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REFRIGERATION, RESUSCITATION AND THE RESURRECTION

In recent months, considerable publicity has been given to a startling proposal which, if it came to be widely adopted, could have a profound effect, not only on society, but on the very concepts of life, death and immortality. The proposal is that a person who has just died of an incurable disease should not be buried, but rather stored in a vault at a very low temperature, so that the body does not decay appreciably even over a period of many years. When a cure is found for the disease, the body can be thawed out, revived, and cured.

It must, of course, be pointed out that the key steps in implementing this drastic proposal are as yet beyond the abilities of medical science. True, the technology required to freeze and store a body at liquid-air temperatures exists today. When the body is thawed out, it can even be revived; at least, this has been done successfully with animals. However, these animals have lived only for short periods, before dying of cell damage caused by the freezing process itself.

But although successful revival from the frozen state is not yet an accomplished fact, research in this area is now in active progress, and the proposal may well become a practical one within the next few years. In fact, a few individuals have already been frozen immediately after their deaths on the assumption that a way may be found to thaw them out without damage. One such case which has received much publicity is that of James H. Bedford, a 73-year-old professor of psychology, who was frozen after his death from cancer early in January (see *LIFE*, January 27, 1967, p. 16). The possibilities for and implications of revival after freezing are also receiving close attention in the scientific press (e.g., *Physics Today*, November 1966,

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pp. 45-48, and correspondence in the January, February and March 1967 issues).

The potential consequences of a successful system of refrigeration and resuscitation are almost frightening. These consequences span the range from sociological to theological. If everyone who died could be frozen until medical progress found a cure for the cause of death, it might become possible to prolong life almost indefinitely. How would the state, the intellectual community, the family, be affected by the prospect of greatly extending the lives of elder statesmen, scholars, parents? Would the prospect of indefinite prolongation of life in this world undermine belief in the hereafter?

No less disturbing are the legal — and specifically, the halakhic — problems raised by these possibilities. Is it permitted to freeze a person who has just died, or would it constitute *halanat ha-met*, holding back a corpse from burial? Is there any possibility that freezing a terminal patient just *before* his death, which might increase the chances of successful resuscitation, could be allowed? For that matter, with all the new techniques for keeping a patient clinically alive (heart-lung machines and the like), are we allowed to let a terminal patient die to begin with? What would be the halakhic status of a frozen patient, not only with regard to the laws of burial and mourning, but with respect to such basic problems as marriage and inheritance: Can his wife remarry? Does his estate pass to his heirs? Finally, is not the very concept of life prolongation by refrigeration and resuscitation a denial of our belief in *techiat ha-metim*, the resurrection of the dead?

Natural death

The problem of the permissibility of freezing cannot even be raised until our third question above has been resolved: Are we ever allowed to let a terminal patient die a natural death, or is it our duty to keep him alive by artificial means as long as this is physically possible — at which point, presumably, his body would be so far gone as to make freezing pointless? Are we perhaps halakhically required to keep a dying person connected

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to a heart-lung machine indefinitely, or at least as long as the machine can keep some semblance of life in his body by maintaining circulation and respiration?

At first glance, it might appear that this question must be answered in the affirmative, since the Halakhah clearly states that the commandment to preserve life — *pikuach nefesh* — applies even as regards “temporary life,” *chayei sha’ah*. In *Orach Chayim* 329,4 we read, regarding the rescue (on the Sabbath) of a person who has been buried under a fallen building:

Even if they find him so crushed that he can only live for a short time, they continue to dig. . . .

on which the *Mishnah B’rurah* (*Biur*) *Halakhah* s.v. *l’fi sha’ah*, writes:

Know also, that even for a dying person (*gosses*) one must violate [the Sabbath] by digging . . . or if a physician says that certain medicines will be able to prolong his life for a minute . . . one must violate [the Sabbath] because of *chayei sha’ah* . . .

True, this point has been questioned by R. Ya’akov b. Shemuel (*Responsa Bet Ya’akov*, No. 59), who ruled that the Sabbath must not be violated for a *gosses*; but this is contrary to the prevailing opinion (*Responsa Shevut Ya’akov*, Pt. I, No. 13; *Eliyah Rabbah* and *Peri Megadim*, *Orach Chayim ad loc*; *Responsa Chatam Sofer*, Y.D. 338). Now if we even violate the Sabbath to prolong the life of a dying person for a single minute, how can we ever allow a patient to die a “natural” death?

The situation becomes even more perplexing if we turn to *Yoreh De’ah* 339,1, which deals with the treatment of a *gosses*. One is not permitted to move or even touch a dying person, since this may cause or hasten his death. However, concludes Rabbi Moses Isserles,

If there is some factor which prevents the soul from departing — for example, a loud noise nearby . . . — one is permitted to remove it, since this is not direct action [as touching the dying person would be], but only removal of an obstacle.

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This *pesak* is based on a passage in the *Sefer Chasidim* (No. 723), which seems to imply that it is not only permissible, but even mandatory, to remove extraneous factors, such as loud noises, which are delaying a person's death. Compare also *ibid.*, No. 234:

One should not cry out at the moment of death, lest the soul return and [the patient] suffer unduly . . . for he will only be able to live for a few days [at most], and during those days he will suffer greatly.

Here we have what appears to be a direct contradiction to the Halakhah cited earlier, which permits violating the Sabbath to prolong the life of a dying person even for a moment. If this is the case, how can we be permitted — or even commanded — to remove anything which is preventing death? On the contrary, it should be mandatory to *make* loud noises near a dying person, if this can prolong his life!

Evidently, there must be some basic difference between the case in *Orach Chayim* and that in *Yoreh De'ah*. Such a difference has been suggested by Rabbi Immanuel Jakobovits in a responsum on the problem of euthanasia (*Ha-Pardes* 31, No. 1, pp. 28-31, and No. 3, pp. 16-19, 5717). In the case of a loud noise which prevents the soul from departing, we are dealing with an external factor which causes life to be prolonged only so long as the factor remains in operation. On the other hand, when we give medical treatment to a dying person, we expect that the medication will give the patient a few more moments of "natural" life — not just keep him alive for the duration of the act of administering the medicine. Prolonging *natural* life is *pikuach nefesh*, but it is not mandatory to prolong the life of a hopeless case by *artificial* means.

This distinction certainly seems valid, but difficulties still remain. For example, artificial hearts which can be implanted in a person's body are currently under active development. In a few years it should be possible to replace a worn out heart and give the patient years of normal, functioning life. Would this not be mandatory as *pikuach nefesh*, even though artificial means are being used to sustain life? Would we not violate the Sab-

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bath to repair or replace an artificial heart which was in danger of breaking down?

This example suggests that the Halakhah in *Yoreh De'ah* cannot be applied indiscriminately. If a hopeless patient has sunk into terminal coma, it is presumably permissible to let him die, and even to remove any artificial influences which are keeping him clinically alive. However, if he is still conscious and rational, it seems clear that any and all means — including loud noises, if necessary — should be employed to keep him that way. Even a few moments added to his life span may give him an opportunity to repent (Meiri on *Yoma* 85a: “In that short hour he may repent in his heart, and confess”) or to settle his affairs (*Av. Zar.* 12b: “He may live a short while until he instructs his household”).

To summarize: It is mandatory to prolong life as long as the patient is conscious, or as long as there is any chance of his recovery. But if his case is hopeless, and he can no longer be restored to consciousness, it is permitted — and perhaps even required — to remove any obstacles to his natural death. And once he is dead, it is certainly not mandatory to resuscitate him as long as there is no hope of his regaining consciousness or recovering. We can now legitimately consider the halakhic status of refrigeration.

Status of the patient

Is a refrigerated patient legally dead? Since he has presumably died before being frozen, and in any event is certainly dead — by any ordinary definition — once he has been frozen, it would seem as though this question, too, must be answered affirmatively. At the same time, it seems clear that when the patient is later thawed out and revived, he is legally alive. But as already pointed out, the concept of a person being alive again after having been legally dead has very disturbing implications, particularly with respect to the laws of marriage and inheritance. The complex consequences of legal “life after death” could be avoided if it were possible to rule that the frozen patient is legally alive. Are there any precedents relevant

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to this question?

At first glance, the precedents on the subject of life after death seem to point inescapably in the direction of legal complications. Thus, in *Sifrei Zuta* (on Num. 19,11) we read

One who touches a corpse is unclean, but the son of the Shunnamite woman [brought back to life by Elisha, II Kings 4] was not unclean. . . . When he died, everything that was in the house became unclean . . . when he came to life again, he was clean, but then he touched [things that were in the house], and they made him unclean.

According to most commentators, the same interpretation should be given to the discussion in *Niddah* 70b:

The men of Alexandria asked R. Yehoshua' . . . "Was the son of the Shunnamite woman unclean?" He replied, "A corpse is unclean, but a living person is not."

[Admittedly, some Rishonim interpret this question and answer as implying that the boy was not actually dead, and so was never unclean. This view is particularly prevalent with regard to the boy who was brought back to life by Elijah (I Kings 17); see 'Anaf Yosef on 'Ein Ya'akov *ad loc*, *Shitah Mekubetzet* on B.K. 114a, and Rambam in Moreh, I, 42, according to Shem Tov. However, this interpretation is dismissed by Meiri (*Niddah ad loc*) and Abarbanel (on Moreh *ad loc*) as verging on the heretical; as RaDVaZ (Responsa, No. 2203) points out, it is taken for granted by the Talmud and Midrashim *passim* that Elijah and Elisha actually revived the dead — though see NeZIV on *She'eltot*, No. 167, who suggests that the Midrashim differ on this.] In any event, we see from this case (at least from the *Sifrei Zuta*) that even though the boy was later brought back to life, he was still regarded as halakhically dead — in particular, he had the uncleanness of a corpse — during the period of his death.

Indirect evidence for the same conclusion can be derived from the case of the dry bones which were brought to life by Ezekiel (Ezek. 37). In *Sanhedrin* 92b we read:

R. Eliezer said, "The dead who were revived by Ezekiel stood up, sang [a hymn of praise], and died." . . . R. Yehudah said, "Actually,

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it was only an allegory." . . . R. Eliezer the son of R. Yosi ha-Galili said, "The dead who were revived by Ezekiel went to the land of Israel, married wives, and fathered sons and daughters." R. Yehudah b. Betera stood up and said, "I am one of their descendants, and these *teflin*, left to me by my father's father, were theirs." And who were the dead whom Ezekiel revived? Rav said, "They were the descendants of Efrayim who miscalculated the date of the redemption [from Egypt, and died in an attempt to reach the Promised Land]." . . . R. Yochanan said, "They were the dead in the valley of Dura [who were killed by Nebuchadnezzar]."

Now in *Pesachim* 3b we find that R. Yehudah b. Betera did not go up to Jerusalem for the Passover. In explanation, Tosafot suggests (among other possible reasons) that he was exempt because he had no land (see *Pesachim* 8b). At first glance, this would seem to contradict the principle laid down by Tosafot (B.B. 44b, s.v. *delo*) that "There is no man who does not have four cubits in the Land of Israel." However, it may well be that R. Yehudah b. Betera was an exception to this rule because of his direct descent from the dead who were revived by Ezekiel. This is certainly clear if these dead were the Efrayimites who left Egypt before the Exodus, since they had no share in the division of the Land by Joshua; but what if they were persons who had been killed at the time of the Exile? This difficulty disappears if it is realized that when they died, their share in the Land passed to their heirs, so that in most cases, their descendants from children born after they were revived would indeed have no share. Here again, then, the indications are consistent with the concept that even though a dead person has later been revived, he is not regarded as never having died; in particular, his estate passes to his heirs, and he does not recover it on reviving.

There is another source, however, which points to the opposite conclusion (*Kenesset Ha-Gedolah, Even Ha'Ezer*, 17, 2):

In my opinion, if a married woman dies and later comes back to life through the intervention of a prophet like Elijah or Elisha . . . her marital status is not abrogated, and she is not permitted to marry anyone else. This view is supported by the story of the wife of R.

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Chanina b. Chakhinai [who died of shock when he returned home after a long absence, but was revived in response to his prayers (Ketub. 62b); the implication is that after her revival she was still married to him].

A similar conclusion is reached by Azulai (*Birkhei Yosef ad loc*):

We are told (*Megillah 7b*) that [in the excitement of a Purim feast] Rabbah killed R. Zeira; the next day he prayed for him and brought him back to life. One may ask [with regard to] R. Zeira's wife: When her husband was killed, was her marriage dissolved, so that she was free to marry anyone, and when he revived the next day, did he have to remarry her, like a man who takes back his divorced wife? . . . Or perhaps a woman obtains her freedom upon the death of her husband only if he dies and remains dead; but when he was not buried, and is brought back to life by a prophet or pious man, it becomes apparent that his death was not like ordinary death, and the original marriage is not dissolved, so that no one else can marry her, and when her husband revives, he can take her back immediately. . . .

A proof can be brought from *Yer. Gitin* (7, 3) . . . that if a person who has died is miraculously revived, his wife is still his; it makes no difference that he was definitely dead, since afterwards he revived. And we can say that our Talmud, too, agrees that if such a thing happens, his death can be ignored. The two Talmuds differ only as to whether we need suspect that it may have happened; according to our Talmud, we need not be concerned about unlikely possibilities . . . but if such an event did happen, all would agree that when he revives, the original state of affairs is restored: she is his wife, he her husband. So it seems to me at first glance. . . .

Later authorities differ in their reactions to Azulai's conclusion. Some disagree (e.g., R. Avraham Teomim, *Chesed le-Avraham*, II, No. 14), pointing out that when the dead arise at the resurrection, their marriages will not be renewed. Moreover, if (according to *Yer. Gittin*) one had to be concerned for the possibility of a dead man being brought back to life, how could any widow ever remarry? A possible solution to these difficulties, suggested by R. Ya'akov Pardo (*Apei Zutrei ad loc*), is that if the dead man has been buried, his marriage is dissolved even if he is later miraculously disinterred and revived; but if he comes back to life before having been buried, the marriage still stands. This idea is supported by the story of

