

SURVEY OF RECENT HALAKHIC PERIODICAL LITERATURE

ARTIFICIAL HEART IMPLANTATION

And I have given unto you a new heart and a new spirit will I put within you. . . .

Ezekiel 36:26

Implantation of a mechanical heart presents society with a wide array of ethical questions. These issues notwithstanding, one can only applaud the advances in medical technology which have made implantation of an artificial heart a reality. From the Jewish point of view this development is all the more welcome because in the past rabbinic decisors have been constrained to decry cadaver heart transplants. That position was based primarily upon the consideration that it is medically feasible to accomplish a successful heart transplant only by relying upon neurological criteria of death in salvaging the donor's heart.

At the time of the performance of the first successful heart transplants, a number of leading halakhic authorities pronounced such procedures to be in violation of Jewish law. Some claimed that each heart transplant procedure entails two acts of homicide, viz., the immediate demise of the terminally ill donor from whom the healthy heart is removed and the premature death of the recipient.¹ In order to salvage the heart of the donor for transplant purposes, the heart must be removed before the onset of tissue degeneration. Were the physician to wait until the patient could be pronounced dead on the basis of the halakhic, and heretofore commonly accepted, criteria of death, use

of the heart for purposes of transplantation would be precluded. Hence physicians contemplating removal of the heart must perforce rely upon brain death criteria in pronouncing the death of the donor. However, brain death criteria are halakhically unacceptable as a means of determining that death has indeed occurred. The overwhelming consensus of authoritative rabbinic opinion is that, for all legal and moral purposes, death occurs only upon cessation of both cardiac and respiratory function.² Any act, either direct or indirect, which has the effect of hastening death, including withdrawal of life-support systems as well as actual removal of the heart itself, is forbidden by Jewish law. The situation with regard to the criteria used to pronounce the death of the donor in order to facilitate procurement of hearts for transplant procedures remains unchanged. Therefore, such procedures are in violation of Jewish law insofar as they require the removal of the heart from a donor who, in the eyes of Jewish law, is yet alive.

The question of whether the transplant procedure constitutes an act of homicide vis-a-vis the recipient is another matter entirely. During the initial period of heart transplantation surgery, at a time when such procedures were essentially experimental, it may perhaps have been the case that statistically anticipated longevity was decreased, rather than enhanced, as a result of the transplant procedure. Following the early transplant operations there was indeed a long

hiatus during which few such procedures were performed because of the unacceptably high incidence of rejection of transplanted hearts by recipients. However, with the development of immunosuppressive drugs, the fact-pattern has changed radically. In recent years, the twelve-month survival rate for recipients of heart transplants has been approximately 65%.³ Between 45% and 50% of all recipients survive for a period of at least five years following implantation.⁴ In contrast, in one study it was found that more than 90% of patients who presented clinical profiles identical to those of individuals chosen to receive cadaver transplants, but who did not receive heart transplants because appropriate donor organs could not be found, succumbed to death from heart disease within a three-month period.⁵

Quite obviously, since artificial heart implantation involves no human donor, the problem of foreshortening the donor's life is not at all germane. As to the prospect of enhanced longevity for the recipient, it is too early for any meaningful judgment to be made. Since, at the time of this writing, only one artificial heart implantation has been attempted in a human subject, assessment of the success rate and evaluation of the potential for enhanced or diminished longevity are premature. It is nevertheless clear, at least after the fact, that the implantation of an artificial heart in the one instance in which it was undertaken was entirely warranted in terms of enhanced longevity. Given Dr. Barney Clark's clinical profile, the decision to replace his diseased heart with a mechanical device was entirely prudent. Absent the operation, Dr. Clark faced imminent death as evidenced by the fact that his physicians performed the operation a day earlier than scheduled because they were convinced that he would otherwise not survive the night. Since the patient did survive for a period of 112 days subsequent to the implantation there is no question that the procedure did succeed in prolonging his life.⁶

This is not to say that implantation

surgery does not pose a significant philosophical question regarding the essential characteristics of humanhood. Indeed, some have questioned whether the recipient of a mechanical heart may, properly speaking, be termed a human being.

Whether the recipient of an artificial heart is or is not a human being in the legal sense of the term is probably of greater moment to Jews than to others. To be sure, were such a person subsequently to become a victim of homicide, the perpetrator might formulate a defense based on the plea that human life came to an end with the surgical removal of the natural heart. But there is nothing to prevent society from conceding the semantic argument while at the same time recognizing that the recipient should not be regarded as a mere robot. Society might then, through appropriate legislation and otherwise, proceed to treat the recipient of a mechanical heart as a human being for all legal and moral purposes.

Jewish law, however, is much more formalistic in nature. Since Halakhah does not enjoy the luxury of formulating new categories it cannot beg the question. There are a number of practical corollaries to the theoretical question of whether or not the recipient of a mechanical heart is deemed to be a human being: (1) May the recipient's wife remarry without benefit of a *get* (religious divorce)? (2) Do his heirs immediately succeed to his estate? (3) If the recipient is not a human being, is he then a corpse requiring immediate burial? (4) Must the family immediately observe *shivah* and recite *kaddish*? To be sure, these questions constitute a *reductio ad absurdum* and evoke the intuitive reaction that the recipient is indeed a human being. Nevertheless, our intuitive response requires reasoned analysis and substantiation.

The question in only a slightly different guise was raised by theologians and moralists in the early days of transplant surgery. Subsequent to receiving a transplanted heart, does the patient retain his previous identity or does he acquire the *persona* of the donor? If it is assumed that

the heart is the *sine qua non* of personal identity, *a fortiori*, it must be presumed to constitute a necessary condition of humanhood. This, it seems to this writer, is not a view espoused by Judaism. Although cardiac activity is the crucial indicator of the presence of life, the heart is not the hallmark of personhood.

An attempt has been made to demonstrate, on the basis of halakhic dialectic, that the significance of cardiac activity lies, not in the ontological status of the heart itself, but rather in its function in causing blood to course through the body.⁷ Hence a patient whose circulatory system is sustained by a mechanical heart is deemed to be endowed with life. Since cardiac activity, even minus the *kardia*, is a sufficient condition of life, it follows that cardiac activity within a human organism equals a living human being. The various halakhic issues attendant upon artificial heart implantation have been discussed by this reviewer in *Torah she-be-al Peh*, vol. XXV (5744).

I

Prior to undertaking an analysis of the status of the recipient of a mechanical heart, attention should be drawn to a significant problem which applies with equal force to the implantation of both cadaver and artificial hearts. At the time that the early cadaver transplants were undertaken, some scholars contended that the transplant procedure constitutes an act of homicide insofar as the recipient is concerned, not because of an attendant diminution of life expectancy, but because the removal of the diseased heart, in and of itself, constitutes an act of homicide.⁸ The identical question arises with regard to the removal of a diseased heart for purposes of facilitating implantation of an artificial organ.

Assuming, *arguendo*, that in the eyes of Jewish law, the patient is deemed to be dead upon removal of the natural heart, it would follow logically that a patient who successfully undergoes an implant proce-

dure and becomes reanimated would be categorized as a person who has risen from the dead. Thus, a successful implant procedure would constitute a form of resurrection of the dead. The question that must be posed is, then, whether an act of homicide, when performed by one who has the intent and ability to restore his "victim" to life, constitutes a proscribed act of murder in the event that the victim is indeed actually resurrected. For example, may a prophet who is certain that he possesses the power to resurrect the dead kill another person and then restore him to life? Or is the prophet forbidden to kill a person even under such circumstances since the act of killing constitutes an act of murder? To transpose the question to its medical context: Assuming that the removal of a diseased heart constitutes an act of homicide, may a physician remove the heart of his patient if he is confident that the patient will be reanimated subsequent to implantation of an artificial heart? Or is the surgeon forbidden to perform an act which is technically an overt act of murder even though he does so for the purpose of restoring the patient to life and healing the latter's malady?

The Gemara, *Megillah* 7b, relates:

Rabbah and R. Zeira celebrated a Purim repast together. They became intoxicated. Rabbah arose and slit R. Zeira's throat. On the next day he prayed on his behalf and restored him to life. Next year he said, "Come and we will conduct the Purim repast together." He [R. Zeira] replied, "A miracle does not occur at every moment."

As related in this narrative, R. Zeira expressed the fear that the miracle of the previous year would not be repeated and that Rabbah might not succeed in restoring him to life. R. Zeira does not appear to be concerned that, even if Rabbah would be successful in performing an identical miracle a second time, he would yet have transgressed the prohibition against murder. Hence, it might be inferred that, when restoration of the victim to life is indeed a certainty, the act of killing does not entail transgression of the prohibition against homicide.

However, the incident reported in *Megillah* 7b is interpreted by some commentators in a manner which renders this conclusion nugatory. Maharsha explains that Rabbah did not actually slit the throat of R. Zeira; rather, explains Maharsha, Rabbah forced R. Zeira to drink an excessive amount of wine so that the latter became deathly ill and later Rabbah "restored him to life," i.e., Rabbah cured him by means of prayer. Similarly, Me'iri explains that Rabbah did not slaughter R. Zeira but "forced wine down his gullet." Moreover, Rabbah could not have been deemed culpable for his act since he had clearly reached the stage of the "drunkenness of Lot" and hence, for reason of mental incompetence, could not be held responsible for his actions.⁹

II

It may, however, be argued that the question regarding the permissibility of homicide in anticipation of subsequent restoration to life is based upon a contra-halakhic assumption. The question, as formulated, assumes that death and reanimation are two separate and discrete events. It may, however, be the case that, from the vantage point of Jewish law, when death is followed by resurrection, reanimation of the individual effectively nullifies the antecedent death and, for purposes of Halakhah, the individual is deemed never to have died. The litmus test is whether or not a marital relationship survives the decease of one of the marriage partners and his or her subsequent restoration to life. Or, to phrase the same question somewhat differently, is a person who has died and has been resurrected required to enter into a new marriage ceremony with his own "widow" in order that they may be permitted to live together as man and wife? This question is posed by R. Chaim Joseph David Azulai in his commentary on *Shulhan Arukh, Birkei Yosef, Even ha-Ezer* 17:1, with regard to the marital status of the wife of R. Zeira. *Birkei Yosef* writes:

With regard to the wife of R. Zeira [it is the case that] when her husband was slain and died that her marriage was certainly dissolved and she became permitted to all others. And when R. Zeira was restored to life the next day it was necessary to contract a marriage with his wife anew for she was an unmarried woman, as is the case with regard to one who is reconciled with his divorced wife in which case a new marriage is required since the original marriage is no longer extant, having been dissolved by means of a *get*, and a new entity is now created. Similarly, in this case, in which the husband has died, his death renders her permissible [to others] and nullifies his matrimonial relationship, and when he comes alive it is a new matter. Or perhaps the provision that "a woman acquires herself with the death of the husband" (*Kiddushin* 2a) applies only when he dies and remains deceased, but if he is not buried and is restored to life by a prophet or a pious man it becomes manifest that such death was not death in the manner of the death of all men. And the original marriage is not nullified [with the result that she remains] a married woman and lacks legal capacity to contract a marriage with any other man while her husband, when he is restored in life, is permitted to her immediately as was the case prior to his death.

In resolving this question, *Birkei Yosef* cites a discussion presented in the Palestinian Talmud, *Gittin* 7:3. The Mishnah, *Gittin* 76b, declares, "[If a man says,] 'This is your *get* if I do not return within twelve months,' and he dies within twelve months, it is no *get*." In the course of the discussion in the Babylonian Talmud focusing upon this Mishnah, the Gemara, *Gittin* 76b, poses the following query:

R. Eleazar asked a certain elder: "When you permitted her to marry, did you permit her to do so immediately or after twelve months? Did you permit her to marry immediately since he cannot come, or did you permit her to marry after twelve months when his condition was fulfilled?"

The consideration which gives rise to this question is not immediately clear. Granted that the retroactive validity of the divorce is questionable, logically, the wife should nevertheless be permitted to marry imme-

diately: If the *get* is valid retroactively she is a divorcee; if not, she is a widow. In either contingency she attains halakhic capacity to contract a marriage immediately following the death of her husband. Rashi, in his commentary *ad locum*, concedes that this is, in fact, the case. Determination of a woman's status as a divorcee rather than as a widow is significant, comments Rashi, only in a situation in which the husband dies without issue. If the divorce is effective retroactively she is free to remarry as a divorcee; if not, as a childless widow, she is subject to the obligation of levirate marriage.

The parallel discussion in the Palestinian Talmud, *Gittin* 7:3, places the matter in an entirely different perspective:

Is she permitted to marry [immediately]? R. Haggi said, "She is permitted." R. Jose said, "She is forbidden to marry; I say perhaps miracles befell him and he was restored to life."

The Palestinian Talmud clearly considers not only the possibility of levirate obligation but also questions the woman's right to remarry as a widow.¹⁰ To be sure, none of the codifiers of Jewish law adopts the position of R. Jose in forbidding the immediate remarriage of the widow. *Birkei Yosef* observes that R. Jose's fear that "perhaps miracles befell him and he was restored to life" is set aside on the basis of empirical considerations but is not dismissed on substantive grounds. The probability of miraculous resurrection is of so unlikely a magnitude, asserts *Birkei Yosef*, that it need not at all be of concern. *Birkei Yosef* observes that the discussion in the Palestinian Talmud does nevertheless serve to demonstrate that, were such a miracle to occur, the matrimonial relationship would be viewed as having survived the death of the husband and his subsequent restoration to life. *Birkei Yosef* asserts that there is no reason to assume that the Babylonian Talmud disputes this view; rather, it ignores the contingency on grounds which are entirely empirical.¹¹

According to *Birkei Yosef's* analysis, it necessarily follows that removal of a diseased heart followed by implantation

of either a cadaver organ or an artificial heart does not constitute an act of homicide since, in his view, death is retroactively nullified by virtue of subsequent animation.

It is readily apparent that the question left unresolved in the Babylonian Talmud is neither resolved nor is it the subject of controversy in the Palestinian Talmud. In permitting immediate remarriage, R. Haggi does so only in situations in which status either as a widow or as a divorcee entails capacity to remarry. He is silent with regard to a situation in which an impediment to remarriage may exist by virtue of a possible levirate obligation and hence in which a determination of status as a divorcee rather than as a widow is crucial. R. Jose, of course, forbids remarriage in all instances because of the possibility that the husband may be restored to life. Rambam, *Hilkhot Gerushin* 9:11, takes note of the problem concerning remarriage in the face of a possible levirate obligation as formulated in the Babylonian Talmud and indicates that the question remains unresolved. In failing to indicate a barrier to remarriage in the absence of a possible levirate obligation, Rambam inferentially rejects the view of R. Jose. In rejecting the opinion of R. Jose, Rambam is consistent with his view that resurrection of the dead will occur only at the culmination of the messianic era.¹²

There are, however, latter-day authorities who disagree with the principle formulated by *Birkei Yosef*. The *Gemara*, *Niddah* 61b, declares, "Commandments will be abrogated in the eschatological era," i.e., subsequent to the resurrection of the dead. Rabbi Elchanan Wasserman, *Kovetz Shi'urim*, II, no. 29, formulates two possible analyses of that dictum: 1) The underlying principle may be that fulfillment of *mitzvot* is contingent upon a specific time-period or historical epoch. Just as ritual obligations were not incumbent in the pre-Sinaitic era so, also, those obligations will lapse in the post-resurrection era. (2) Alternatively, the principle enunciated in *Niddah* 61b may simply be that the resurrected dead are

not required to perform *mitzvot*. The principle that "the dead are free" of all obligations, derived from Psalms 88:6, entails irrevocable abrogation of all further responsibility for fulfillment of commandments. Hence, the dead are relieved of all ritual obligations even subsequent to their resurrection. According to the latter analysis, release from such obligations is not limited to any particular epoch. Accordingly, the principle would apply even in contemporary times in the unlikely event that a particular corpse would be miraculously restored to life prior to the general resurrection. Whether or not the dead who were restored to life by the prophet Ezekiel were required to observe the commandments is contingent upon which of these two analyses is accepted. Similarly, according to the authorities who maintain that the righteous will be restored to life during the messianic era, the question of their obligation vis-a-vis fulfillment of *mitzvot* in the interim period between their resurrection and the advent of the world-to-come is contingent upon which of these two analyses is regarded as correct. R. Elchanan Wasserman asserts that *mitzvot* are eternally valid and binding, at least in theory, even in the period of the world-to-come. He advances arguments demonstrating that the second analysis is correct and that, in reality, there will be no obligation with regard to fulfillment of commandments in the world-to-come only because death, in and of itself, irrevocably terminates the obligation to perform *mitzvot*.¹³ Accordingly, termination of such obligation is not rescinded by subsequent restoration to life. This position entails the negation of the notion that resurrection serves to nullify, or to reverse, earlier demise.¹⁴ Since resurrection is not tantamount to a reversal of death, there is no logical manner in which a prior marital relationship can be regarded as having been re-established by resurrection.

III

However, even rejection of *Birkei Yosef's* position does not necessarily entail accept-

ance of the view that removal of a diseased heart constitutes an act of homicide. During the early period of cadaver heart transplants some rabbinic scholars urged the view that the question is in fact reducible to a matter which was the subject of a celebrated controversy between two eminent eighteenth-century authorities, R. Zevi Ashkenazi (Hakham Zevi) and R. Yonatan Eibeschutz. A young woman eviscerated, soaked and salted a chicken, but failed to find a heart. She consulted R. Zevi Ashkenazi who, as recorded in *Teshuvot Hakham Zevi*, nos. 74, 76 and 77, ruled that the animal was kosher. Hakham Zevi reasoned that since it is impossible for any creature to survive without a heart for even a brief period of time, it must be assumed that the chicken, which had thrived and developed in a normal manner, must indeed have been endowed with a heart. The absence of a heart, declared Hakham Zevi, must assuredly be attributed to the predatory nature of a cat which must have been in close proximity. Not content with simply ruling with regard to the case presented to him, Hakham Zevi further announced that "even if witnesses will come and testify that they saw with open eyes that nothing was removed from the body of the chicken, it is certain that their testimony is false for it is contrary to reality." In sharp disagreement, R. Yonatan Eibeschutz, *Kereti u-Peleti* 40:4, declared that the testimony of credible witnesses cannot be dismissed peremptorily but rather "it must be assumed that there was some piece [of tissue] which does not appear as a heart but which is designed to fulfill the functions of the heart, but yet the chicken is *treifah* since it is not a normal heart."¹⁵ It has been argued that, since according to Hakham Zevi it is impossible for any creature to survive without a heart, removal of a diseased heart *ipso facto* causes the death of the patient and hence constitutes an act of homicide. Reanimation by means of subsequent implantation of a cadaver heart would thus be viewed either as a form of *pirkus*¹⁶ (convulsive movement) or as the generation of a new life.

Actually, the selfsame argument can well be formulated in a manner which is entirely consistent with the position of *Kereti u-Peleti*. As already noted, this authority accepts the basic premise that, absent a heart, a living creature cannot survive. *Kereti u-Peleti* merely posits the possibility that cardiac functions may be assumed by an organ which does not at all resemble a normal heart. Hence *Kereti u-Peleti* might well concede that removal of the heart from a living creature would lead to its immediate demise.

However, according to the conflicting view of R. Ya'akov Friedman of Karlin, *Mishkenot Ya'akov, Yoreh De'ah*, no. 10, removal of a diseased heart would not constitute an act of homicide. According to *Mishkenot Ya'akov*, some residual vital force remains even subsequent to removal of the heart.¹⁷ Hence, since according to *Mishkenot Ya'akov*, removal of the heart does not *ipso facto* entail death, a diseased heart might be removed in order to implant a cadaver heart without violation of the prohibition against homicide.

In point of fact, the identical question arises with regard to all forms of open-heart surgery. Although the heart is not removed in the course of such procedures, the heartbeat is stopped in order to prevent pulsation of the heart from causing a continuously moving surgical field. During the course of such procedures, life is sustained by means of a heart-lung machine which oxygenates the blood and circulates it through the body. If Hakham Zevi is to be understood as declaring that under no circumstances can life persist in the absence of a heart, it follows that, by the same token, life cannot persist in the absence of a functioning heart. It is clear that life is not contingent upon the mere physical presence of a heart but upon the continued pulsation of the heart which causes blood to course through the circulatory system. Nevertheless, no rabbinic authority has argued that causing the temporary cessation of cardiac function in the course of open-heart surgery, in and of itself, constitutes an act of homicide. The matter is readily understood if it

is recognized that, even in accordance with the view expressed by Hakham Zevi, it is only irreversible cessation of cardiac activity which constitutes death. When, however, cardiac activity is interrupted and subsequently restored it is retroactively established that the original cessation of cardiac activity was not associated with the death of the person.¹⁸ Were this not so, it would follow that successful resuscitation following cardiac arrest is a form of resurrection of the dead.

The same line of reasoning may be applied to transplant surgery involving the use of a cadaver heart. Hakham Zevi does indeed declare that life cannot exist without a heart, but he does not assert that life cannot exist other than with the original heart with which the living being was endowed. Hence, removal of the original diseased organ and its replacement with a cadaver heart may be viewed as merely a temporary cessation of cardiac activity which does not constitute death even according to Hakham Zevi.

However, implantation of an artificial heart differs significantly from a cardiac transplant. The recipient of a cadaver transplant is endowed with a functioning heart; the recipient of an artificial heart possesses an artificial organ. In the latter case, normal cardiac function has irreversibly ceased. Arguably, the artificial organ produces only artificial life. If so, removal of the diseased heart under such circumstances might constitute homicide since removal of the heart effectively terminates natural life in a manner which is irreversible.

Yet it would appear more logical to assume that Hakham Zevi would concede the validity of *Kereti u-Peleti's* basic point; viz., although no creature can survive without a heart, nevertheless, life does not require an organ possessing the form and characteristics associated with a normal, natural heart, but may be sustained by any organ which performs the functions associated with the heart. Hakham Zevi would then disagree with *Kereti u-Peleti* only to the extent that, absent the perceived presence of a normal

heart, he finds no reason to posit the existence of an unrecognizable organ that performs the functions of a heart. Since Hakham Zevi deemed it so unlikely that the chicken in question might possess some unrecognizable organ that assumed the functions of the heart, he asserted that it must be presumed that a normal heart was indeed present and hence the animal is to be declared kosher. Nevertheless, although Hakham Zevi forcefully asserts that life cannot persist in the absence of a heart, there is no reason to presume that he would fail to concede that life might indeed be sustained by means of some other organ which performs the functions usually associated with the heart or even by means of a mechanical device designed to perform those functions. Accordingly, Hakham Zevi's position does not yield the conclusion that a patient whose life is sustained by means of a heart-lung machine or by means of an artificial heart must be regarded as deceased. Hence, even according to Hakham Zevi, removal of the diseased heart need not be regarded as an act of homicide.

IV

However, Hakham Zevi, *Teshuvot Hakham Zevi*, no. 77, does acknowledge that, although life cannot exist without a heart, lifelike movement may persist subsequent to the removal of the heart. Such movement of a creature subsequent to removal of its heart is described by Hakham Zevi as merely convulsive in nature (*pirkus*):

Similarly, when the heart has been removed even though [the creature] is dead, and, in the case of a human, defiles in a tent and, in the case of an animal, [defiles as] carrion, it is possible for [the creature] to run and to move. This is the *pirkus* described in *Oholot*. But, all this notwithstanding, [the creature] is dead and not alive.

Nevertheless it is clear that, even according to Hakham Zevi, the vitality manifested by the recipient of an artificial heart is not in the category of *pirkus*. This may be demonstrated on the basis of a number of

talmudic sources which, absent such conclusion, would contradict the thesis enunciated by Hakham Zevi. The Gemara, *Hullin* 33a, states:

R. Aha bar Jacob said: One may infer from the ruling of R. Simeon ben Lakish that a Jew may be invited to partake of internal organs, but a gentile may not be invited to partake of internal organs. What is the reason? For a Jew, the matter is contingent upon the act of slaughter; since the animal has been properly slaughtered it is permitted [to Jews]. For gentiles stabbing is sufficient and the matter is contingent upon death [of the animal]. [Therefore] these [internal organs] are comparable to a limb [cut off] from a living animal.

This dictum is predicated upon the previously announced opinion of R. Simeon ben Lakish who declared that, upon severance of the trachea and esophagus, the internal organs which are suspended from these structures are, for purposes of halakhic categorization, regarded as having been separated from the animal and "placed in a basket" (*ke-manha be-dikula damya*), i.e., they are no longer regarded as integral to the animal but merely as reposing in the body cavity which serves them as a "basket." Since these organs are regarded as having been "removed" from the animal before it expired, the organs are forbidden to gentiles as "a limb cut off from the living animal."¹⁹

The heart, which is suspended from the trachea by means of the bronchial tubes, is among the internal organs regarded as being placed in a basket as a result of the act of slaughter which entails severance of the trachea. This categorization involves acceptance of the principle that the animal remains alive even though the heart has been removed. Consideration of the heart as having been "placed in a basket" implies that the heart is no longer regarded as part of the animal. Yet, the internal organs are deemed to be "cut off from the living animal" despite the simultaneous "excision" of the heart. This can only mean that, despite the "removal" of the heart, the animal is regarded as still living since, were the animal regarded as

