers a worthless prayer, since the baby's gender is already determined.³⁵ The *gemara* questions the *mishnah's* critique of praying for a fetus' gender to switch based on a tradition that Leah prayed for her baby to become female and was answered affirmatively by God. The *gemara* responds that one should not bring a proof from a miracle.³⁶ The clear implication is that while miracles are possible, one should not pray for one to occur, and Leah's actions should not be used to support an opposing view.³⁷ The Talmud Yerushalmi explicitly cautions against praying for miracles as well.³⁸

The practical implications of this position are significant. It would seem that one who has essentially lost hope from a medical perspective would not be allowed to pray to be cured through a miracle, despite that being the only real chance at survival. There do, however, seem to be certain exceptions to this rule. Rema endorses the recitation of a text that explicitly asks God for miracles to be performed in our time just as they were performed during the time of Chanukah. While its recitation is limited to one who forgot to recite the prayer of *Al Ha-Nissim*, this prayer's very existence appears to reflect a permissive approach to praying for miracles.³⁹ Furthermore, there is no explicit ruling in *Shulhan Arukh* that prohibits one from

35 *Berakhot* 54a.

36 *Ibid.* 60a. The *gemara* offers an additional answer that Leah may have prayed for the gender switch within the first forty days of being pregnant, before the child's gender has been determined.

37 It is not entirely clear from the Talmud whether there is a prohibition to pray for a miracle, or simply that praying for a miracle will not be effective. See *Birkat Avraham*, *Berakhot* 54a.

38 Yerushalmi *Taanit* 3:2; see also *Sefer Hassidim* no. 794.

39 Rema, *Orah Hayim* 187:4 and 682:1.

praying for miracles.⁴⁰ As such, some ambiguity exists regarding the precise scope of the Talmud's ruling.⁴¹

Numerous possible exceptions to the Talmud's rule are suggested, but there appear to be three general approaches taken with regard to terminally ill patients.

One school of thought accepts the Talmud's prohibition to pray for miracles, with the implication that praying for recovery would not be appropriate.⁴² The Rema's ruling justifying such a prayer is either rejected, as was done by Maharam Mi-Rutenberg,⁴³ or is limited to circumstances irrelevant to the terminally ill patient. For example, *Bekhor Shor* suggests that Rema's ruling is limited to miracles affecting a community; one is prohibited, however, to pray for a miracle to occur to a specific individual – including one who is terminally ill.⁴⁴ In

40 This is noted by *Bekhor Shor* (*Shabbat* 21b). However, this claim does not appear to be entirely accurate. *Shulhan Arukh, Orach Hayim* 230:1, cites the Talmud's statement in *Berakhot* that one should not pray for events that have already occurred or been determined, such as not praying that one's pregnant wife give birth to a child of a specific gender.

41 Some assume that the Talmud's rule does not apply to exceptionally pious people; see *Bekhor Shor*, *ibid.*, and *Gevurat Ari, Ta'anit* 19a. *Shome'ah Tefillah*, vol 2, 291, notes that this is also the position of *Or Ha-Hayim* in *Hafetz Hashem, Berakhot* 60a and that *Hatam Sofer, Ketuvot* 106a, argues. *Einayim Le-Mishpat, Berakhot* 60a, mentions several different explanations for Rema's ruling, many of which are mentioned below. One omitted from the body of the article distinguishes between Israel and outside Israel; one can only pray for miracles in Israel, since it always functions above the realm of nature. See *Shome'ah Tefillah*, *ibid.*, for additional discussions.

42 Some suggestions regarding the underlying logic for this approach will be noted below. For an additional perspective, see Dr. Moshe Halbertal, "The Limits of Prayer," *Jewish Review of Books*, available online at <http://www.jewishreviewofbooks.com/publications/detail/the-limits-of-prayer>, and the discussion in *Shome'ah Tefillah*, vol. 2, ch. 35.

43 Cited in Avudraham, *Chanukah*. Avudraham notes others who reject Maharam's view.

44 *Bekhor Shor, Shabbat* 21b, cited in *Sha'arei Teshuvah* 187:3. *Einayim Le-Mishpat, Berakhot* 60a, explains that the text of Rema's prayer refers to miracles that will occur in the future that the Jewish People are assured will come to fruition. An individual, however – including a terminally ill patient – should not pray for a miracle. As noted above (n.37), praying for a miracle

slightly different ways, this view has been attributed to *Minhat Hinukh*,⁴⁵ as well as more contemporary authorities R. Yosef Shalom Elyashiv⁴⁶ and R. Yechezkel Levenstein.⁴⁷

A second, more nuanced approach accepts the Talmud's position against praying for miracles, but limits its scope in a way that may allow certain types of prayers. *Yeshuot Yaakov* explains that the Talmud cautions against praying for a miracle because the acceptance of such a prayer would come at the expense of the supplicant's own merits. However, he permits one to pray for a public miracle that will sanctify God's name, as the reward for the sanctification of God's name will compensate for the merits lost through the performance of the miracle.⁴⁸ According to this approach, one would be allowed to pray for a terminally ill patient to be cured only if the cure would create a sanctification of God's name, thereby justifying the usage of the supplicant's merits.

The opposite approach is suggested by *Bekhor Shor*. In a different attempt to explain Rema's ruling, he distinguishes between miracles that work through nature, which can be prayed for, and miracles that transcend nature, for which one should not pray.⁴⁹ If so, a terminally ill patient is allowed to pray for a

may not be a prohibited, but simply ineffective.

45 Oral tradition cited in R. Ben Zion Rabinowicz, (translated by Daniel Worenklein and Reuven Mathieson), *Mevaser Tov, Techias Ha-Meisim*, 5.

46 An oral report is quoted in the article by Dr. Moshe Halbertal, *supra* n.42.

47 Cited by R. Herschel Schachter, available at http://www.torahweb.org/torah/1999/parsha/rsch_korach.html.

48 *Yeshuot Yaakov, Orach Hayim* 682. A similar approach is suggested by *Einayim Le-Mishpat, Berachot* 60a, as one of his explanations of Rema's ruling.

49 *Bekhor Shor, Shabbat* 21b. Interestingly, *Bekhor Shor* justifies Rema's prayer for a miracle similar to the Chanukah miracle by viewing it as a miracle within nature, whereas *Yeshuot Yaakov* views it as a public miracle that transcends nature. It is possible to argue that each of the Chanukah miracles – the military victory and the oil lasting for eight days – represents a different type of miracle.

Bekhor Shor's position relates to a larger discussion about the relationship between revealed and hidden miracles. See, for example, David Berger,

miracle that can be justified as having occurred through nature. For example, he might pray that a cure be discovered for his illness. Although such a discovery might constitute a miracle, it would seemingly be viewed as having occurred within nature.

The third approach is much more permissive and essentially rejects any practical relevance of the Talmud's position against praying for miracles for a terminally ill individual. *Einayim Le-Mishpat* cites the Talmud's statement that one should pray for mercy even if a sharp knife rests on his neck,⁵⁰ as well as a number of other Talmudic sources, as indicating that one may pray for a miracle in a life threatening situation.⁵¹ According to this perspective, one may pray for a terminally ill patient without any limitations, as the Talmud's rule does not apply to such individuals. Others permit one to pray in times of crisis, although only under certain guidelines.⁵²

Additional support for a perspective that limits the impact of the Talmud's statement can be gleaned from the *Midrash Tanhuma*, which appears to argue with the Talmud and allow prayer for a miracle,⁵³ and Rabbeinu Bechaye, who writes that prayer has the ability to change nature.⁵⁴ A particularly strong argument in favor of this approach is made by R. Ben Zion Rabinowicz of Biala (author of *Mevaser Tov*), who published an entire book dedicated to proving that one should never give up hope in cases of sick and terminally ill patients. He writes: "Just

"Miracles and the Natural Order in Nahmanides," in Isadore Twersky (ed.), *Rabbi Moses Nahmanides (Ramban): Explorations in His Religious and Literary Virtuosity* (Cambridge, MA, 1983), 107-28.

⁵⁰ *Berakhot* 10a.

⁵¹ *Einayim Le-Mishpat*, *Berakhot* 10a, 60a.

⁵² *Shome'ah Tefillah*, vol. 2, 307, notes *Darkhei Hayim Ve-Shalom's* citation of the Sanzer Rebbe that a terminally ill patient should pray only in thought and not out loud. See there for additional sources.

⁵³ *Midrash Tanhuma*, *Vayetzei* 8. Some attempt to reconcile the *midrash* with the *Talmud*; see *Melekheth Shlomo*, *Berakhot* 9:3, and *Birkat Avraham* (*ibid*).

⁵⁴ *Kad Ha-Kemah* on *tefillah* and commentary to *Devarim*, 11:13. *Birkat Avraham* (*ibid*.) cites this comment and discusses its relationship with the Talmud's statement.

as it is certain that the dead will be revived, it is equally certain that the sick can be healed. We must not despair; there is every reason to pray and hope for their recovery.”⁵⁵

Praying for Someone to Pass Away⁵⁶

In certain circumstances, an illness can be extraordinarily painful for the sick individual. In extreme cases, when the patient experiences the pain as unbearable, Ran allows one to pray for such a person to pass away.⁵⁷ However, the *Poskim* debate whether Ran’s opinion is normative. While many authorities accept Ran’s opinion, including *Arukh Ha-Shulhan*,⁵⁸ *Tiferet Yisrael*,⁵⁹ and a host of more contemporary authorities,⁶⁰

55 *Mevaser Tov, Techias HaMeisim*, 22. This discourse was originally published in Hebrew, but has been translated into English by Daniel Worenklein and Reuven Mathieson as “Mevaser Tov, Techias HaMeisim.” Citations to the work in this article are from the English translation.

56 This author benefited from the extensive discussion in *Shome’ah Tefillah*, vol. 2, 244-7, where the author cites an impressive collection of *Aharonim* who discuss Ran’s position and other relevant sources, as well an online post by R. Ezra Schwartz and the ensuing discussion between R. Schwartz and Prof. Lawrence Kaplan. See <http://text.rcarabbis.org/praying-for-one-to-die-philosophical-considerations/>.

57 Ran, *Nedarim* 40a. His opinion is based on *Ketuvot* 104a. For a discussion of the implications of the Talmud’s statement there, see the discussion in *Tzitz Eliezer* vol. 5, Ramat Rahel 5; and *Shome’ah Tefilla*, vol. 2, 246.

58 *Arukh Ha-Shulhan, Yoreh De’ah* 335:3

59 *Tiferet Yisrael, Yoma* 8:7.

60 R. Yitzchak Yosef, *Yalkut Yosef, Yoreh De’ah* 335 (in the most recent edition of *Yalkut Yosef* on *Hilkhos Bikur Holim* and *Aveilut*, 63-66), writes that his father, R. Ovadiah Yosef, accepts Ran’s position and has implemented it in actual situations, though he cautions against doing so without consultation with a *Hakham*. R. Shlomo Zalman Auerbach, *Minhat Shlomo* 1:91:24, also accepts this view. R. Ezra Schwartz has noted that this is also the opinion of R. Chaim Kanievsky, as cited in *Siah Tefilla*, 719. Other *Poskim* also accept Ran’s view, at least in modified versions. See the views of R. Nahman of Breslov, cited in *Sefer Ha-Middot, Tzadik*, no. 116; and R. Sholom Messas, *Teshuvot Shemesh U-Magen*, vol. 3 (brought to my attention by R. Dr. David Shabtai); See *Shome’ah Tefillah* vol. 2, 246, for additional sources.

For a discussion of the position of *Hikikei Lev* vol. 1, *Yoreh De’ah* 6, see

others do not accept Ran's ruling. R. Eliezer Waldenberg notes that Ran's position is not cited in the *Tur*, *Shulhan Arukh*, or any of their commentaries, clearly implying that it is not accepted as normative. Additionally, other *Rishonim* do not interpret the Talmud in *Nedarim* upon which Ran comments in the same manner that he does, with Maharsha even questioning Ran explicitly.⁶¹ As such, R. Waldenberg maintains that one is not permitted to rely on Ran and pray for a sick person to pass away, even if the patient is experiencing significant pain.⁶² Other *Poskim*, such as R. Moshe Feinstein⁶³ and R. Shmuel Wosner,⁶⁴ fundamentally accept Ran's position, but argue against practically relying upon it nowadays for various reasons. According to several *Poskim*, most prominently R. Moshe Sternbuch, the question of whether one should endorse Ran's position is essentially a question about the value of life, in particular with regard to seriously ill patients. R. Sternbuch is uncomfortable supporting Ran's position in instances when the patient is capable of clear thought and performance of *mitzvot*.⁶⁵

The precise rationale behind Ran's position, as well as that of his detractors, is not entirely clear and has evoked some debate.⁶⁶ Part of the rationale for these views may relate

Tzitz Eliezer vol. 5, Ramat Rahel 5. There is also debate regarding whether the *She'iltot*, no. 93, accepts Ran's position; see *She'eilat Shalom* and *Ha'amek She'eilah* ad loc., as well as *Tzitz Eliezer*, *ibid.*, and *Havatzelet Ha-Sharon, Bereishit*, 190.

It is important to note that even amongst those who accept Ran's view, there is some disagreement regarding the text of such prayer and the extent to which one is supposed to directly pray for the patient to die.

61 Maharsha, *Nedarim* 40a.

62 *Tzitz Eliezer* vol. 5, Ramat Rahel 5. See *Shome'ah Tefillah*, *ibid.*, who cites other *Poskim* who concur with this view.

63 *Iggerot Moshe, Hoshen Mishpat* 2:74:1.

64 *Siah Halakhah*, 772.

65 *Teshuvot Ve-Hanhagot* 2:82. His position is reflected in statements of *Hazal* that emphasize the value of living for even a brief period of time.

66 See the aforementioned post by R. Ezra Schwartz with Prof. Kaplan's comments, *supra* n. 56, as well as *Havatzelet Ha-Sharon, Bereishit*, 190.

to end-of-life care in general and what is considered inappropriate hastening of death, as opposed to passive attempts at ensuring comfort. It also may relate to the above mentioned debate about *bitahon* and the appropriateness of giving up hope in dire circumstances. To the extent that one believes that all things will turn out for the best, rejecting Ran's position becomes all the more likely. This issue also touches upon a philosophical question about the purpose of *yissurin* and how to relate to hardships that impinge on one's ability to fulfill the Torah's commandments.

Conclusion

The purpose of this article was to highlight a variety of issues relating to prayer and the terminally ill, including the possible obligation to pray for such individuals and the proper orientation during prayer for terminally ill patients. The article also addressed the permissibility of asking for miracles and of praying for the passing of individuals in certain dire and extreme circumstances.

Terminally ill patients and their families undoubtedly experience exceptionally challenging times. It is often the belief in the efficacy of prayer and the community's support that offer encouragement to the patient and his or her family. May those who are ill gain strength and support from the prayers and kind gestures of those around them, and may God, the ultimate healer of the sick, bestow His kindness upon all those suffering and bless them with a full and complete recovery.

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Surgical Placebo in Jewish Law

Background

Placebos have been used in one form or another for at least two centuries.¹ Researchers in the late eighteenth century, in an attempt to establish science as a sound discipline separate from unorthodox and unconventional fields of treatment and therapy, recognized the idea of confounding environmental and psychological factors and attempted to mitigate them as best possible. For most of its history, however, placebo use was limited to medical treatments, and not initially applied to surgical procedures.

In 1959, a landmark trial of internal mammary artery ligation was conducted, introducing the concept of surgical placebo and exposing the practice to ethical scrutiny.² It was thought that the chest pain associated with heart attacks and angina was caused by decreased blood flow to the chest wall. By ligating the blood supply to the chest wall, the pain would be preemptively mitigated. Patients enrolled in the control arm

I would like to extend my appreciation to R. Dr. Edward Reichman for his helpful comments during the preparation of this article.

1 T.J. Kaptchuk, "Intentional ignorance: A history of blind assessment and placebo controls in medicine," *Bulletin of the History of Medicine* 72:3 (Fall 1998):389-433.

2 L.A. Cobb, G.I. Thomas, D.H. Dillard, K.A. Merendino, R.A. Bruce, "An evaluation of internal-mammary-artery ligation by a double-blind technique," *New England Journal of Medicine* 260 (1959): 1115-8.

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of the study had their chest cavity opened without any procedure actually performed. Questions concerning the ethics of performing such an invasive surgery without performing the beneficial technique arose as a result of this attempt to produce a scientifically sound experiment.

Nearly four decades later, another surgical placebo trial was conducted using fetal nigrostriatal dopaminergic neurons grafted into the brains of patients suffering from Parkinson's disease.³ Similar to the dramatic and invasive nature of the arterial ligation, the placebo-controlled patients were anesthetized and a burr-hole procedure⁴ was performed, without any additional invasive technique. In follow-up, these placebo patients were given the same medical treatments that their treated counterparts received, including a dose of Cyclosporin.

A surgical placebo trial in 2002 followed a less severe protocol. Arthroscopy and debridement had become the standard treatment for osteoarthritis in the knees.⁵ Moseley et al conducted a randomized double-blinded case-controlled study, with the placebo patients receiving modified sedation and a few incisions and closures in the knee. A unique feature of this trial was the informed consent process, wherein the patient was asked to write a description of the placebo arm of the trial, indicating their explicit consent to that possibility.⁶

In the latter two cases, controversy was sparked anew for a number of reasons, primarily because in the last two de-

3 O. Lindvall, G. Sawle, H. Widner, et al., "Evidence for long term survival and function of dopaminergic grafts in progressive Parkinson's disease," *Annals of Neurology* 35 (1994): 172-80.

4 Essentially, a small hole was drilled into a bone in the skull, without penetrating entirely through.

5 Osteoarthritis occurs due to the breakdown of cartilage in, and subsequent narrowing of, joint spaces, producing pain on movement. The standard of treatment is orally administered pain medications, specifically NSAIDs, or surgical arthroscopy of the knee, which entails debridement of the joint space.

6 J.B. Moseley, K. O'Malley, N.J. Petersen, et al, "A controlled trial of arthroscopic surgery for osteoarthritis of the knee," *New England Journal of Medicine* 347 (2002): 81-8.

cedes, fewer and milder morbidities are attributed to surgical interventions than in the mid-twentieth century. The debate, in large part, revolved around defining and determining the appropriate risk-benefit ratio that could justify these invasive and potentially harmful procedures.

Secular Ethical Concerns

Although the goal of this paper is to discuss Jewish ethical considerations as they pertain to surgical placebo, a discussion of the major ethical arguments outside of a religious context in favor of and opposed to the conduction of such trials will serve well to introduce the religious concerns.

Ruth Macklin is the major opponent of these so-called “sham” procedures (her coinage), and she offers a series of arguments that seek to undermine the legitimacy of the use of these hazardous placebos.⁷ She first argues that the use of placebo should be limited to situations in which there is no alternative standard of care available. She defines placebo very strictly, however, limiting its justifiable property to benignity, such that any negative effect whatsoever renders it unethical to administer. One must always minimize the risk of harm to the subjects, Macklin opines, which surgical placebos fail to do.

Focusing on the risk-benefit ratio, Macklin believes that any risk greater than that which is engendered by a medical placebo would preclude entirely any ethical allowances. She recognizes the therapeutic potential of these surgical placebos and its equivalence to that of medicinal placebos, but she does not see this equivalence as justification for the risk that patients encounter in their treatment. Additionally, she finds that the informed consent procedure is not effective enough in dispelling common misconceptions regarding the interests of the trial, the patients, and the doctors.

Macklin’s criticisms came in response to the arguments and justifications of Thomas Freeman et al, who elaborate on

7 R. Macklin, “The ethical problems with sham surgery in clinical research,” *New England Journal of Medicine* 341 (1999): 992-5.

their attempt to minimize the risk of the placebo procedure, as well as the need for placebo controlled-studies in therapeutic treatment of Parkinson's disease (as opposed to simply halting its further development). Moreover, Freeman and his colleagues explain that this mode of study is indispensable to surgery, as many established surgical options have been determined to lack efficacy.⁸ Tenery notes that the use of surgical placebo is limited to treatment of diseases in which the only alternatives are medical and the disease being studied can be influenced by psychological factors, as established by the AMA's Council on Ethical and Judicial Affairs. He adds that the informed consent process must be specially tailored in this case, as it pertains to greater risks than those found in trials involving pharmacological placebos. Another significant ethical requirement is that any nonsurgical treatment must be provided to all arms of the study to further minimize the violation of non-maleficence that would result from foregoing treatment for an extended duration.⁹

Frank Miller explicitly rejects Macklin's criticisms with three major contentions. First, he argues that the ethics of clinical research should be examined apart from the ethics of clinical medicine. Clinical research, he argues, is a scientific tool aimed at improving medical care and does not presume to be dedicated to treatment and beneficence. Surgical placebos, then, should be no different from lumbar punctures and other invasive tests that are used to measure the parameters and outcomes of trials and that do not assure any amelioration of disease. As he puts it, "[s]ham surgery is not unethical just because it exposes patients to risks that are not compensated by medical benefits." Second, the burr hole procedure lies at one end of the ethical spectrum – the objectionable, seemingly

8 T.B. Freeman, D.E. Vawter, P.E. Leaverton, et al, "Use of placebo surgery in controlled trials of a cellular-based therapy for Parkinson's disease," *New England Journal of Medicine* 341 (1999): 988-92.

9 R. Tenery, et al, "Surgical 'placebo' controls," *Annals of Surgery* 325:2 (2002) 303-7.

condemnable extreme – but there is a vast range that should not be rejected out of hand as easily. In the case of the knee arthroscopy, patients were not subjected to life-endangering or traumatic procedures. The outcome in that case was also a subjective measure of pain, which demanded a blind control, whereas in the Parkinson's trial, quality of life was the parameter at stake, an arguably less serious justification for such a dramatic procedure. Thus, even if some surgical placebos may be difficult to defend, not all cases should be summarily rejected. Miller's next major objection concerns minimization of risk, which, according to Macklin, surgical placebo fails to satisfy. Miller argues that when sham surgery is the only alternative, the risk is by default minimized, even though it may not reach the low standard of medical trials.¹⁰

Thus, the discussion can be distilled to a few fundamental contentions. Those who support the use of surgical placebo maintain that it is necessary to establish the utility, cost-effectiveness, and significant therapeutic effect of the procedure. They also believe that minimization of risk does not have to be absolute, but can be relative, and the greatest effort to achieve the minimal risk is adequate, even if there is still a minor risk to the patients involved. Finally, the use of such placebos should be limited to a) therapies that do not have effective medical alternatives or b) the modification and improvement of already existing surgical treatments. Notably, those diseases for which effective medical treatments exist would not be candidates for trials of surgical placebo. Those opposed to the use of surgical placebo argue that "sham surgery" defies sufficient risk minimization (the non-maleficence issue) and that informed consent cannot be achieved to satisfactory ethical standards (the paternalistic component). The progress of medicine, its care and

10 F.G. Miller, "Sham Surgery: An Ethical Analysis," *American Journal of Bioethics* 34 (2003): 41-8. Interestingly, Miller also points out that from the internal artery procedure study, one cannot derive definitively that a sham procedure has the effect of a placebo, but only that the real procedure was not solely responsible for the positive outcome.

technology, cannot be at the expense and sacrifice of subjects who do not receive standard of care in anticipation of such furtherance.¹¹

Halakhic Ethical Concerns¹²

In this author's opinion, Jewish ethics – or, more precisely, Halakhah – would focus on different elements and issues in evaluating the propriety of surgical placebo. To begin with, informed consent, one of the major foci of Macklin's critique, plays a very small, and perhaps totally insignificant, role in the halakhic considerations. This is not to say that a patient should not be informed to the best of the practitioner's ability or that the patient should not, when possible, be consulted and solicited for permission to perform a procedure. However, Halakhah requires that a treatment that entails a likelihood of success (a criterion that will be explicated later in this paper) must be provided to the life-endangered patient, regardless of their personal interests and preferences. The value of human life is considered paramount in all ethical and clinical considerations in the eyes of Halakhah; there is little room for the layman's

11 A response to this latter point could be that medicine does need to progress. In the past, therapeutic procedures were conjured and sometimes tried on animals, and depending on their success, they were then implemented in humans. This was followed by *ex post facto* research to investigate the procedures' value. The proponents of surgical placebo could argue that placebo surgery is far more beneficial in the development of medicine, as well as to the patient subjects, considering their conditions and the need to advance medicine. In addition, regarding the issue of informed consent, Macklin must define what the dividing line is between informed and uninformed. A patient could always be better informed and educated to the level of the physician who is trying to explain and describe the procedure, yet that would be an absurd requirement. What, then, would be the arbitrary requisite knowledge that would permit the undertaking of intubation and surgery?

12 Two articles were particularly helpful in preparing this discussion of the Jewish legal sources: Dan Geisler, "Cosmetic Surgery in Halachah," *Journal of Contemporary Halacha and Society* 48 (Fall 2004): 29-43; and R. David Etengoff, "Halachic Implications of Cosmetic Surgery," *Journal of Contemporary Halacha and Society* 15 (Spring 1988):79-91.

opinion, especially with regard to life-endangering diseases and their potential treatments. Simply put, just as a doctor has a Divine mandate to heal, a patient has a similar obligation to be healed,¹³ and this demand overrides any concern that the requirement for informed consent may present. When the disease being treated is not life-threatening, informed consent becomes more of a medical-legal consideration than a moral one. In the modern legal system, if someone performs any procedure or operation without a patient's consent, with the exception of emergency situations, the perpetrator can be charged with assault and battery. In Halakhah as well, informed consent mitigates this problem, but it does not eliminate it entirely.

The major issues that will be treated here are the following:

- A. Permissibility of elective procedures: Can one participate in a trial wherein the procedure is of an elective nature, which will usually entail life-suspending anesthesia and voluntarily inflicted trauma that may violate the injunction against wounding another human being? Even if these are permitted in the case of a willing patient participant, can a healthy person participate in

13 Abraham Steinberg, "Informed Consent," in *Encyclopedia of Jewish Medical Ethics* (New York, 2003), vol. 2, 555. Cf. footnotes 44 and 45. See also idem., "Informed Consent: Ethical and Halakhic Considerations," *The Jewish Law Annual* 12 October 1998: 137-52. Another consideration he presents there, which will be mentioned in the body of this article, is that a person's body is not his own; it is regarded as a deposit from God that one must cherish and preserve. Thus, if there is a potential for harm, a person is duty bound to seek prophylaxis or a cure. However, coercion may be limited to medical or surgical treatments that are proven to be effective; see below for the parameters of efficacy. Steinberg maintains that autonomy is not a true halakhic concern for the above reasons. Others argue, however, that autonomy does have a strong basis in Halakhah, although there is no real practical difference between these opinions. See Zev Schostak, "Is There Patient Autonomy in Halacha?," *Assia – Jewish Medical Ethics* 2:2 (1995): 22-27; and David Shatz, "Concepts of Autonomy in Jewish Medical Ethics," *The Jewish Law Annual* 12 October 1998: 3-43.

a research trial for the sake and benefit of a future patient population?

- B. Efficacy as justification for exposure to risk: The dangers peculiar to surgical placebos are more problematic than those in medical placebos, in that patients not only expose themselves to a dangerous treatment, but also do so with only the possibility of receiving efficacious treatment.¹⁴ The use of placebo and its permissibility, in general, must be evaluated, in that medical treatments and managements must have a modicum of efficacy before they can be administered (*refu'ah bedukah*). What is the minimal efficacy that can justify exposure to risk? Moreover, is the placebo effect clinically or ethically satisfactory to be considered therapeutic to allow one to place himself in that situation?
- C. Significance of pain and quality of life: Is one permitted to undergo a procedure that is not being performed to prevent death or prolong life, but only to improve quality of life (as in the cases of osteoarthritis or Parkinson's disease), and to what level of risk can one expose oneself with the hope of consequent resolution?

A. Permissibility of Elective Procedures

The first issue that must be resolved is whether one is permitted to expose himself to risk, as a patient does upon consenting to participate in a surgical trial. In discussing the permissibil-

¹⁴ In halakhic terminology, this should be categorized as a situation of *sfeik sfeika* (literally, a doubt of a doubt), wherein the doubts are compounded, considering first the remote possibility of efficacy of the procedure itself in addition to the fifty-fifty chance of receiving placebo. Although the doubt lingering around the procedure can be modified to more or less than half, it remains only a possibility. This point is not raised by any of the sources cited in this article, however, so we will discuss the topic ignoring the fifty-fifty doubt, leaving each procedure to be evaluated individually to determine its level of necessary efficacy.

ity of using contraceptives during intercourse, R. Meir opines that there are three types of women who may be allowed to use a “sponge” to absorb the ejaculate, thereby preventing fertilization. These are pregnant women, nursing women, and a girl between the ages of eleven and twelve, where the dangers pursuant to a new pregnancy would threaten the life of the fetus, child, or mother. The consensus of the Sages, however, is that these women should engage in marital intercourse without the use of contraceptives. How, then, will they prevent the dangers of pregnancy? The Talmud responds with a verse from Psalms 116, “*shomer peta'im Hashem*” – “God watches over the simple.”¹⁵ A similar concept is invoked elsewhere in the Talmud, which argues that since “the public [society] tread on such a [path],” a given activity is acceptable.¹⁶

Teshuvot Binyan Tzion argues that based on the principle of “*shomer peta'im Hashem*,” one may expose himself to risks that are considered “everyday” or commonplace. However, he limits such allowance to situations in which the risks themselves are not imminent, even if they may present themselves in the future. Analogously, a person may travel overseas even though he knows that he will have to bring a *korban todah* (a thanksgiving sacrifice) upon his return, a sign that his journey was, in fact, dangerous.¹⁷ *Binyan Tzion* concludes that the “assumption of a risk that will materialize only in the future is prohibited only if death will result in a majority of instances.”¹⁸ The right to assume a medical risk is thus limited to therapies

15 See, for example, *Yevamot* 12b; *Niddah* 45a. See commentary of Tosafot, *Yevamot* ad loc., s.v. *shema* for an understanding of the threat that intercourse poses to a fetus.

16 *Shabbat* 129b. The Talmud there discusses bloodletting at inauspicious times, when the astrological influences would endanger a practitioner. Nevertheless, one is permitted to perform the procedure then due to the principle of *shomer peta'im Hashem*.

17 R. Jacob Ettlinger, *Teshuvot Binyan Zion* 137.

18 See J.D. Bleich, “Hazardous Medical Procedures,” in *Bioethical Dilemmas: A Jewish Perspective* (Michigan, 2006), vol. 2, 243.

in which a majority of cases do not lead to endangerment.¹⁹ Although placebo surgeries are not conducted frequently and are not undergone by the masses, elective surgery in general is relatively commonplace. Since placebo surgery is not standard treatment and it is voluntary on the part of the patient, one could argue that it is elective in nature. Assuming this comparison, *Binyan Tzion* would apparently conclude that the risks of such a procedure are acceptable. Furthermore, in the placebo procedures conducted thus far, none had a fatal or morbid outcome that approached a level of significance that would warrant concern.

Another possible problem is presented by placebo surgery, however, as in such cases, research is conducted primarily for the benefit of others, and often not directly for the benefit of the patient. *Noda Bi-Yehuda*, discussing the performance of autopsies and dissection, maintains that there must be an imminent need in order to justify such experimentation or research. Violation of religious principles can only be executed for the sake of immediate needs (“*holeh lefaneinu*”).²⁰ Technically, however, this could be construed as permission for someone to undergo placebo surgery for research purposes even with the potential that they themselves will not benefit, since there is a possibility that the proposed benefit will serve them directly, satisfying the requisite imminent need that the *Noda Bi-Yehuda* mandates.

The aforementioned concerns relate to the administration of both the classical placebo and surgical placebo, as both involve attendant risks and may not benefit the patient himself. However, placebo surgery is unique in that there is an assumption of physical risk that is almost identical to the complications consequent to surgery. In this regard, it is further compa-

19 This is despite the rule that “we do not invoke the majority in cases of life-endangerment”; cf. the view of Shmuel, *Yoma* 85.

20 R. Yehezkel Landau, *Noda Bi-Yehudah, Yoreh De'ah* 2:210. Cf. J.D. Bleich, “Experimentation in Human Subjects,” in Fred Rosner and J.D. Bleich (eds.), *Jewish Bioethics* (New Jersey, 2000), missing page numbers.

rable to elective surgery, which the responsa literature addresses extensively. Two major issues stand out in the discussion of elective surgery in the halakhic literature: self-endangerment, which we have broached above, and infliction of harm on others (for the surgeon) and oneself (for the patient).

In numerous questions posed regarding the permissibility of plastic surgery, the questioner feels hindered in performing social obligations, such as finding a livelihood or suitable marriage prospects, due to his or her physical features.²¹ R. Shlomo Zalman Auerbach, almost without reservation, finds no halakhic difficulty with elective cosmetic surgery in the case of a single girl, maintaining that the severe psychological anguish that she would experience due to her inability to get married is sufficient to justify the assumption of the minor risk entailed by surgery.²² He adduces proof for this idea from the view of Rabbeinu Tam, who distinguishes between one cutting his body hair for beautification and one cutting because of discomfort. The latter is allowed to use a razor on parts of his body, even though such an act would normally fall under the prohibition of “you shall not wear clothing of a woman,” since the action is not considered *yipuy* (beautification) or *tikun* (improvement). The person is doing so to prevent or alleviate discomfort or pain, and use of a razor is therefore permitted.²³ *Mor u-Ketziah* allows subjection to risk even if a disease is not life-threatening as long as the pain is as “difficult as death.” He discusses the question of undergoing surgery to remove kidney or bladder stones, which pose no risk to life; due to the associated appreciable pain, he permits the operation with its attendant risks. However, *Mor U-Ketziah* does not prescribe surgery for such a patient, but merely allows the patient to choose to

21 See sources cited above in n.12, as well as Fred Rosner, “Plastic and Cosmetic Surgery in Judaism,” *Le’ela* (Dec. 1999): 45-48; and Daniel Eisenberg, “A Jewish Approach to Cosmetic Surgery,” *Assia – Jewish Medical Ethics* 7:1 (2009): 24-30. These articles summarize the major contemporary opinions, mostly in favor of undergoing cosmetic surgery.

22 *Minhat Shelomo* (2nd edition) 2:86, paragraph 3.

23 Tosafot, *Yevamot* 48a, s.v. *lo*. See also Tosafot, *Shabbat* 50b, s.v. *bishvil*.

undergo such surgery.²⁴ Similarly, R. J.D. Bleich, basing himself on Nahmanides' *Torat Ha-Adam*, asserts that every medical treatment entails some minimal amount of unavoidable risk, so that involvement in a trial even for a non-life-threatening disease may be allowed. Pain alone may be the primary permitting factor for undergoing elective surgery.²⁵

Another halakhic issue that arises in the discussion of the permissibility of elective surgery is the injunction against inflicting wounds on oneself and others. According to Jewish law, the body does not belong to the person and is not at his disposal to do with it what he pleases. Rather, it is considered a deposit, which the person must be vigilant in maintaining. To inflict harm on one's body is to damage a Divine object, beyond the laws of recompense and remuneration. The Torah states that when one receives lashes as punishment for infringement of a negative commandment, the executor must not exceed the number that has been determined for the recipient: "forty [times] he should strike, but he should not increase."²⁶ The Talmud extrapolates from this verse to all those who inflict wounds on others.²⁷ Even if one person allowed another to hit him, the one who hits still violates a Biblical injunction and is liable to receive lashes. Consent does not remove the potential for violation and culpability for inflicting physical injury.

When Rambam codifies this law, he uses an interesting phraseology, making such violation dependent on the intention of the perpetrator. He states that in order to be culpable, the perpetrator must inflict a wound that indicates strife or, according to a variant text, embarrasses the victim.²⁸ Accordingly, if a person truly intends to help his friend by making an inci-

24 R. Ya'akov Emden, *Mor U-Ketziah* 328. This source is cited as evidence that pain alone, a subjective parameter, can justify subjection to risk. The reading is somewhat ambiguous, as the author uses many qualifiers in this passage, but this is the understanding that *Tzitz Eliezer* 4:13 presents.

25 J.D. Bleich, "Hazardous Medical Procedures," missing page number.

26 *Devarim* 25:3.

27 *Ketuvot* 33a.

28 *Mishnah Torah, Hilkhot Hovel U-Mazik* 5:1.

sion or any other wound, it does not fall into the category of infliction of harm. R. Moshe Feinstein adduces this statement of Rambam as support for his dispensation for a young girl to undergo cosmetic surgery.²⁹

There is a separate but related discussion regarding the permissibility of inflicting harm upon oneself. The early commentators dispute whether this violation is explicit or implicit in the Bible.³⁰ One opinion maintains that it is derived from the laws of a Nazirite, one who declares his or her abstinence from wine, hair cutting, and exposure to sources of ritual impurity. Despite its seeming laudable ascetic nature, such a commitment is described in the Torah as a “sin against the soul,”³¹ which is understood to be a criticism of abstinence from the world that God bestowed upon man for his enjoyment. Later commentators believe the injunction goes beyond an implicit injunction and is explicitly and directly derived from the Torah’s declaration “only guard yourself and guard your soul very much,”³² which would elevate the degree of violation to that of a negative prohibition.³³

Others, however, posit that there is no injunction against hurting oneself, basing their opinions on the anecdote recorded in the Talmud wherein R. Hisda lifted his hem above the thorn bushes, thereby exposing his legs to harm while saving his garment from tearing.³⁴ Thus, at least according to some

29 *Iggerot Moshe, Hoshen Mishpat* 2:66.

30 See *Teshuvot Ha-Rashba* 1:616; Rabbeinu Nissim, *Shavuot* 23b, s.v. *di-Mokim*; Meiri, *Bava Kama* 91b. This position is accepted as normative by Rosh and Rif, *Bava Kama* 91b; Rambam, *Mishnah Torah, Hilkhhot Hovel U-Mazik* 5:1; and *Tur, Yoreh De'ah* 420:31.

31 *Bamidbar*. 6:11.

32 *Devarim*. 4:9.

33 See R. Yonatan Eybuschitz, *Tumim* 27:1.

34 *Bava Kama* 91b. Interestingly, *Lehem Mishnah, Hilkhhot De'ot* 4:1, opines that the injunction against harming oneself is only rabbinic in nature, which would bear strongly on our discussion. Rabbinic laws, in general, can be qualified dramatically when it comes to situations of physical pain or illness, and sometimes even financial loss. However, since this opinion seems to be a minority opinion and is not accepted as normative, it will

opinions, there is permission for both the researcher to perform and the patient to participate in a trial that inflicts physical harm or insult. Theoretically, if a patient needs to inflict harm on himself or herself in conducting a trial (for example, through an insulin injection), there would appear to be a basis for allowing elective participation.

B. Efficacy as Justification for Exposure to Risk

Thus far, we have discussed a patient's ability to undergo experimental trials and subject himself to risk. However, there are guidelines and limits to the risks that a person is allowed to assume. Obviously, a person cannot participate in a trial that has a 100% mortality rate, as that would be tantamount to committing suicide. Nor is it necessary to state that a person can enter a trial whose risk of mortality or serious morbidity equals that of driving a car or traveling via plane. However, it is necessary to clarify, or at least attempt to identify, the line or range that a person is allowed to approach in entering such a trial.

II Kings 7:3-4 relates the story of a group of lepers who were living on the outskirts of their besieged city. They were faced with a dilemma: Should they "defect" to the surrounding army, with the possible result that they will be killed, but with the other possibility that they would be fed and spared, or should they remain and face almost certain starvation and death? Ultimately, they enter the enemy camp and find, to their surprise, an abandoned camp and an abundance of food and supplies. The Talmud views this narrative as normative and authoritative in practice; if a person finds that he will face almost certain death, he may expose himself to an alternative that may provide the potential for survival, even if it comes with an increased likelihood of death.³⁵ From the leper story and its interpretations, R. Bleich deduces the general rule that even a possibility of prolongation of life can legitimize the vol-

remain a footnote in this discussion.

³⁵ *Avodah Zarah* 27b.

untary exposure of oneself to potentially life-shortening procedures (limiting one's *hayei sha'ah*). Practically speaking, a medical procedure that assures a terminal patient a likelihood of significant alleviation can be performed even if it comes with the risk of death.³⁶

From the II Kings narrative, it would appear that the alternative must provide something near a 50% chance of survival, or perhaps a little less than 50%, as it was an enemy force. However, the specific degree of risk that is considered significant must be strictly determined before the benefits of any procedures or treatments can be weighed against it. *Beit David* maintains that a 1/1000 chance of success (with the alternative being demise) is sufficient to allow a patient to participate and receive the experimental procedure or therapy.³⁷ R. Moshe Feinstein requires a success rate of a small minority, without suggesting specific ratios.³⁸ *Hatam Sofer* is somewhat unclear regarding this question, but he seems to require success in the majority of cases, or at least, more than the remote chance.³⁹ *Mishnat Hakhamim* and *Tzitz Eliezer* similarly maintain that success must be seen in more than 50% of cases.⁴⁰ The basis for these differing opinions is difficult to elucidate.

An alternative approach is adopted by R. Moshe Dov Welner, who maintains that risk is evaluated not in terms of survival rate, but only if the therapeutic nature of the procedure has been demonstrated.⁴¹ According to this opinion, if such a determination can only be achieved in retrospect, a procedure would not be permitted. Thus, surgical placebo, with all its attendant risks, would not be within the parameters of permissible exposure.

36 J.D. Bleich, "Hazardous Medical Procedures," 246-250.

37 R. Ze'ev Wolf Leiter, *Beit David* 2:340.

38 *Iggerot Moshe, Yoreh De'ah* 2:58

39 *Teshuvot Hatam Sofer, Yoreh De'ah* 76.

40 R. Eliezer Waldenberg 10:25, chap. 5, sec. 5. These latter opinions are especially interesting in light of the story of the lepers.

41 "Zechuyot ve-Samchuyot ha-Rofe," *Ha-Torah Ve-Ha-Medinah* 7-8 (5716-5717): 314.

Another issue that must be resolved relates to the placebo that is administered in these trials. Whereas the risks associated with placebo medications that are orally administered or injected are minimal, the untoward side effects, adverse effects, and complications that may arise consequent to surgical procedures are more dramatic. How, then, can one participate in a dangerous trial that does not have assured potential for relief? The *mishnah* cites a Tannaitic dispute regarding the permissibility of feeding the liver of a suspected rabid dog to its victim in order to prevent the development of symptoms (most likely referring to rabies). The authoritative opinion maintains that one is not permitted to consume such a non-kosher substance, despite its possibly life-saving effect, but fails to provide a rationale.⁴² Meiri argues that the reasoning for this position is straightforward: the treatment using dog liver has no therapeutic value, let alone the status of a well-researched prophylaxis, nor the empirical value necessary to justify such overt violation of Torah law.⁴³ The implication is that if a particular treatment has had any history of success or any demonstration of efficacy, this would suffice as justification. Indeed, Rambam understands the normative opinion to mean that any new treatment that has either a legitimate rationale or empirical basis supporting its efficacy can be administered, despite its violation of biblical law.⁴⁴

Placebos in general are considered to have the lowest form of efficacy of any medical treatment, which is why they are used as the standard reference in clinical trials. If a new medication has the same efficacy as placebo, it has no intrinsic value; all of the science, research, planning, and development that led to that new medication's production were a waste, as what it achieved could have simply been accomplished with a placebo. That is not to say, however, that a placebo lacks inherent value. A number of surveys and trials have been done to

42 *Yoma* 83a.

43 Meiri, ad loc.

44 Rambam, *Perush La-Mishnayot*, ad loc.

investigate placebo efficacy. Internists and general practitioners use placebos daily in the form of vitamins for aches and pains and antibiotics for viral infections. These are appropriately termed “impure” placebos, because they have medically significant contents but those contents are totally irrelevant to the condition being treated. Significantly, medical placebos have been shown to be effective in reducing pain in some patients. Similarly, surgical placebos have been shown to be efficacious. In fact, its efficacy in the sham knee arthroscopy was near 50% (!). The case of the nigrostriatal fetal neuronal transplant was less simple; upon analysis, the placebo had very little effect on the worsening of the Parkinson’s symptoms.⁴⁵ Nevertheless, surgical placebos can potentially have effects that attenuate the progression of disease and may be effective enough to justify the undertaking of risky procedures. This would seem to be no different from a patient taking an oral placebo, despite the fact that the disease may progress.

C. Significance of Pain and Quality of Life

The foregoing considerations are relevant when it comes to evidence-based practices of healing diseases or conditions. What remains to be explicated is the relevance of this discussion to the actual cases of surgical placebo, wherein a) the conditions themselves are overtly manifested as related to pain or quality of life, and not actual disease processes, and b) the placebo may treat psychological or pain components of such disease, but seemingly not the disease process itself. For example, in the case of the sham knee arthroscopy, the procedure is intended to treat pain produced by scar tissue, while the placebo may only resolve the pain and any psychological ramifications produced thereby. However, there is currently no treatment to delay or prolong the development or progression of osteoarthritis. Any placebo can only mitigate the symptoms, not impede the disease process itself. Thus, is it justified for a

45 CW Olanaw et al., “Fetal nigral transplantation in Parkinson’s disease.” *Annals of Neurology* 54 (2003): 403–414.

patient with such a malady, which is not life-endangering, to undergo such a procedure, and is the patient subject to the dispensations discussed above?

As noted above, R. Ya'akov Emden permitted an operation to remove kidney or bladder stones even though it would only resolve the severe pain associated with them, not the potential for development of life-threatening peritonitis.⁴⁶ Similarly, Rema rules that a son may amputate his father's limb, quite a severe procedure, as long as there is no other physician available and his father is in pain.⁴⁷ Thus, pain alone is considered a substantial enough medical concern to justify the assumption of risk and even the violation of a biblical injunction against injuring one's parents.⁴⁸

Tosafot expand this allowance further to include psychological pain. The Talmud discusses the case of a man who has scabs on his skin and would like to remove them. If his primary motivation is for aesthetic or cosmetic reasons, this would constitute a violation of the biblical injunction against "wearing a woman's garments," which also applies to adopting forms of conduct particular to the opposite gender. However, he is permitted to remove it if he is doing so due to "pain."⁴⁹ Tosafot explain that the term "pain" includes a person who, because of his blemish, will refrain from engaging in social interactions, for "there is no greater anguish than this."⁵⁰ Thus, severe psychological and emotional stress, not merely physiologic pain, can justify the violation of a biblical injunction.

46 *Mor u-Ketzi'ah* 328.

47 Rema, *Yoreh De'ah* 241:13.

48 The consequence for inflicting such injury is death; see Exodus 21:15. However, a negative commandment, which is the common prerequisite to the Torah's declaration of consequence, is notably absent. Cf. *Sefer ha-Hinukh*, commandment 48, where he explains that the injunction is subsumed in the broader negative commandment against harming another person. See also *Sanhedrin* 84b, where a number of Rabbis were reluctant to have their sons perform procedures on them that would draw blood for fear of violating this injunction, whose consequence is so severe.

49 *Shabbat* 50b.

50 *Ibid.*, s.v. *bishvil*.

This allowance would be helpful in the surgical placebo treatment for Parkinson's disease, in which, unlike the other orthopedic and cardiac cases of surgical placebo, pain is not a critical factor.

Conclusion⁵¹

Surgical placebo entails a few unique features in Jewish law, and its attendant discussion therefore differs greatly from the foci of secular ethicists. Whereas the classical placebo pill is almost entirely harmless in and of itself, the surgical parallel involves both infliction of physical injury, even if not invasive, as well as the assumption of risk of mortality and serious morbidity. As related to the former concern, we have seen that the injunction against infliction of harm on another is limited to acts of aggression or hostility, but does not apply in the context of surgical therapy. We have also seen that a person can enter a situation that entails risk when, according to most opinions, the attendant complications are limited to the minority of outcomes from the researched procedure. Furthermore, we have seen that psychological anguish and pain can be sufficient cause to undergo surgery. A person can assume such risk when it is commonplace, obtaining Divine protection under "*shomer peta'im Hashem*," in spite of the elective nature of the procedure, as long as it has proper justification of pain or potentially psychological anguish.

Any medical halakhic issue is complex and requires a comprehensive and thorough treatment of the relevant Biblical, Talmudic, and responsa literature. Based on the aforementioned considerations, it would seem that the discussion regarding surgical placebo is very much founded upon previously discussed and established halakhic issues. The cursory treatment in this essay of these issues and their underlying sources demonstrates that it may be permissible for a prospec-

51 A reminder to the reader that this article is a theoretical attempt to clarify the issues and apply them to a current problem. This article should not be taken as authoritative *pesak halakhab*.

tive patient to enter such a trial with the goal of improving their health and quality of life.

JONATHAN ZIRING

*Eat, Drink, and be Merry,
for Tomorrow We Die...
Is there an Obligation to
Maintain Good Health?*

There is a general perception that Halakhah obligates people to maintain their health. However, this contention is rarely sufficiently sourced, and when sources are cited, they are often misrepresented. We will attempt to assess the basic sources and the obligations that do and do not emerge from them.

*Ve-Rapo Yerape*¹

The first possible source is derived from the laws pertaining to bodily damages. The Torah rules that one who injures his fellow is obligated to compensate him for the damage incurred. The *mishnah* and *gemara* at the beginning of the eighth chapter of *Bava Kama* outline how the damages are assessed on the basis of five criteria: *nezek*, the physical damage as determined by the loss of the injured party's value on the slave

1 For a fascinating philosophical discussion of this law and its modern expressions, see Howard and Avi Apfel, "Verapo Yerape: Diverse Approaches to the License to Heal," *Verapo Yerape* 1 (2009): 21-37; and Howard Apfel, "Verapo Yerape Part II: Uncovering a Latent Hashkafic Divide," *Verapo Yerape* 2 (2010):1-14.

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market;² *tza'ar*, the pain incurred from the wound; *ripui*, the medical expenses; *shevet*, the loss caused by the inability of the injured person to work; and *boshet*, the embarrassment caused. From the Torah's phraseology regarding the obligation to pay for medical expenses, "*ve-rapo yerape*," "and he shall cause him to be thoroughly healed,"³ the Talmud concludes, "*Mi-kan she-nitenah reshut le-rofeh le-rapot*," "from here we derive that a doctor has permission/authority⁴ to heal."⁵

Elsewhere, the Talmud records the following dispute:

R. Aha said: When going in for blood-letting, one should say, "May it be Your will, O Lord, my God, that this operation may be a cure for me, and may You heal me, for You are a faithful healing God, and Your healing is true, since it is not the way of men to heal, but this is a common practice." Abaye said: A man should not speak in this manner, for it was taught in the school of R. Yishmael: [It is written:] "He shall cause him to be thoroughly healed (*ve-rapo yerape*)." From here we learn that permission/authority was given to a doctor to heal. When he gets up [after blood-letting], what does he say? R. Aha says: "Blessed be He who heals without payment."⁶

2 The *Rishonim* discuss whether this payment is considered pure compensation or a fine – see, for example, Rambam and Ra'avad, *Hilkhot Hovel U-Mazik* 5:6, and the commentaries there – as well as whether the slave market used is the that of *eved kenani* or *eved ivri* – see Rashi, *Bava Kama* 83b, s.v. *ha-hovel* and Rosh, *Bava Kama* 8:1.

3 *Shemot* 21:19.

4 The valence between these two Talmudic formulations may be different, and the legal implications discussed below may be in part functions of these two possible understandings.

5 *Bava Kama* 85a-b.

6 *Berakhot* 60a. Translation taken, with some changes, from R. Dr. Beni Gesundheit, "Permission Given to a Doctor to Heal – Across the Genera-

The halakhic codes rule in accordance with Abaye's position, which endorses R. Yishmael's formulation of "*mi-kan she-nitnah reshut le-rofeh le-rapot.*"⁷

A strict interpretation of this phrase provides a dispensation for doctors to provide medical treatment, but little more; it cannot create an obligation for doctors to treat patients or for patients to seek treatment. Indeed, the context of the passage in *Berakhot* implies that the exegetical derivation was needed to provide dispensations for human beings to engage in medical treatment, an activity that would logically be left to God.

Several commentators explain what generated the original assumption that medical treatment should be prohibited. Rashi,⁸ Tosafot,⁹ and Ramban¹⁰ suggest that since illness is caused by God, any attempt to alleviate sickness could be seen as an attempt to undermine God's will.¹¹ In a similar vein, Rabbi Avraham Gombiner, the author of *Magen Avraham*, in

tions and in the Thought of Rav Avraham Ha-Kohen Kook," *Verapo Yerape* 2 (2010): 55.

7 Ramban, *Hilkhot Berakhot* 10:21; *Tur, Orah Hayim* 230; and *Shulhan Arukh, Orah Hayim* 230:4. For suggestions that this position of R. Yishmael should be understood in light of his general positions about the relationship between human effort and divine intervention, see *Teshuvot Yabel Yisrael* 49, 51, and the citation of *Kehilat Yaakov* therein.

8 Rashi, *Bava Kama* 85a, s.v. *nitnah*.

9 Tosafot, *Bava Kama* 85a, s.v. *she-nitnah*. See also *Tosafot Ha-Rosh* and *Tosafot Rabbi Yehudah Ha-Hasid, Berakhot* 60a; *She'arim Ha-Metzuyanim Be-Halakhah, Bava Kama* 85a, s.v. *ve-rapo*, *Bava Kama* 85b, s.v. *mi-kan*, and *Berakhot* 60a, s.v. *mi-kan*.

10 Ramban, *Torat Ha-Adam, Sha'ar Ha-Sakanah* 6, the second answer, and commentary to *Vayikra* 26:11.

11 See also *Tur, Yoreh Deah* 336, who cites both this reason, as well the reason of Ramban below. See also *Hiddushei Ha-Rashba, Bava Kama* 85a, s.v. *ve-rapo*, for a similar formulation. See also *Midrash Shemuel* 4:1. For a summary of many of these sources, see *She'arim Ha-Metzuyanim Be-Halakhah, Bava Kama* 85a, s.v. *ve-rapo*.

R. Yisrael Meir Lau points out that if one maintains that it would be prohibited to get medical treatment were it not for a special dispensation, then one must wonder whether non-Jews are permitted to seek medical treatment, as they may not be within the rubric of the verse. See *Teshuvot Yabel Yisrael* 50.

his *Sefer Zayit Raanan*, his commentary on the *Mekhilta*, proposes that while doctors are logically permitted to treat patients initially, after treatment fails, a verse is required to teach that they may continue to treat the patient; failure of treatment is not an indication that God desires the ill person to remain ill.¹² R. Hayim, one of the Tosafists, propounds a parallel explanation, suggesting that the verse teaches that many doctors can attempt to treat the patient, not just one.¹³ Ibn Ezra¹⁴ and Rabbenu Bahya¹⁵ submit that in truth, doctors *are* prohibited from treating internal wounds; only external wounds are considered legitimately subject to human intervention.¹⁶ In his commentary on the Torah, Ramban further suggests that the novelty of the verse is that one is permitted/obligated to attempt performing surgery even if the surgery could possibly kill the patient, making the doctor an inadvertent killer.¹⁷ R. Abraham Isaac Kook, in a fascinating explanation, argues that the Torah needed to allow doctors to act in accordance with the medical knowledge available to them, even though medical knowledge is subject to change.¹⁸

According to all of these sources, a narrow read of “*verapo yerape*” could generate a mere dispensation for doctors to treat their patients. The implications of this narrow read are

12 See *Sefer Zayit Raanan* on *Mekhilta De-Rabbi Yishmael, Mishpatim*, end of chapter 6. See also *Teshuvot Yabel Yisrael* 49.

13 *Moshav Zekenim, Shemot* 21:19.

14 Ibn Ezra, *Peirush Ha-Arokh, Shemot* 21:19.

15 Rabbenu Bahya, *Shemot* 21:19.

16 For a convincing rejection of this position, see *She'arim Ha-Metzuyanim Be-Halakhah*, supra n.11. For possible distinctions between physical and mental illness, see Gesundheit, “Permission Given,” 65-66, based on Malbim and R. Samson Rafael Hirsch. Tosafot, supra n.9, suggests and rejects the possibility that only humanly caused injuries are permitted to be healed, but not natural ones.

17 Ramban, *Shemot* 21:19, first answer. See also *Tur, Yoreh Deah* 336 and *Moshav Zekenim*, n. 13 above. It seems more likely that Ramban means that there is permission to do so, but it is unclear if there is also an implied obligation.

18 *Teshuvot Da'at Kohen* 140.

further seen in the hesitance of many authorities to permit righteous people to seek medical attention.¹⁹

Most authorities, however, offer more expansive reads of this source. In his *Torah Ha-Adam*, Ramban rules that there is a *mitzvah* for doctors to heal patients,²⁰ and *Tur* and R. Yosef Karo argue similarly.²¹ These sources, taken minimally, may only obligate a doctor to treat patients who approach him, but would not obligate patients to initiate such treatment. This understanding is supported by the context in *Tur*, where the laws discussed are directed towards doctors. This may explain why Ramban defines providing medical treatment as a *mitzvah*, while in his commentary on the Torah, he argues that for righteous people, reliance on doctors may be a indication of weak faith.²²

Many commentaries, however, assume that the *mitzvah* for doctors to provide treatment implies a reciprocal obligation for people to pursue medical attention. *Taz*,²³ *Birkei Yosef*,²⁴ and R. Asher Weiss²⁵ argue that this is the intent of Ramban, although this point is conspicuous in its absence is Ramban's comments themselves.²⁶ They understand Ramban as arguing that in practice there is an obligation to seek medical attention, and turning to God instead is a theoretical, but not implementable, ideal.²⁷

19 See Ibn Ezra, n.14 above; Ramban and R. Bahya, *Vayikra* 21:19. See *Teshuvot Yahel Yisrael* 51 for a discussion of Ramban's view. For an interesting rejection of this sentiment, see *Iggerot Moshe, Orah Hayim* 2:111 regarding why it is permitted to buy insurance.

20 *Torat Ha-Adam, Sha'ar Ha-Sakanah* 6. See also *Bah, Yoreh De'ah* 336:1.

21 *Tur, Yoreh De'ah* 336:1; *Beit Yosef* ad loc., s.v. *tana*. In *Shulhan Arukh*, *ibid.*, this is less clear.

22 *Vayikra* 26:11. Ramban bases this view on *Divrei Ha-Yamim* 2 16:12, which criticizes King Hizkiah for turning to doctors and not God.

23 *Taz, Yoreh De'ah* 336:1.

24 *Birkei Yosef, Yoreh De'ah* 336:1.

25 *Minhat Asher, Vayikra* 66.

26 Personally, I find this understanding not to be compelling, and in personal conversation, R. Mordechai Willig agreed.

27 In contrast, see the view of the father of *Amei Nezer* in *Teshuvot Avnei*

While this understanding of Ramban is difficult, it seems to be an accurate understanding of Rashba's, the student of Ramban, view. In a responsum regarding *segulot* and other "alternative medical treatments," he writes that the *mitzvah* of *ve-rapo yerape* obligates one to seek medical help, *segulot*, or any other means within the scope of human effort that can heal him, rather than rely blindly on God.²⁸

This position is taken further by R. Yaakov Emden, who argues that when one has been wounded externally to the point that life is in danger, he must seek medical attention, and if he does not, he can be coerced to do so.²⁹ This comment is partially responsible for the position of many modern authorities that Halakhah does not require informed consent to perform medical procedures, as patients have no right to turn down medical treatment.³⁰

However, even the most expansive construal of this source only generates an obligation to seek medical attention

Nezer, Hoshen Mishpat 193, where he rules that it is preferable not to seek medical treatment, basing himself on Ramban and Ibn Ezra.

28 See *Teshuvot Ha-Rashba* 413, as well as the two responsa that follow. See *Minhat Asher, Vayikra* 66 regarding the halakhic status of alternative medicine, based on the first of these responsa.

An alternative reading of this source was suggested by R. Aryeh Klapper, who suggests that according to Rashba, the permission to heal is based on "*ve-rapo yerape*" but the obligation to seek healing is based on some other source that he does not mention explicitly. I am not sure what this source might be, so I will assume that it is most likely that *ve-rapo yerape* is the source.

29 *Mor U-Ketziah* 328. He bases himself on a passage in *Magen Avraham, Orach Hayim* 328:6, which he believes to be based on a passage in *Teshuvot Ha-Radbaz* 4:66. This seems to be based on a misattribution error, however, as the passage from Radbaz cited by *Magen Avraham* seems to be used to support a different ruling. Much thanks to R. Aryeh Klapper for this insight. See also *Mishnah Berurah* 328:25 and *Biur Halakhah* 328, s.v. *ve-rofeh*, who understood the *Magen Avraham* and Radbaz differently than *Mor U-Ketziah*.

30 See, for example, Dr. Avraham Steinberg, "Informed Consent: Ethical and Halakhic Considerations," *The Jewish Law Annual Volume* 7 (1998): 138-52, especially 147-8, and idem., *Encyclopedia of Jewish Medical Ethics*, trans. Fred Rosner (Jerusalem, 2003), 554-60.

when one's life is in danger. Although one could suggest that the case presented in the Talmud is more expansive, as people who damage others in non-life threatening ways are obligated to compensate for medical expenses, the classical sources do not extend the obligation to non-life saving measures.

Ve-Hai Bahem/ Pikuah Nefesh

The most straightforward source for the obligation to seek medical help in life-threatening situations is the general obligation to maximize one's longevity, a principle so basic that it overrides all other commandments with the exception of the three cardinal sins.³¹ Although *Tur* and R. Yosef Karo also cite "*ve-rapo yerape*," both assume that the obligation fundamentally stems from *pikuah nefesh*.³² They reference the classical discussions of the obligation to save human life, including the rule that it overrides Shabbat, and explicitly use the rhetoric from those discussions.³³ While R. Karo only explicitly derives an obligation for doctors to provide life-saving treatment, calling any doctor who denies such treatment a "blood shedder," this obligation logically applies reciprocally to the patient as well.³⁴ This obligation is also linked to the prohibition against

31 This is the commonly accepted view, although some maintain that there are additional cardinal sins. See for example *Ketubot* 19a with Ramban.

32 *Tur*, *Yoreh De'ah* 336:1; *Beit Yosef* ad loc.; *Shulhan Arukh*, *Yoreh Deah* 336:1.

33 Ibid., citing discussions in *Yoma* 84b-85a. See also *Yimei Shelomo*, *Hilkhot Issurei Biah* 21:31.

34 See Rambam, *Hilbot Yesodei Ha-Torah* 5; *Shulhan Arukh*, *Orah Hayim* 328 and *Yoreh De'ah* 157. I would suggest that this is the simplest understanding of these sources. However, it is possible that there is a specific prohibition against giving up one's life in circumstances when God commanded not to. The parameters of that *halakhah* is also subject to a dispute among the medieval decisors. See my article, "*Bi-Inyan Ya'avov Ve-Al Yehaveg*," *Beit Yitzhak* 41 (2010), 495-500, regarding the position of Rambam and the implications for the understanding I have suggested in the body of this text. See also *Seridei Eish* 2:35.

suicide.³⁵ This source, while it provides a clear responsibility on the patient, is limited to life threatening situations.

Rak Heshamer Lekha... Ve-Neshmartem Me'od Le-Nafshotekhem

Two verses in *Devarim* constitute the most popularly cited source for the obligation to maintain one's health. The simple meaning of these verses has nothing to do with physical health; rather, Moshe, in describing the revelation at Sinai, warns the Jewish People that they should not create any image of God, as He has no image:

Only take heed to yourself, and keep your soul diligently (*rak heshamer lekha u-shemor nafshekha meod*), lest you forget the things which your eyes saw, and lest they depart from your heart all the days of your life; but make them known to your children and your children's children – the day that you stood before the Lord your God at Horev... And the Lord spoke unto you out of the midst of the fire; you heard the voice of words, but you saw no form – only a voice. And He declared to you His covenant, which He commanded you to perform, even the ten commandments; and He wrote them upon two tablets of stone. And the Lord commanded me at that time to teach you statutes and ordinances, that you might do them in the land which you go over to possess it. Therefore, **take good heed of yourselves (*ve-nishmartem me'od le-nafshotekhem*)** – for you saw no manner of form on the day that the Lord spoke to you at Horev out of the midst of the fire – lest you deal corruptly and make a

³⁵ See also *Mishneh Halakhot* 13:210. See Rambam, *Hilkhot Evel* 11:1; *Shulkhan Arukh, Yoreh De'ah* 345:1 for consequences of this sin.

graven image, the form of any figure, the likeness of male or female, the likeness of any beast that is on the earth, the likeness of any winged fowl that flies in the heaven, the likeness of anything that creeps on the ground, the likeness of any fish that is in the water under the earth; and lest you lift up your eyes unto heaven, and when you the sun and the moon and the stars, even all the host of heaven, you be drawn away and worship them, and serve them, which the Lord your God has allotted unto all the peoples under the whole heaven.³⁶

As the commentaries point out, the verses taken at face value is a generic warning to remember the Torah that specifically emphasizes the prohibition of creating images that are meant to represent God.³⁷ The verse of “*ve-nishmartem me’od le-nafshotekhem*” is taken by the *mishnah* to warn people not forget what they have learned.³⁸

The interpretation of this verse that derives an obligation to protect one’s health is found in a peculiar passage in the Talmud:

Our Rabbis taught: It is related that once when a certain pious man was praying by the roadside, an officer came by and greeted him and he did not return his greeting. So he waited for him till he had finished his prayer. When he had finished his prayer, he said to him: Fool! Is it not written in your Law: “Only take heed of yourself and keep your soul diligently (*rak*

36 *Devarim* 4:10-19, mildly altered from translation of the Jewish Publication Society (1917).

37 See, for example, Ramban ad loc. and *Hiddushei Maharsha, Berakhot* 32b, s.v. *ketiv*. See also the *Midreshei Halakhah* on this verse.

38 *Pirkei Avot* 3:9.

heshamer lekha u-shemor nafshekha me'od), and it is also written, "Take therefore good heed unto your souls (*ve-nishmartem me'od le-nafshotekhem*)? When I greeted you, why did you not return my greeting? If I had cut off your head with my sword, who would have demanded satisfaction for your blood from me? He replied to him: Be patient and I will explain to you. If you had been standing before an earthly king and your friend had come and given you greeting, would you have returned it? No, he replied. And if you had returned his greeting, what would they have done to you? They would have cut off my head with the sword, he replied. He then said to him: Have we not here then an *a fortiori* argument? If [you would have behaved] in this way when standing before an earthly king, who is here today and tomorrow in the grave, how much more so I when standing before the supreme King of kings, the Holy One, blessed be He, who endures for all eternity?! Forthwith the officer accepted his explanation, and the pious man returned to his home in peace.³⁹

Curiously, the proposition that these verses obligate one to protect his own life is offered by a Roman officer, not a member of the rabbinat. It is in fact unclear whether any member of *Hazal* accepts it.

In another passage, the Talmud claims that cursing oneself is a violation of "*rak heshamer*."⁴⁰ In their opening question, Tosafot seem to understand that this passage endorses the understanding of the Roman officer, but Tosafot's conclusion is less clear.⁴¹ Hatam Sofer challenges the conclusion that an

³⁹ *Berakhot* 32b-33a.

⁴⁰ *Shevuot* 36a.

⁴¹ *Ibid.*, s.v. *u-shemor*. This how R. Shmuel Wosner reads Tosafot, and

obligation to maintain one's health can be derived from this verse.⁴²

Most *Rishonim* are silent regarding their understanding of this passage, but few of them mention this verse as the basis for the obligation. Since many *Rishonim* explicitly refer to other sources, it is plausible that they did not take this interpretation of the verses as authoritative.

However, there are many significant authorities who did accept this source. Among the *Rishonim*, Rambam,⁴³ Rashbash,⁴⁴ and Tashbetz⁴⁵ accept the verse of *ve-neshmartem* as a valid source.⁴⁶ *Peri Megadim* uses this source to explain why it is foolish to avoid violation of Shabbat to save one's life,⁴⁷ and many other *Aharonim* mention it as well.⁴⁸ Among modern *Posekim*, R. Moshe Feinstein cites "*hishamer lekha*" as a possible source for forbidding smoking,⁴⁹ and R. Ovadiah Yosef accepts Rambam's position.⁵⁰ R. Eliezer Yehudah Waldenberg argues forcefully for this position in many of his responsa, as we will

he rules in accordance with this understanding; see *Teshuvot Shevet Ha-Levi* 6:111. See also *Torah Temimah, Devarim* 4:9 note 16; *She'arim Ha-Metzuyanim Be-Halakhah, Berakhot* 32b, s.v. *katuv*; *Mitzpeh Eitan, Mayim Hayim*, and *Hiddushei Rabbi Elazar Meir Horowitz* ad loc. for an analysis of the parameters of Tosafot. The general assumption is that cursing oneself should be forbidden because it is actually life-threatening, and the problem is therefore less extensive than the issues of *havalah* raised by Tosafot.

42 See, for example, *Hiddushei Hatam Sofer, Shevuot* 36a, s.v. *ve-amrinan*. See also R. Yehuda Amital, *Risei Tal* (Alon Shevut, 2005), 268-76.

43 *Hilkhot Rotze'ah U-Shemeriat Ha-Nefesh* 11:4-5.

44 *Teshuvot Rashbash* 1.

45 *Zohar Ha-Rakia, Azharah* 118.

46 See *Torah Temimah, Devarim* 4:9 note 16, who points this out and challenges the view of Maharsha, cited in note 36 above.

47 *Eshel Avraham, Orah Hayim* 328:6.

48 See the famous responsum of *Noda Be-Yehuda, Yoreh Deah* 2:10, who uses this source as one reason people should not hunt. See also *Yimei Shelomo, Hilkhot Issurei Biah* 21:31; *Keter Torah al Minyan Ha-Mitzvot* 6; *Teshuvot Rabaz, Even Ha-Ezer* 2:19.

49 *Iggerot Moshe, Hoshen Mishpat* 2:76.

50 *Yabia Omer*, vol. 1, *Yoreh Deah* 8; vol. 2, *Even Ha-Ezer* 7; *Yehaveh Da'at* 5:39.

see below.⁵¹ In most sources, it seems that the verses are understood to create a biblical obligation. *Levush* is understood by some as treating these verses as an *asmakhta*,⁵² but the accuracy of this interpretation is questionable.⁵³

What are the parameters of the obligation generated by these verses? After discussing the obligation to build a *ma'akeh*, a parapet on one's roof to prevent anyone from falling, Rambam writes in *Hilkhot Rotze'ah*:

Similarly, it is a positive *mitzvah* to remove any obstacle that could pose a danger to life and to be very careful regarding these matters, as the verse states (Deuteronomy 4:9): "Beware for yourself and guard your soul." If a person leaves a dangerous obstacle and does not remove it, he negates the observance of a positive commandment and violates the negative commandment: "Do not cause blood to be spilled."

Our Sages forbade many matters because they involve a threat to life. Whenever a person transgresses these guidelines, saying: "I will risk my life, what does this matter to others," or, "I am not careful about these things," he should be punished with lashes for rebelliousness.⁵⁴

Rambam goes on to list several formal rabbinic prohibitions that were set up in light of this obligation.⁵⁵ These

51 See *Tzitz Eliezer* 3:16, 8:15, 9:17, 10:25, and others.

52 *Levush Ateret Zahav Yoreh Deah* 116:1; *Tevuat Shor* 13:2; *She'arim Ha-Metzuyananim Be-Halakhah*, n.41 above.

53 See *Levush, Hoshen Mishpat* 426:11 and R. Amital, n.42 above.

54 *Hilkhot Rotze'ah U-Shemirat Ha-Nefesh* 11:4-5. For extensive discussions of this passage and the problems with it, see *Minhat Hinukh* 546.

55 While Rambam explains that these are rabbinic prohibitions, it seems that the basic prohibition is biblical in nature. The nature of the general prohibition is amorphous, however, and the rabbis therefore had to formal-

prohibitions are also listed in *Shulhan Arukh*.⁵⁶

While the *pesukim* in *Devarim* have clearly been adopted as a source prohibiting endangering one's life, it does not seem to obligate people to maintain their general health.

Logic

Rambam opens the fourth chapter of *Hilkhot De'ot* as follows:

Since maintaining a healthy and sound body is among the ways of God – for one cannot understand nor have any knowledge of the Creator if he is ill – therefore, he must avoid that which harms the body and accustom himself to that which is healthful and helps the body become stronger.⁵⁷

ize some expressions of it. For other examples of this structure, see *Hilkhot Avel* 14:1. This understanding is adopted by R. Asher Weiss, *Minhat Asher, Devarim* 7. See, however, *Tzitz Eliezer* 15:39 and R. Amital, n.42 above.

56 *Hoshen Mishpat* 427:9-10; *Yoreh De'ah* 116. David Fried suggested to me that there is a difference between Rambam and *Shulhan Arukh*. The former presents what appears to be an exhaustive list of the rabbinic prohibitions generated by this obligation; anything else might constitute a generic biblical prohibition, but not a formal rabbinic one in addition. In contrast, *Shulhan Arukh*, after listing the obligations, adds “*ve-kayotzei ba-hem*,” “and those like them,” implying that the rabbinic prohibitions listed are only examples; doing anything else that could be dangerous is similarly a formal prohibition on a rabbinic level. While I am not convinced of this reading, the point is worth raising.

57 *Hilkhot Deot* 4:1. For another philosophical perspective on the obligation to maintain optimal health, see R. Avraham Yitzhak Ha-Kohen Kook's celebrated passage on *hitamlut* in *Orot Ha-Kodesh*, 34. For a full discussion of R. Kook's position, see my upcoming article, “R. Kook on *Be-Khol Derakhekha Da'ehu*: Embracing the Totality of Human Experience” in *Gesher*. For further analysis of R. Kook's position, see R. Dr. Beni Gesundheit, “Permission Given to a Doctor to Heal,” 55-96. See also *Tzitz Eliezer* 17:2, including his citations of *Hazon Ish*, who develops a philosophy in which not taking advantage of medical treatment is a rejection of the greatness of God's world.

Rambam argues that serving God requires that people be healthy enough to fulfill their obligations. R. Yisrael Meir Ha-Kohen, known by the title of magnum opus, *Hafetz Hayim*, argues slightly more forcefully that since people are God's slaves, they cannot harm their bodies and hinder their ability to serve God.⁵⁸ These arguments, as opposed to the sources brought above, obligate people to maintain their general health.

Although it might seem that logical argument should not be able to generate obligations of biblical force, the Talmud often argues that if something is self-evident logically, a biblical source is unnecessary.⁵⁹ In some instances, a logical argument

58 *Hafetz Hayim, Likutei Amarim*, 13. For another version of this argument, see *Be'er Ha-Golah, Hoshen Mishpat* 427:90.

The question of whether or not human beings own their own bodies is subject to dispute. See R. Shlomo Yosef Zevin, *Mishpat Shylock Le-Or Ha-Halakhah* (Tel Aviv, 1957), 318-35; R. Shaul Yisraeli, "Takrit Kiviyah Le-Or Ha-Halakhah," *Ha-Torah Ve-Ha-Medinah* 5-6 (1953-1954): 71-113. Dr. Avraham Steinberg believes this is a central question in the Halakhic discussions of informed consent. Lord Immanuel Jacobovits similarly uses the argument that people do not own their bodies as a basis for the obligation to maintain one's health and for the lack of a requirement for informed consent:

In Jewish thought and law, human life enjoys an absolute, intrinsic and infinite value. Man is not the owner of his body but merely its custodian, charged to preserve it from any physical harm and to promote its health where this has been impaired. This principle has both positive and negative applications. It turns healing where necessary into a religious duty, devolving on patient and doctor alike. Conversely, neither patient nor doctor has the right to refuse receiving or rendering such medical aid as is essential for the preservation of life and health. This principle therefore overrides such personal freedoms as may conflict with it, just as the obligation to prevent a suicide (or murder) attempt, by force if necessary, annuls the right of freedom to choose (or inflict).

See Immanuel Jacobovits, "Some Modern Responsa on Medico-Moral Problems," in *Consent in Medicine; Convergence and Divergence in Tradition* (London, 1983), 77-78.

59 See, for example, *Pesahim* 21b; *Ketubot* 22a.

is treated as if it were written in the text itself. For example, the Talmud derives that murder is one of the cardinal sins using the argument “*Mi yiyeimar de-dama didakh sumak tefei, dilma dama di-hu gavra sumak tefei*,” “Who says that your blood is redder; perhaps that person’s blood is redder.” It then compares murder to adultery and derives that adultery must also be a cardinal sin.⁶⁰ Thus, the Talmud applies a *gezirah shavah* to a *sevarah*, as if the latter was written in the text itself.⁶¹ While it is possible that there are different levels of logical arguments, some of which are more powerful and some of which are less, in principle, a *sevarah* is not weaker than *derashah*.⁶²

Nevertheless, it seems that there should be several distinctions between laws built on biblical verses and those derived from logic. First, while there is a dispute in the Talmud as to whether the rationales for *mitzvot* serve as juridical principles (“*darshinan ta’ama de-kra*”),⁶³ it seems obvious that when the basis of a law is logic, the law only applies when the logic holds true.⁶⁴ Accordingly, if there were a *gezerat ha-katuv* that

60 *Sanhedrin* 74a.

61 See the introduction of Mahartz Chajes to the Talmud, 1:14. The place of logic in the adjudication of Torah laws is complex. For a thorough discussion, see Netanel Weiderblank, “*Tafkid Ha-Sevara Be-Keviat Dinim De-Orayta*,” *Beit Yitzhak* 40 (2009), 405-425. Particularly relevant are his citations of *Tosafot Ha-Rosh*, *Bava Kama* 90, s.v. *mahu*, and *Hiddushim Ha-Meyuhasim Le-Ha-Rashba*, *Menahot* 75b, s.v. *pitot*.

62 Presumably, this point would be challenged by R. Elhanan Wasserman, who assumes that the greater number of words allotted to a topic in *Torah She-Bikhtav* provides it with more normative power, thereby explaining why *halkahot* that are *de-orayta* but not written in the Torah have certain leniencies. See *Kuntres Divrei Soferim*, 1.

63 See *Sanhedrin* 21b and *Bava Kama* 115a. The extent of this argument is not clear, nor is the legal conclusion. For a fascinating discussion of the limitations of this dispute, see Weiderblank, n.61 above.

64 Some have argued that in the case of murder, the resulting law supersedes the logic; thus, even if it could be determined that one person’s “blood is redder,” the prohibition would still apply. See, for example, *Kesef Mishnah*, *Hilkhot Yesodei Ha-Torah* 5:5; *Even Ha-Azel*, *Hilkhot Yesodei Ha-Torah* 5:5; *Teshuvot Abiezer*, vol. 2, *Yoreh De’ah* 16. However, this conclusion may be based on the assumption that “*mi yiyeimar*” is not an actual question,

one must be as healthy as possible, then it would be forbidden to do anything that could shorten one's life, even if that action would allow the person to learn more Torah or serve God with more energy. However, if the obligation is to maximize one's ability to serve God, physical health could be sacrificed in favor of peace of mind that would enable proper worship. Presumably, this would have limits, as a wholly unhealthy person is incapable of engaging in the full regiment of *avodat Hashem*. Thus, I would argue that the obligation derived from logic should be formulated as an obligation to live a healthy lifestyle, rather than a prohibition to do things that are not maximally healthy. For example, it might obligate one to maintain a generally healthy diet, but not forbid him from eating a specific unhealthy item.

A second possible distinction relates to the question of coercion. As mentioned above, R. Yaakov Emden maintained that people can be forced to undergo life-saving operations on the basis of "*ve-rapo yerape*." Indeed, in general, one can be forced to perform positive commandments.⁶⁵ Can one be forced to keep a commandment that is derived from logic? I believe that there are three reasons that this is impossible. The first is practical – if it is true that logical commandments are more malleable because they only pertain when the logic holds true, then it is nearly impossible for an outsider to conclusively argue that the law is being violated. Second, the obligation seems

but an ontological statement of value or a rhetorical question; it is logically impossible for people to determine the value of other people, and we are therefore by definition constrained from making judgment calls about the comparative value of life. (Rashi, in contrast, does not appear to read the *gemara* this way.) Regardless, there are many other examples of logical deductions in which the resulting law would clearly only apply in cases in which the logic applies. Examples include the logic of *migo*, which is limited in circumstances in which litigants are likely to lie, and *ha-motzi mei-havero*, which is not applied in circumstances in which it is likely that the *motzi* is the original owner (such as in cases on *hazakah*).

65 See, for example, *Hullin* 110b. See also *Ketzot Ha-Hoshen* and *Netivot Ha-Mishpat, Hoshen Mishpat* 3, for discussion of whether this is a function of the courts or not.

to prescribe a lifestyle, while any given act of eating unhealthy food is not a formal prohibition. Third, on a fundamental level, it seems that coercion is a function of formal commandments and does not apply to all commandments. While logic may be binding, it is less formal and may not be subject to coercion the way some formal commandments are.⁶⁶

Combinations

While Rambam appears to distinguish between the obligation to avoid danger – based on “*hishamer lekha*” – and the obligation to maintain one’s health – based on logic – some *Aharonim* do not draw this distinction. For example, *Kitzur Shulhan Arukh* cites the passage from *Hilkhot De’ot* in the beginning of one *halakhah*, but justifies it with “*ve-neshmartem*,” thus ascribing the force of a biblical verse to that which Rambam derived from logic.⁶⁷ Similarly, R. Yisrael Meir Ha-Kohen combines three sources for the prohibition to smoke – the logical argument that one cannot serve God when he is unhealthy, the verse of “*ve-neshmartem*,” and the prohibition of *havalah*, harming oneself.⁶⁸ *Sefer Issur Ve-Heter* similarly combines *se-*

66 It seems that coercion is limited to a class of commandments termed “*mitzvot aseï she-ein matan sekharah bi-tzidah*,” commands whose reward is not explicit in the Torah; see *Ketzot Ha-Hoshen* and *Netivot Ha-Mishpat*, *ibid*. Commandments that are derived from logic, whatever their status may be, are certainly not in this category. See *Kuntres Divrei Soferim*, 1, for his assessment of what distinguishes *mitzvot aseï ha-ketuvim ba-Torah* and *Halakhah Le-Moshe Mi-Sinai*, who is clearly working with a parallel structure.

67 *Kitzur Shulhan Arukh* 32:1.

68 *Sefer Likkutei Halakhot* 13. The Talmud, *Bava Kama* 90b-91b, disputes whether there is a prohibition to damage oneself. While Rambam (*Hilkhot Rotze’ah* 5) and *Shulhan Arukh* (*Hoshen Mishpat* 420:1) maintain that the prohibition exists, this view is challenged by *Tur* (*Hoshen Mishpat* 420), citing Ramah, and *Shitah Mekubetzet* (*Bava Kama* 91a, s.v. *Rav Hisda*). *Havot Yair* 163 seems to imply that the basis of the prohibition to damage oneself is the verse of “*ve-nishmartem*,” but this seems to be a typographical error, as the verse cited is “*u-shemartem le-nafshotekhem*,” which does not exist.

Because this source for the obligation to maintain one’s health is not cited by other classical sources, I have not discussed it at length and have sufficed with a passing reference. See, however, *Tosafot*, *Shevuot* 36a, s.v. *u-shemor*,

vara, the prohibition of suicide, and the obligation of “*ve-hai ba-hem*” as the sources for the obligation to maintain one’s health.⁶⁹

R. Eliezer Yehudah Waldenberg was asked many halakhic questions related to medical practice in his role as rabbi of Shaare Zedek Medical Center in Jerusalem. Throughout his responsa, he uses many halakhic and rhetorical arguments in favor of the obligation to maintain health. For example, R. Waldenberg was asked whether children should be forced en masse to receive eye exams.⁷⁰ Throughout his responsum, he cites the logical argument of Rambam as well as some of the biblical sources cited above, which he builds on in many other responsa to establish that it is an obligation to ensure that one’s eyes are healthy. He then argues that R. Yaakov Emden’s position that people can be coerced to accept life-saving treatment should require coercive actions to force people to improve their health even in non-life saving circumstances.

The move from the obligation to save one’s life to an equivalent obligation to maintain one’s health is only possible if one rejects the distinction that is apparent in Rambam.⁷¹ Indeed, it seems to me that the rejection of this extreme position by most *Posekim* constitutes recognition that these two obliga-

who seem to assume that this should be a valid source; it is not clear what the status of this argument is in their conclusion. See also *Teshuvot Shevet Ha-Levi* 6:111 and *Teshuvot Ve-Hanhagot* 1:316. R. Mordechai Willig told me in a private conversation that the application of this principle to smoking, the original context of R. Yisrael Meir Ha-Kohen’s discussion, is faulty, as there is no formal immediate damage. Nevertheless, he still maintains that smoking is prohibited.

⁶⁹ *Sefer Issur Ve-Heter* 60 of R. Yonah ben Yisrael Ashkenazi (a student of R. Yisrael Isserlin, author of *Terumat Ha-Deshen*). It is unclear whether these prohibitions overlap or combine.

⁷⁰ *Teshuvot Tzitz Eliezer* 15:40.

⁷¹ This conclusion assumes that R. Waldenberg did not believe that eye exams are considered life-saving, which is possible given that Talmud’s equation between blindness and death (*Nedarim* 64b) and the statement that eye injuries are presumed to be life-threatening (*Avodah Zarah* 28b). R. Waldenberg does not raise this point, however.

tions are in fact distinct.⁷²

It should be noted that this fundamental distinction seems to be recognized by R. Waldenberg himself, who notes that the passage in *Hilkhot De'ot* is more expansive than the passage in *Hilkhot Rotze'ah* and that avoidance of danger can be coerced, while maintaining health cannot.⁷³ However, he does not set up clear differences, and in the responsum cited above, he ignores the distinction entirely.

Other Sources for the Obligation to Treat Patients

It is notable that other sources are provided as well for the *mitzvah* to treat patients who ask for treatment. For example, based on a Talmudic discussion,⁷⁴ Rambam,⁷⁵ Ramban,⁷⁶ *Tur*,⁷⁷ and *Shulhan Arukh*⁷⁸ suggest that this is based on “*ve-hashevoto lo*,” the obligation to return lost objects to their owners, which includes their life and their health. R. Waldenberg argues that treating patients fulfills the *mitzvah* of “*ve-ahavta la-re'akha kamokha*,” loving your fellow as yourself.⁷⁹ These obligations would apply to all treatments, life-saving or not, as one must return objects of all value⁸⁰ and kindness is not limited to life-saving situations.⁸¹ However, since these obligations

72 While *Posekim* have not explicitly presented the arguments that I have, no *Posek* has argued that coercion should be expanded as far as *Tzitz Eliezer*. See, for example, *Iggerot Moshe, Hoshen Mishpat* 2:73, 2:74; *Nishmat Avraham* 155:2, citing R. Shlomo Zalman Auerbach.

73 *Tzitz Eliezer* 15:39.

74 *Sanhedrin* 73a; *Bava Kama* 81b; see also *Sifri, Devarim* 223.

75 *Perush Ha-Mishnayot, Nedarim* 4:4. See also *Hilkhot Nedarim* 6:8. For an interesting discussion of Rambam's position, see *Teshuvot Yabel Yisrael* 49.

76 *Torat Ha-Adam, Sha'ar Ha-Meivush, Inyan Ha-Sakanah*.

77 *Tur, Yoreh Deah* 336.

78 *Shulhan Arukh* 336:2.

79 *Tzitz Eliezer* 15:40.

80 Although the context in the original literature refers only to life-saving situations, I see no reason to limit it.

81 The question of whether one should apply these categories when the patient refuses treatment relates to the broader discussion of informed consent in Halakhah, which is beyond the scope of the present article. See n. 58 above.

apply only to a treating doctor and not to a potential patient, I have not discussed them at length in this article.⁸²

Shomer Peta'im Hashem

The verse, “*shomer peta'im Hashem*,” “*Hashem* guards the fools,” has been cited to indicate that individual actions that might, in the aggregate, lead to one’s death are not prohibited. *Binyan Tzion* argues that we are more lenient regarding acts that are dangerous in the long term than regarding immediate dangers, which are prohibited due to the sources cited above. Accordingly, any action that is not dangerous at the moment is permitted.⁸³ Thus, while it may be true that eating high-cholesterol foods consistently may lead to heart problems, eating one piece of cake is permitted.⁸⁴

“*Shomer peta'im Hashem*” seems to create an obligation to live a lifestyle that is considered normally healthy and safe, although the exact parameters of the obligation are unclear. Some formulations of this principle seem similar to the formulation we have suggested for the obligation generated by Rambam’s logic. According to *Binyan Tzion*, for example, one would have to resort to logic to decide the parameters of what is permitted and what is not.

R. Yehuda Amital suggests two explanations of the principle of “*shomer peta'im Hashem*” –either it legally defines the situation as not dangerous or it allows people to engage in

82 R. Mordechai Willig suggested to me that the source of “*ve-hashevoto lo*” could indeed apply to the patient as well, but I have not found this position suggested by any other authorities.

83 See *Binyan Tzion* 137 and the discussion in *Yevamot* 12b, which drives his position.

84 This argument has been advanced to permit smoking as well, albeit reluctantly. See, for example, *Iggerot Moshe, Yoreh De'ah* 2:49; *Teshuvot Ve-Hanhagot* 1:316. R. Chaim Jachter, *Gray Matter* (New Jersey, 2008), vol. 3, 15-18, notes that most *Posekim* have ruled that smoking is prohibited completely. R. Mordechai Willig suggested to me that one should distinguish between smoking and eating unhealthy foods – defining the former as an objective forbidden act but not the latter – based on our distinction between life endangering acts and unhealthy lifestyles.

somewhat dangerous situations.⁸⁵ He suggests that if one maintains that the prohibition to endanger oneself is rabbinic, it is easier to argue that it is permitted to endanger oneself under certain circumstances. If the prohibition is biblical, however, it is easier to explain that certain activities are legally not considered dangerous.

Conclusion

The existence of an obligation to maintain one's health seems to have been accepted by halakhic authorities, although they provide different sources and reasons for the obligation. Although, as I have argued, specific sources have been misunderstood and the implications that have been drawn have sometimes been mistaken, the general principle cannot be denied. As R. Yehiel Michel Epstein writes, "*ke-ilu bat kol yatza di-khen halakhah*" – it is as if a heavenly voice declared that this is the law.⁸⁶ Thus, while the obligation may be hard to pin down, it is hard to deny that, as Rambam writes, "Maintaining a healthy and sound body is among the ways of God,"⁸⁷ and is part of being an *oved Hashem*. However, to fully understand the implications of this obligation, one must understand its source and what it does and does not entail.

85 See n.42 above. R. Amital uses this distinction to explain a dispute among *Rishonim* about a passage in *Yevamot* 12b, *Ketubot* 39a, and *Niddah* 45a. He suggests that the latter formulation might permit smoking, although he does not present a conclusive position; see 268, n.1.

86 See, for example, *Arukh Ha-Shulhan*, *Orah Hayim* 34:3, 128:64, 345:18; *Yoreh De'ah* 275:13.

87 *Hilkhot Deot* 4:1.

ARI FRIEDMAN

Body Ownership and Non-Altruistic Organ Donation

Introduction

Advancements in medical technology inevitably lead to novel halakhic questions necessitating re-examination of classical sources to provide guidance for new complexities. In recent years, the issues of surgical risk, refusal of care, body modifications, and the donation and selling of organs have moved to the forefront of halakhic literature. While these issues appear to be diverse at first glance, upon closer examination, it is apparent that a common halakhic issue lies at the core of all of them: To what extent does a Jew own his body?¹

While secular norms may dictate that a person has clear possession over his body,² the halakhic approach to this question is complex, and sweeping classifications are therefore difficult to make. In fact, there appear to be conflicting sources in halakhic literature regarding the degree of a Jew's ownership of his body. On the one hand, there are several prohibitions against performing modifications to one's body, such as shav-

1 While the issue of body ownership would theoretically apply to a non-Jew as well, most of the halakhic sources we will examine deal exclusively with Jews. Analysis of how these laws would apply to a non-Jew is beyond the scope of this paper.

2 See Peter Vallentyne, "Libertarianism," *The Stanford Encyclopedia of Philosophy* (Fall 2010); Edward N. Zalta, <http://plato.stanford.edu/archives/fall2010/entries/libertarianism/>.

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ing parts of the head³ and tattooing oneself,⁴ but there is a positive commandment to alter one's body through *brit milah*.⁵ There is a general prohibition against endangering one's body in any way,⁶ but at the same time, a Jew is granted a certain degree of autonomy over his body, as many body modifications are permitted. Indeed, a Jew is even granted the ability to sell his body into slavery⁷.

This article will examine a few key issues that will serve as examples to facilitate the discussion. The issues of body modifications, in particular the permissibility of plastic surgery and the question of endangering one's life, will be analyzed in a more perfunctory manner, focusing on the theological implications of the principal halakhic decisions. The primary focus of our discussion of the issue of body ownership will be centered on the halakhic literature regarding the permissibility of donating – and, more specifically, selling – human organs.

Body Modifications

There are two distinct categories of body modifications forbidden by the Torah – temporary alterations and permanent changes.

While the prohibitions against temporary modifications may initially seem to indicate that the Jew lacks ownership – and therefore control – over his body, this conclusion is not definitive. Thus, while the Torah forbids a man to shave certain parts of his head, as noted above, this prohibition does not necessarily indicate that a Jew lacks ownership of his body and therefore cannot choose how he to modify its appearance. The fact that this prohibition applies exclusively to men – and is thus one of the only negative commandments that do not

3 *Vayikra* 19:27; Rambam, *Mishnah Torah, Hilkhhot Avodah Zarah* 12:5.

4 *Vayikra* 19:28; Rambam, *Mishnah Torah, Hilkhhot Avodah Zarah* 12:11.

5 *Vayikra* 12:3; Rambam, *Mishnah Torah, Hilkhhot Milah* 1:1.

6 *Devarim* 4:15; Rambam, *Mishnah Torah, Hilkhhot Hovel U-Mazik* 5:1.

7 *Vayikra* 25:39; Rambam, *Mishnah Torah, Hilkhhot Avadim* 1:1.

apply to women⁸ – may indicate that it does not reflect the Torah's perspective on one's ownership of his body at all. After all, why should there be a difference between the ownership women have over their bodies as opposed to men? It is therefore likely that this prohibition does not indicate a lack of body ownership; rather, there must be a spiritual reason for the prohibition that applies only to men.⁹

Similarly, the prohibitions against imitating a distinctly non-Jewish hairstyle¹⁰ and the prohibition for a man to color his hair¹¹ are not relevant to the discussion of body ownership, as they are forbidden for external reasons – to restrict interaction with idolaters or to safeguard against sexual impropriety.¹²

Two types of permanent body modifications are discussed in the halakhic literature – tattoos and cosmetic surgery. The biblical commandment prohibiting permanent etchings on the skin certainly seems to imply that a Jew's body is not his possession, and he therefore lacks the right to modify it. However, as argued above, this prohibition may instead reflect the protection of a spiritual concept;¹³ the question of body ownership may thus be entirely irrelevant.

Modern day discussion of the permissibility of cosmetic surgery has, in fact, focused on the extent of a Jew's ownership of his body. R. Moshe Feinstein permits cosmetic surgery for aesthetic reasons when an external factor – such as suitability for marriage – makes such a modification prudent.¹⁴ The implication of this ruling is that a Jew does have ownership of his body, to the extent that he is allowed to alter it for the

8 *Kiddushin* 29a; Rambam, *Mishnah Torah, Hilkhot Avodah Zarah* 12:2.

9 For an example of one such reason, see *Zohar Idra Rabba, Parshat Nasso*, 141a.

10 *Vayikra* 20:23; Rambam, *Hilkhot Avodah Zarah* 11:1.

11 This prohibition is included in the proscription of men wearing women's garments; see Deuteronomy 25:5; Rambam, *Hilkhot Avodah Zarah* 12:10.

12 The question of the affect of societal norms on the application of these laws is beyond the scope of this paper.

13 See Seforno, *Vayikra* 19:27-29, for an explanation along these lines.

14 *Iggerot Moshe, Hoshen Mishpat* 2:66.

sake of a subjective value. R. Ovadia Yosef appears to go even further, permitting cosmetic surgery that only serves to make a married woman “more attractive to her husband” (*kedei le-hithabev el ba’alah*), and serves no clear “*mitzvah* purpose.”¹⁵ R. Eliezer Waldenburg, however, reaches a different conclusion in his responsa.¹⁶ He cites the opinion of the *Sha’arei Yitzhak*, who maintains that the permission given to doctors to heal is limited to procedures that will fix a new problem; it does not extend to those that will improve a natural state of being that poses no medical risk. Accordingly, R. Waldenburg rules that there is absolutely no permission for a person to perform cosmetic surgery; a Jew is forbidden to perform such permanent modifications to his body and should instead rest assured that his natural appearance is the correct one.¹⁷ The implication of this ruling seems clear – a Jew does not have ownership over their body, and is therefore prohibited from making permanent modifications to it.

Given the debate on this matter, the question of the permissibility of cosmetic surgery does not clearly indicate the degree to which a Jew owns, and therefore controls, his body.

Endangering One’s Life

The Torah’s directive, “Only guard yourself and guard your life carefully,”¹⁸ forbids a Jew from engaging in any action

15 *Yabia Omer*, vol. 8, *Hoshen Mishpat* 12.

16 *Tzitz Eliezer* 11:41.

17 While R. Waldenburg argues with the *Sha’arei Yitzhak*’s conclusion forbidding fertility treatments, as he maintains that the importance of bringing children into the world is an overriding factor, he uses the *Sha’arei Yitzhak*’s view as basis to forbid cosmetic surgery. R. Ovadia Yosef discusses the *Sha’arei Yitzhak* view but explicitly rejects the proscription of a Jew from seeking medical help to improve natural conditions.

18 *Devarim* 4:15.

that could endanger his life.¹⁹ The Rambam²⁰ and many other authorities²¹ write that murder is prohibited because “the soul is not the possession of the one killed... Rather, it is in the possession of God.” This explanation would apparently apply to the prohibition of endangering one’s life as well; if even a person’s life is not his own, he certainly does not possess his body either.

It is possible, however, that this conclusion is faulty; lack of ownership of one’s life need not indicate lack of ownership over one’s body. In its attempt to find the source for the prohibition of self-injury, the *gemara*²² cites the prohibition of suicide²³ as one possibility; if one is forbidden to kill himself, then he must certainly be prohibited from injuring himself. The *gemara* rejects this source, however, arguing that “perhaps murder is different.” Thus, there may indeed be a distinction between the prohibition against taking one’s life – which he does not own – and harming his body.²⁴

Selling Organs

While questions relating to body modifications and self-injury have been relevant for many centuries, the question of the permissibility of organ donation is a relatively recent one. In our present discussion, we will focus only on issues presented by the possibility of live organ donation – that is, organ donation from live donors – thus leaving aside the complex

19 Rambam, *Mishnah Torah, Hilkhhot Rotze’ah* 11:4; *Shulhan Arukh, Hoshen Mishpat* 427:5. For the ramifications of these rulings for the question of refusal of care, see Z. Schostak, “Is There Patient Autonomy in Halakhah?,” *Assia* 2:2 (May 1995): 22-27. The general issue of refusal of care is a broad topic that is beyond the scope of this paper.

20 *Mishnah Torah, Hilkhhot Rotze’ah* 1:4.

21 See supra, n.19

22 *Bava Kama* 91b.

23 *Bereishit* 9:5.

24 The *Rishonim* debate whether the *gemara*’s distinction is only a conjecture or an absolute rejection of the comparison between suicide and self-injury.

issues presented by the determination of the halakhic moment of death and the prohibition of benefiting from a corpse.

Altruistic donation, in which the donor gives his organ to a recipient without gain on his part, is permitted by virtually all authorities. Although a person is generally prohibited from causing himself injury, in cases of *pikuah nefesh* (life-threatening situations), this prohibition is overridden; the major halakhic concern is thus the potential medical risk to the donor.²⁵ However, with advances in modern medicine, the risk of mortality as a result of kidney donation is quite minimal – below .03%²⁶ – thus making altruistic kidney donation halakhically permissible.²⁷ The authorities even discuss the possibility that there is an obligation to donate a life-saving organ, based on the view of R. David ben Zimra (Radbaz) that there is an obligation to give up one's limb in order to save someone else's life.²⁸ The consensus among the authorities, however, is that there is no obligation to be an organ donor. Nevertheless, donating an organ is deemed both admirable and a *mitzvah* for those able to do so.²⁹

Does the permissibility of altruistic organ donation indicate that one indeed “owns” his body? Since an altruistic donor is driven solely by his desire to fulfill the halakhic imperative to save another life³⁰ – with no ulterior motives such as monetary gain – it can be argued that the issue of body ownership is not relevant to the discussion. Decisions permitting or forbidding such donations are dependent more on the

25 See *Iggerot Moshe, Yoreh De'ah* 2:174:4; *Tzitz Eliezer* 10:25; *Minchat Yitzhak* 6:103.

26 A.J. Matas, S.T. Bartlett, A.B. Leichtman, and F.L. Delmonico, F. L., “Morbidity and Mortality After Living Kidney Donation, 1999–2001: Survey of United States Transplant Centers,” *American Journal of Transplantation* 3 (2003): 830–4.

27 Other types of altruistic donations present greater risk to the donor and are therefore subject to separate halakhic analysis and rulings. This discussion is beyond the scope of this paper.

28 *Responsa Radbaz* 1:12.

29 See *Yehava Da'at* 3:84.

30 *Devarim* 22:2; *Rambam, Mishnah Torah, Hilkhhot Rotze'ah* 1:14.

understandings of the conflict between the *mitzvah* of saving a life and the other halakhic factors than the issue of body ownership.

Non-altruistic donation, in which the donor receives some benefit in return for his organ, is far more complicated halakhically. Limbs and organs are clearly assigned monetary value by Halakhah; hence the laws governing interpersonal damages that require the injurer to repay the value of the injured limb or organ.³¹ But does that imply that a limb or organ can be sold for monetary reimbursement?

R. Yosef Zevin addresses this question in his halakhic analysis of Shylock's agreement to extract a "pound of flesh" in Shakespeare's *The Merchant of Venice*. R. Zevin concludes that the sale of human flesh is analogous to the sale of other forbidden objects. While such a sale is forbidden, the agreement is nevertheless binding.³² In this sense, the arrangement is similar to other cases in which the transaction is fundamentally illegal – such as situations of usury and prostitution – regarding which the consensus is that the sale remains binding.

At first glance, the legality of a sale of an organ seems to imply a degree of ownership over one's body; one may choose to do what he wishes with his body parts, even when he lacks the lofty goal of *mitzvah* fulfillment. R. Zevin's halakhic reasoning implies the opposite, however, as the fact that the sale is binding does not detract from the fact that it remains forbidden. The implication of this ruling is that selling human flesh is forbidden because a Jew's body is not a commodity that he owns; he therefore has no right to sell it, even if such a sale would be legally binding.

Having established that the sale of an organ is legally binding, even if it is not permissible, we must address whether the actions necessary for non-altruistic donation to take place

31 Rambam, *Mishnah Torah, Hilkhoh Hovel U-Mazik* 1:2.

32 *Le-Or Ha-Halakhah*, 312, 315. Although R. Zevin maintains that the sale is binding, he concludes that it is forbidden to go through with the sale to due to the prohibitions involved.

– organ removal and sale – are halakhically acceptable. This question must be addressed both on an individual and societal level. Are the individuals involved in the sale – the donor, doctor, and recipient – permitted to go through with it? What are the moral implications for society if we allow or encourage non-altruistic donations?

The primary halakhic issue pertaining to the sale of organs is the prohibition of injuring oneself. The *gemara* discusses whether or not such a prohibition exists.³³ Clearly, according to the opinion that maintains that a Jew is permitted to injure himself, there seems to be more room to permit the sale of organs. The implication of this position is that a Jew owns his body and is entitled to full control over it. While one's autonomy may be limited in the context of ending his life, the physical body appears to remain within the dominion of the individual. Accordingly, a Jew would be permitted to do whatever he sees fit with his body, including injuring himself when he is paid to do so, as long as his actions do not run contrary to other prohibitions.

R. Meir ben Todros Ha-Levi Abulafia (Ramah) maintains that the *gemara* concludes that self-injury is indeed permitted. Proof of this, he writes, is the story recorded in the *gemara* immediately following this discussion, which describes how R. Chisda would expose his legs to thorns so as not to damage his clothing.³⁴ However, R. Shlomo Luria limits the extent of what is permitted even according to the opinion allowing self-injury. R. Chisda was permitted to cause harm to himself for a constructive purpose; similarly, the opinion permitting self-injury only does so in a case in which it is done for a benefit.³⁵ R. Luria's view seems to limit the idea of self-ownership somewhat. However, his comparison between the prohibition of self-injury and the prohibition of wastefully de-

33 *Bava Kama* 91b.

34 See *Shita Mekubetzet*, *Bava Kama* 91b.

35 *Yam Shel Shlomo*, *Bava Kama* 91b.

stroying clothing³⁶ does suggest that the body is simply another possession of a person. While subject to the general prohibition against wastefulness, one's body is nevertheless under his ownership and discretion, just like any other property that he owns.

Most authorities do not accept the conclusion of the Ramah and R. Luria, ruling that it is forbidden for one to injure himself.³⁷ Furthermore, it is forbidden to injure someone at that person's behest, as he is forbidden to cause injury to himself. This is particularly relevant in the case of organ donation, as the potential donor cannot cause the injury without the assistance of the surgeon performing the operation. If no prohibition of self-injury applied to the donor, it would be permitted for the doctor to "injure" the donor and the transplant surgery could be permitted. According to the opinions that self-injury is forbidden, the doctor may not participate in any act that abets the donor's self-injury.³⁸ According to the opinions forbidding self-injury, it is prohibited even in cases of potential monetary loss and is only permissible in life-threatening situations (*pikuah nefesh*).³⁹ The important implication of this ruling is that a Jew's body differs from all other possessions, and he has no right to damage it. The exception in cases of *pikuah nefesh* does not imply a degree of body ownership, as *pikuah nefesh* is an overriding halakhic factor in many scenarios;⁴⁰ it is thus merely the exception that proves the rule. According to these opinions, the permissibility for an individual to sell his organs is dubious, as the prohibition against self-injury remains in effect even when there is compelling monetary incentive.

36 See *Kiddushin* 32a and *Shabbat* 129a.

37 Rambam, *Hilkhot Hovel U-Mazik* 5:1; Rif, *Bava Kama* 91b; Rosh, *Bava Kama* 91b; *Shulhan Arukh*, *Hoshen Mishpat* 420:31.

38 *Mishneh Halakhot* 4:346; *Iggerot Moshe*, *Hoshen Mishpat* 2:66.

39 The Rif and the Rosh cite the *mishnah*, *Bava Kama* 90b, in which R. Akiva forbids self-injury even in the case of monetary loss, but omit the discussion of the *gemara* on 91b, implying that the story of R. Chisda has no bearing on the final *halakhah* and that there are no exceptions to this rule.

40 See Rambam, *Mishnah Torah*, *Hilkhot Yesodei Ha-Torah* 5:1; *Hilkhot Shabbat* 2:1.

While Tosafot appear to concur with this conclusion, writing that self-injury is forbidden even for a purpose,⁴¹ R. Ya'akov Yehoshua Falk explains that Tosafot prohibited self-injury only in cases of limited benefit or purpose; in cases of great or pressing need (*tzorekh gadol*), self-injury is permitted.⁴² According to this view, it would seem that a person in dire financial straits would be permitted to sell an organ for reimbursement. Moreover, this position also seems to indicate that a person has a degree of body ownership, although it is somewhat limited.

Modern day decisors differ regarding the extent of the prohibition against self-injury. R. Shmuel Vosner argues against R. Falk's reasoning and maintains that any intentional self-injury is forbidden, even in cases of monetary loss; R. Chisda did not explicitly intend to injure himself in the story cited in the *gemara*. According to R. Vosner, sale of organs is therefore forbidden,⁴³ implying that a Jew does not truly own his body.

R. Yosef Shalom Elyashiv disagrees with R. Vosner's conclusion and permits the sale of organs in specific circumstances, such as pressing financial need.⁴⁴ In adopting R. Falk's interpretation, R. Elyashiv seems to grant that a Jew has somewhat restricted ownership of his body.

As we noted above, the consensus among halakhic decisors is that in the context of non-altruistic organ donation, the prohibition of self-injury is overridden, as this is a situation of *pikuah nefesh*. In the case of non-altruistic motivation for the organ donation, does *pikuah nefesh* similarly mitigate the problem of self-injury? Does the fact that there will be monetary compensation for the injury detract from the fact that the

41 *Tosafot, Bava Kama* 91b, s.v. "ela."

42 *Pnei Yehoshua, Bava Kama* 91b.

43 See J.D. Kunin, "The Search for Organs: Halakhic Perspective on Altruistic Giving and the Selling of Organs," *Journal of Medical Ethics* 31 (2005): 269-72.

44 *Ibid.*

donation will ultimately save a life? If one's primary intent is reimbursement and the intent of *pikuah nefesh* is secondary – although present – is the status of the *mitzvah* affected?⁴⁵

In a different context, the *gemara* states that one who gives charity so that his son should live is still considered to have performed the *mitzvah* of *tzedakah*.⁴⁶ Accordingly, it would seem that even if a person acts for alternative reasons, those motives do not affect the performance of the *mitzvah*. Thus, if a person sells an organ with the chief motivation of financial reparation, his act may still be classified as a fulfillment of the *mitzvah* to save a life; he is therefore not subject to the prohibitions of self-injury and selling of body parts.

Rashi, however, adds an important caveat in his explanation of the *gemara's* *tzedakah* case. In his view, the act of charity is only considered such if the giver had in mind to fulfill the *mitzvah* in addition to accruing personal benefit.⁴⁷ This view, which is codified by the *Be'er Halakhah*,⁴⁸ would limit the permissibility of the sale of organs to situations in which the donor clearly intends to save the life of the recipient in addition to the financial benefit he will receive. R. Shlomo Zalman Aurbach accordingly rules that in order for a person to be permitted to sell a kidney, he must intend to fulfill the *mitzvah* of saving a life, even if he has pressing financial needs.⁴⁹

As noted above, in addition to the halakhic concerns regarding non-altruistic organ donation on an individual level,

45 While in many realms of Torah commandments, lack of proper intent may negate the *mitzvah*, these cases assume that intention to perform the *mitzvah* is entirely absent; see *Berakhot* 13a. In our case, the donor may certainly want to save the recipient's life, even if that is not his primary motivating factor.

46 *Pesahim* 8a. The text of the Vilna edition states that such a person is a “*tzadik gamur*,” a completely righteous individual. Other versions read that the act is considered “*tzedakah gemurah*,” a complete act of charity. See Rabeinu Hananel, *Rosh Hashana* 4a. According to both versions, however, it is clear that a complete *mitzvah* was performed.

47 Rashi, *Pesahim* 8a.

48 *Be'er Halakha*, *Orah Hayim* 38:8.

49 *Nishmat Avraham*, vol. 4, *Hoshen Mishpat* 420 (3):1.

the societal affect of a permissive policy must be evaluated. A market for organs may potentially exploit the poor, who may feel compelled to sell an organ they would have otherwise not parted with. The potential growth of a black-market for organs, in which manipulation and exploitation reign, is also of concern, and ethicists have further decried the transformation of human beings into commodities as a result of the permissibility of such donations.⁵⁰ Critics fear that allowing the sale of body parts puts a price on human life, ultimately dehumanizing society.⁵¹

While the roots of these objections have halakhic basis, the selling of organs does not necessarily entail the breach of these principles. While the exploitation of the poor is a biblical prohibition,⁵² a government-regulated system tightly controlling the sale of organs may solve this problem. Government supervision ensuring that the donor is not unnecessarily coerced, is fairly compensated, and receives proper medical care may certainly resolve these issues, and may even diminish the need for a black market in which abuses are prevalent.

Moreover, while Halakhah recognizes the uniqueness of each human life,⁵³ allowing the sale of organs does not automatically result in human beings turned into commodities. It is certainly possible that Halakhah grants autonomy to individuals to use their bodies as they see fit, even though that autonomy may potentially be misused. Moreover, as noted above, Halakhah mandates monetary compensation for bodily damage, assigning financial value to human limbs and organs. Accepting compensation for one's body parts in specific settings does not detract from one's value as a human being. There is a fundamental difference between reducing the totality of a human life to a dollar value and compensating a person for

50 M. Morelli, "Commerce in Organs: A Kantian Critique," *Journal of Social Philosophy* 30: 2 (Dec. 2002): 316.

51 Donald Joralemon and Phil Cox, *The Hastings Center Report* 33:1 (Jan.-Feb. 2003): 27-33.

52 *Devarim* 24:14.

53 Rambam, *Mishnah Torah, Hilkhoh Sanbedrin* 12:3.

the pain and risk of donating an organ. Thus, Halakhah does not oppose the hiring of soldiers or firefighters, who risk their lives for monetary compensation; such reimbursement is not viewed as devaluing their lives. Indeed, the ability save human lives may be considered an overriding factor that ensures that society will not construe from these cases of compensation that human life is only of financial value.

Conclusion

The issue of body ownership in Halakhah is a complex topic, replete with intricacies and differing opinions that make sweeping conclusions difficult. Each issue we have discussed has its own particulars that have the potential to limit the implication of rulings to similar situations, preventing us from drawing broad conclusions. Nonetheless, shared principles common to all of these issues can be identified, and from these principles, conclusions regarding a general view of body ownership in Halakhah can be inferred.

The discussion is best framed if viewed between two extremes on the spectrum. On one extreme, a case of significant and purposeless self-injury is forbidden by all opinions, even those who maintain that there is no general prohibition of self-injury, implying a clear limitation to body ownership. On the other extreme, major halakhic opinions concur that minor body modifications and choices of appearance are subject to individual choice; there is thus some agreed upon degree of body ownership. The point of contention lies between these two extremes. All opinions recognize that a Jew's body ownership is limited; the question is to what extent. Accordingly, the differences of opinion regarding the permissibility of plastic surgery and self-injury are not necessarily fundamental disagreements, but rather questions of when the limitations of body ownership are imposed.

It may be suggested that this fundamental limitation agreed to by all opinions is rooted in an explicit verse. After presenting the commandment to free a Jewish slave at the Jubi-

lee, the verse states: “To Me the children of Israel are servants; they are My servants, whom I brought forth out of the land of Egypt.”⁵⁴ Just as a slave’s body is the property of his owner, the Jewish People is “owned” by God. A Jew’s responsibility is to view himself, first and foremost, as a servant of God, with his life and body dedicated to fulfilling His mandate. One who is merely a servant of a master cannot possess unlimited self-ownership.

⁵⁴ *Vayikra* 25:55.

R. DR. A. YEHUDA WARBURG

The Ownership and Market of Human Tissue

The sale of human tissue¹ shares many characteristics with standard market exchanges, and the participants in such transactions have interests that fit into the rubric of property rights. The purpose of this essay is to analyze how property interests in human tissue are treated in American law and contemporary Halakhah.

American Law

Human Tissue: Property Interest or Privacy Interest?

Recent decades have seen the emergence of a medical process known as in vitro fertilization (IVF), a form of reproductive technology that enhances an infertile couple's ability to procreate. In IVF, eggs are surgically retrieved from a woman's ovaries and fertilized in a laboratory with the sperm of her husband or a donor. Subsequently, this preembryo, or extra-corporeal embryo, is implanted into the uterine wall to bring about pregnancy. The implantation of too many preembryos may create multiple births, and couples therefore often consider cryopreservation, a procedure that freezes the unused

1 As used here, the term "human tissue" includes any organs, tissues, fluids, cells, or genetic material within the human body, except for waste products such as urine and feces.

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preembryos for future use.

IVF and cryopreservation pose questions with respect to ownership and disposition of these preembryos. Is a frozen preembryo to be viewed as property? Can preembryos be legally discarded? If they are discarded and a couple advances a subsequent claim for the frozen preembryos, do the parents have a cause of action against the clinic that physically destroyed the preembryos?

The case of *Del Zio v. Presbyterian Medical Center*² resulted from the first known attempt to perform IVF. To bypass Mrs. Del Zio's damaged fallopian tubes, the Del Zios agreed to participate in an experimental procedure in which the husband's sperm and the wife's egg were mixed. A physician at the medical center, upon becoming aware of the existence of the created preembryos, ordered them destroyed without consulting the Del Zios or their physician. The Del Zios sued for conversion³ and emotional distress due to the loss of this reproductive material. The court's instructions to the jury were that a determination for either the emotional distress claim or the conversion claim was sufficient to award damages. Consequently, although the jury awarded damages based upon the infliction of emotional distress, the judge surmised that the jury may actually have concluded that damages for the conversion claim were included in the damages awarded for emotional stress. It is thus unsurprising that some legal commentators viewed this decision as recognition of frozen preembryos as property.⁴

2 *Del Zio v. Presbyterian Medical Center*, 74 Civ. 3588 (S.D. N.Y. Nov. 14, 1978).

3 Conversion is defined as "[a]n unauthorized assumption and exercise of the right of ownership over goods or personal chattels belonging to another, to the alteration of their condition or the exclusion of the owner's rights;" *Black's Law Dictionary* 300 (5th ed., 1979).

4 Kathryn Lorin, "Alternative Means of Reproduction: Virgin Territory for Legislation," 44 *La. L. Rev.* (1984), 1641, 1670; Michelle F. Sublett, "Frozen Preembryos: What are They and How Should the Law Treat Them?," 38 *Cleveland St. L. Rev.* (1990), 585, 598-9; John Robertson, "Reproductive

A second case involving the ownership of a cryopreserved egg is *York v. Jones*.⁵ The couple in this case underwent three IVF procedures at a clinic in Virginia. After the third failure, one of the preembryos was frozen for future use. Subsequently, the couple decided to undergo treatment at a different clinic in California. Despite repeated requests from the Yorks, the Virginia clinic refused to transfer the preembryo, and the couple therefore sued in court. Although the parties had signed a cryopreservation agreement that precluded the clinic from retaining the preembryos, the clinic argued that the agreement did not allow transfer of the preembryo to another clinic. The court disagreed and noted that the pre-freeze agreement had established a bailor-bailee relationship, which imposed upon the bailee an obligation to return the bailment – that is, the preembryo – should the Yorks desire to use the preembryo to initiate pregnancy at another facility. By construing the agreement as a bailment contract, the court, following in the footsteps of *Del Zio*, clearly recognized the Yorks' property interest in the frozen preembryo.⁶

In short, *Del Zio v. Presbyterian Medical Center* and *York v. Jones* construe preembryos as property; however, the holdings fail to elucidate what this classification means. It certainly seems overly simplistic to equate body parts with tangible property or physical possessions.⁷

Technology and Reproductive Rights: In the Beginning: The Legal Status of Early Preembryos," 76 *Va. L. Rev.* (1990), 437, 459, 515-17; Judith Fischer, "Misappropriation of Human Eggs and Preembryos and the Tort of Conversion: A Relational View," 32 *Loyola of Los Angeles Review* (1999), 381, 394. Cf. Deborah Walther, "'Ownership' of the Fertilized Ovum in Vitro," 26 *Fam. L. Q.* (1992-1993), 235, 240.

⁵ *York v. Jones*, 717 F. Supp. 421 (E.D. Va. 1989).

⁶ *Ibid.*, 424, 427. In the event of divorce, the agreement provided that the ownership of the preembryos would be determined in a "property settlement."

⁷ There are certain similarities, such as theft and larceny laws, which are applicable to their misappropriation. See *ibid.*, 489; John Robertson, "Assisted Reproductive Technology and the Family," 47 *Hastings L. J.* (1996), 911, 919.

In *Moore v. Regents of the University of California*,⁸ the California Supreme Court did not directly address IVF or cryopreservation. Nonetheless, this case has potential implications for classifying preembryos as property. The court found that the plaintiff failed to have a cause of action for conversion against the physicians who used cells that had been removed from his spleen to create a cell line for commercialization without his knowledge or consent. The *Moore* court held that to support a cause of action for conversion, one must possess title to the property and expect to retain possession of it.⁹ Since Moore did not expect to retain possession of his spleen after removal, he did not have an ownership right in this body part. Numerous commentators interpret the *Moore* holding as establishing that excised human cells can never be classified as property and that research participants, such as Moore, possess no property rights in their tissue or the commercial products developed there from.¹⁰ Furthermore, society's need for biomedical research and the development of new medical products outweighs the interests of research participants, which would likely cause the biotechnology sector to flounder.¹¹

However, as Professor Radhika Rao aptly notes:

Moore is capable of at least three different constructions, all of which can be reconciled with the idea that spleens might sometimes constitute property. First, it is possible that the court's refusal to recognize Moore's conversion claim stems from the intuition that body parts can-

8 *Moore v. Regents of the University of California*, 793 P. 2d 479 (Cal. 1990), cert. denied, 499 U.S. 936 (1991).

9 *Ibid.*, 488-9.

10 Lynne Thomas, "Abandoned Frozen Preembryos and Texas Law of Abandoned Personal Property: Should There be a Connection?," 29 *St. Mary's L. J.* (1997-1998), 255, 281-4; Fischer, *supra* n.4, 404-9; E. Richard Gold, *Body Parts: Property Rights and the Ownership of Human Biological Materials* (Washington D.C., 2007), 19-40.

11 *Moore*, *supra* n.8, 495-6.

not be property so long as they are contained within a living human being. If so, the court could have recognized Moore's ownership of his spleen at the point that it was detached from his body without thereby rendering his whole person a form of property. A second possible reading is that, even if the spleen was initially Moore's property, it had been essentially abandoned by its "owner," for whom the diseased organ bore little value, and hence became capable of appropriation by another. Finally, the court implicitly may have held that body parts once removed from a person return to the public commons available to all and become a form of community property.¹²

In other words, although a spleen may not be the property of its donor, it may become the property of the medical researchers.

Thirteen years later, in *Greenberg v. Miami Children's Hospital*,¹³ the court held that not only is human tissue not the donor's property, genes are also the property of the researchers who isolated them and the hospital that was granted a patent for the isolation. Despite the differences between the *Greenberg* holding and the *Moore* holding, the common denominator is the absence of the criteria for establishing what characterizes property in regard to human tissue.

Thorough analysis of property as it relates to human tissue must include the examination of the decision in *Davis v. Davis*,¹⁴ which involved a dispute between a woman, who desired to use the couple's frozen preembryos to have a child, and

12 Radhika Rao, "Property, Privacy, and the Human Body," 80 *B. U. L. Rev.* (2000), 360, 374-5.

13 *Greenberg v. Miami Children's Hospital*, 264 F. Supp. 2d 985 (S.D. Florida, 2003).

14 *Davis v. Davis*, 842 S.W. 2d 588 (Tenn. 1992), cert. denied, 507 U.S. 911 (1993).

her husband, who opposed her use of the preembryos. Consequently, each sought custody of the preembryos in court. Although the wife initially wanted the preembryos implanted in herself, during litigation, she changed her mind and wanted to donate them to a childless couple. Unlike in *York*, the Davises had no executed written agreement providing for disposition of the preembryos in the event of a dispute or divorce. The court concluded that the frozen preembryos are neither persons nor property, but rather occupy a middle ground entitling them to “special respect” because of their potential for human life:

It follows that any interest [of the biological parents] in the preembryos in this case is not a true property interest. However, they do not have an interest in the nature of ownership to the extent that they have decision-making authority concerning disposition of the preembryos, within the scope of policy set by law.¹⁵

The *Davis* court stressed that the progenitors’ interest was “not a true property interest,” but rather entailed engaging in “decision-making authority” limited to policy considerations.¹⁶ As Professor John Robertson observes:

15 *Ibid.*, 597.

16 After arguing that the decisional authority regarding the disposition of the preembryo resides with the gamete providers, the court sought to determine how to deal with disputes between the parties. In the absence of any existing prior agreement, if either party’s intention is not ascertainable or if there is a dispute about preembryo disposition, then the court must weigh the “relative interests” of a party wishing to use or deny the other the use of the preembryos. The *Davis* court took the position that the husband’s right to avoid being a father outweighs the wife’s interest in donating the preembryos to another couple where unwanted parenthood would place a possible financial and psychological burden upon Mr. Davis. Consequently, the court awarded custody of the preembryos to the husband on the ground that “the party wishing to avoid procreation should prevail.” See *ibid.*, 604.

[A] property interest in gametes must exist, regardless of whether an action for conversion will lie. The term “property” merely designates the locus of dispositional control over the object or matter in question. The scope of that control is a separate matter and will depend upon what bundle of dispositional rights exist with regard to that object.¹⁷

For Robertson, preembryos are not to be equated with tangible objects, and, as the court stated in *Davis*, human tissue is not “a true property interest.” But ownership is not the same as sole dominion over property. Instead, property is best thought of as a “bundle of rights” possessed by individuals vis-à-vis objects, including, inter alia, the right to possess one’s property, the right to use it, the right to exclude others from us, and the right to transfer ownership by gift or sale.¹⁸ The application of the property designation to preembryos is solely to describe who has the right to make decisions about preembryo disposition,¹⁹ and the logical candidate is the gamete provider. If we afford preembryos “special respect,” this does not mean that the gamete providers are bereft of decision making regarding their preembryos. On the contrary, disposition of preembryos accorded special respect can be governed by contracts.

*Hecht v. Superior Court*²⁰ involved a dispute over custody of sperm deposited in a sperm bank by the deceased partner

17 John Robertson, “Posthumous Reproduction,” 69 *Ind. L. J.* (1994), 1027, 1038.

18 Wesley Hohfeld, “Fundamental Legal Conceptions as Applied in Judicial Reasoning,” 26 *Yale L. J.* (1917), 710, 742.

19 Robertson, *supra* n.4, 454-5, 455 n.48; Stephen Munzer, *A Theory of Property* (Cambridge, 1990), 16-17, 56. Rather than focusing on dispositional authority, Munzer argues that people do not own their bodies, but rather have limited property rights in them. Since the law proscribes consumption or destruction of one’s body, this indicates that people own their bodies in the fashion that we own a desk or a chair. See *ibid.* 41-43.

20 *Hecht v. Superior Court*, 20 Cal. Rptr. 2d 275 (Cal. Dist. Ct. App. 1993).

of the plaintiff. In addressing the issue whether the ownership of the sperm could be transferred from one person to another via the execution of a will, the *Hecht* court, invoking both *York* and *Davis*, classified the sperm as “property” for the limited purpose of probating a will. A few years later, in *Kass v. Kass*,²¹ which involved a dispute between a divorced couple over frozen preembryos, the court again focused upon the dispositional authority of the gamete providers and enforced preembryo contracts.

Endorsing the idea that a preembryo is deserving of “special respect,” in *AZ v. BZ*,²² the court applied the *Davis* court’s logic of balancing procreational interests in preembryo disposition disputes. The court recognized the wife’s trauma in enduring multiple IVF procedures, but stressed that a balance must be struck between her right to procreate and her husband’s right not to procreate. The fact that the wife was capable of undergoing IVF again or adopting, and therefore was not limited to using the preembryos under dispute, weighed heavily against her in the balancing process. Regarding the husband, the court realized that this was a situation of unwanted parenthood accompanied by financial burdens. Consequently, the court declined to authorize the preembryo transfer to the wife. In both *Davis v. Davis* and *AZ v. BZ*, since the issue of resolving disputes relating to preembryos is one of decision-making authority, the special respect and dispositional authority need not be mutually exclusive. Thus, for both courts, there is no reason why decisions of disposition cannot be made without a high degree of respect for the frozen preembryo.

The cases cited above represent the ongoing debate among legal commentators regarding whether the issue of property rights to human tissue, such as preembryos, ought to

21 *Kass v. Kass*, 696 N.E. 2d 174,179 (N.Y. 1998).

22 *AZ v. BZ*, Mass. Law. Weekly No. 15-008-96, slip op. (Mass. Prob. & Family Ct., March 25, 1996).

be framed in terms of property,²³ special respect,²⁴ or control.²⁵

In bold contrast to the aforementioned approaches, another position maintains that the human body is subject to privacy rights. The right to refuse medical treatment and the right to abortion have been grounded in the constitutional right to privacy.²⁶ Similarly, whereas property can be separated from “the owner” and be sold on the market, privacy is integrated into the body and defines one’s personal identity. Thus, for example, a right to individual and familial privacy may be violated by publication of genetic information without the person’s consent.²⁷

23 For arguments that human tissue possesses characteristics that satisfy some of the criteria for establishing rights in tangible property, see Roy Hardiman, “Comment, Toward the Right of Commerciality: Recognizing Property Rights in the Commercial Value of Human Tissue,” 34 *U.C.L.A. L. Rev.* (1986), 207, 218; Patricia Martin and Martin Lagod, “The Human Preembryo, the Progenitors, and the State: Toward a Dynamic Theory of States, Rights and Research Policy,” 5 *High Tech. L. J.* (1990), 257, 261; Alise Panitch, “Note: The Davis Dilemma: How to Prevent Battles over Frozen Preembryos,” 41 *Case W. Res. L. Rev.* (1991), 543, 553; Philip Prygoski, “The Implications of *Davis v. Davis* for Reproductive Rights Analysis,” 61 *Tenn. L. Rev.* (1994), 609, 609 n.2; Helen S. Shapo, “Frozen Preembryos and the Right to Change One’s Mind,” 12 *Duke J. Comp. & Int’l L.* (2002), 75, 76 n.3.

For others who argue that the body should not be treated as property, see Rao, *supra* n.12, 365; Stephen Munzer, “An Uneasy Case Against Property Rights in Body Parts,” 11 *Soc. Philosophy and Policy Rev.* (1994), 259; *idem.*, *supra* n.19; Leon Kass, *Toward a More Natural Science* (1985), 283.

24 See Robertson, *supra* n.4, 450 n.37; Kristine Luongo, “Comment: The Big Chill: *Davis v. Davis* and the Protection of Potential Life,” 29 *New Eng. L. Rev.* (1995), 1011, 1023.

25 For arguments for a property-based notion of control over one’s body parts, see Mary Danforth, “Current Topic in Law and Policy: Cells, Sales, and Royalties: The Patient’s Right to a Portion of the Profits,” 6 *Yale Law & Policy Review* (1988), 179, 191-5; Bonnie Steinbock, “Sperm as Property,” 6 *Stanford L. & Policy Rev.* (1995), 57, 66; Julia Mahoney, “The Market for Human Tissues,” 86 *Virginia Law Rev.* (2000), 164, 201.

26 *In re Quinlan*, 355 A. 2d 647, 663 (N.J. 1976); *Cruzan v. Missouri*, 497 U.S. 261 (1990); *Roe v. Wade*, 410 U.S. 113 (1973); *Planned Parenthood v. Casey*, 505 U.S. 833, 928 (1992).

27 Rao, *supra* n.12.

Commodification

There is more at stake in the biomedical research of human tissues than simply saving life or avoiding death. Vexing ethical and policy questions are raised in the professional literature, including an individual's right or ability to commodify his body – that is, to transform it into a commodity. Invoking the legal status of property with regard to the body or its uses and parts is problematic because it threatens many values, including the right to privacy and respect for the sanctity of human life. To characterize human tissue as property implies that it can be sold and bought on the market; the right to commodify one's body is derived from a property right in one's body. As Elizabeth Anderson writes:

To say that something is properly regarded as a commodity is to claim that the norms of the market are appropriate for regulating its production, exchange and enjoyment. To the extent that moral principles or ethical ideals preclude the application of market norms to a good, we may say that the good is not a (proper) commodity.²⁸

Conceptualizing property in terms of tangible objects and arguing that reproductive and genetic materials should have the same legal status as a table or doorknob is repugnant in the eyes of many. Commodifying excised human materials threatens our human dignity.²⁹ As one commentator noted, “the body is one of the last places of sanctuary from a commodified world.”³⁰ On the other hand, if property is viewed as

28 Elizabeth Anderson, “Is Women's Labor a Commodity?,” 19 *Philosophy and Public Affairs* (1990): 71-72.

29 Margaret Jane Radin, “Property and Personhood,” 34 *Stanford L. Rev.* (1982), 957, 1014-15; idem., “Market-Inalienability,” 100 *Harvard L. Rev.* (1987), 1849, 1852, 1885.

30 Elizabeth Blue, “Redefining Stewardship over Body Parts,” 21 *Journal of Law and Health* (2007-2008): 75, 86.

a question of control,³¹ the greater the degree of freedom and autonomy over one's assets, the greater respect is accorded to the individual. Analogously, people who exercise some measure of control over their human materials enhance, rather than diminish, their human dignity. The notion that the human body is intimately bound up with the exercise of dispositional authority resonates in the words of Harvard law professor and former Solicitor-General Charles Fried:

Moral personality consists, as Kant said, of the capacity to choose freely and rationally... Now, a claim to respect for physical and intellectual integrity implies a claim to the conditions under which a sense may develop of oneself as a free, rational, and efficacious moral being...³²

The underlying Kantian idea is that an individual's control over one's persona, including one's body and its parts, is essential to freedom or autonomy.

In sum, there is a difference of opinion regarding whether or not marketing human issue entails commodification.

Halakhah

Human Body and Tissue: Property Interest or Dispositional Authority?

What is the Halakhah's perspective on a Jew's ownership of his body? R. Shlomo Yosef Zevin approaches this question by analyzing the agreement made between Shylock and Antonio in Shakespeare's *The Merchant of Venice*, in which Antonio's debt would be paid off with a pound of flesh (apparently an acceptable form of paying damages upon renegeing on

31 See supra n. 25.

32 Charles Fried, "Right and Wrong" (Cambridge, 1978), 123, 142. See also Leon Kass, "Organs for Sale? Propriety, Property and the Price of Progress," 107 *Public Interest* (1992): 72.

a contract according to Venetian law). R. Zevin argues that since God owns everything, including our bodies, one is proscribed from inflicting physical harm upon his own body or that of others (*havalah*).³³ Consequently, the Venetian agreement would be unenforceable.³⁴

The notion that one's body does not belong to him resonates in many realms of *Hoshen Mishpat*, including the collection of an outstanding monetary debt from a borrower.³⁵ One of the possible avenues for collecting an outstanding debt is coercing an individual to hire himself to engage in work in order to pay off his debt. On the one hand, the purpose of the coercion is for the debtor to engage in work in order for the creditor to recover his monies. But is such coercion tantamount to deprivation of personal freedom, bordering on enslavement? Does the creditor have a legal right to demand of a borrower to find gainful employment in order to satisfy the debt? Some opinions, such as *Rosh*, *Tur*, and *Shulhan Arukh*, contend that such coercion is prohibited.³⁶ In the words of *Rosh* and *Sema*, "We are the servants of God and not the servants of other servants."³⁷

R. Ephraim Navon (*Mahaneh Ephraim*) argues, however, that if a debtor undertakes a duty to work in order to satisfy his debt, the commitment should not be construed as a form of enslavement as a result of his loss of autonomy. While the debtor agrees to satisfy his debt by engaging in work, whether the employment will be personally performed by him or by third

33 *Shemot* 19:5; *Devarim* 10:14; *Berakhot* 35a.

34 Shlomo Yosef Zevin, *Le-Or Ha-Halakhah* (Tel Aviv, 5717), 318.

35 The sources for our discussion have been culled from Menachem Elon, *Freedom of the Debtor's Person in Jewish Law* (Hebrew) (Jerusalem, 1964).

36 *Teshuvot ha-Rosh* 78:2; *Tur*, *Hoshen Mishpat* 97:28-30; *Shulhan Arukh*, *Hoshen Mishpat* 333:3.

37 *Teshuvot ha-Rosh*, *ibid.*; *Sema*, *Hoshen Mishpat* 97:29. Similarly, a Jew neither owns a non-Jewish slave nor acquires from a non-Jew rights to excise parts of a body of a non-Jewish slave; see *Gittin* 19a, 21b; Rashi, *ad loc.*, s.v. *lo efshar*; *Yevamot* 46a.

parties remains his choice.³⁸ Other legists permit such coercion regardless of whether such a stipulation has been made.³⁹ If the parties stipulate to such an arrangement and the agreement complies with laws of obligations, *Perishah* would validate it.⁴⁰

Another possible means of debt collection is imprisonment. Rambam rejects this approach as illegal, enjoining the creditor to refrain from entering the debtor's premises to collect a debt.⁴¹ *Rosh* affirms Rambam's view and argues that the Torah does not generally deprive a person of his personal freedom. Even if the borrower and creditor explicitly stipulated that imprisonment would result upon failure to satisfy the debt, such a condition is null and void, as it relates to one's persona (*tenay she-ba-guff*).⁴² Similarly, Rashba writes, "A man's body is not to be enslaved... for imprisonment... Rather, he is indebted to his creditor and his assets are a surety..."⁴³ This view was endorsed by *Tur*, *Shulhan Arukh*, and others.⁴⁴

Nevertheless, numerous decisors validate imprisonment in situations in which a borrower fails to pay his debts.⁴⁵ One of the rationales offered is that such a person violates the *mitzvah* of paying one's debts.⁴⁶ As such, Halakhah sanctions imprisonment as a form of coercion to effectuate a debtor's

38 *Machaneh Ephraim*, *Hilkhot Sekhirut Po'elim* 2.

39 *Teshuvot Maharam mi-Rotenburg* (Cremona edition) 146. Rif and R. Yehuda Barzilai, cited by Maharam, argue that although an individual cannot be coerced to find employment, he is nonetheless obligated to work.

40 *Perishah*, *Hoshen Mishpat* 99:19.

41 *Mishnah Torah*, *Hilkhot Malveh Ve-Loveh* 2:1; *Teshuvot ha-Rambam* (Blau ed.) 410.

42 *Teshuvot ha-Rosh* 68:10.

43 *Teshuvot ha-Rashba* 1: 1069.

44 *Tur*, *Hoshen Mishpat* 97: 28; *Shulhan Arukh*, *Hoshen Mishpat* 97:15; *Maggid Mishnah*, *Hilkhot Malveh Ve-Loveh* 25:14; *Leket Yosher*, *Yoreh Deah* 79-80.

45 *Teshuvot ha-Rivash* 484; *Teshuvot Maharashdam*, *Hoshen Mishpat* 390; *Teshuvot Ranah* 58; *Yam Shel Shlomo*, *Bava Kamma* 8:65; *Bah*, *Hoshen Mishpat* 97:28; *Teshuvot ha-Ridvaz* 1:60; *Sema*, *Hoshen Mishpat* 107:10. For additional concurring opinions, see Elon, *supra* n.35, 164-237.

46 *Ketuvot* 86a; *Pesahim* 91a; Rashi, *ad loc.*; *Teshuvot ha-Rivash*, *ibid.*

compliance. While endorsing the *Shulhan Arukh's* opposition to imprisonment for a debtor who cannot pay, *Rema* rules that a debtor who has the financial ability to pay and is simply attempting to conceal his assets (such as through fraudulent conveyance) may be incarcerated.⁴⁷

Thus, the question of whether one may deprive a debtor of his personal freedom through imprisonment or coercion to engage in gainful employment is the subject of debate.⁴⁸ R. Zevin aptly observes that some decisors maintain that even though the human body belongs to God, Halakhah allows an individual to be deprived of his personal freedom by another individual, such as an employer, or an institution, such as a prison.⁴⁹

Offering a contrasting perspective, R. Shaul Yisraeli contends that man actually retains co-partnership over his body with God. Although *havalah*, self-inflicted harm or assault of another person, is clearly forbidden,⁵⁰ implying that an individual is not the owner of his own body, R. Yisraeli defines ownership differently. Despite God's ownership rights, so to speak, there is broadly speaking, "a bundle of rights" that may be exercised by man, within certain halakhic parameters to be sure, with respect to one's bodily tissue: principally, the right to possess it, to exclude others from removing it, and donate and/or sell it to another individual.⁵¹

47 *Rema, Hoshen Mishpat* 97:15.

48 This diversity of opinion regarding whether denying an individual a degree of his freedom is a form of enslavement informs the issue of whether a husband can be obligated to engage in work in order to pay *mezonot isha* (spousal support), as well as the question of whether a *po'el*, an employee who works by the hour, has the right to withdraw from his work without liability for losses incurred.

49 After examining this debate, R. Zalman N. Goldberg concludes that such a view is difficult to comprehend. See Zalman N. Goldberg, "Acts of Acquisitions in the Sale of Kidneys" (Hebrew), 30 *Tehumin* (5770): 108,112.

50 *Bava Kama* 91b; *Tosafot*, ad loc., s.v. *ela hai*; *Shulhan Arukh, Hoshen Mishpat* 424:1.

51 See *Le-Or Ha-Halakhah*, 330-5; *Amud ha-Yemini* 16:16-32. R. Zevin

How, then, would Halakhah approach a dispute between a couple regarding preembryo disposition? What would happen if a happily married Jewish couple agreed to participate in an IVF program and there is no evidence that they signed a preembryo agreement? If the couple, now divorced, dispute who has authority over disposition of the preembryos – the wife yearning for implantation and the husband objecting to implantation, arguing that the financial burden of unwanted fatherhood should not be mandated without his consent – with whom would the Halakhah side?

Understanding the halakhic nature of marriage is crucial background to this question. *Kiddushin*, the act of halakhic engagement, itself may be said to be a consensual agreement,⁵² as it establishes a personal status of *mekudeshet* (a woman designated for a particular man and prohibited to all others), and thereby creates various obligations, such as certain prohibited sexual relations.⁵³ Subsequently, the act of *nissuin*, marriage, creates a framework of monetary obligations, such as spousal support. At the same time, a marriage may be viewed as a partnership between spouses.⁵⁴

In R. Yisraeli's view, a Jewish couple's participation

concur that a person exercises decisional authority, even though he cannot be said to own his body; see *Le-Or Ha-Halakhah*, 327.

52 *Shulhan Arukh, Even ha-Ezer* 26, 37, 38-39, 43-44.

53 "The woman becomes prohibited to all others in the same manner as *hekadesh* (consecrated objects);" see *Kiddushin* 2b.

54 For authorities who view marriage as an economic partnership, see *Teshuvot Maharashdam, Hoshen Mishpat* 206; *Pesakim u-Ketavim*, vol. 9, *Hoshen Mishpat* 33; *Teshuvot Havalim ba-Ne'imim*, vol. 5, *Even Ha-Ezer* 34; File No. 9061-21-1, Netanya Regional Rabbinical Court, Ploni v. Plonit, June 26, 2006; File No. 14850-1, Ashdod Regional Rabbinical Court, Plonit v. Ploni, September 19, 2010; File No. 347562-1, Tel Aviv-Yaffo Regional Rabbinical Court, Ploni v. Plonit, September 13, 2011; Shlomo Daichovsky, "Liquidating the Partnership and Dividing the Assets of the Spouse" (Hebrew), 16-17 *Shenaton Ha-Mishpat Ha-Ivri* (5750-5751): 501, 508; idem., "The Halakhot of Marital Partnership: Is it the Law of the Monarchy?" (Hebrew), 18 *Tehumin* (5758) 18; *Piskei Din Rabbanayim* 11:116. This writer's, Rabbinic Authority: The Vision and the Reality (Urim, 2013), ch. 4.

in an IVF program is a form of partnership together to sire a child.⁵⁵ In contrast to a commercial partnership, which is formed based upon pooling assets in a common purse through a written operating agreement, verbal commitment, or each partner undertaking to be the agent of the other,⁵⁶ the partnership of the progenitors is created by the commingling of the sperm and the egg.⁵⁷ Once that partnership has been created, neither partner may dissolve it prior to the expiration date or prior to attaining its objectives as provided in their agreement.

R. Yisraeli argues that a joint effort to sire a child is no different than any other partnership arrangement. Should there arise unforeseen circumstances (*ones*), such as disability or sickness, that make it impossible for one partner to continue to work, such circumstances are grounds for partnership dissolution.⁵⁸ Similarly, the unanticipated event of a couple becoming divorced should allow the husband to terminate the partnership agreement for preembryo implantation.⁵⁹

Although he accepts the partnership model, R. Ariel disagrees with R. Yisraeli's conclusion.⁶⁰ R. Ariel compares the agreement between the husband and wife in this case to a sale

55 *Teshuvot Havot Binyamin* 3: 108, reprinted in Avraham Steinberg (ed.), *Encyclopedia Hilkhatis Refu'it* (1994), vol. 4, 37-44.

56 *Shulhan Arukh*, *Hoshen Mishpat* 176:2, 5; *Teshuvot ha-Rivash* 71; *Sefer ha-Levush*, *Hoshen Mishpat* 176:1; *Ra'avad*, *Hilkhos Sheluhin Ve-Shutafim* 4:2.

57 See supra n. 55.

58 According to one view, a partner is construed as an employee; see *Teshuvot Rabi* 219; *Tur*, *Hoshen Mishpat* 176:4; Shakh, *Hoshen Mishpat* 176:8. Consequently, a progenitors' agreement regarding preembryo disposition, which is akin to a labor contract, is either consummated by a *kinyan* (a symbolic act of undertaking an obligation) or through the onset of work – that is, the commingling of the sperm and the egg. See *Bava Metzia* 76a, 83a; Rema, *Hoshen Mishpat* 333:2. Similarly, a partner, like an employee, may terminate the partnership due to *ones* (an unforeseen circumstance). See *Bava Metzia* 77b; *Shulhan Arukh*, *Hoshen Mishpat* 333:5.

59 See *Havot Binyamin*, supra n. 55; Dovid Lau, *Teshuvot Ateret Shlomo*, vol. 2, 151.

60 Yoezer Ariel, "The Cessation of the IVF Process Upon Spousal Demand," (Hebrew) 77-78 *Assia* (5761), 102.

between a seller and buyer, which is “*taluy be-da’at sheneihem*,” dependent on the intent of both.⁶¹ In general, once a sale has been consummated, the buyer has no grounds to rescind the sale if he subsequently discovers a defect in the item.⁶² The sale would be voided only provided that two conditions are fulfilled – the buyer would not have agreed to the sale had he known that the defect would appear in a reasonable time after the purchase and the seller included among the terms of the sale that the transaction was contingent on the usefulness of the item. In the absence of both conditions, the sale is final even if a defect is found.⁶³

Analogously, R. Ariel argues, the unforeseen event of divorce (*ones*) should not serve as grounds for failing to follow through with the partnership. Although the husband opposes continued participation in the IVF program, his wife does not agree with him, and her desire is given equal halakhic weight. Thus, in the absence of a provision in the preembryo disposition agreement addressing contingency situations such as divorce, implantation should proceed as initially agreed upon by the gamete providers.⁶⁴

In effect, R. Ariel views this partnership agreement as an agreement between two parties who undertake certain obligations.⁶⁵ Whereas, the argument of *ones* may be advanced regarding a unilateral agreement, a sales agreement which is a bi-lateral agreement such an argument cannot be raised.⁶⁶ Consequently, neither partner (progenitor) is empowered to retract from the agreed-upon arrangement unless both condi-

61 *Teshuvot Sho’el U-Meshiv, Mahadura Kama* 1:145, 197, 199; *Teshuvot Noda Be-Yehuda, Mahadura Kama, Yoreh Deah* 69, *Mahadura Tanina, Even ha-Ezer* 130; *Teshuvot Maharsham* 3:82 and 5:5.

62 *Shulhan Arukh, Hoshen Mishpat* 176:1; Rema, ad loc.

63 *Tosafot, Bava Kama* 110b; *Tosafot ha-Rosh, Ketuvot* 47b; *Netivot ha-Mishpat, Hoshen Mishpat* 230:1.

64 For the effectiveness of a provision addressing *ones* instances, see Sema, *Hoshen Mishpat* 310:12; Shakh, *Hoshen Mishpat* 334:1.

65 Taz, *Hoshen Mishpat* 176:1; *Teshuvot Maharbil* 2: 37-38.

66 *Tosafot, Ketubot* 47b, s.v. *shelo*.

tions of a standard sale's agreement have been obtained.

Although R. Yisraeli and R. Ariel disagree regarding whether a husband can oppose implantation in the case of divorce, both decisors invoke the commercial partnership paradigm to address how to deal with inter-spousal disputes regarding their human reproductive materials. Although the halakhic norms of commercial partnership focus on “the world of commodities,” these *Posekim* show no reluctance in applying *Hoshen Mishpat* concepts to “the world of the human body”. Both realms focus on individuals who utilize their authority to make decisions –whether to execute business arrangements and or what to do with their reproductive materials.

Commodification and Privacy Interest

To address the issue of commodification, we will focus upon the propriety of a Jew donating his kidney to a fellow Jew. If kidney transplantation is permitted, ought one be compensated for his donation? We have articulated this question elsewhere:

The permissibility of a kidney transplant provides us with one of the many illustrations of the overarching and paramount significance of *pikuah nefesh*, i.e. the preservation of human life. *Pikuah nefesh* suspends all biblical prohibitions excluding idolatry, homicide, and certain sexual offenses...Here, we are dealing with the preservation of human life being effectuated by a surgical procedure which involves the sacrifice of a human organ. In effect, the procedure entails “*havalah*,” i.e. wounding, which usually is prohibited whether it is self-inflicted or inflicted by others... Given that halakhic strictures are suspended for the purposes of preservation of human life, is the proscription against *havalah* equally set aside in the cases of kidney

transplants?⁶⁷

In our analysis elsewhere, we offered three different approaches:

The permissibility or non-permissibility of transplants hinges upon determining the degree of risk associated with a nephrectomy as defined by medical assessment. As we have seen, whether risk will be determined simply based upon the arbiter's perception, state of medical technology, or societal willingness to accept the risk is subject to debate. Assuming that the procedure is "halakhically risk-free," then *pikuah nefesh* will override *havalah*.

On the other hand, other contemporary authorities assert that *pikuah nefesh* cannot suspend the proscription against *havalah*. Self-injury is proscribed and the prohibition against battery is construed as a stricture ancillary to the prohibition of homicide (*avizrayhu*). The situation is therefore defined as one of "*nefashot*" or "*safek nefashot*," a precarious or possibly precarious situation, which mandates the avoidance of jeopardizing one's life. Accordingly, a transplant will not be allowed. Alternatively, one can contend that this question is to be resolved through the prism of "*havalah*." Is wounding for the sake of rescuing human life permitted? Should the wounding be administered in a contentious matter (*derekh nitzahon*) or in a disrespectful fashion (*derekh bizayon*), then such action constitutes *havalah* and is prohibited. Consequently, if an individual is willing to sustain an injury in order to save the life of another, i.e. an action of respect, then this act is sanctioned as a case of privileged battery. Hence, a donor may undergo a transplantation procedure.⁶⁸

Thus, according to one opinion, renal transplantation constitutes *havalah* or *safek sakana* and is therefore prohibited.

67 See my, "Renal Transplantation: Living Donors and Markets for Body Parts –Halakha in Concert with Halakhic Policy or Public Policy?" 40 *Tradition* (2007): 14, 15.

68 *Ibid.*, 17-21.

Others, however, contend either that *pikuah nefesh* suspends the prohibition against *havalah* or that *havalah* in a respectful fashion is permissible.⁶⁹

According to the latter approach, we place a supreme value upon the *mitzvah* of preservation of life and it becomes the sole deciding factor. Even if the donor's motivation is commercial gain, it is an irrelevant consideration.⁷⁰ At first glance, such a conclusion appears problematic, as in general, one may not receive compensation for the performance of a *mitzvah*.⁷¹ One rationale offered for this ruling one is unable to receive compensation for performing an action that entails the performance of a divine obligation, rather than a decision to benefit another person.⁷² If, however, one is performing the *mitzvah* through his gainful employment (such as a physician)⁷³ or if societal needs dictate that compensation should be forthcoming in order to promote the saving of human life, remuneration is permissible.⁷⁴ Thus, even though a kidney is an essential body part and non-regenerative, many authorities permit the sale of a kidney, considering it no different than the sale of hair and blood, which are regenerative.⁷⁵

69 Ibid.,

70 *Nishmat Avraham, Yoreh Deah* 349:3-4, in the name of R. Shlomo Z. Auerbach.

71 *Bekhorot* 4:6; *Shulhan Arukh, Yoreh De'ah* 336:2.

72 Rambam, *Perush Ha-Mishnah, Nedarim* 4:2; Shakh, *Yoreh De'ah* 221:22, 246:5.

73 Sema, *Hoshen Mishpat* 264:19; *Shulhan Arukh, Yoreh Deah* 336:2.

74 *Shulhan Arukh, Hoshen Mishpat* 246:5; *Tiferet Yisrael, Nedarim* 4:2; *Teshuvot Mahari Bruna* 114; *Iggerot Moshe, Hoshen Mishpat* 1:103; Levi Y. Halperin, *Teshuvot Ma'aseh Hoshev*, vol. 4, 62-67; Mordechai Halperin, "Removal of Organs from a Live Donor: Halakhic Perspectives" (Hebrew) 45-46 *Assia* (5749), 34. Pursuant to Tosafot, *Pesahim* 65a, s.v. *ha-mekhabed*, R. Shabtai Rappoport argues that compensation is sanctioned provided that the primary motivation of the transplant is to save a life rather than to receive remuneration. See Shabtai Rappoport, "Sale of Organs: From Living Donor for Transplant – Motivation and Decision Making," in Alfredo Rabello (ed.), *An Equitable Distribution of Human Organs for Transplantation* (Jerusalem, 2003), 97, 107.

75 *Nedarim* 9:5; *Nedarim* 65b; *Arakhin* 1:4; *Arakhin* 7b.

The implications of allowing a market of human organs for life-saving or health-enhancing purposes reaffirms our thesis than man's relationship to his body and its components is marked by his dispositional authority, rather than recognition of the human body as a fungible item as akin to negotiable instruments and shares of common stock. Moreover, since most authorities agree that Halakhah does not treat a human organ as a piece of property, the value of the kidney may be based upon the actual value to the kidney donor, which may be beyond its market value.⁷⁶

A person's decisional authority to sell his kidney is comparable to transferring a *shtar hov* (a note of indebtedness) to another person. A lender who holds a *shtar hov* against a debtor may choose to sell this *shtar* to a third party, who may then wish to sell it to someone else. *Netivot ha-Mishpat* suggests that if the original transfer of the *shtar* to a third party was not properly recorded in the *shtar* or a separate document, as called for,⁷⁷ the third party does not acquire the *shtar* for purposes of debt collection; he can only sell the nominal value of the worth of the paper of the *shtar*.⁷⁸ The third party does not own the *shtar*, but he is entitled to compensation for its paper value.⁷⁹

76 *Teshuvot Beit Yitzhak*, *Hoshen Mishpat* 30; *Erekh Shai*, *Hoshen Mishpat* 386; *Teshuvot Helkat Yo'av* 3:91; *Teshuvot Mekor Hayim* 31. Cf. Shakh, *Hoshen Mishpat* 72:128; *Netivot ha-Mishpat* 148:1, 207:8.

77 *Shulhan Arukh*, *Hoshen Mishpat* 66:1-2.

78 *Netivot ha-Mishpat* 66:12.

79 Others argue that the *shtar* actually belongs to the borrower; it is transferred to the lender for the purposes of proving that he may collect from the borrower the amount earmarked on the document. Consequently, upon transferring the *shtar* to a third party, the lender is transferring the right to collect the debt, rather than the right to sell the paper value of the *shtar*; see Shakh, *Hoshen Mishpat* 66:8; *Ketzot ha-Hoshen* ad loc. The analogy to our case applies according to this understanding as well. Whether the third party has the right to sell the *shtar* for its paper value or the right to collect the debt it represents, the creditor has decisional authority regarding collecting the debt. Similarly, although a person's organs do not belong to him, he has the authority to sell them as he wishes. See Ya'akov Ariel, *Shut be-Ohela Shel Torah*, 487.

Similarly, one might argue, although a person does not own his kidney, he may nevertheless sell the value of the kidney.

Other authorities disagree with this analysis, arguing that organ donation for financial gain is forbidden. Based on *Tosafot's* view that one is proscribed from committing self-inflicted harm for commercial gain,⁸⁰ R. Menashe Klein contends that selling a kidney, which involves battery, is an affront to human dignity.⁸¹ Arriving at the same conclusion from a different perspective, R. Moshe Zorger acknowledges that if the world engages in such a practice and/or the donor requires the compensation for his living, marketing a kidney is permissible,⁸² but he concludes that such a practice is “disgusting.”⁸³ Those who argue that the proscription against *havalah* preempts transplantation would ban the marketing of kidneys *le-khath-ila*. On the other hand, these authorities would uphold the validity of selling kidneys *be-diavad* (ex post facto).⁸⁴ Given the prohibited nature of transplantation, how can this be justified? There is a clear distinction between the prohibited act of battery and the two parties' willingness to execute their personal obligations – that is, the transfer of money for undergoing the act of battery. In the words of Professor Silberg, a renowned twentieth century Israeli jurist:

We see clearly that Jewish law does not establish a causal connection between the commission of an offense and the voiding of a civil contract...

80 *Tosafot*, *Bava Kama* 91b, s.v. *ela*.

81 *Teshuvot Mishnah Halakhot* 4:245.

82 *Teshuvot va-Yeshev Moshe* 93.

83 *Ibid.* 94.

84 Similarly, an agreement to have relations with a prostitute in exchange for money is valid ex post facto; see *Bava Kama* 70b; *Tosafot*, *Bava Kama*, ad loc., s.v. *ilu*; *Teshuvot ha-Rashba* 1: 302; *Teshuvot Shevut Ya'akov* 2:136. Even though the act is prohibited, should the act be consummated, the undertaking of the duty to furnish compensation is enforceable. In the words of R. Yosef S. Nathanson, “this is clear as day;” see *Teshuvot Sho'el U-Meshiv, Mahadura Revi'ah* 3:39.

The violation of the law or morality is one thing, and the legal validity of the contract is another – to the extent that the fulfilling of the contract itself does not activate the offense... Precisely because Jewish law does not distinguish between law and morality, and that practically every performance of an obligation is at the same time a fulfillment of a religio-moral commandment – such as “the commandment” of repaying a debt of monetary obligation – the non-fulfillment of a contract entered into through a violation of law will only turn out to be an additional offense to supplement the original one committed by the transgressor.⁸⁵

In other words, even though there is a prohibition against the market of organs, since the agreement between the parties complies with the norms of the halakhic laws of obligations, the donor is entitled to payment for his kidney. Thus, despite the fact that these authorities fear that the dignity of the human being is diminished if the body is treated like a commodity, and they ban the sale of human organs accordingly, they nevertheless rule that *ex post facto*, the sale is valid.⁸⁶

According to this view, after the commission of a prohibited act, money may be taken for a service based on a mutual agreement of the parties. *A fortiori*, compensation is permissible for services relating to the use of our bodies on a daily basis. Medical researchers take a salary, and writers work on commission under contract, frequently producing works of intellectual value. A factory worker commodifies the use of his body by using his brains and by moving his hands, and he

85 Moshe Silberg, *Talmudic Law and the Modern State* (New York, 1973), 82.

86 Although the sale would be halakhically valid, there may be some halakhic public policy considerations that would militate against sanctioning such sales should they materialize.

receives a salary for this service. A teacher talks and uses her brains, mouth, and lungs, and she receives money for doing so. If to “commodify” means merely to accept a fee, the portions of *Hoshen Mishpat* that deal with the undertaking of these obligations would look askance at legitimating these relationships based upon an exchange of money. But such ties are, in fact, recognized, and the labor market – entailing the buying and selling of a person’s labor – is not viewed as an affront to human dignity.⁸⁷

Other areas of social endeavor that may be characterized as non-market matters are established through a “commodified understanding.” For example, to ascertain a couple’s *gemirat da’at* (firm resolve) to consummate a marriage pursuant to the dictates of Halakhah, an object is given by the prospective husband to his prospective wife.⁸⁸ Once married, the couple is allowed to engage in conjugal relations and mutually benefit from the pleasures of the other’s body. Similarly, undertaking an obligation that entails the use of one’s body

87 Nevertheless, since employment based upon an hourly wage is construed as “enslavement” unless the employee requires a job for an income, one should refrain from being in the employ of one individual for more than three years. See Rema, *Hoshen Mishpat* 333:3, 16; Shakh, *Hoshen Mishpat* 333:16-17. Cf. *Ketzer ha-Hoshen* 333:7. Others argue that a labor contract with a term of employment of more than three years is valid provided that the employee resides in his own home rather than living at his employee’s domicile. See *Teshuvot Hemdat Shlomo* 7; *Teshuvot Lehem Rav* 81.

To avoid being enslaved to his job, an employee may rescind his contract of service at any time; see *Bava Metziah* 10a; *Bava Kama* 116b; *Shulhan Arukh*, *Hoshen Mishpat* 333:3. However, should he execute an arrangement of non-rescission with his employer, such an agreement is valid; see *Teshuvot Zera Emet*, vol. 2, *Yoreh De’ah* 97. Similarly, should a *kablan* (contractor) accept a project accompanied by the execution of a *kinyan*, he cannot withdraw from the job; see Rema, *Hoshen Mishpat* 333:1; Shakh, ad loc. 3. Cf. others who argue that even a standard employee cannot rescind his service if a *kinyan* was executed at the time of the commencement of work; see *Hiddushei ha-Ritva*, *Bava Metziah* 75b; *Teshuvot ha-Ritva* 117. Given that enslavement is frowned upon, some of these views are difficult to understand. See supra nn. 37,42-43.

88 *Kiddushin* 1:1.

parts, such as a partnership or a sale, is executed through the implementation of a *kinyan* (symbolic act of transfer), which may entail the use of an object to attest to the parties' resolve to engage in these matters. Decisors understood these *kinyanim* as modes of ascertaining the parties' intent.

In short, there is nothing wrong *per se* with taking money for the use of one's body, and formal recognition of that fact resonates in our norms of *Hoshen Mishpat*.

In light of the foregoing discussion, can we determine whether Halakhah recognizes a right to privacy regarding one's body and tissue? As we mentioned earlier, the rejection of property in the human body has led to the invocation of the right to privacy by American legal commentators.⁸⁹ Given that man's body belongs to God, does Halakhah recognize a zone of privacy? Clearly, the minority of decisors who oppose renal transplantation as a violation of battery recognize that there is a right to bodily integrity, or what we might call today a right to privacy. Certainly, there exist a plethora of *halakhot* that protect individual privacy, such as the laws barring a lender's entry into a borrower's home to collect a debt, the prohibition of eavesdropping, and the emphasis on domestic privacy (*hezek re'iyah*).⁹⁰ Renal transplantation may provide an additional illustration of this same category.

According to the authorities who define *havalah* as an act of wounding administered in a disrespectful fashion, if an individual is willing to sustain injury in order to save a life, the act is permissible. A kidney transplant is excluded from the prohibition not due to the benefit that accrues to the recipient, but rather because of the privileged nature of the act. Consequently, the donor does not enjoy a right to privacy or a right to bodily integrity when the *havalah* occurs for a constructive and beneficial purpose.

For the majority of authorities, however, the permis-

89 See *supra* text accompanying notes 26-27 and Rao, *supra* n.12, at n. 15.

90 *Shulhan Arukh, Hoshen Mishpat* 97:16, 154:3, 7; Rema, *Hoshen Mishpat* 154:7; *Halakhot Ketanot* 1: 276; *Piskei Din Rabbaniyim* 14:329.

sibility of a nephrectomy provides us with one of many illustrations of the overarching significance of *pikuah nefesh*, which suspends almost all prohibitions, including wounding. Most authorities rule that undergoing this procedure is a *reshut* (a permissible act) or a *middat hassidut* (an act of piety).⁹¹ It is thus the donor's option whether he wants to retain his bodily integrity or not.⁹²

Our presentation demonstrates that for both Halakhah and American law, property concepts merit attention as a flexible and eminently helpful intellectual tool to discuss the ownership and sale of human tissue. From the Jewish legal perspective, at first glance, the issue seems to be unusually lucid; as a religious legal system, Halakhah maintains that our bodies are owned by God. Upon further analysis, as we have shown, the landscape is by no means so neat and the indicators do not all point in one direction. Utilizing property concepts in the context of issues of bioethics and briefly invoking other realms of Halakhah, we encounter the notion that even a religious legal system will impart a degree of latitude, a zone of privacy and autonomy to members of a covenant-faith community.

91 See Warburg, *supra* n. 67, at text accompanying nn. 7, 15, 16, 20 and 38.

92 Interestingly, Dr. Avraham Steinberg (*Entzyklopedia Hilkhait Refu'it* 3, col. 104, n.198) explains R. Ovadia Yosef's opinion ("A Responsum Regarding the Permissibility of a Kidney Transplant" (Hebrew), 7 *Dine Israel* (5736): 25; reprinted as *Teshuvot Yabia Omer* 9, HM 12) as describing organ donation as a *mitzvah hiyuvit* (obligatory mitzvah). Accordingly, the zone of privacy regarding one's body is trumped by the performance of the *mitzvah*. Thus, the question of whether a right to bodily integrity exists is a subject of debate regarding how one understands the propriety or possible impropriety of undergoing a renal donation. However, Dr. Abraham S. Abraham (*Nishmat Avraham* 4, p. 122) disagrees and explains R. Ovadia Yosef's opinion in line with most other authorities in describing organ donation as a permissible, yet highly praiseworthy activity.

RABBI NETANEL WIEDERBLANK

*To Tell or Not to Tell:
The Obligation to Disclose
Medical Information to a
Potential Spouse*

Many individuals looking to marry grapple with the following sorts of questions: What negative information must I disclose to my potential spouse? Do I have to tell him or her that a number of my family members died of cancer at a young age? Do I have to tell him that as a teenager I was sexually active, even though in recent years I have remained abstinent? Do I have to tell her that I am afraid of flying? What if telling people will likely prevent me from finding an appropriate spouse? What if I suffer from a condition against which people unfairly discriminate, though I believe it will have no bearing on my marriage?

In this article, we will present a range of rabbinic positions to these challenging questions and conclude with a brief discussion of the broader principles at stake.

There are two components to the halakhic question of what information must be disclosed to a potential spouse before marriage:

1. It must be determined if a lack of disclosure is grounds

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for a *mekah ta'ut*, a transaction invalidated because one party failed to inform the other of a defect. In the case of marriage, when an unrevealed defect constitutes a *mekah ta'ut*, the marriage is annulled without the need for a *get*, provided that upon realization of the defect the aggrieved spouse immediately protests. If no immediate protest is made, Halakhah generally interprets the silence as acquiescence to the situation, and a *get* would then be necessary to dissolve the marriage.¹ For example, if incurable sterility would constitute a *mekah ta'ut* and a man knowingly failed to inform his wife that he was sterile, if, upon finding out, his wife claims that she never would have agreed to the marriage had she known of his condition, the wife is free to remarry even without receiving a *get*.²

2. Even if not disclosing a flaw would not constitute a *mekah ta'ut*, the prohibition against *geneivat da'at* must be considered. Regarding a sale, the *Shulhan Arukh* rules that a seller must reveal any possible blemishes in the article being sold.³ This is especially important with respect to defects that are uncommon, about which the purchaser cannot be expected to inquire.⁴ Moreover, the burden of revealing imperfections falls upon the seller, who must reveal blemishes even if he did not state the article is unblemished⁵ and even if the article is being sold “as is.”⁶ It is the seller’s responsibility to correct any

1 A relevant consideration beyond the scope of this article relates to the nature of *mekah ta'ut*. If there is a defect, is the transaction or marriage automatically invalid, or is it only invalidated if the aggrieved party sues for invalidation? See Tosafot, *Yevamot* 56a, s.v. *met*, and *Sha'arai Hayim*, *Gittin* 26:4.

2 This law is particularly important with regard to recalcitrant husbands who have deceived their wives. See, for example, *Iggerot Moshe*, *Orah Hayim* 4:115.

3 *Shulhan Arukh*, *Hoshen Mishpat* 228:6.

4 See *Hullin* 94a.

5 Tosafot, *Hullin* 94b, s.v. *inhu*.

6 *Shulhan Arukh*, *Hoshen Mishpat* 232:7.

false presumptions, as long as the buyer's presumptions are reasonable. This is true even if the seller is not directly responsible for the buyer's assumptions. Finally, Halakhah requires disclosure even of defects that would not lower the value of the item.⁷ Many sources indicate that failure to reveal a defect would violate *geneivat da'at*, even if not constituting a *mekah ta'ut*.⁸

To address these issues as they relate to our questions, we will consider the rulings of a number of leading halakhic decisors on this topic.

The View of the Steipler Gaon

R. Yaakov Yisrael Kanievsky (1899–1985), known as the Steipler Gaon, was asked whether someone who had his left testicle removed must reveal this information to a prospective spouse.⁹ In his response, R. Kanievsky considers both of the above issues.

The Steipler's first concern relates to the halakhic debate about whether a person with only one testicle is prohibited from marriage based on the prohibition of a man with crushed testicles from marrying most Jewish women.¹⁰ Rabbeinu Tam permits such a union, but others disagree.¹¹ The man in question can certainly rely upon the lenient position, because his situation constitutes a *sha'at ha-dehak*, a situation of crisis or distress; according to the stringent view, he would be unable to marry most women.¹² However, perhaps his potential spouse would wish to follow the stringent view, since she has the option to marry other men. Accordingly, failure to inform her of his condition may cause their marriage to be considered a *mekah ta'ut*, a transaction invalidated because one party failed

7 *Sefer Hafetz Hayim, Rekhilut* 9:10.

8 See *Sema, Hoshen Mishpat* 228:6.

9 *Kehillot Yaakov, Yevamot* 44.

10 *Devarim* 23:2.

11 See *Yevamot* 76a *Tosafot* s.v. *sh-ein lo*.

12 See *Shulhan Arukh, Even Ha-Ezer* 5:2.

to inform the other party of a defect.

The question can be summarized as follows: Do we say that because this marriage is halakhically permissible (since it is a *sha'at ha-dehak* for him), the lack of disclosure does not constitute a *mekah ta'ut*? Or since she can legitimately claim that she wishes to follow the stringent view (because it is not a *sha'at ha-dehak* for her), is a lack of disclosure grounds to consider the marriage a *mekah ta'ut*?

The Steipler initially finds evidence that the woman's claim of *mekah ta'ut* would be valid in a ruling of *Hatam Sofer*. *Hatam Sofer* rules that if a question arises regarding the *kashrut* of a piece of meat and the result is a ruling that the meat is permissible in a *sha'at ha-dehak* such as a significant monetary loss, then the butcher must inform any customers of the questionable status of the meat. The customers may legitimately wish to follow the strict opinion, since it is not a *sha'at ha-dehak* for them. We do not say that because the meat is permissible to the butcher due to his financial loss, it is likewise permissible to the customers. This is true even if informing the customers will cause a significant loss to the butcher. Moreover, failure of the butcher to disclose the status of the meat may constitute a *mekah ta'ut*.¹³

Presumably, the same should be true in our case. Since a prospective wife may wish to follow the strict opinion, failure to inform her of the removed testicle may constitute a *mekah ta'ut*. We should not consider the fact that it is a *sha'at ha-dehak* for the man, and therefore not necessary to disclose, since it may not be *sha'at ha-dehak* for the woman.

However, the Steipler proves that this cannot be the case, because the Talmud rules that if a wife is not informed that her husband is biblically prohibited from marrying her, at

13 *Teshuvot Hatam Sofer, Orach Hayim* 75, quoted in *Pithei Teshuvah, Yoreh De'ah* 31:2. Others disagree with *Hatam Sofer*. See *Teshuvot Divrei Malkiel* 3:90, who argues that it is inconceivable that a piece of meat is permissible for one person and not for another. Thus, if it can be eaten by the butcher, it can be eaten, without hesitation, by his customers. See *Pithei Teshuvah* for others who disagree.

least in the case of lesser biblical prohibitions (*hayvei assei*), the marriage is binding and there is no *mekah ta'ut*.¹⁴ The Steipler argues that if failure to disclose a certain restriction does not constitute a *mekah ta'ut*, certainly failure to disclose a questionable restriction, such as the missing testicle, would not qualify for annulment based on *mekah ta'ut*.

Seemingly, this Talmudic passage would also refute the ruling of *Hatam Sofer*. The Steipler suggests that a distinction must be made between a prospective spouse and the choice of a piece of meat. When buying meat, a customer is not looking to buy a specific piece of meat; any meat of a particular type qualifies. Hence, even a minor imperfection may constitute a *mekah ta'ut*, since he can just buy a different one. The same is not true for marriage; “any spouse” will not do. When a person chooses to marry a particular person, it is because he or she believes that the other person is the right spouse to choose. Thus, just as there is a *sha'at ha-dehak* for the husband, there is a *sha'at ha-dehak* for the wife. Accordingly, she cannot legitimately claim that she wishes to follow the strict opinion, because in a *sha'at ha-dehak* the correct opinion is the lenient opinion.

The Steipler then turns his attention to the second issue, the prohibition against *geneivat da'at*. As noted above, a seller must reveal any possible blemishes in the article being sold, especially uncommon defects about which the purchaser cannot be expected to inquire. Failure to reveal a defect would violate *geneivat da'at* even if the defect would not lead to a *mekah ta'ut*. Therefore, it would seem that the individual with the missing testicle would be required to disclose this information, since his prospective wife may see this as a defect, and failure to do so would presumably violate *geneivat da'at*.

In an innovative and surprising ruling, the Steipler argues that the information need not be disclosed even if the prospective wife may see the missing testicle as a defect, be-

14 *Ketuvot* 101b. Accordingly, the Talmud rules that in such a case the wife can collect her *ketubah*. If there were a *mekah ta'ut*, there would be no *ketubah*, since they were never actually married.

cause the *halakhah* follows Rabbeinu Tam and this is therefore objectively not considered a defect.¹⁵

Accordingly, the question is essentially whether a seller must reveal information that will cause the buyer to erroneously perceive the good as tainted. If I know that some people consider something about me a blemish, must I reveal that fact to a potential spouse if I know that, in fact, it is not a blemish? In other words, to what extent is subjectivity a factor?

A story related in *Yevamot* sheds light on our dilemma. The Talmud concludes that if someone's mother is Jewish, he is Jewish, even if his father is not. However, many people still would not consider marrying such a person. The Talmud records that R. Yehudah advised someone whose father was not Jewish to move to a place where people were not aware of his lineage so that his ancestry would not serve as a deterrent to marriage.¹⁶ Clearly, R. Yehudah advised this person not to reveal information that other people might see as damaging. Accordingly, the Steipler rules that a person may withhold information from a prospective spouse that might cause unwarranted discrimination. Likewise, the Steipler does not require disclosure of medical conditions or procedures that may hurt a party's chances of finding a spouse if these medical conditions will not affect the marriage.¹⁷ Of course, any information that

15 It is important to note that the Steipler is only considering the question of whether the missing testicle would be considered a halakhic defect; he does not consider whether someone would perceive the aberration as a non-halakhic defect, either due to an increased chance of infertility or for aesthetic reasons. Later in the piece, he explains that the basis of his presumption that the only issue is halakhic is his assessment that no reasonable person would be concerned about the other issues.

16 *Yevamot* 45a.

17 Along similar lines, R. Elazar Meir Preil justifies a man dying his hair to appear younger when applying for a job if he fears unwarranted age-discrimination. (The discussion about whether hair dying is prohibited for other reasons is beyond the scope of this article.) Seemingly, this ruling is at odds with the Talmud's prohibition of dying the hair of a slave that one is selling, as it overstates the value of the slave. However, R. Preil argues that this prohibition is only relevant when selling a slave because of the shorter

might cause actual harm must be disclosed. R. Shlomo Zalman Auerbach, who accepts the Steipler's ruling, adds that even if withholding such information is legitimate, one may never lie.¹⁸

Even if we accept the legitimacy of the proof from the story of R. Yehudah, the question remains *why* there is no need to disclose information that the other party in the transaction would likely see as a defect. The Steipler suggests two solutions.

First, perhaps the reason that hiding something that would not cause a *makah ta'ut* still qualifies as *geneivat da'at* is that were the buyer given the opportunity to easily exchange the object after the sale, he would wish to do so. Thus, the seller must inform the buyer of the defect even before the sale. However, in the case of marriage, if the uninformed spouse were informed of the defect after the marriage, they would presumably not want to terminate the marriage. Thus, there is no requirement to disclose the information before the marriage.¹⁹

However, the Steipler's analysis is somewhat tenuous. His presumed understanding of the reason for *geneivat da'at*

life expectancy of an older slave. A job applicant who knows that he is perfectly qualified for the position does not violate *geneivat da'at* by dyeing his hair because the employer is wrong in his presumption that a younger worker will prove to be more profitable. See *Teshuvat Ha-Me'or* 1:26.

However, even if one were to accept the Steipler's theory, one might reject R. Preil's application. R. Yitzhak Grossman (see <http://bldd.info/> "Why Can't A Woman Be More Like A Man?" Posted on September 28, 2011) argues that R. Preil overlooks some important practical considerations. For example, he assumes that since wages are independent of the employee's age, actuarial considerations are irrelevant, but this presumes that there are no per-employee fixed costs. In the real world, this is often not the case; there may be recruiting or training costs or other material considerations that make it significantly more expensive to hire an older worker, who will not work as many years as a younger one. (Consideration of secular laws against age-discrimination lies beyond the scope of this article.)

18 See *Nishmat Avraham, Even Ha-Ezer* 5:7.

19 R. Yaakov Werblowsky pointed out to me that this understanding seemingly presumes that *geneivat da'at* is a form of stealing (see Ritva, *Hullin* 94a), and not that the basis of the prohibition is deceit (see *Sha'arei Teshuvah* 3:184).

is conceivable, but unproven. One might argue that *geneivat da'at* is violated any time the purchaser would feel that had he known the undisclosed information he would not have initially made the purchase. In the Steipler's case, since the bride may feel deceived based on lack of disclosure, the groom is in violation of *geneivat da'at*, even if upon discovery the bride does not want to reverse the deal due to the high emotional cost of divorce.

The Steipler's second suggestion is that *geneivat da'at* in which no actually false claims are made is only a rabbinic violation, and it was not prohibited in a case in which a person would be unable to marry as a result. Although many *Rishonim* assume that *geneivat da'at* is biblically prohibited,²⁰ the Steipler postulates that when no explicit claims are made, but rather information is simply not disclosed, all agree that the prohibition is only rabbinic.

This argument is also debatable, as the Steipler's presumption regarding the nature of *geneivat da'at* seems to be contradicted by *Kiryat Sefer*.²¹ Moreover, one may object on ethical grounds. Hillel famously stated that the central tenet of Judaism is that one should not do onto others what they would not want done onto them. Seemingly, failure to disclose information that the other party would surely want to know is in violation of this dictum. Apparently, the Steipler felt that if the other party would truly know the full picture, she would not see this aberration as a defect; failure to reveal the aberration is therefore not unethical. It is also important to note that the Steipler, as well as the other lenient authorities, are only lenient in cases of great need, where disclosure may result in a person's inability to find a suitable spouse.

Other Authorities

Divrei Malkiel disagrees with the Steipler's conclusion and argues that a man must disclose information that his po-

20 See Ritva, *Hullin* 94a; *Sefer Yerei'im* 124; and *Semag* 155.

21 *Kiryat Sefer, Hilkhos Mekhirah* 18:1.

tential wife might consider a defect, even if the potential husband believes that it is not a defect. When it comes to *geneivat da'at*, we follow perception; one is obligated to disclose something that is perceived as defective even if in reality it is not. Nevertheless, in the case of a medical condition that is popularly associated with male infertility, *Divrei Malkiel* allows the prospective husband to rely on the diagnosis of a doctor. Thus, if his doctor says that his condition does not cause infertility, he need not inform his potential spouse of the condition. This is because most people rely upon doctors, and it is thus reasonable to presume that the condition will not bother his potential spouse. It therefore need not be disclosed.²²

How would *Divrei Malkiel* respond to the Steipler's proof from the story in *Yevamot*? Seemingly, the Talmud allows a person not to disclose information that others perceive as harmful if it is in fact not harmful, indicating that we follow halakhic reality and do not consider false perceptions, whereas according to *Divrei Malkiel*, we follow people's perceptions independent of halakhic reality. *Nishmat Avraham* quotes R. Yosef Shalom Elyashiv, who distinguishes between a case in which the people were acting inappropriately by ignoring the ruling of R. Yehudah, the leading halakhic decisor of the generation, in discriminating against a person whose father was non-Jewish, and the case of a medical condition, regarding which no such definitive stance can be made. If we can definitively state that there is no concern, then the information need not be revealed, even if it is perceived as a defect. However, where no such definitive stance can be taken, as is often the case regarding medical conditions, then the condition must be disclosed, even if in the eyes of one party it is unreasonable to see such a condition as a defect.²³

²² *Divrei Malkiel* 3:90.

²³ *Nishmat Avraham*, supra n.18. Following this logic, in the case of definitive medical information, no disclosure need be made. For example, if one party knows that they are a carrier of Tay-Sachs disease, they are not obligated to disclose this information to their potential spouse if they know that their potential spouse is not a carrier (for example, if they performed genetic

Thus, according to *Divrei Malkiel* and R. Elyashiv, medical information that causes people to question the suitability of a prospective spouse must be revealed. Presumably, the disclosure need not be made on the first date. The affected party can wait until a relationship develops with the other party before disclosing the information, as long as it is done before any significant commitment, such as engagement. This will prevent flippant rejection based on frivolous reasons.

According to R. Yitzhak Zilberstein, *Hazon Ish* also subscribed to this view and maintained that a person must reveal any blemish that would trouble most people. *Hazon Ish* added – from a practical perspective, as opposed to a halakhic one – that it is simply unintelligent to hide anything that will eventually become known to one's spouse. However, one need not disclose such information until the end of the dating process.²⁴ Accordingly, R. Zilberstein maintains that a woman with the BRCA gene, which indicates a strong possibility of developing breast cancer, must reveal this information to a potential spouse. Moreover, this information must be disclosed even if she does not know whether she personally has the gene, but she knows that her mother carries it.²⁵

Along similar lines, R. Yehoshua Ze'ev Zand cites R. Elyashiv as requiring someone whose father is not Jewish to reveal this information, since most people in certain circles would not wish to marry such a person.²⁶ At first glance, this ruling appears to contradict the passage from *Yevamot* cited earlier. R. Mordechai Willig suggests that R. Elyashiv might respond that since nowadays, such information would eventually become known, there is an obligation to reveal it initially. This is different than the story in *Yevamot*, in which the person went to a place where no one knew him and there was no rea-

testing). This would be true even if the Tay-Sachs carrier had good reason to suspect that, due to medical ignorance, their potential spouse would likely view this as a liability.

24 Cited by Rabbi Yehoshua Ze'ev Zand, *Binat Ha-Shiddukh*, 534.

25 Ibid., 558. It is possible that even the Steipler would agree to this ruling.

26 Ibid., 552.

son to suspect that the information would become known. In that case, we can truly say that “what you don’t know can’t hurt you.”²⁷

R. Willig argues, however, that R. Zilberstein’s interpretation of *Hazon Ish*’s position is debatable. In explaining the *gemara*’s statement that one need not disclose factors that would cause the marriage to be a halakhically prohibited union, Ran maintains that disclosure is not obligatory because such factors would not create a *mekah ta’ut*.²⁸ *Hazon Ish* explains that halakhic disqualifications are not grounds for *mekah ta’ut*, even though significant physical blemishes are, because most people are willing to overlook halakhic impediments to marriage, at least temporarily, which is not the case regarding physical defects. Furthermore, *Hazon Ish* maintains that the only relevant moment with respect to *mekah ta’ut* is the moment of marriage. Thus, if at the moment of marriage we were to inform the spouse of this blemish and he or she would nevertheless go ahead with the marriage, there would be no *mekah ta’ut*.²⁹ What emerges from this analysis is that only blemishes that would cause most people to retract were they informed at the moment of marriage must be revealed. This position seemingly accords with that of the Steipler, and thus seems to contradict R. Zilberstein’s ruling in the name of *Hazon Ish*.

Similar confusion surrounds the view of R. Zilberstein himself. *Hafetz Hayim* writes that major flaws (*hesronot atzumim*) must be revealed to a prospective spouse, but not minor ones, arguing that internal diseases and heresy fall under the former category, while lack of scholarship fall under the latter.³⁰ In his clarification of this distinction, R. Zilberstein suggests that whatever factors might cause the other party to seek to terminate the marriage should be considered a major flaw.³¹ Here,

27 R. Mordechai Willig, *Kol Tzvi* vol. 14 – vol. 14 [in press].

28 Ran, *Ketuvot* 59b (Rif pagination).

29 *Hazon Ish*, *Even Ha-Ezer* 79:16. Moreover, it seems from Ran that there would not even be an obligation to reveal such a blemish.

30 *Hafetz Hayim*, *Hilkhot Rekhilut*, chapter 9, example 3.

31 *Binat Ha-Shiddukh*, 522.

we find R. Zilberstein wholeheartedly adopting the Steipler's view, despite his initial hesitancy.

Moreover, despite the stringent ruling of R. Elyashiv cited above, elsewhere, R. Elyashiv seems to acknowledge that there may be cases in which information that would bother one party need not be disclosed. R. Elyashiv addresses the question of whether a woman must inform her groom that she had engaged in premarital sex earlier in her life. On the one hand, disclosure should be mandated, since the groom may view this as a defect, and failure to inform him would therefore constitute *geneivat da'at*. On the other hand, were she not to inform him, he would never know. Therefore, perhaps we should not consider this a defect and not demand disclosure. R. Elyashiv eventually rules that disclosure is mandated, but not because of *geneivat da'at*. A woman who is married with the presumption that she is a virgin, but in fact is not, loses her *ketubah*, and there is a rabbinic prohibition against living with one's wife without a *ketubah*. In this case, since the *ketubah* written at the wedding would be invalid, as it would be based on the false presumption that the bride was a virgin, a new *ketubah* would be necessary, but since the husband would not know of its invalidation, the problem would not be corrected, causing both husband and wife to be in violation of the prohibition of living together without a *ketubah*. Therefore, at some point before the wedding, the woman must inform her groom of her past. Were it not for this technicality, R. Elyashiv implies that disclosure would not be mandated based on *geneivat da'at*, even if her husband would view her past history as a defect.³²

Maharsham disagrees with this conclusion and allows the bride to conceal that she is not a virgin, offering an innovative solution to deal with the problem of the *ketubah*.³³ Seem-

³² See *Kovetz Teshuvot* 1:159. This case may not be comparable to medical issues, since repentance is entirely effective in removing the blight of a sin. Accordingly, absent the issues of the *ketubah*, this case is more similar to the story in *Yevamot*.

³³ Maharsham 7:192. If no other solution is possible, Maharsham allows the *ketubah* to be written as though she is a virgin, without informing the

ingly, he follows the view of the Steipler, who maintains that there is no *geneivat da'at* in a situation in which one would be wrongly discriminated against.³⁴ The Klausenberger Rebbe also allows for lack of disclosure in this case.³⁵

In light of the above contradictions, it is not clear to what extent *Hazon Ish*, *R. Elyashiv*, and R. Zilberstein actually disagree with the Steipler's conclusion.

R. Yosef Fleishman maintains that R. Moshe Feinstein agrees with the Steipler.³⁶ R. Feinstein allows a woman to conceal the fact that she did not have a period until the age of twenty. In his responsum, R. Feinstein deals with the issue of *mekah ta'ut*, but not the issue of *geneivat da'at*, seemingly implying that even though the prospective husband would be troubled by the lack of disclosure, failure to disclose does not constitute *geneivat da'at*.³⁷ R. Zilberstein disagrees with R.

witnesses. The bride should then leave a note in the possession of *beit din*, with her signature, attesting to her forgiveness of the husband of the amount in the *ketubah* that is above the amount she is actually owed. Alternatively, she could rip up the original *ketubah* after the *hupah* and replace it with a corrected one, without the knowledge of the husband.

34 As noted above, n.32, we cannot definitively prove that Maharsham would agree with the Steipler, as repentance may be entirely effective in removing the blight of a sin, therefore entirely eliminating concern for *geneivat da'at*.

35 *Divrei Yatziv, Even Ha-Ezer* 16.

Aside from Maharsham's solution to the *ketubah* problem (n.33 above), there are additional factors that support leniency as well: First, according to Rema (*Even Ha-Ezer* 66:3), a *ketubah* may not be mandated in an environment in which, due to the *herem* of Rabbeinu Gershom, one cannot divorce his wife against her will. This is because one reason for the *ketubah* is to ensure that the husband does not act hastily and divorce his wife in a fit of anger and against her will. Second, even in the case at hand, in which the *ikar ketubah* would be invalid, the *tosefet* may still be collectible, and this would be sufficient to obviate the prohibition of living with one's wife without a *ketubah*. R. Willig writes that R. Zalman Nehemia Goldberg accepted this solution. Finally, *Divrei Yatziv* is not concerned with the possible unlawful theft of the *ketubah*, since the actual *ketuba* is almost never collected.

36 See <http://www.din.org.il/>, *piskei denim* from the fourth of Shevat 5772.

37 *Iggerot Moshe, Even Ha-Ezer* 3:27. Along similar lines, R. Heshie Hirth reported (May 23, 2012), that R. Feinstein told him that he did not have

Feinstein's ruling, maintaining that any factor which would increase the chances for incurable infertility by more than five percent must be revealed.³⁸

R. Moshe Sternbuch adopts a moderate position, somewhat in between the two extremes. The primary criterion that he considers when deciding if a medical condition must be disclosed in the context of marriage is the extent to which the information will affect married life. The more the condition will impose upon the other spouse, the greater the need for disclosure.³⁹

R. Sternbuch distinguishes between three types of situations:

Some conditions must be disclosed, even if not inquired about. This applies both to the prospective spouse and to a third party who knows that the match is under consideration and is aware of the issue in question. Epilepsy and diabetes are examples of conditions that would fall under this category (presumably because of significant dietary restrictions, medical attention, and shortened life span).

There are times that a third party need not reveal the information if not asked, but the potential spouses must tell each other. An example of this is a person who personally does not have epilepsy, but has a family history of the condition. An ulcer might possibly fall into this category if it would impose significant dietary restrictions and thus constitute a significant imposition. Presumably, the restrictions here would be less onerous than the first category.

Regarding a condition that does not bother most people, there is not even an obligation upon the potential spouses to tell one another.

disclose that he had cancer three years earlier, despite the significant chance of relapse and sterility.

38 Cited in *Binat Ha-Shiddukh*, 552.

39 *Teshuvot Ve-Hanhagot* 1:879.

Conclusion

We have seen that there are essentially two views about what information must be disclosed to a prospective spouse. According to the Steipler Gaon, only a condition that would cause one of the parties to retract following the transaction must be disclosed prior to the transaction. While in the case of a sale, an aggrieved party would want to cancel the sale upon discovery of even a minor blemish and the seller must therefore fully disclose even minor blemishes, the case of marriage differs, as generally speaking, once married, one would not want to retract upon discovery of a minor flaw. Disclosure of minor flaws is not mandated.

R. Elyashiv disagrees, averring that all medical conditions that the other party would view as a flaw must be disclosed. Perhaps, however, even R. Elyashiv would agree that in a case in which one is certain that the perceived flaw is not a flaw, such as in the case recorded in *Yevamot*, hiding the information may be permitted. *Divrei Malkiel* seems to adopt this view as well.

Other decisors, including Maharsham, R. Shlomo Zalman Auerbach, and R. Moshe Feinstein, seem to agree with the Steipler's conclusion that sometimes even conditions perceived as flaws need not be disclosed.

In general, Halakhah imposes a high level of honesty and forthrightness in all transactions. Yet, according to many of the aforementioned opinions, marriage is somewhat of an exception. The Steipler argued that marriage is different because a person generally would not wish to renege on a marriage upon discovery of a minor flaw. To this distinction, we may add an additional three factors.

First, in the cases we have been discussing, there is a competing value to the important value of honesty – marriage. Getting married and having children is considered by the Talmud to be a *mitzvah rabbah*, a great *mitzvah*, such that we sometimes allow for the breaking of other laws to promote its facilitation. In the case of commercial transactions, we tend to

err on the side of honesty, because the costs are relatively low. Worse comes to worst, if we are too honest, all we have lost is money. The same cannot be said in the case of marriage. Regarding many of the conditions considered above, if disclosure is made, the effected party may never be able to get married.

Second, we must factor in the halakhic principle of *hayekha kodmin*, “your life comes first.” While the specific applications of this principle are complex, and one may certainly not harm someone else in order to save himself, there are times when we say that a person may put his own interests ahead of others. Even as the Torah states that we must love our neighbor as we love ourselves, the Torah also allows a person to sometimes put his or her own needs first. Accordingly, we may say that even though a potential spouse would want to know about something in advance, one’s own need to get married may take precedence in some circumstances.⁴⁰

Finally, it is common that people are excessively picky when it comes to choosing a spouse, as is clear from the story recorded in *Yevamot*. If someone is asked whether he would consider dating a person with a particular “flaw,” he may say no, but if you fail to inform him about this “flaw” and he meets the other party and likes her, they may quite possibly get married and live happily ever after. Perhaps, for the betterment of society as well as the individual, we sometimes allow harmless information to remain undisclosed, thereby minimizing illegitimate discrimination and serving the greater good.⁴¹

Ultimately, none of these factors could ever justify outright deception or clear violation of the Halakhah. Nevertheless, taken together, they impel some decisors to apply a different standard to disclosures in marriage than they do regarding disclosures in commercial transactions.

40 This is not to say that *hayekha kodmin* would not apply in the financial realm. Rather, here the stakes are higher, and thus the principle more appropriately applied.

41 Of the explanations offered, this argument is the most questionable, as it is subject to abuse and can lead to unfair harm to those deceived.

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Donation after Cardiac Death: Myth or Reality? A Secular and Ethical Analysis¹

The demand for transplantable organs significantly outpaces their availability from both living and brain dead donors. In searching for ways to increase the potential donor pool, various suggestions have been proposed, including allowing donation after cardiac death. The following pair of articles will attempt to explore this particular transplant technology. The first will describe the protocol and its medical basis as well as analyze the ethics behind it and its potential ramifications. The second article will present a halakhic discussion and analysis of donation after cardiac death.

Claire, a 35 year old mother of three, was diagnosed three years ago with renal failure. At that time, she was told

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that dialysis would not be a permanent cure; at some point, she would either have to receive a kidney transplant or die. That day came last Tuesday, when doctors told her that dialysis was failing and that a kidney transplant was crucial. Unfortunately, Claire shares her need for a transplant with 90,000 other patients in the same situation.

Last Tuesday was also a bad day for John Q. Early that morning, John was walking with his friend just three blocks from where Claire lay waiting and worrying. Despite being otherwise healthy, John suddenly suffered a massive heart attack and collapsed. His friend immediately called 911 and started CPR. Paramedics arrived within minutes and began advanced cardiac life support measures to try to restart John's heart, but after 30 minutes of vigorous efforts, drugs, and shocks, John's heart could not be restarted. John was a registered organ donor and even after this resuscitation, his kidneys would have remained viable for donation had they been immediately preserved by keeping oxygenated blood flowing to his kidneys. Sadly, however, because there is no protocol for quickly preserving ones organs after cardiac arrest, his kidneys were not available to save Claire's life.²

If the same John Q. had instead been hit by a car, brought to the hospital, placed on a ventilator,³ and found to be brain dead, his kidneys would have been able to save Claire's life. Since the heart of a brain dead patient still beats and the ventilator oxygenates the blood, John's kidneys would have

2 There are a few protocol trials such as the Bellevue trial that will be addressed later in the paper.

3 Quick summary of cardio-respiratory physiology: Breathing is controlled by the brain, however the heart beats independently of the brain and will continue to beat as long as oxygenated blood supplies the hearts muscle. The heart is the mechanical pump that moves oxygenated blood to the organs (and itself). If a person is brain dead, they will not continue to breathe on their own therefore they need to be on a ventilator to keep their blood oxygenated. If a person meets cardiac criteria for death (meaning their heart no longer pumps) not only do they need a ventilator for oxygen, but they need a machine to pump their blood for them.

been preserved. However, John suffered his heart attack outside the controlled environment of a hospital, and there are currently no protocols in the United States that would allow the immediate preservation of John's organs outside that setting⁴. His viable organs thus rapidly deteriorated and were unsuitable for donation.

This paper addresses the underpinnings of possible preservation protocols, examines alternate successful practices that accept otherwise healthy organs from "uncontrolled" cardiac deaths, and proposes changes that could save tens of thousands of lives a year.

Introduction

Over the past fifty years, modern medicine and medical technology have made enormous strides in patient care, creating formerly unimaginable situations. Probably the most significant medical technological advances center around our ability to maintain and extend lives artificially and advances in organ donation. The scientific community continues to explore new frontiers to enlarge the donor pool, with many national conferences dedicated to increasing the organ supply. Organ donation has similarly been discussed at length in the halakhic literature due to its sensitive nature and complexity, and many *Poskim* have weighed in on the matter, providing a plethora of opinions.⁵ In this series, we will discuss the ethical and halakhic implications of the possible expansion of the pool of possible donors.

The body's organs are kept alive due to the consistent flow of blood and oxygen to those organs. When that flow ceases, an organ will begin to die; at a certain point, the organ will no longer be viable or usable either in its current body or in a new body. In order to keep an organ alive after death and enable donation to a recipient's body, blood flow and oxygen

⁴ See supra n.2

⁵ See Avraham Steinberg, "Transplantation," in *Encyclopedia of Jewish Medical Ethics* (Brooklyn, 2003), Feldheim 1088-1106.

must be maintained to the organs (perfused) to keep the organ alive. The amount of time an organ remains without blood and oxygen is called “warm ischemic time;” the longer the warm ischemic time, the less likely the organ will function properly after donation.

When organ transplantation first developed, donations were taken either from live donors or from donors declared dead after their heart had stopped (“donation after cardiac or circulatory death,” or DCD). Many of these transplants were not successful, often owing to the extended time the organs were maintained without oxygen and blood flow once the heart had stopped.

Currently, most organs are transplanted from brain-dead donors. A patient diagnosed with brain death is maintained on a respirator, which provides oxygen to the blood, and, importantly, his heart is still beating, circulating the oxygenated blood to his organs⁶. Thus, a brain-dead patient’s organs are kept viable and the warm ischemic time remains at a minimum.

The remainder of organs available today come from either live or DCD donors. DCD donors by definition do not have a beating heart and therefore have no way to naturally circulate blood. The warm ischemic time is minimized by cooling the patient’s body immediately after death and/or artificially circulating oxygenated blood.

The medically accepted “Maastricht classification” divides DCD donors into two distinct categories based on the circumstances of the patient’s death – controlled and uncontrolled. In controlled donation, the patient’s cardiac arrest is orchestrated in a hospital setting via the withdrawal of life sustaining treatment, with the intention of organ donation. In these situations, pre-mortem steps are in place to preserve the organs upon the patient’s death. Thus, the length of time the organs are without blood and oxygen is controlled by the medical team and the viability of the organs is therefore readily

⁶ See *supra* n.2.

known. Controlled donors fall under the Maastricht classification III and IV.⁷

Uncontrolled deaths can occur inside or outside the hospital. In either case, death occurs when “no prior plans had been made to procure organs from these individuals, and therefore, the warm ischemia time (during which organs deteriorate) was unpredictable and uncontrolled.”⁸

Uncontrolled DCD is divided into two categories. Category I includes patients who are dead upon arrival of EMS, such as “victims of an accident outside the hospital who are for obvious reasons not resuscitated. An example is a victim of a car accident who dies on the spot due to a broken neck, or a victim of successful suicide.”⁹ This patient’s organs could potentially be used for donation through rapid initiation of artificial circulation and ventilation, along with prompt transportation to the hospital.

Category II includes patients for whom attempts of resuscitation outside the hospital were unsuccessful. In the

7 See G. Kootstra, *Categories of Non-Heart-Beating Donors* (Transplantation Proceedings, October 1995), 27(5) 2893-2894.

Category III is termed “Awaiting cardiac arrest.” This includes patients dying in an intensive care unit (ICU) in cases in which the patient or his family have agreed to organ donation. Once treatment is withheld, the team waits for cardiac arrest, and after a certain amount of time has elapsed (as discussed below), organ donation procedures can begin. Patients in this category include those who have sustained severe brain trauma but do not meet brain death criteria and patients with end-stage neurologic disease (brain tumor and in a coma) who are not considered brain dead.

Category IV is termed “Cardiac Arrest after Brain Death.” Patients who fall under this category have experienced an unexpected cardiac arrest in the ICU after being diagnosed as brain dead. Generally, the medical team first attempts to restore the heart beat; if this attempt proves unsuccessful, they then continue with organ donation procedures.

A final category, Category V, termed “In Hospital Cardiac Arrest,” was instituted in 2000 to include all patients in the ICU who have an unexpected cardiac arrest with failed resuscitation after multiple manipulations. They can also be considered for a non-heart beating organ donation.

8 Koostra, *Categories*, 2893-2894.

9 *Ibid.*, 2893-4.

United States, since there is no way to rapidly obtain consent to preserve the organs, warm ischemic time rises and the organs swiftly begin to die; such patients are therefore not candidates for donation.

Thus, thousands of potential organ donors, like John Q., are currently unable to donate their organs. The American Heart Association estimates that each year in the United States, about 335,000 deaths are due to sudden cardiac arrest. Although reports of the rates of survival vary among EMS systems, around 95% of sudden cardiac arrest victims die before they reach the hospital. At present, virtually all of these individuals are denied the opportunity to be organ donors. Of those 335,000 patients, many are not candidates due to criteria unrelated to where their deaths occurred, but of those remaining, there are potentially 35,000 donors (70,000 kidneys!) who have are not able to donate.¹⁰ Despite the increase of organ availability due to donations after brain death, there are still not enough organs for the over 113,000 on the waiting list in the United States; every day, 19 people in the United States die while waiting for a donated organ.¹¹ Even if donors who die outside of a hospital could provide only kidneys for transplant, their donations would make an enormous impact on the current deficit; over 91,000 people currently on the transplant list are waiting for kidneys.¹²

Is there a way to change these statistics by enabling organ donation in uncontrolled DCD situations? In these cases, if there were a way to know that the patient consented to organ donation (via a donor card, for example) and the proper equipment were available, doctors could immediately begin organ preservation to maintain the organs' viability after death via

10 James Childress and Catherine T. Liverman, *Organ Donation: Opportunities for Action* (National Academies of Science, Washington DC, 2006), 156.

11 See www.unos.org and <http://www.thenationalnetworkoforgandonors.org/about.html> for the most current figures.

12 <http://optn.transplant.hrsa.gov/data/> (retrieved April 3, 2012).

cardiac massage and artificial ventilation.¹³ In Spain, for example, there is presumed consent, which means that emergency personnel can legally begin preserving the body immediately upon death, without obtaining explicit consent. Patients in Spain are brought to the emergency room via mobile ICU, which provides mechanical ventilation, external cardiac massage, and fluid perfusion. Upon arrival at the hospital, the emergency department staff takes over and begins full ACLS (Advanced Cardiac Life Support) resuscitative measures. After some length of time, the resuscitative measures are deemed futile and are terminated. If the donor meets DCD criteria,¹⁴ the hospital staff can then begin cooling and preserving the organs. Such preservation measures extend organ viability for up to an additional 240 minutes, allowing more time to obtain consent for donation from the next of kin.¹⁵¹⁶

Numerous ethical questions are raised by the possibility of both controlled and uncontrolled DCD. Those pertaining to controlled DCD relate to both the pre-mortem context – what can and cannot be done, even with prior consent, to preserve

13 See H. Myron Kauffman, “Non-heart-beating donors (then) and donation after cardiac death (now),” *Transplantation Review* 21 (2007): 237–48: “Categories 1 and 2 were defined as uncontrolled because no prior plans had been made to procure organs from these individuals, and therefore, the warm ischemia time was unpredictable and uncontrolled. In countries that have presumed consent, immediate insertion of femoral catheters for either flush cooling or extracorporeal perfusion for category 1 and 2 donors is possible. However, where presumed consent does not exist, cardiac massage with artificial ventilation is the only available method of bridging the time until consent can be obtained.”

14 There is no uniform DCD criteria, as different protocols have different requirements.

15 See A. I. Sanchez-Fructuoso et. al, *Transplantation Reviews* 21 (2007) 249-254; J. R. Nunez, “Non-heart beating donors: An excellent choice to increase the donor pool,” *Transplantation Proceedings* (2005): 3652. Cf. S. P. Wall, “Derivation of the uncontrolled donation after circulatory determination of death protocol for New York City,” *American Journal of Transplantation* 11 (2011): 1417-1426.

16 It is important to note that Spain’s policy *does not* allow organ donation without consent, just organ *preservation* without consent.

the organs without either harming the patient while alive or hastening his death – as well as how long to wait after asystole (cessation of heartbeat) before initiating organ retrieval. Since cardiac arrest in uncontrolled DCD occurs in the absence of medical personnel and necessary equipment, the ethical issues in that context are all related to post-mortem questions, such as what steps can be taken after death without consent to preserve organs and buy time for the hospital to seek consent from the next of kin.

In this article, we relate to these questions from both a secular ethical and halakhic perspective. According to almost all opinions, Halakhah sanctions organ donation *provided that the patient is dead*.¹⁷ While the halakhic definition of death is subject to debate, when cardiac death has occurred – as in DCD – all opinions concur that the patient is dead. The halakhic issues are therefore related in this context to the same general ethical questions outlined above.

Controlled DCD

Controlled DCD candidates usually suffer from profound loss of cognitive capacity, but they are not brain-dead. They are therefore considered alive according to all secular and religious perspectives. These patients are often supported by a host of machines and medications that maintain adequate perfusion to the organs. In order for their heart to stop, their care must be withdrawn.

17 While *Binyan Tzion* (1:270) and others do not condone organ donation, most *Poskim*, including R. Moshe Feinstein, R. Shlomo Z. Auerbach, and *Hatam Sofer*, do. According to those who maintain that brain death is indeed halakhic death, organ donation faces far fewer challenges. The majority of *Poskim*, however, maintain that such patients are halakhically alive, posing grave difficulties, as viable critical organs (heart, lung) are currently only harvested from brain dead patients. For a detailed analysis of brain-death in Halakhah, see David Shabtai, *Defining the Moment: Understanding Brain Death in Halakhah* (New York, 2012) and Mordechai Halperin *Rega Ha-Mavet* (The Dr. Falk Schlesinger Institute for Medical-Halachic Research, Jerusalem 2007) (Hebrew).

In 2007, the New York State Department of Health produced an analysis of and guidelines for controlled donation after cardiac death.¹⁸ The paper identified five steps that occur during the DCD donor process: the decision (and obtaining of consent) to withdraw treatment, assessment for DCD, pre-mortem interventions, the actual withdrawal of treatment, and cardiac arrest and declaration of death.¹⁹

According to US law, the patient or his legal representative has the right to decide whether to continue or withdraw life-sustaining treatment.²⁰ As part of the decision to withdraw care, the patient must have an order not to resuscitate (DNR). Without such an order, the physicians attending the dying patient are obligated to reinsert the breathing tube and attempt resuscitation. With a DNR in place, however, health professionals may not attempt any resuscitation or intervention after a breathing tube has been removed.²¹

Pre-mortem interventions, which increase organ viability, are crucial to successful organ donations however the protocols for pre-mortem interventions vary greatly. Some hos-

18 *Donation After Cardiac Death: Analysis and Recommendations from the New York State Task Force on Life & the Law* (April 2007). This report can be found online at

http://www.health.state.ny.us/regulations/task_force/donation_after_cardiac_death/.

19 The assessment for DCD is beyond the scope of the present article and will not be discussed here.

20 The New York Family Health Care Act (NYFHCA), passed in 2010, delineates how a surrogate decision maker should make this decision when the patient did not make his wishes known through a living will – either based on the wishes of the patient or substituted judgment (an attempt by the surrogate decision maker to establish with as much accuracy as possible what decision the patient would have made if the patient were competent to do so). See 2010 N.Y. Laws ch. 8, A.7729-D (Gottfried et al.) and S.3164-B. (Duane et al.). Section 2 of Chapter 8 amends N.Y. Public Health Law (PHL) to create “Article 29-CC Family Health Care Decisions Act.” cf. R. Swidler, “New York’s Family Health Care Decisions Act: The Legal and Political Background, Key Provisions and Emerging Issues,” *NYSBA* (2010): 18-27.

21 *Donation After Cardiac Death*, (April 2007) 1-16.

pitals, consistent with the 2000 Institute of Medicine report (“IOM report”),²² allow the insertion of a large catheter into the patient’s leg before death in order to rapidly supply cooling and preservative fluids upon death. To preserve the viability of the donor’s organs, other hospitals go even further and allow the use of various medications that help increase blood flow to vital organs but which may lower the patient’s blood pressure (vasodilators), as well as the intravenous administration of heparin, which helps prevent the formation of blood clots in the donor’s organs. From a bioethical perspective, interventions performed after death do not pose any ethical problems, as the patient consented to organ donation, but these types of pre-mortem interventions pose a series of ethical dilemmas. Thus, the New York State Health Task Force analysis suggests that “hospital policies should support the use of heparin, but should not currently support the insertion of additional catheters pre-mortem or the addition of medications solely for the purposes of...organ donation,” since these may hasten the patient’s death.²³

After the decision to withdraw care and donate organs has been made and pre-mortem interventions have been implemented, the patient is extubated (their breathing tube is removed) and the ventilator is shut off. After the declaration of death, organs can be harvested for transplantation. Declaring the patient dead, however, is far from a simple process.

A. The Dead Donor Rule and Declaration of Death

The “Dead Donor Rule” (DDR), which states that the patient must be declared dead prior to the removal of organs, is

22 *Non-Heart-Beating Organ Transplantation: Practice and Protocols Committee on Non-Heart-Beating Transplantation II: The Scientific and Ethical Basis for Practice and Protocols* (Washington DC: National Academy Press, 2000), 51.

23 *Donation After Cardiac Death*, 13. For a detailed discussion of the risks of heparin administration, see also Elizabeth D. Motta, “The Ethics of Heparin Administration to the Potential Non-Heart-Beating Organ Donor,” *Journal of Professional Nursing* 21:2 (March–April 2005): 97–102.

accepted as authoritative by the transplant and bioethical communities. The precise definition of death is extremely important in organ donation, as it is crucial to minimize the time that the organs go without oxygen without violating the dead donor rule.

While death can be medically defined by many different criteria, the legally accepted criteria require either cardiac or brain death. According to the UDDA (Uniform Determination of Death Act), once there is irreversible cessation of circulatory and respiratory functions, the patient can be declared dead.²⁴ Brain-death was defined by the Ad Hoc Committee of Harvard Medical School in 1968 as the irreversible cessation of brain and respiratory functions,²⁵ and this has been accepted in the United States and many other countries as legal death.²⁶ Both definitions of death demand irreversibility, that the current state cannot be changed – the heart will not begin to beat again or the brain will not function anymore. As the current discussion surrounds donation after cardiac death, we will presently consider only the declaration of death following cessation of heartbeat.²⁷ At what point can irreversible cessation of heart function be declared, paving the way for organ donation in compliance with the DDR?

B. The Definition of Irreversibility

With regard to cardiac death, three stages of the dying process present potential points for declaring the patient dead. At Point A, the heart stops. Even if resuscitation is not attempted at this point, the heart may begin to pump again on its own (autoresuscitation). At some later point after the cardiac arrest,

24 Uniform Anatomical Gift Act (UAGA 2006).

25 “Report of the Ad Hoc Committee of the Harvard Medical School to Examine the Definition of Brain Death: A Definition of Irreversible Coma,” *JAMA* 205 (1968): 337-40.

26 This definition was confirmed by the President’s Bioethics Council in 1981.

27 As noted above, the acceptability of brain-death in Halakhah is subject to much debate and will not be discussed here. See *supra* n.11.

the patient reaches Point B, when the heart can no longer start on its own, but resuscitative efforts may cause it to restart. At an even later point after the arrest, Point C, the heart cannot be restarted even with resuscitative efforts.²⁸

If the patient could potentially recover with resuscitative efforts, is he considered dead in their absence? When a patient's heart stops at Point A, is he "dead"? If we were to effectively resuscitate the patient or if his heart started to beat on its own, it would seem to indicate that the patient was not dead at Point A, even though his heart was no longer beating. Similarly, at Point B, the heart may no longer restart on its own, but it may be possible to restart it through resuscitative efforts. Can he be said to be "dead"? Essentially, at what point in the dying process has the heart irreversibly ceased functioning?

This question is particularly pertinent in a case of DCD, as in such situations, a DNR must be in place and no attempt will be made to restart the heart. If no attempts to resuscitate will be made, can the patient be declared dead at Point A, Point B or Point C? The answer to this question is critical, as the time difference between Point A and Point C may greatly affect the possibility of a successful organ transplant.

While providing a legal definition of death, the New York State Task Force does not define irreversible or specify when irreversible cessation of cardiac activity occurs.²⁹ Traditionally, death was declared only after resuscitative measures failed to restart – meaning, at Point C. The IOM 2000 report, however, greatly broadens the definition of cardiac death, suggesting several possible meanings of the word "irreversible:" "1) Will not resume spontaneously (autoresuscitate); 2) Cannot be started with resuscitation measures; 3) Will not be restarted on morally justifiable grounds"³⁰ (e.g., if patient has a DNR

28 See K. Hornby, et al, A systematic review of autoresuscitation after cardiac arrest, *Critical Care Med* 2 38, 5 (2010):1246-1253. Some papers have noted that autoresuscitation can occur even after failed resuscitation, but this does not appear to be the norm.

29 *Donation After Cardiac Death*, pp1-16.

30 Non-Heart-Beating Organ Transplantation, 2000, p24.

order). The IOM, and the transplant community as a whole, chose a hybrid definition of the first and third meanings, rejecting the second, thus concluding that death occurs when cardiopulmonary function will not resume spontaneously and will not be restarted on moral grounds. This is a modified version of Point B, at which point the heart will not restart on its own and will not be restarted with external measures. Accordingly, the definition of cardiac death is broadened to people whose hearts **could** be restarted but practically **will not** be.

This broader definition has been called by one ethicist “moral irreversibility”³¹ and has been decried by others as effectively killing the patient, as organ retrieval procedures begin before the patient is truly dead.³²

Regardless of the ethical acceptability of the IOM’s conclusion, even the time it designates as cardiac death – Point B – is difficult to determine conclusively. A recent paper concluded that it remains unclear at which point the heart will no longer restart on its own.³³ S. Dhanani et. al and the IOM report mention certain protocols that permit declaration of death as short a time as two minutes after cardiac arrest, while other hospitals required ten minutes of absent heartbeat before declaration.³⁴ The New York State Health Task Force and the

31 J. Menikoff, *Law and Bioethics* (Georgetown University Press, 2001), 464.

32 See Robert M. Veatch, “Donating hearts after cardiac death – reversing the irreversible,” *New England Journal of Medicine* (2008): 672-673, who writes that removing organs from a patient whose heart not only can be restarted but also has been or will be restarted in another body is ending a life by organ removal. See also idem., “Transplanting hearts after death measured by cardiac criteria: The challenge to the Dead Donor Rule,” *Journal of Medicine and Philosophy* 35 (2010): 313–29; J. Bernat, “How the distinction between ‘irreversible’ and ‘permanent’ illuminates circulatory–respiratory death determination,” *Journal of Medicine and Philosophy* 35 (2010): 242–55.

33 K. Hornby, “A systematic review of autoresuscitation after cardiac arrest,” *Critical Care Medicine* 38 (2010): 1246–53.

34 S. Dhanani et. al, “Variability in the Determination of Death After Cardiac Arrest : A Review of Guidelines and Statements,” *Journal of Intensive*

Institute of Medicine have recommended a period of five minutes of cardiac arrest as an “appropriate pause” before beginning organ donation.³⁵

Uncontrolled DCD

Having addressed the issues raised by controlled DCD, we will now examine the uncontrolled DCD (uDCD) process. In these cases, patients experience cardiac arrest outside the hospital and undergo full cardiac resuscitative measures. After resuscitative measures have been exhausted, the patient is dead, as he meets the criteria for irreversible cessation of cardiac and respiratory functions. For the purposes of our present discussion, we will not differentiate between Maastricht categories I and II.³⁶

As noted above, with rare exceptions, uDCD is not permitted in the United States.³⁷ No protocols exist for preserving even young, healthy organs that become available through accidents or other causes unrelated to the overall health of the donor. Without such protocols, the equipment and training necessary for immediate organ preservation, including mobile ICU's and ECMO (*Extracorporeal membrane oxygenation*³⁸) are simply not available for most uDCD patients. As a result, thousands of potentially life-saving organs are lost.

Care Medicine 27(4) (2012): 238-252; Non-Heart-Beating Organ Transplantation, 40.

35 *Donation After Cardiac Death*, p13.

36 We similarly do not discuss Category V, which was instituted in 2000 and refers to patients in the ICU who experience unexpected cardiac arrest.

37 There has been limited practice in the United States, such as from 1993-1997 through the Washington DC Hospital Center's Rapid Organ Recovery Program and as per the New York City 2011 protocol, which will be discussed below.

38 Extracorporeal membrane oxygenation (ECMO) is a treatment that uses a pump to circulate blood through an artificial lung back into the bloodstream. This system provides heart-lung bypass support outside of the body. <http://www.nlm.nih.gov/medlineplus/ency/article/007234.htm> accessed September 12 2012.

In general, there are four major reasons why uncontrolled DCD protocols are not commonplace in the United States: 1) The assumption that uDCD organs are of inferior quality; 2) EMS response times; 3) lack of patient and family trust in the health care system; and 4) the legality of beginning preservative measures before obtaining consent from the next of kin.

Current scientific research indicates that uDCD programs not only can work, they also have a significant impact on organ donation as a whole, and the authors of the 2006 paper “Organ Donation: Opportunities for Action” call upon the American medical-legal community to implement more uDCD programs.³⁹ UDCD has been practiced successfully for over 20 years across Europe, and research published in Spain delineates the procedures, protocols, and success rates of uDCD,⁴⁰ refuting the American medical community’s perception that uDCD organs are of inferior quality or pose an increased risk to the recipient. In fact, some papers have shown that uDCD organs are actually preferred over brain-dead organs because the organs are generally younger and healthier.⁴¹ About two years ago, the New York Fire Department and Bellevue Hospital in New York City created a pilot uDCD program focused on retrieving kidneys. While to date it does not

39 Childress and Liverman, *Organ Donation: Opportunities for Action*, Committee on Increasing Rates of Organ Donation (National Academies Press, Washington DC, 2006).

40 Some of the successful studies from Spain include M. Gomez, et al., Liver Transplantation with Organs from Non-Heart-Beating Donors, *Transplantation Proceedings* 29 (1997) 3478-3479; Gomez M, et al. The use of kidneys from non-heart-beating donors for transplantation. *Transplantation Proceedings* 25(1) 1993:1501-1502; J. Alvarez et al. Type I non-heart-beating donors: Policy and results. *Transplantation Proceedings* 29(8) 1997:3552. J. Alvarez et. al , Non-heart-beating donors from the streets: An increasing donor pool source. *Transplantation* 70(2):2000 314-317; J. Alvarez et al, Five years of experience with non-heart-beating donors coming from the streets. *Transplantation Proceedings* 34(7): 2002 2589-2590.

41 J. R. Nunez et al, “Non-heart beating donors,” *Transplantation Proceedings*, 37 (2005) 3651-3654.

appear that the program has recovered any organs, the Bellevue protocol directly addresses the concerns of the American medical community regarding uDCD. The first major hurdle was to change the medical communities assumption regarding the quality of uDCD organs. The transplant community in America, has been under the impression that organs from uncontrolled DCD donors are of inferior quality and therefore have not significantly explored the possibility of using these organs. However, the data from Spain shows that this impression is incorrect.⁴² Next, we will address the other concerns preventing widespread uDCD protocols.

42 Wall, "Derivation of the uncontrolled donation after circulatory determination of death protocol for New York City,," 1417-26. The Bellevue protocol, as cited by Wall, reads as follows:

The NYC UDCDD protocol commissions a dedicated organ preservation unit (OPU) staffed with a family services specialist, two organ preservation technicians, and an emergency medicine physician. After vigorous attempts at resuscitation fail, EMS responders, blinded to OPU availability, may announce termination of resuscitation (TOR) if established criteria are met. OPU staff will arrive at the arrest location within 2 min of termination and determine whether there is evidence of prior first person consent for organ donation (by searching the NYS Registry of Consent or for duly executed documentation). Staff will conduct pre-hospital screening examinations, including brain stem assessment, and if eligible, will commence preservation only if an AP affirms the deceased's wish.

Heparin (and thrombolytics for liver preservation) will be infused followed by 1 min of manual chest compressions and transfer of the deceased to the organ preservation vehicle (OPV). In the OPV, technicians will continue preservation using mechanical ventilation and an automated chest compression device. At the hospital, OPU staff will repeat the screening examinations to ensure preservation procedures do not impede "natural progression to irreversible brain death." Once confirmed, nECMO will be established, standard NYODN screening procedures will be followed, and if the deceased is eligible and the AP affirms the deceased's prior wish, organ procurement will ensue according to standard protocols. Warm ischemic time, defined as time from EMS initiating resuscitation to establishing nECMO, will not exceed 120 min. This definition was chosen as a proxy for true warm ischemic time, as time of cardiac arrest is often unreliable or undocumented.

A. Response Time

The issue of EMS response time is indeed an important one. For kidneys to remain viable, resuscitative measures must begin within 15 minutes of witnessed cardiac arrest,⁴³ and many rural areas lack the personnel and equipment to allow arrival within this time frame and to maintain the organs during transport to the hospital. Thus, a uDCD program would not be feasible in most rural areas in the United States. In urban areas, however – such as the one served by Bellevue Hospital – extensive trauma and emergency care operations exist, making a uDCD program plausible.⁴⁴ The Bellevue protocol requires that cardiac arrest occur within a 10 minute ambulance ride of the hospital. This distance limit was created because the preservation methods to maintain perfusion used in the field do not allow optimal organ support. Such time and distance limits should satisfy the second major concern.

B. Trust in the Health Care System

Proponents of uDCD also address the issue of patient and family trust in the health care system. The necessary legislation and money will only be committed to an uncontrolled DCD program once patients and families have complete confidence “that all emergency and resuscitative efforts will be made and that organ donation will be considered only in the event of a loss of life after every appropriate measure has been attempted.”⁴⁵ The community must fully believe that the healthcare workers’ decisions are made in the best interest of their dying patient, and not controlled by a desire to maximize organ donors.

The Bellevue study recognized the importance of these concerns and therefore had a team of bioethicists review the pro-

43 Witnessed cardiac arrest is necessary in order to determine how much time has passed without circulating oxygenated blood.

44 Childress and Liverman, *Organ Donation: Opportunities for Action*, 139 (Modified Madrid Criteria).

45 *Ibid.*, 156.

tol to ensure that it would not violate the Dead Donor Rule. To make sure that every patient receives the optimal care, this team reviewed the research and determined that termination of resuscitation should only occur after a full 30-minute resuscitative attempt.⁴⁶ To ensure that the responders would provide a full resuscitative attempt rather than try simply to maximize organ availability, responders are kept unaware of the patient's organ donor status as well as the availability of the organ preservation unit (OPU). The OPU is a "shadow unit" assigned to certain types of calls without the knowledge of the paramedics; the unit parks nearby and is available to move in should the EMTs terminate resuscitation. The rescuers thus give their best

46 During resuscitative efforts, the patient is connected to an EKG monitor to detect if any heart activity resumes. If there is no heart activity after a certain period of time, those efforts will be terminated. Although emergency medical technicians have developed a method for deciding when to stop these efforts, there is no universal protocol defining "Point C," when resuscitative efforts will no longer be effective. The American Heart Association (AHA), among others, gives no specific time and leaves the decision for the treating team to determine; see "Management of Cardiac Arrest," *Circulation* 112 (2005): IV-58-IV-66 and reiterated in the updated version, Part 8: "Adult Advanced Cardiovascular Life Support: American Heart Association Guidelines for Cardiopulmonary Resuscitation and Emergency Cardiovascular Care," *Circulation* 122 (2010): S729-S767. European protocols suggest that the patient must remain in asystole, without any spontaneous return of circulation, for times ranging from two to thirty minutes despite all resuscitative attempts. See, for example, *A Code of Practice for the Diagnosis and Confirmation of Death* (Academy of Medical Royal Colleges, UK, 2008); *Recognition of Life Extinct (ROLE) by Ambulance Staff* (The Joint Royal Colleges Ambulance Liaison Committee [JRCALC], 2003), an update P. Baskett, J. Fisher, A. Marsden, "Recognition of death by ambulance personnel," Joint Colleges Ambulance Liaison Committee Newsletter (1996): 1. For discussion of in hospital cardiac arrest, see Carl van Walraven, "Derivation of a Clinical Decision Rule for the Discontinuation of In-Hospital Cardiac Arrest Resuscitations," *Arch Internal Medicine* 159 (1999): 129-34 among others. According to the Madrid Protocol, the patient may be pronounced dead by a physician not associated in any way with the transplant team only after (1) At least 30 minutes of unsuccessful CPR has been attempted and (2) 10 minutes of an absent heartbeat after termination of resuscitative efforts. Only at that point can perfusion or organ retrieval proceed.

efforts to resuscitate. Only after a vigorous attempt has failed and the patient has met the criteria for terminating resuscitation will the responder call medical control for permission to terminate resuscitative efforts.⁴⁷

Even with a full resuscitative attempt, how long after the heart stops would one have to wait before determining that the heart can no longer be restarted? A recent study reported that when no CPR was given (for e.g. with a controlled DCD patient) there were no reported cases of autoresuscitation (heart did not restart). Various American protocols suggest waiting between two and ten minutes after asystole in controlled DCD before declaring death. (Some reports have even waited 75 seconds after the heart stopped in a pediatric patient before declaring death.⁴⁸) Therefore, it would seem that same time or even shorter should be applied where there is a full failed resuscitative effort as is the case of uDCD. The time to autoresuscitation is important to determine as that is the time that one would have to wait after terminating resuscitation before beginning any post mortem steps.

C. Organ Preservation After Death

From a strictly ethical-legal perspective, the fourth issue – beginning preservative measures before obtaining consent from the next of kin – is significantly more complicated. To best preserve the organs, preservation measures must begin immediately after the declaration of death, before informed consent is obtained.⁴⁹ Can post-mortem procedures such as in-

47 All terminations of resuscitation (TOR) require contacting medical control. The TOR criteria in the NYC UDCCD protocol (supplemental table 2) require at least 30 minutes of EMS resuscitation, including at least 20 minutes of advanced life support; effective airway management; a non-shockable rhythm (asystole or flat line); and no return of spontaneous circulation at TOR.

48 M. Boucek, et al., "Pediatric heart transplants after declaration of cardio-circulatory death," *New England Journal of Medicine* 359 (2008): 709-14.

49 See Childress and Liverman, *Organ Donation: Opportunities for Action*, 2006 p 158.

sersion of a femoral catheter or administration of cooling fluids or heparin, be initiated without the consent of the family?

In the Washington, DC 1993 Rapid Organ Recovery Program, legislation stipulated that post-mortem preservation could be performed without requiring consent; the actual harvesting of organs would have to wait until it could be determined to be the patient's or family's wishes.⁵⁰ Alternatively, in Spain, where much of the research has been done, there is an opt-out protocol whereby all Spaniards are considered to consent to postmortem preservation methods unless they expressly state otherwise. Some ethicists maintain that it is not only ethically permissible, but possibly obligatory to preserve the body until the wishes of the patient and family can be determined.⁵¹ Rather than go through a prohibitive legislative process to change the law in New York City, Bellevue administrators asked various legal agencies whether the Bellevue protocol violated the law.⁵² After much discussion among the various

50 By the time the IOM report was published, legislation that allowing immediate preservation without consent existed in several Western democratic countries and in three jurisdictions in the United States (Washington, D.C., Virginia, and Florida).

51 See J. Childress, "Organ donation after circulatory determination of death: Lessons and unresolved controversies," *Journal of Law, Medicine, and Ethics* 36 (2008): 766-771. See R. Bonnie, S. Wright, K. Dineen, "Legal authority to preserve organs in cases of uncontrolled cardiac death: Preserving family choice," *Journal of Law Medicine and Ethics* (Winter 2008): 36(4):741-751. The authors are surprised by the common practice in which we "initiate and preserve mechanical ventilation and other preservation procedures after patients have been declared dead according to neurological criteria while families are notified of the patients death and approached about donation. In other words, hospitals and organ procurement organizations apparently assume that they now have the necessary authority to preserve organs after death had been declared according to neurologic criteria." I would argue, however, that the cases they describe are very different than DCD cases, as neurologically dead patients are by definition attached to machinery; their doctors merely continue these measures while awaiting consent. This is not comparable to initiating preservation measures in dead patients, such as a thumper, large bore femoral catheters, and intubation.

52 See R. Bonnie, et al, "Legal Authority," 610, 741-51. See also HRSA, Organ Procurement and Transplant Network, National Organ Transplant

city departments, it was determined that the hospital could legally preserve patients' organs post-mortem without any need for consent. The commission concluded that placing a catheter is "no more intrusive than that which morticians typically perform;"⁵³ therefore, preservation efforts without consent would be acceptable provided the community does not oppose such efforts. The "mortician analogy" appears debatable, as a mortician usually prepares the body for burial at the request of the deceased family, while the question at hand is whether intrusive methods may be used on a dead body without family consent.⁵⁴ It is possible that the Bellevue report meant that inserting a catheter and pumping fluids through the body is thought to be so unobtrusive that it is permitted.

The Bellevue report identified additional concerns that must be addressed. First, it was recognized that various religious traditions regarding dead bodies would make institution of this protocol difficult, if not impossible. Furthermore, societal perception of performing any non-consensual actions on a dead body might pose a problem. For example, the Bellevue program was labeled "unethical" by the media, which claimed that "crews would swoop in and perform procedures on corpses without consent," and calling the OPU a "meat wagon."⁵⁵ In response, the protocol was changed to require first person consent for organ donation (such as a driver's license making an anatomical gift, an organ donor card, or membership in the NYS organ donor registry) before allowing immediate preservation activities. Furthermore, although the wishes of the de-

Act, 2008, available at <http://optn.transplant.hrsa.gov/policiesAndBylaws/nota.asp.29>; and Laws NCoCo US. Revised Uniform Anatomical Gift Act. 2006, available at <http://www.anatomicalgiftact.org/DesktopDefault.aspx?tabindex=1&tabid=63>.

53 Wall, "Derivation of the uncontrolled donation after circulatory determination of death protocol for New York City," 1419.

54 The Bureau of Labor Statistics Handbook, <http://www.bls.gov/ooh/Personal-Care-and-Service/Funeral-directors.htm>, retrieved April 5, 2012.

55 Ibid.

ceased legally supersede those of his family,⁵⁶ if anyone at the scene objected to the preservation activities, they would be discontinued.

As a result of all of these safeguards, the Bellevue program ultimately did not obtain any organs. Nevertheless, it was an important valiant effort and a good start towards changing America's uDCD protocols.

Conclusion

Uncontrolled donation after cardiac death holds much potential for saving lives, and programs of this nature should continue to improve their protocols within appropriate ethical boundaries. At the same time, we must remain sensitive to the practical and emotional aspects of such a program. For example, when a death occurs in the field, it would be quite difficult for a family member, immediately following a frantic resuscitative attempt and the discovery that their loved one is dead, to properly understand and deliberate on such a decision. From a Jewish perspective, it seems that organ preservation efforts would be permitted without necessitation of first person consent. One possible solution may be something like an opt-in or uDCD checkbox on a driver's license for those who, for religious or other reasons, would not otherwise donate organs. An opt-out program that would allow only temporary organ preservation would also be helpful. Clearly, further research must be done to determine a system that will accommodate both American law and religious traditions.

56 Uniform Anatomical Gift Act (UAGA 2006).

RABBI DAVID SHABTAI, MD

Donation After Cardiac Death: Halakhic Perspectives

Virtually all halakhic decisors agree that donating life saving organs after death is certainly permissible; most view it as appropriate and commendable. While the Torah proscribes desecrating a corpse, this prohibition, like almost all others, is set aside in the context of life saving. Taking a life-sustaining organ from a living person, however, would kill the donor, and even though done for the noble purpose of *pikuah nefesh*, murder is an exception to the general rule. Murder is never permitted, regardless of the reasoning or rationale. We are thus left with harvesting life-sustaining organs only from the dead.

Most transplanted organs are harvested from brain dead patients, with the assumption being that a brain dead patient is dead. While accepted by US law, the halakhic status of brain death is debated.¹ Since vital organs are in high demand but short supply, efforts are also being made to harvest transplantable organs from patients declared dead by the traditional cardiopulmonary criteria (when the heartbeat and respirations irreversibly cease). These efforts have spawned various dona-

¹ The interested reader is directed to this author's *Defining the Moment: Understanding Brain Death in Halakhah* (New York: Shores Press, 2012) for a more in depth discussion.

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tion after cardiac death (DCD) protocols, which try to balance a proper moral and ethical determination of death with the transplant viability of harvested organs. The scientific, ethical, and legal frameworks for DCD protocols, in both controlled (cDCD) and uncontrolled (uDCD) settings, were examined by R. Bardos. This article will analyze some of the halakhic aspects and questions involved in donating organs after cardiac death.

Reversibility

Almost all halakhic decisors incorporate irreversibility in their criteria for determining death.² A person cannot be declared dead by virtue of his heart stopping and cessation of breathing when these functions can return. Death is definitionally final and can only be determined when respiration and cardiac function irreversibly cease. This is not a modern notion. Rambam already notes that before starting burial preparations, one must “wait a short while (*yishheh me’at*) for fear that the person has merely fainted.”³ *Hatam Sofer* explains that Rambam was concerned that while a person may appear to currently not be breathing, this does not necessarily mean that respirations have irreversibly ceased. It is very possible that they might return, and a definitive determination of death must wait until sufficient time has passed to rule out that possibility.⁴

Determining what “irreversibility” means may enormously influence the practical determination of death. What must not be reversed and in what timeframe? Must irreversibility be practical or merely theoretical? These questions play a major role in analyzing the halakhic parameters of donation after cardiac death protocols.

2 Cf. *Teshuvot Ateret Paz* (1 vol. 3, *EH9*), however, who discusses the potential ramifications of viewing resuscitation as revival from the dead.

3 *Hilkehot Avel* 4:5.

4 *Teshuvot Hatam Sofer*, *YD* 338.

Uncontrolled Donation After Cardiac Death

Uncontrolled donation after cardiac death (uDCD) protocols apply to a person who has just suffered a cardiac arrest and for whom emergency medical technicians (EMTs) have attempted resuscitative measures but were unfortunately unsuccessful. After CPR has stopped and death is declared, the uDCD protocol may come into effect. EMTs can contact an organ preservation unit, whose purpose is to try to maintain the transplant viability of the organs of the recently deceased patient. The mechanisms of preserving the organs include forcing blood to continue to circulate within the dead body by attaching a “thumper” to the person’s chest, which mechanically and repeatedly presses on the chest, forcing blood out of the heart throughout the circulatory system. Oxygenation is also provided artificially through a bag valve mask (Ambu bag) or a mechanical ventilator in order to allow the blood flow to contain necessary oxygen. R. Bardos discussed some of the ethical issues involved in stopping CPR, obtaining consent, and initiating the organ preservation methods. The following analysis will relate specifically to some of the halakhic aspects of determining this patient’s death and preserving his organs; the halakhic analysis of these other issues is beyond the scope of this paper.

A. Death by Irreversibility – Tried and Failed Resuscitation

In uDCD, the question of whether or not the patient is dead is not overly complicated. Once resuscitative efforts have been deemed to have failed, the patient’s heartbeat and respiration can certainly be described as having irreversibly stopped; there is no chance that this patient will ever breathe again on his own or that his heart will ever beat again. If that possibility existed, we can assume that they would have already returned with proper resuscitative measures. Since they have not recovered, it is clear that they have both irreversibly failed. Only after this determination do the EMTs initiate the organ preserving

measures, including attaching a thumper to the patient's chest and connecting the patient to an oxygen source.

It is important to emphasize that even though the organ preserving techniques manage to circulate oxygenated blood throughout the body, the patient is still dead. In uDCD, circulation is completely artificial; using a thumper is no different than tilting a corpse back and forth and letting the blood flow as it will. If one were to bang a corpse's hands together, no one would claim that the corpse is clapping! Similarly, the circulation of oxygenated blood in this case is not indicative of continued life, since the patient cannot and will never regain the ability to circulate blood on his own. The combination of a thumper with a ventilator allows for minimal gas exchange in the lungs (oxygenating the blood and allowing for the removal of carbon dioxide), thereby forming and circulating oxyhemoglobin and providing a continuing source of energy to help preserve the renal cells. Nonetheless, gas exchange itself and the formation of oxyhemoglobin are not relevant halakhic parameters for defining life and determining death, even according to those halakhists who normally define a living person as one who maintains an effective circulation.⁵ According to these positions, it is not the physical flow of oxyhemoglobin in the blood that defines life, but rather the person's **natural** capacity and ability to effectively circulate oxygenated blood – something that is lacking in all uDCD donors.

B. Applying the Various Criteria for Death

Modern halakhists debate the proper criteria for determining death. Briefly, the various positions include: 1) the irreversible cessation of spontaneous respiration; 2) the irreversible cessation of “vital motion;” 3) the irreversible cessation of “vital motion” or the complete absence of the head/brain. According to all of these approaches, the uDCD patient is dead – he cannot breathe, has no heartbeat, and can perform no other “vital” (innate or natural) function.

⁵ See *Be-Ikvei Ha-Tzon*, no. 36; *Bi-Netivot Ha-Halakhah* vol. 3, 108, 120.

These are all functional parameters, and when the EMTs determine that resuscitative efforts have failed, they are fairly simple to ascertain. The only room for doubt would exist if the traditional parameters for death (cessation of respiration and/or circulation) do not actually define death, but are merely indicative of, or close approximations for, some other condition. Given today's advanced resuscitative techniques, especially in the case of uDCD in which artificial circulation and respiration are established, it is reasonable to question whether or not the traditional signs of death still indicate that the person has died.

In various contexts, R. Moshe Tendler has suggested that the only true halakhic determination of death is the modern diagnosis of brain death: "The classic 'respiratory and circulatory death' is in reality brain death. Irreversible respiratory arrest is indicative of brain death."⁶ The same is true of cardiac arrest, "because this results in a failure to perfuse the brain, which produces total brain destruction. Thus, cessation of heart action is a cause of death rather than a component of its definition."⁷ According to a precise understanding of R. Tendler's approach, the moment that a person's heart stops beating, he is not quite dead. The true definition of death, according to his approach, is when the brain no longer controls respiration and voluntary muscle control.⁸ It is interesting to consider whether or not the uDCD patient's brain meets R. Tendler's parameters for death.

The current NYC protocol requires that after the patient is transferred to the hospital, "staff will repeat the screening examinations to ensure preservation procedures do not impede 'natural progression to irreversible brain death.'"⁹ The concern

6 F. Rosner and M.D. Tendler, "Definition of Death in Judaism," *Journal of Halacha and Contemporary Society* 17 (1989): 27.

7 F.J. Veith, J.M. Fein, M.D. Tendler, et al., "Brain death: A status report of medical and ethical considerations," *Journal of the American Medical Association* 238 (1977): 1654.

8 <http://goo.gl/SLFVY>.

9 S.P. Wall, B.J. Kaufman, A.J. Gilbert, et al., "Derivation of the uncon-

is that through repeated chest compressions, ventilation, and eventual connection to ECMO (extra corporeal membrane oxygenation), brain perfusion might be reestablished, albeit artificially stimulated. Reperfusion would provide brain cells with the vital nutrients necessary for continued viability. Were this to happen, it may call into question a diagnosis of brain death (and therefore the death of the individual according to R. Tandler), as brain cells may still be viable.

The difficulties with the NYC protocol are twofold. First, although the EMTs performed a rudimentary brainstem assessment before beginning organ preservation techniques, it is possible that these very techniques reestablish cerebral perfusion. This is potentially a different state than existed during the earlier assessment and therefore demands a reevaluation. (In classic brain death diagnoses, cerebral perfusion patterns do not change after the diagnosis and there is therefore no reason to think that brain cell viability – and therefore potential function – has changed or been restored.)

The more important difficulty for this approach, however, is the subtle implication that even once death has been declared and the organ preservation methods initiated, the patient may not yet be dead. If the concern is that the preservation methods may “impede [the] natural progression to irreversible brain death,” that means that when the preservation methods were initiated, the patient was decidedly not irreversibly brain dead quite yet. The likelihood is quite high that such a patient will progress to irreversible brain death, but at the point when the EMTs declare death, the patient’s brain has not quite progressed that far. The protocol authors are even concerned that despite a negative rudimentary brainstem evaluation at that moment, since the brain has not yet progressed to irreversible brain death, the preservation techniques may actually prevent that progression. They therefore require a more traditional brain death exam when the patient arrives in the

controlled donation after circulatory determination of death protocol for New York City,” *American Journal of Transplantation* 11 (2011): 1421.

hospital. Depending on how seriously we take this concern, it means that we cannot unilaterally declare the patient brain dead until a comprehensive brain death exam is performed in the receiving hospital.

This concern is completely irrelevant if death is defined as the irreversible cessation of vital motion; regardless of brain cell viability, the uDCD patient will never show signs of vital motion ever again. However, if the only true definition of death is brain death (with cardiopulmonary arrest merely a surrogate or an indicator of brain death), as R. Tendler argues, then regardless of whether this patient will ever experience vital motion in any capacity, he cannot be declared dead until his brain completely “dies.” Therefore, if we take the protocol authors’ concern seriously, R. Tendler could not declare the uDCD patient dead at the moment that organ preservation techniques are initiated. Since the patient may still be alive but dying, we should rightfully be concerned that any organ preserving techniques may inadvertently kill him sooner. Causing the death of any person, regardless of his physical condition, is prohibited as a form of murder; hastening death by even moments is absolutely forbidden.¹⁰

However, even according to R. Tendler’s approach, there still may be no problem with the uDCD protocol. After all, if the patient is not brain dead (and therefore not dead according to R. Tendler), before the team connects the patient to the thumper and ventilator, he should be considered alive. If the concern is that these technologies may impede the natural progression to brain death, then perhaps it is possible to classify these technologies as supporting continued life. If the definition of death depends upon the viability of brain cells, then any means that promote (or may promote) the continued viability of brain cells should be rightfully described as life saving.

Therefore, according to R. Tendler, organ preservation may commence regardless of the patient’s status. If the patient

¹⁰ *Hilkhot Rotzeah* 2:7.

is actually brain dead at that moment (and therefore dead according to R. Tendler), then preserving his body for potential organ harvest is permissible, and perhaps even laudable. Once death is declared, any procedures, preservation, and surgery necessary to harvest the organs cannot affect the declaration of death. Even if the patient is not actually brain dead (and therefore alive), organ preservation should still be permitted, since it may promote continued cerebral circulation and be considered life saving. Since it may extend the viability of the brain cells – the determinant of life and death according to R. Tendler – it is certainly permissible. While the intention of organ preservation is not to maintain continued brain cell viability (and hence life, according to R. Tendler), if it can accomplish this goal, it should be considered life saving regardless of the intention.

If, according to R. Tendler's approach, the patient is considered alive when the EMTs initiate organ preservation, the only question would be whether the preservation techniques (or anything else done to the patient) may actually shorten the patient's life. Such actions are considered tantamount to murder even in the case of a terminally ill patient.¹¹ Practically speaking, however, this is unlikely; as noted, what the protocol considers to be organ preservation may be life-extending, not life-ending. Even if this were not true and the organ preservation techniques do in fact present a risk to life, it is still only a potential risk presenting some chance of shortening life, what may be considered a *safek* (doubt), not an absolute (*vaday*), risk to life. As will be argued below, such activity may be entirely permissible.

Upon arrival in the hospital, a more thorough brain death exam is performed, with organ harvest contingent on this second negative exam. Therefore, even if organ preservation is permissible according to R. Tendler because it is considered life-saving, there is no concern that the organs will be harvested from a living patient, since prior to the harvest, the

11 Ibid.

patient must meet R. Tendler's own criteria for determining death (i.e., brain death).

It therefore appears regarding the question of determining death and ensuring that organs are only harvested from patients determined to be dead, Halakhah should endorse uDCD protocols. This should be true regardless of the approach taken to determine death, since according to all approaches organs are never harvested from living patients. Other concerns may exist, as R. Bardos indicated, such as determining when to stop CPR attempts and whether and how to obtain consent for organ donation, which may indeed be Halakhic concerns. But from the strict perspective of whether uDCD is compatible with Halakhah, the resounding answer is "yes."

Controlled DCD

Controlled DCD (cDCD), as described by R. Bardos, is a more carefully orchestrated procedure. From the technical planning perspective, the issues in this context appear simpler, but the questions that cDCD raises are more challenging, with far reaching implications.

Controlled DCD presents three halakhic challenges:

1. Withdrawing ventilation.
2. Administering heparin to a patient without intending to treat any condition from which he is suffering.
3. Initiating the organ harvest while the patient may still be halakhically considered alive.

The last challenge is clearly most significant, since if the cDCD patient is still considered alive at the time of organ harvest, then it is the removal of his vital organs that kills him. Since murder is universally forbidden – even when performed for “noble” intentions – it cannot be sanctioned under any circumstances whatsoever. This last question is also the most intriguing, as it questions the halakhic definition of death as it relates to the notion of irreversibility. Before dealing with this issue, which is both most fundamental to the entire process as

well as philosophically challenging, we will explore the first two questions.

A. Removing Therapy

Almost all halakhic authorities prohibit removing ventilation from any patient, equating withdrawing life-sustaining therapy to manslaughter or murder. Even those authorities that permit withholding certain treatments or not reinitiating treatments that are momentarily paused nonetheless forbid actively stopping therapies that are maintaining life. This issue has been dealt with elsewhere and will not be our current focus;¹² suffice it to say that the entire controlled DCD enterprise could halakhically not even get off the ground due to this problem.

Practically, then, cDCD cannot be halakhically sanctioned, since the prerequisite for the entire process – stopping ventilation to allow the heart to stop beating – presents an insurmountable halakhic obstacle. However, if this problem could even theoretically be avoided in some way, the latter two issues would also present interesting challenges. The answers to the questions presented by these issues may indeed have ramifications beyond cDCD, justifying an analysis in their own right even though they are practically irrelevant in this case, since Halakhah forbids the necessary prerequisites for them to come to bear on the issue.

B. Administering Heparin

Heparin or some other anti-coagulant is given to the potential donor to maintain the viability of his organs for transplant. The purpose of the heparin is to boost the transplant potential of the organs by preventing blood clotting within the organs when circulation ultimately stops. The medicine provides no physiological benefit to the potential donor and, as noted by R. Bardos, may in fact present certain risks. The halakhic question is whether it is appropriate to administer a

12 See this author's "End of Life Therapies," *Journal of Halacha and Contemporary Society* 56 (2008): 22-48.

medication to a patient that is intended entirely for the benefit of another person (the potential organ recipient) and not the patient himself.

The fact that the patient in question is imminently dying (described as a *goses*) makes this question even more poignant, since Halakhah forbids even casual movement of (and possibly even unnecessary contact with) a *goses*.¹³ The Talmud compares the life of a *goses* to a flickering candle – while it will go out shortly on its own, placing a finger upon it will extinguish it immediately.¹⁴ The concern is that even slight movements may induce minor stress that can tip the delicate balance for a patient so tenuously holding on to life, possibly shortening his life by mere moments. The *mishnah* goes so far as to describe a person who closes the eyes of a *goses* as a murderer (“*harei zeh shofeikh damim*”).¹⁵ Neither closing the eyes nor gentle movements can be considered absolute murder; there is only a chance, perhaps remote, that they may shorten a *goses*’s life, not an absolute certainty. Nonetheless, even that remote chance is sufficient reason to prohibit these actions, as doing something that may possibly shorten someone’s life – meaning murder – cannot ever be sanctioned.

However, as R. Moshe Feinstein points out, since these prohibitions merely represent concerns for possibly shortening life – concerns that he considers to be rather unlikely – they are not blanket, unilateral prohibitions, and they need not apply in each and every situation.¹⁶ R. Feinstein uses this logic to explain why Rambam requires a short waiting period after a person has died before closing his eyes,¹⁷ but neglects to mention this waiting period when permitting (and maybe even requiring) attempting a postmortem Caesarian section to try to save the life of a fetus whose mother has just died.¹⁸ While

13 *Shulhan Arukh, Yoreh De'ah* 339:1.

14 *Shabbat* 151b.

15 *Shabbat* 23:5.

16 *Teshuvot Iggerot Mosheh, Yoreh De'ah* 2:174.

17 *Hikhot Avel* 4:5.

18 *Hilkhot Shabbat* 2:15.

doing something that will certainly or even likely cause death is prohibited under any and all circumstances, actions that may only possibly cause death are not necessarily prohibited and are more properly described simply as risk taking.

This point is easily demonstrated by the fact that all of these prohibitions would be set aside if the goal was an attempt to save the patient himself. While the Talmud assumes that most *gosesim* will die,¹⁹ it is clear that some, albeit a minority, will live. Thus, *Shevut Ya'akov* argues that all of these actions are permissible when done for the purpose of saving the *goses's* life; while these actions pose a risk that is prohibited when done for naught, they are permissible when done for the sake of *pikuah nefesh*.²⁰ R. Akiva Eiger similarly argues that moving a *goses* is permissible, despite the attendant risks, when done for his own benefit.²¹

The relevant question thus becomes what these actions are trying to accomplish. While R. Feinstein describes closing a person's eyes as one of the needs of the deceased (*tzorkhei ha-meit*), as important as it may be, there is no specific requirement obligating its performance at a particular moment. Pushing it off for a little while to prevent even a possible risk to life indeed makes sense. It is therefore prohibited until death is certain and unambiguously determined. More pressing needs, however, may indeed permit taking on such a risk – needs such as those of saving lives.

In parallel, more mundane situations, many halakhic authorities permit taking risks in the hope of saving someone else from death. This is essentially the rationale allowing live kidney donation, in which some (albeit small) risk exists for the donor but which has the potential to be lifesaving for the recipient, significantly extending life for many years. Could the same argument be made in our present case? While heparin may indeed present certain risks to the potential donor's life,

19 *Shevu'ot* 33a.

20 *Shevut Ya'akov* 1:13.

21 Glosses of *Rabbi Akiva Eiger, Yoreh De'ah* 339:1.

most physicians do not believe these risks to be significant. We might therefore suggest that although heparin injections provide absolutely no benefit to the donor himself, and in fact may be dangerous to his health, the donor may elect to undertake such a risk in the hopes of saving someone else's life.

One caveat is important in this regard. Since accepting a risk for the purpose of saving life is permissible, but not obligatory,²² this can only be done with the permission of the risk taker – in this case, the potential donor. After thoughtful consideration, a person is granted the license to choose such a risk; since risk taking is not mandatory, there is room for subjective assessment. In the case of live kidney donation, the donor makes his choice clear by indicating his willingness to undergo the procedure to the physician in charge. The case of cDCD is more complicated, since the patient is no longer capable of communicating. Were the patient to have made his wishes clear and known earlier in life, it would make sense to currently act on his previously expressed wishes, as if he was making the choice right now. However, when the patient has not made any such choice known, we are left with somewhat of a dilemma. Can we make this choice for him, and if so, how do we make the right choice?

R. Hershel Schachter has argued that accepting risks is a very personal matter and only the person involved can choose to accept them. Each person, in R. Schachter's view, has the right to choose what he or she considers to be *pikuah nefesh* for themselves, and no one else can make that decision on their behalf. When a person cannot make his own decisions and cannot actively accept such a risk, we cannot subject him to a risky therapy and must refrain from doing that which may possibly save his life if it entails danger. However, because this decision is meant to be reflective of the patient's overall attitude, if we could ascertain what he would have wanted – either through his previously clarified wishes or by talking with family mem-

22 *Teshuvot Iggerot Moshe, Yoreh De'ah* 2:174:4; *Teshuvot Yabia Omer, Hosh-en Mishpat* 9:12.

bers with whom he may have held discussions – that can substitute for his current choice. In these cases, it is as if the patient is making that very decision right now.²³

In contrast, R. J. David Bleich argues that just as Halakhah assumes that the *beit din* is considered *in loco parentis* for orphans (*avihen shel yetomim*), they should similarly be considered proxies for all people lacking decision making capacity. A *goses* who is unable to communicate needs somebody to speak and make decisions on his behalf regarding many issues – financial, health related, and otherwise – in much the same way that a parentless child does. In a time when rabbinical courts were both prevalent and effective, this is certainly a valid model. R. Bleich has suggested that perhaps in modern times, the same type of “constructive proxies” could be implemented by having the patient himself designate somebody to make decisions for him when he no longer can, or by having the family members or physicians select such a proxy on the patient’s behalf. This is parallel to the standard health care proxy in US law.

If the *goses* has made his wishes known previously (as R. Schachter demands) or an appointed proxy makes such a decision on the *goses*’s behalf (as R. Bleich allows), it seems reasonable to permit administering heparin to the *goses*, even though it provides no benefit to him and even entails some measure of danger, in the hope of saving another salvageable patient. This assumes, of course, that there are no other objectionable problems with the cDCD protocol.

Relating to a different case, R. Shlomo Zalman Auer-

23 *Be-Ikvei Ha-Tzon*, no. 34. It is interesting to consider how this approach would apply to children, who Halakhah generally assumes cannot make decisions for themselves. R. Schachter assumes that parents are granted a special right to make these decisions on their children’s behalf, and children thus differ from other patients who lack decision making capacity. Interestingly, R. David Zvi Hoffman assumes that since the *mitzvah* ultimately devolves upon the physician, the physician should retain the right to decide whether to proceed in such a case. See *Teshuvot Melamed Le-Ho’il, Yoreh De’ah* 104.

bach touched upon some of these issues and seemingly came to the opposite conclusion.²⁴ R. Auerbach was asked about the theoretical case of a *goses* lying on a stretcher in the emergency room who is blocking the elevator. Another patient, who is critically ill and requires emergency life saving surgery, is then brought in, but to reach the operating room, he must be transported through the elevator currently blocked by the *goses*. May the physicians move the *goses* out of the way so that they may try to save the potentially salvageable patient? If moving a *goses* is tantamount to shortening his life, he may certainly not be moved; the *goses*'s life may not be sacrificed (or even shortened) to save someone else, even if he can certainly not survive and the other person stands a good chance of survival if properly treated. R. Auerbach argued that if the *goses* could be moved very gently, then it would be permitted to do so to allow the potentially salvageable patient to have his life saving surgery. He appears quite hesitant about the whole idea and repeatedly mentions that this must be done with exceptional care.

How can we understand R. Auerbach's position? Clearly, he did not equate moving the *goses* with murder; if he did, he would not have permitted it at all, even for the noble purpose of saving someone else's life. He must have understood that moving a *goses* presents a risk to his life – a possibility of shortening his life, but not absolute certainty. If this is true, however, why was R. Auerbach so hesitant in issuing a permissive ruling?

It is possible that R. Auerbach maintained that moving a *goses*, like any other risk to life, should be permissible when done for the sake of saving another person. He may have even felt that pushing a *goses* on a stretcher does not qualify as movement at all, since the *goses*, while placed in a new location, does not experience any movement with respect to his own body. However, R. Auerbach wished to establish a broader basis for his position by limiting his ruling in such a way so as to be permissible according to a variety of different perspec-

²⁴ *Nishmat Avraham, Yoreh De'ah* (2nd ed.), 493.

tives. In explaining why Rema permits certain activities but forbids others to be done to a *goses*,²⁵ *Shakh* explains that only large, aggressive motions are prohibited, but not fine, gentle movements.²⁶ Perhaps R. Auerbach felt that gently pushing a *goses* on a stretcher qualifies as a fine, gentle movement, and according to *Shakh* it is always permissible. Therefore, R. Auerbach concluded, even if someone were to argue that moving a *goses* is forbidden even when performed to try to save someone else's life, gently pushing a stretcher may nonetheless qualify as a fine, gentle moment that *Shakh* would declare permissible in any event.

There is one differentiating factor between R. Auerbach's case and the "standard" case of accepting a risk to try to save somebody else's life – namely, the lack of choice. It is usually upon the person accepting the risk to choose to do so; when he does choose (and the danger is not certain), he may rightfully accept such a risk. Applying the more general criteria, were the *goses* on the stretcher to openly state that he is willing to accept the danger of movement so that the other patient could be saved, we would certainly permit moving the stretcher. Practically, however, the *goses* on the stretcher never gave his approval to be moved; he never made the choice. R. Auerbach may be arguing that we have no right to make that choice for him.²⁷

25 Rema, *Yoreh De'ah* 339:1.

26 *Nekudat Ha-Kesef*, *Yoreh De'ah* 339, s.v. *ela*.

27 In a different but related context, R. Auerbach argues (*Nishmat Avraham*, *Yoreh De'ah* [2nd ed.], 461) that injecting any substance into a *goses*'s body – even one that is known to be completely benign – is far worse than simply moving one of his limbs and is certainly forbidden, regardless of rationale (“*hu harbeh yoter hamur mi-lehaziz ketzat et ha-guf... de-vaday asur*”), possibly because of the systemic effect that an injection has. R. Auerbach felt that injecting intravenous dye qualifies as “moving” the patient internally, even when using an already existing intravenous line (requiring no additional needle sticks), and he therefore summarily forbids the practice. He maintained this perspective on the prohibited nature of intravenous injections for a *goses* even while permitting gently moving a *goses* for the purpose of saving somebody else's life (*ibid.*, 494). (One of the suggested

Accordingly, it could be argued that in R. Auerbach's view, a heparin injection is halakhically permissible, even though it represents taking a doubtful risk for the purpose of saving another person's life, if we can ascertain that the donor had previously consented to such a procedure (or if he had never discussed the matter, that we could extrapolate that this is the decision that he would have made under these circumstances).

C. Determining the Moment of Death

The most central issue of this entire endeavor is determining the moment of death precisely. Since the organ harvest would immediately end the life of a still living patient, it can only proceed once the potential donor has died. The question thus boils down to how to define the moment of death in a patient who retains the potential for resuscitation.

As noted by R. Bardos, cDCD protocols call for withdrawing ventilator support and waiting for asystole (flat line EKG). Once the heart has stopped beating, the team waits a specified amount of time (differing by institution); once this time has passed, the team immediately begins the harvest. The waiting period is meant to be long enough to account for any possibility of autoresuscitation. Also as already noted, most physicians assume that if instead of initiating an organ harvest, the physicians would instead attempt to resuscitate the patient, there is a good chance of reestablishing a heartbeat. Thus, at the moment that the harvest begins, the heart has not necessarily irreversibly stopped, since it may be still amenable to reanimation.

protocols for diagnosing brain death – which, incidentally, is now part of the law in Israel – requires using a dye based test to assess cerebral blood flow, requiring injecting a harmless radioactive dye intravenously, making this point particularly relevant.)

R. Auerbach does not offer much in the way of explanation for his unique position. It is hard to know why he differentiated between gently moving a *goses* on a stretcher (when done for the purpose of saving someone else's life) but forbade otherwise benign intravenous injections.

Bioethicists argue that theoretical irreversibility is irrelevant in this case, since cDCD protocols require that potential donors sign a DNR (do not resuscitate) order, thereby forbidding any resuscitative attempts. Since these patients will practically not be resuscitated, the argument goes, their hearts can be considered permanently stopped, even if not theoretically irreversibly so. What is the halakhic perspective on this type of death determination? Essentially, the question is whether Halakhah determines death when the heartbeat irreversibly stops beating – meaning that it cannot be restarted – or when it stops beating and is not subsequently restarted, regardless of the reason.

A simpler question is more easily addressed: What is the status of a person whose heart stopped and through resuscitative measures regains a heartbeat (known as clinical death or *mavet kelini* in the halakhic literature)? Does Halakhah consider him to have died, with all of the various ramifications this entails, and then brought back to life? Almost without exception, halakhic decisors have declared that such a person is considered to never have died; since his heartbeat returns, it is clear that when it initially stopped, it was not irreversibly stopped. The unstated assumption is that only the irreversible cessation of heartbeat qualifies as death; when the heart stops temporarily, it is merely indicative of possible illness, but not of death.

This is highly intuitive. After all, each and every one of us stops breathing approximately 12 times each minute; nonetheless, we are not considered to have died and later revived, because it is clear that the cessation of respiration was not irreversible. The actual return of respiration or heartbeat indicates that when it stopped, it was only a temporary cessation, and because it was proven to be only temporary, it cannot be indicative of death.

Interestingly, it is only after respiration or heartbeat returns that we can state with definitive certainty that the person never died. While this may be “inconvenient” in practically dealing with a patient – since when his heart stops we will not

know if he is alive or dead until some time passes – the fact that his status can only be determined retroactively does not present any conceptual or fundamental difficulty. This “inconvenience” merely stems from our inability to determine whether or not the current stoppage of the patient’s heartbeat is reversible or not; it is not a fundamental problem, but simply a practical one. If right after the heartbeat stopped, we were able to state with definitive clarity that it will never return – we could determine death at that moment. Given our human limitations, however, the passage of time is the most accurate means of making this determination, and the determination must therefore wait until that time has passed.

The real question arises in cases in which the heartbeat does not finally return. R. Eliezer Yehudah Waldenburg addresses this question in an interesting context.²⁸ He was asked to describe the status of a patient during open-heart surgery. During certain cardiac surgical procedures, the patient’s heart must be completely still so that corrective measures can be made (such as replacing a valve). During that time, since the patient cannot breathe and has no heartbeat, he is connected to a cardiopulmonary bypass (heart-lung) machine that completely substitutes for the patient’s innate respiration and circulation. Collecting blood from the right atrium just as it enters the heart and returning it directly to the aorta (the artery that exits the heart), the heart-lung machine bypasses the heart entirely to circulate oxygenated blood throughout the body. During open-heart surgery, even though the patient has no innate respiration or heartbeat at all, he is still considered to be alive, since when the patient comes off bypass, he will hopefully regain his intrinsic respiratory and cardiac abilities. Once the corrective part of the surgery is complete, the heart is restarted.

Sometimes, unfortunately, this is not possible. R. Waldenburg was asked how to determine the moment of death when the patient’s heart cannot be restarted after taking him “off pump.” Should we assume that so long as a person main-

²⁸ *Teshuvot Tzitz Eliezer* 17:11.

tains the theoretical capacity for circulatory reversibility, he is alive and cannot be considered dead until the potential for reversibility disappears? In this case, this would mean that the patient was alive until some point in the middle of the surgery, when, for one reason or another, his heart was no longer amenable to reanimation. Or should death be determined when the heart practically irreversibly stops beating? For this patient, death would occur at the moment that the surgeon put the patient “on pump” and stopped his heart, since we retroactively know that at that point, the heart was irreversibly stopped (meaning, it never regained a heartbeat). Determining the precise moment of death is vital for various areas of Halakhah and carries with it significant ramifications, such as for the onset of ritual mourning, the transfer of inheritance, and engendering the ritual impurity of a corpse.

R. Waldenburg intuitively defines death as the point at which the heart can no longer be reanimated – at the moment when the theoretical potential (regardless of and in spite of any resuscitative efforts) for resuscitation vanishes. Assuming that a resuscitated patient is considered to be alive – since retroactively we know that his temporarily stopped heartbeat was not irreversible – R. Waldenburg explains that the only reason that resuscitation is possible, even theoretically, is because the patient is alive, even though temporarily without a heartbeat. There must be some *hiyyut* (life force) within this patient that allows the heart to restart and effectively “reestablish” life.

R. Waldenburg explains that the alternative is simply unacceptable. He envisions the only other possible moment that may qualify as death as when the surgeon stopped the patient’s heart and connected him to the bypass machine, the last moment that the patient’s heart ever beat spontaneously. While this stoppage is retroactively deemed to have been only temporary in cases of successful surgery, when the patient’s heart cannot be restarted, it becomes clear that when the surgeon initially stopped the heart to connect the patient to bypass, his heart was now irreversibly stopped; he is then considered dead

from that moment. The implication, argues R. Waldenburg, is that the surgeon effectively murdered the patient by stopping his heart irreversibly. While it was certainly an accident – as the surgeon assuredly was hoping that the patient’s heart would eventually restart – the surgeon’s action was the proximal cause of this patient’s death. R. Waldenburg argues that this conclusion is simply untenable.

In dealing with a different set of circumstances, R. Auerbach tends toward adopting a different approach.²⁹ He describes two theoretically identical patients. The first is visiting a friend in the local hospital’s intensive care unit (ICU), while the second is alone at home. Both patients experience a heart attack at the same moment and collapse. Since the first patient is in the ICU at the time, the medical staff quickly comes to his aid and after 10 minutes manages to restart his heart. The second patient is alone at home, however, and no one is aware of his situation. Since no one comes to his rescue, his heart is never restarted. Because these are identical patients, however, even the second patient could have been saved (just like the first patient) if he would have received medical attention. In theory, at least, the second patient’s heart was amenable to resuscitation for at least 10 minutes after it stopped beating. In this unfortunate case, however, no resuscitative attempts were made. Does that mean we should not consider him dead until at least 10 minutes passed after his cardiac arrest?

A simpler case would be when resuscitation was attempted after a heart attack but was unsuccessful in reestablishing a heartbeat. While the heart theoretically retains some capacity for reanimation, in this situation, resuscitation was tried but failed. Were the resuscitation potential real, it would have been actualized (assuming that it was performed properly). Since a heartbeat could not be reestablished, we retroactively know that when the patient’s heart stopped initially, it was irreversible. The time of death is therefore defined as the moment of the initial heart attack.

29 *Shulhan Shlomo, Erkehei Refuah*, vol 2, 35.

The notion of autoresuscitation makes this point slightly more complex, although it still fits the same framework. The “Lazarus effect” describes the return of spontaneous circulation (ROSC) after resuscitative attempts have stopped. A rare phenomenon, the length of time between diagnosed asystole and ROSC varies considerably, and seems to be longer after a failed CPR attempt than when no resuscitative measures were taken at all.³⁰ When the heartbeat returns, it proves that when the heart stopped initially, it was only temporary. Death cannot be said to have been determined, since the cessation of circulation was not irreversible.

The complication in R. Auerbach’s case is that resuscitation was theoretically possible, although not actualized. This patient retained the theoretical capacity for resuscitation for at least 10 minutes, and his heart therefore did not lose the potential for reversibility until some later point. Practically, however, in retrospect, when the heart stopped initially, it was irreversibly stopped, because ultimately, the heartbeat never returned. The question is therefore how to define irreversibility, which is part and parcel of any definition of death. Is death determined by the theoretical ability of the heart to be resuscitated or by the practical return of circulation? While R. Waldenburg favors the first approach, R. Auerbach seems to prefer the latter. R. Auerbach writes that were there to be a difference of a day between the initial heart attack and the point at which he could still be theoretically resuscitated, the *yahrtzeit* of the patient in question would be observed on the day that his heart initially stopped. It would initially appear that R. Auerbach would permit cDCD protocols, since according to his approach, the potential donor is considered dead once resuscitation will not practically occur. R. Waldenburg, however, would forbid the procedure, since the patient’s heartbeat has not irreversibly ceased – R. Waldenburg’s criterion for death – when the organ harvest begins.

30 K. Hornby, L. Hornby, S.D. Shemie, “A systematic review of autoresuscitation after cardiac arrest,” *Critical Care Medicine* 38 (2010): 1246-53.

Practically, however, even R. Auerbach would have likely prohibited cDCD procedures on at least two different grounds.

First, he was unsure whether his novel ruling was correct. He writes that while he believes it to be likely, he cannot be sure that Halakhah does not follow R. Waldenburg's approach. Since what hangs in the balance is potential murder, R. Auerbach would certainly have prohibited the practice out of concern that the donor may still be alive.

Second, even if R. Auerbach presumed that his novel ruling were true, it seems to apply only retroactively, but not prospectively, thereby limiting its practical applicability. For R. Auerbach, death is determined when respiration and heartbeat cease in a situation in which they never return. Once we can be certain that they have not returned – even if it were theoretically possible, but we simply did not act on that possibility – we may then declare death at the moment that the heartbeat and respiration initially ceased. But determining death requires absolute certainty; it cannot be based on assumptions and guesstimates. In a patient who is potentially reversible, at the very moment that the heartbeat stops, we cannot be certain that it will not return. While this is certainly true during the short period of potential autoresuscitation, this doubt lingers so long as actual resuscitation is still possible. Since the person's heartbeat can still come back – even if only through aggressive resuscitative measures – his heart can only be described as having irreversibly stopped when in practice it was not reversed. This is a determination that can only be made when the “window for resuscitation” has come and gone and the heart has not restarted, regardless of whether resuscitative attempts were made.

The actual scenario of cDCD is slightly different, since all protocols demand that a potential donor sign a DNR order forbidding any and all resuscitative attempts. Once this patient's heart stops and the autoresuscitation period passes, it should be quite clear that his heart will not restart because it

can no longer do so on its own and no outside attempts will be made. Ethicists argue that with the DNR in place, the patient's heart should be described as permanently stopped even if not theoretically irreversibly so.

It is hard to argue, however, that any of this should make much halakhic difference. R. Auerbach's focus is on whether the heartbeat ever actually returns, and so long that it is still possible that it will do so, this cannot be stated with certainty. The agreement of those present at the patient's bedside to not engage in CPR – respecting the DNR – is not relevant to the question of whether or not this patient's heart will ever reverse until such time that it is cannot be restarted. The DNR's only effect is that (once the autoresuscitation period passes) the ultimate outcome is a foregone conclusion. It cannot, however, alter when that conclusion can be definitively stated. It is only when the heartbeat turns out to never have been reversed – when the time has passed that resuscitation is no longer possible – that we can declare the person to have died when his heart initially stopped. In R. Auerbach's view, when the heartbeat is not reversed, whether because resuscitation efforts failed or were not attempted in the first place, we may determine that the patient died when his heart originally stopped – but only retroactively, after the heart can no longer be restarted.

In summary, regardless of the conceptual approach to determining the ultimate moment of death when reversibility is possible but not actualized, from a practical perspective, cDCD protocols present insurmountable halakhic obstacles. Primary among them is the fact that the patient is still halakhically alive during the organ harvest and his death is caused by the removal of his vital organs.

One remaining issue that still must be explored is whether or not the *mitzvah* of *pikuah nefesh* applies to a patient during this critical period. Must bystanders actively intervene and try to resuscitate the patient, or may they stand by and let nature take its course? This relates to the more general question

of treating an end of life patient, a question that has been dealt with elsewhere.³¹ Suffice it to say that most, but certainly not all, halakhic decisors would not obligate bystanders to initiate CPR.³²

D. Philosophical Considerations

From a more conceptual perspective, these approaches raise some interesting questions. The following is not meant as a rigorous philosophical analysis, but rather just an outline that highlights some of the more interesting points.

Our means of determining reversibility and practically reversing halted respirations and heartbeats are far more advanced than those that existed in Talmudic times. If we adopt an irreversibility standard in death criteria – as R. Waldenburg explicitly does and, as argued above, is practically necessary for R. Auerbach as well – whose criteria should we employ? Should we rely on modern science and not declare dead by cardiopulmonary criteria any person whose vital functions may be amenable to resuscitation given modern technology? Relying on a Talmudic standard would create significant problems, since it would mean that anybody resuscitated by modern means (after a time lapse in which resuscitation methods in Talmudic times would have failed) is considered to have died and been subsequently resurrected. Conversely, applying a modern standard might mean that even 1,000 years ago, anyone who was amenable to modern resuscitative measures – even though they were unavailable at the time – was considered alive until a time in which modern techniques would have failed. This would mean that since determinations were routinely made given current realities, historically many people were declared dead who were actually alive!

One could simply accept that assertion and assume that death is only determined as irreversible based on a theoretical

31 See “End of Life Therapies.”

32 See *Defining the Moment*, 189-90, for a further discussion as to whether or not the *mitzvah* of *pikuah nefesh* extends to reviving patients who would otherwise appear to be dead.

model. No matter how or by what futuristic means respiration and heartbeat could be reversed, a person cannot be considered dead until enough time passes that those efforts would be deemed futile. This would mean that death is universally determined – across all places and times – by the theoretical possibility for reversibility.³³

Alternatively, perhaps reversibility should be determined in its historical context. This would mean that in each generation and with each advance in science, the question of determining death vis-à-vis reversibility must be reanalyzed. This would mean applying a different reversibility standard today than was applied in Talmudic times. This contention assumes that the question of reversibility is one of physical reality – a person is considered alive up until the moment until his vital functions cannot practically return. As a practical matter, it depends on the actual ability to reverse the respiratory and cardiac failure and resuscitate the patient.

However, adopting this approach leads to further questions. How do we determine the context? Do we measure reversibility by the theoretical ability of current science to resuscitate this person given all that modern medicine has to offer? Or are we more practically focused – are we interested in those advanced means currently available for this particular patient? Taking this line of reasoning to its logical extreme may result in employing a different reversibility standard in different places, since advanced medical technologies are not uniformly distributed throughout the world. The ability to resuscitate a patient in the ICU unit of a modern metropolitan US hospital is vastly superior to the means available in many third world countries. Further stretching this approach may even mean determining death differently on different floors of the same hospital, since

33 From a practical perspective, however, even while we are cognizant of rapidly advancing science that may improve resuscitative methods, in order to function in the real world, we must nonetheless rely on our (inherently inadequate) current abilities – “a judge must make a decision based on what is before him” (*Sanhedrin* 6b).

the technologies available for resuscitation are similarly not equally distributed. A person suffering a heart attack stands a better chance of resuscitation and survival if he collapses in the ICU unit than in the hospital lobby.

Conclusion

With near universal rabbinic agreement permitting, condoning, and often encouraging post-mortem organ donation, technologies and modalities aimed at expanding this potential are to be embraced. While we should certainly welcome all of these attempts, we must not forget our responsibility to continually ensure that each new method and protocol meets the highest ethical and halakhic standards. Simply because something can be done does not necessarily mean that it should be. This is true even when it comes to saving lives when what hangs in the balance is the sacrifice of other lives. This article tried to present some rudimentary thoughts and potential conceptual models applicable to the two types of donation after cardiac death. From this preliminary analysis, it would appear that controlled DCD presents insurmountable obstacles for halakhic acceptance – as it may possibly be murder –even while this method is becoming more and more prevalent. The less frequently utilized model of uncontrolled DCD seems to be more halakhically acceptable. Even though uDCD is as of now mostly limited to kidney donation, more than 85% of patients waiting for organs in the United States are in fact waiting for kidneys. Any and all halakhically acceptable medical advances that can promote organ donation will hopefully save lives.