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WILLIAM B. OBER, M.D., Editor

The Heart, the Head, and the Halakhah

RABBI AZRIEL ROSENFELD, PH.D., D.H.L.
College Park, Maryland

Professor of Computer Science, University
of Maryland

*Tell me, where is fancy bred?
Or in the heart, or in the head?
William Shakespeare:
The Merchant of Venice, III, 2.*

WHEN IS A PERSON ALIVE? In a recent article I¹ raised but did not attempt to answer the following question: How much of a person's body can be replaced by artificial limbs and organs before he is no longer a "man"? Is he a "man" as long as his brain remains intact?

Clearly, no one would question the fact that an amputee is still legally a person; but what if vital organs have been removed and replaced by mechanical devices? What if the heart has been replaced by a pump? What if the head has been severed from the body and is being kept alive (and conscious) by circulating oxygenated blood through it, as has already been done for short periods with animals? Conversely, suppose that a person's body has been kept clinically alive through the use of a heart-lung machine so that both of the classical halakhic criteria for life, heartbeat and respiration, are present; does this always imply that the person is legally alive? In particular, would he be legally alive even if his brain had been removed or destroyed?

It is important to distinguish between the

questions just raised and the problem of defining death by the Halakhah, the codified body of Jewish law, a question of current interest with heart transplant cases. Our problem here is not one of life or death but of identity. If the eye, kidney, or heart of a deceased donor is kept "alive," stored in an organ bank, no one would claim that the donor is still legally alive; whereas if the donor still lives, even though he lacks certain limbs or organs, no one would question his legal existence. But where do we draw the line? In what part of the body does a person's legal identity reside, so that if that part still lives, he is legally alive but not otherwise?

The *Talmud* rules that a person is not legally dead until his spirit has departed,^{2,3} so long as there is soul within him, even if he is dismembered.⁴ But are there organs whose removal immediately makes a person legally dead? In particular, if we find that a certain organ is regarded by our rabbinical authorities as the seat of the soul, may we conclude that it is also the seat of legal identity, so that the person is legally alive only while that organ lives?

Where does the soul reside?

According to our understanding today, the seat of the personality is the brain, but there are many Biblical and Talmudic passages which imply that the heart, not the brain, is the seat of the intellect as well as of the emotions. Actually, however, the matter has long been in dispute:

Where may wisdom be found? This teaches us that Solomon was searching to determine the seat of wisdom. Rabbi Eliezer says, "in the head"; Rabbi Joshua says "in the heart" . . . And why was wisdom put in the heart? Because all the limbs depend on the heart . . .⁵

If we identify "wisdom" here with the personality, we can apparently conclude that

* Job 28, 12.

there are two views regarding the seat of a person's identity. This might in turn imply that there is a halakhic difference of opinion regarding our problem: According to Rabbi Eliezer, a person is legally alive only so long as his head, that is, his brain, still lives, while according to Rabbi Joshua, whose opinion is usually followed in disputes with Rabbi Eliezer, it is the heart not the brain that matters. In fact, this dispute is actually cited in the responsa literature in connection with a juridical problem closely related to ours, namely, whether a creature can live even for a short time if it has no heart.⁶

On closer consideration, however, the halakhic sources on organs whose removal causes instant death are, if anything, clearer with regard to the head than the heart. True, in connection with the laws of kosher slaughtering Rabbi Joseph Karo lists both heart and brain in this category:

[Maimonides] counted among [the organs which make an animal *tref* if they are congenitally] missing, or removed, or duplicated, only those limbs whose removal or absence the animal can survive for a short time; but limbs whose removal [the animal] cannot survive for even a little while, he did not count, for this would not be called *tref* but rather *nevelah*, that is, already dead. And similarly for a limb which [the animal] cannot be formed without, such as the brain, the heart, the gullet, and the windpipe, he did not count them, because they are impossible cases?

However, many authorities disagree with the ruling that the absence or removal of the heart makes an animal *nevelah*, for example, Rabbi Jonathan Eibeschutz:

For the concept that removal of the heart [makes an animal] *nevelah*, we have found no clear proof, nor even mention in the words of our sages; only Maimonides, in his great wisdom and study of nature, regarded this as established, since the condition of the body if it is missing is one of *nevelah*. But his reverence took precedence over his wisdom; therefore in all of the chapters [of his code] he did not wish to classify it as *nevelah*, since he found no support for this in the words of our sages, and did not wish to rule on the basis of his intellect. . . therefore he did not count such cases anywhere. However, neither did he want to write the opposite, against reason and the facts of nature according to his opinion; therefore he did not count them as *tref* either, but ignored them. . .⁷

On the other hand, all authorities agree that if an animal's head is cut off, it becomes *nevelah*, for example, "Animals do not make one unclean [as *nevelah*] until their spirits have departed; if their heads have been cut off, even though they are still twitching, they are unclean, for it is like the tail of a lizard which twitches [even after the lizard is dead]."⁹ All authorities agree that if most of an animal's neck has been severed, it is *nevelah*, and a man, too, is regarded as dead for purposes of uncleanness.¹⁰ Many hold that even cutting the windpipe or piercing the gullet makes an animal *nevelah*, but it does not make a man legally dead; in particular, he can still divorce his wife.¹¹ In fact, removal of the head is proverbial as a sure cause of death: "Can the head be cut off without [the creature] dying?"¹²

In any event, even if it is agreed that the removal of a given organ causes instant legal death, it does not follow that that organ must be the seat of the identity; it is certainly conceivable that there are organs which are absolutely essential to life even though they do not contain the soul. A more interesting line of reasoning regarding the head as the halakhic seat of the soul can be derived from the literature dealing with people having two heads:

Palemo asked Rabbi Yehudah ha-Nasi, "If one has two heads, on which of them does he put the phylacteries?" He replied, "Either go into exile or receive excommunication!" Just then a man came and said to him, "A child has been born to me who has two heads; how much must I give the priest [to redeem this first-born]?" A certain old man came and taught him, "He must give him ten *selaim* [rather than the usual five]. Is this so? . . . [Yes;] here the *Torah* (Num. 3, 47) made it depend on the "skull," [and if a child has two skulls, both must be redeemed]."¹³

These sources would appear to imply that a person with two heads is still only a single person. Indeed, were there any possibility of his being two people, each brain having its own soul, one alternative would be that phylacteries have to be put on both heads. Similarly, if the infant were two children, only one of them would be the first-born, and the other would not have to be redeemed at all. The Talmud rules that if a child is born with "two backs and two spines" [and presumably also two heads?], the mother does not become ritually unclean, since such a

child cannot possibly live.¹⁴ Here, too, no mention is made of the possibility that it might legally be two children. However, there are other sources which allow for the possibility that a two-headed man may legally be two people:

There is no such [creature] in this world; but we find in the Midrash that [the demon] Ashmedai brought out from under the earth, before King Solomon, a man who had two heads. He took a wife and begat sons, [one] like him having two heads and [some] like his wife having one head. When they came to divide their father's property, the one with two heads asked for two shares, and they came to judgment before Solomon. Solomon, in his wisdom, boiled water, covered up one of the heads and poured the boiling water on the other head; from the pain of the boiling water, both heads cried out. Said Solomon: "One may conclude from this that both heads have a single origin, and he is legally one man."¹⁵

From this last source it appears that a man with two heads would legally be two people if the heads had independent feelings. In a case of Siamese twins joined at the head, but having distinct heads and bodies, Rabbi Jacob Reischer ruled that they were like two separate persons in all respects.¹⁶ Indeed, the very fact that such questions arose in connection with cases of two heads but not of two hearts would appear to indicate that the head, not the heart, is the only possible seat of the identity.

The sources just cited, although they may be suggestive, do not provide incontrovertible evidence with regard to our problem. However, we may also appeal to contemporary evidence. In all the furor over heart transplant operations, no one has questioned the identity of the recipient. There is much concern over the fact that the donor may be killed if his heart is taken prematurely, even though his heart is being kept alive in the recipient's body. If the halakhic seat of the identity were the heart, the donor is not being killed; rather, his heart is being given a new body, and it is the recipient who is being killed, since his heart is discarded.

For the foregoing reasons it seems permissible to conclude that the brain, not the heart, is the halakhic seat of identity. Thus, a person is legally alive only if his brain is still alive; if the brain has been removed or destroyed, even though the body is still clinically alive, the person is legally dead. In such a situation it seems clear that there

would be no obligation to keep the body "alive," since the injunction to preserve life (*pikuach nefesh*) cannot apply after the spirit (*nefesh*) has departed. Conversely, if the brain could be kept alive in the absence of the rest of the body, it seems plausible that the person would be regarded as legally alive.*

Brain transplants

If these conclusions are valid, a host of fascinating possibilities arises. What if one person's brain were transplanted into the body of another person whose brain had been destroyed? By our previous conclusions, only the donor is legally alive in such a case, since his brain is still alive, while the recipient is legally dead even though all of his body except for the brain is still alive. In particular, the transplanted donor still owns his property, is still married to his wife, and so on, whereas the recipient's estate has passed to his heirs, his wife is a widow, and so on.

More serious difficulties might arise in cases in which the donor and the recipient are not of equal legal status. For example, suppose that one is a Jew and the other a non-Jew, one is a *kohen* (that is, of priestly descent) and the other a non-*kohen*, one is an adult and the other a child, or one is a man and the other a woman. In such cases, what would the status of the transplanted donor be? Analogous cases arise if one accepts the cabalistic doctrine of reincarnation; however, in reincarnation it is presumably the form of the new body which determines its legal status, whereas in our case we have assumed that the recipient is legally dead.

Suppose first that a Jew's brain is put into a non-Jewish body. Then the Jew, who is still legally alive by our assumption, certainly does not cease being a Jew. True, his new body might require immersion, as do even some types of utensils purchased from a non-Jew, and circumcision, as would the donor himself if his foreskin had grown back, or if he were found to have a second one;^{17,18} but he surely would not have to be-

* One could, of course, now ask what part of the brain is the seat of a person's identity. In particular, suppose that a person could be divided in half in such a way that each half of his brain remained conscious; would each half legally be the person? Suppose that a person's brain could support two independent personalities, would each of them legally be a person?

come a proselyte, since his personality is that of a born Jew. Conversely, putting a non-Jewish brain into a Jewish body would certainly not make the transplanted person Jewish, since he has never accepted Judaism. If he wanted to become a Jew, he would have the same status as any other would-be (circumcised) proselyte.

The case of a *kohen's* brain in the body of a non-*kohen*, or vice versa, is perhaps less straightforward. However, we may note that in general a transplanted donor would presumably still be forbidden to marry his relatives, even though genetically his new body is unrelated to them. True, he would also certainly be prohibited from marrying his new body's relatives, but even artificial insemination of a relative is surely prohibited. Problems of a comparable nature would also arise if transplantation of reproductive organs were feasible. Conceivably, even in matters of heredity we may follow the personality rather than the body; a *kohen* remains a *kohen* even if he occupies the body of a non-*kohen*, and vice versa.

An adult's brain in a child's body would almost certainly remain legally adult; true, his present body would lack the physical and physiologic signs of maturity, but he had achieved both the signs and the chronologic age in his former body. Conversely, a child's brain in an adult's body would presumably not become a legal adult, since his (that is, the brain's) chronologic age is insufficient. A more interesting possibility is that of an older child's brain transplanted into a younger child's body; here, when the brain attains an adult chronologic age, the physical and physiologic signs of maturity might still be lacking.

In all of the foregoing examples, it appears plausible that for most purposes the transplanted donor would retain his original status rather than acquire that of the recipient. However, this approach could lead to intolerable difficulties in the case of a man's brain transplanted to a woman's body or vice versa. If the transplanted donor remained legally a woman, she could marry a man, or would remain married to a man if she had been previously married, even though her new body would be that of a man. This type of brain transplant could be construed as a flagrant violation of the injunction, "A man's trappings shall not be

on a woman, nor shall a man put on a woman's garment"*; but what if it has already been performed? Are there halakhic precedents which allow for the possibility that an individual's sex can legally change?

Sex changes

An interesting precedent on sex change is found in connection with the legal status of an hermaphrodite.

I have found in the book *Maaseh Toviah*, in the essay *Olam Katan* Ch. 5, that many expert doctors had testified that many hermaphrodites have begotten children from their wives, then afterward married males and given birth to children like complete females.¹⁹

R. Y. P. (?) has explained that one hermaphrodite cannot perform a commandment on behalf of another because even though the other is also an hermaphrodite, at the time he is female the other may be male.²⁰

However, later authorities are unable to identify the author of this explanation and dismiss the view that an hermaphrodite can sometimes be male and sometimes female as incompatible with Talmudic sources:

I have not found this in our *Alfasi*. Moreover, according to this it appears that sometimes it is male and sometimes female, as I have heard some saying that an hermaphrodite is male for one month and female for one month; but the *Talmud* and codes do not seem to imply this. Furthermore, if so, why would I need a Biblical verse to exclude the circumcision of an hermaphrodite from setting aside the Sabbath? If it is female in the month of its birth, this is obvious; and if it is male, this is also difficult—how do we know that next month it will be female?²¹

However, it should be noted that the idea is not dismissed on the ground that it is inconceivable for the same individual to have different sexes at different times.

A more significant precedent may be the following responsum of Rabbi Jacob Emden²² regarding a child born with malformed genital organs, which the local courts had ruled to be male:

I judge by what I see that she is a complete female in all respects, and is not in the category of an hermaphrodite which has both male and female organs, for here there are no male organs at all. . . . That long [strip of] flesh. . . cannot be called a male organ; it is only an excess flap of flesh growing out of the body and formed like a sort of appendage,

* *Deuteronomy*, 22, 5.

as are also found in other parts of the body. And just because its external appearance somewhat resembles that of a male organ, it cannot be called one; for it is not hollow, and has no use at all, and lacks the function of the generative organ, having no passage for the seed nor for the exit of body wastes. . . and furthermore, it is split and torn. . . And even if it could be imagined that an expert doctor could be found who could heal the split and cause the walls to cleave together and become one flesh, could he create passages and tubes in them, and paths for the seed and the water? The responsum goes on to warn against the halakhic complications that will result from raising this girl as a boy.

What if physicians *could* build functioning male organs in a child who was born female? While Rabbi Emden surely did not consider such a possibility seriously, the passage quoted from his responsum suggests that in such a case, conceivably, the child's sex might legally change from female to male. Thus, the possibility is opened that if a true sex change operation or a transplant of genital organs could be successfully accomplished, it might have halakhic validity in changing the patient's legal sex. And if so, certainly a complete "body transplant"—transfer of the brain, the identity, into a body of the opposite sex—would constitute a halakhically valid sex change. This might lead to complex situations without juridical precedent (for example, if a husband's or wife's sex is halakhically changed, is the marriage automatically dissolved?), but it is clearly less objectionable than to rule that a person retains his original sex even if his body is now of the opposite sex.

Conclusion

While brain transplants are not likely to

be feasible in the very near future, the prospect that they may some day be performed makes it desirable to give some thought to the problems incurred. To me it appears quite clear that the halakhic seat of a person's identity is in his head, "the king of all his limbs,"²³ for "the king in a man is his head."²⁴ If one man's brain is transplanted into another man's body, we would surely say for most purposes that "the body goes after the head."²⁵ Let us hope that by the time medical science reaches the stage when "the head cut off without dying" becomes possible, the halakhah will have developed answers to the many perplexing questions which this possibility raises.

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