Special Section: Open Forum

The Institute of Medicine on Non-Heart-Beating Organ Transplantation

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The current main source of transplantable organs is from heart-beating donors. These are patients who have suffered a catastrophic brain injury, been ventilated, declared dead by neurological criteria, and had their vital functions maintained mechanically until the point of transplantation. But the demand for organs far outstrips the supply, and these patients are not the only potential donors. The idea behind non-heart-beating transplantation is to expand the donor pool by including in it patients who are in hopeless conditions but who are not dying because of brain injury and hence will not suffer the neurological death necessary to become heart-beating donors. As long as we continue to hold the so-called dead donor rule, according to which dying donors cannot have their organs taken before they are dead, this requires that death be able to be declared by alternative criteria, specifically by cardiopulmonary criteria.[1] The challenge is to find such criteria that will identify a state that the public will readily recognize as death and that will facilitate non-heart-beating transplantation.

The most distinguished and potentially influential attempt to do this is provided by the Institute of Medicine (IOM) report, *Non-Heart-Beating Transplantation*.[2] Many non-heart-beating transplantation protocols are sure to bear its imprint, and the recent Canadian report, *Donation after Cardiocirculatory Death in Canada*,[3] follows it in all principal features. No one can reasonably object to the aim of trying to close the gap between the supply and demand of transplantable organs, but the reach of the IOM committee has exceeded its moral grasp. Or so I contend. I argue that the state identified as death by the cardiopulmonary criteria proposed by the IOM will not be counted as death by ordinary people; that (therefore) we cannot take consent to organ retrieval at death to be consent to organ retrieval at death determined by those criteria; and that (therefore) unless we are prepared to proceed without consent, we must either limit organ retrieval to nonoptimal times or significantly complicate the consent process. I conclude that although there is no knock-down argument against proceeding without consent, there are significant enough moral costs to doing so to warrant giving these second-best alternatives a serious second look.

I conduct my argument with reference to the IOM's report, but I am not just interested in that report. If the argument is right, the same consequences will

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flow from *any* attempt to devise cardiopulmonary criteria for the determination of death that will facilitate non-heart-beating transplantation, and the same hard choices will be forced on us. And if my argument is right about what is at stake in choosing between those alternatives, what might at first seem to be a localized issue in a recondite question concerning transplantation will turn out to have far-reaching implications for our thinking about healthcare ethics.

Cardiopulmonary Determination of Death

In the *Sample Family Information Brochure* included in its report, the IOM informs families who are considering donating their loved one's organs and tissues that "organ donation takes place only after life-sustaining treatment has been stopped, when heartbeat and breathing have ceased, and death has been declared." It goes on to say that "death has occurred when brain function is lost; or when the heart and breathing have irreversibly stopped."[4] This last disjunct is the part relevant to non-heart-beating transplantation, and I confine my attention to it. It is proper enough for the committee to say that in order to declare death by cardiopulmonary criteria, the loss of heartbeat and breathing must be irreversible. The problem comes in the account of irreversibility the committee provides (but does not include in the *Brochure* or elsewhere recommend making public).

The committee writes: "Conceptually, 'irreversible' cessation of cardiopulmonary function can be interpreted to mean several things: (1) will not resume spontaneously; (2) cannot be restarted with resuscitation measures; (3) will not be restarted on morally justifiable grounds. Because non-heart-beating donation involves those who elect not to continue life-sustaining treatment, the 1997 IOM study[5] accepted that death occurs when cardiopulmonary function will not resume spontaneously, and will not be restarted artificially."[6]

The IOM recommends empirical studies to develop "consensus on the appropriate interval between the cessation of cardiopulmonary function and the declaration of death,"[7] reporting that "existing empirical data cannot confirm or disprove a specific interval at which the cessation of cardiopulmonary function becomes irreversible."[8] In this state of uncertainty, the IOM proposes a 5-min interval. This lies between the proposals of other protocols, which range from no waiting period to waiting periods between 2 and 10 min,[9] and falls short of the 10–15 min estimated for death determined by cardiopulmonary criteria to coincide with death determined by neurological criteria.[10] But what is important for our purposes is the conceptual choice of the conjunction of (1) and (3) as the definition of "irreversible." The IOM can let empirical studies settle the question of the interval only because it accepts that, conceptually, death occurs when, given that the patient or the patient's agents have agreed to forgo life-sustaining treatment, cardiopulmonary function has stopped and will not resume spontaneously.

It is important for the committee to argue that the impossibility of restoring cardiopulmonary function by artificial means is not necessary for the determination of death. If the determination of death could not be made until that were impossible, either organs could not be retrieved before warm ischemia time threatens their viability or the dead donor rule would have to be transgressed. Because neither alternative is acceptable to the committee, we can understand

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why it analyzes "irreversible" in terms of (1) and (3). At the same time, insofar as the committee wants to take consent to organ retrieval at death for purposes of non-heart-beating transplantation to be consent to organ retrieval at death determined by cardiopulmonary criteria, it must provide cardiopulmonary criteria that will identify a state that the public will readily recognize as death. Otherwise there will be a mismatch between what people consent to and what they get that will vitiate consent. The committee must therefore explain how (1) and (3) add up to the sense of irreversibility involved in the ordinary concept of death.

The committee's official attempt to explain this comes in a reply to its critics. "Critics," the committee writes, "have suggested that cardiopulmonary function is not irreversibly lost as long as it could conceivably be restored by vigorous resuscitation efforts (Menikoff, 1998)."[11] Its immediately following response is: "However, there are no legal or moral grounds for attempting to resuscitate someone who has elected to discontinue life-sustaining treatment. When life-sustaining treatment has been withdrawn, when the heart and breathing have stopped, and when the passage of time has rendered the possibility of autoresuscitation vanishingly small, there are strong ethical, legal and clinical grounds for concluding that death has occurred. This was the conclusion reached in the 1997 IOM report (pp. 58–9)."[12]

In this reply, the committee tries to perform the trick of explaining how a physically reversible state can be described as "irreversible" by treating irreversibility as a legal/moral concept. If a person or the person's family has refused life-sustaining treatment, and hence the person's condition cannot legally or morally be reversed, the person is in a legally and morally irreversible state. And if the person is also an organ donor and in a state in which there is no or a very small chance of autoresuscitation, the person is dead. Both states are needed to call the person dead by the IOM's proposed cardiopulmonary criteria. But the sense of irreversibility in the concept of death is captured wholly by the legal or moral state, and if the possibility of physical reversibility is small enough, it can be discounted as irrelevant to the determination of death. This, however, does not seem right. If it were, two patients could be in the same physical condition, but one be dead and the other alive because of different decisions about the use of resuscitative measures, and this conflicts with ordinary usage. In ordinary usage, whether a person is dead or alive depends on what physically can or cannot be done to reverse that state, not on what legally/morally can or cannot be done.

If what is meant by the "irreversible" loss of cardiopulmonary function cannot be analyzed in terms of (1) and (3) because it refers to a physical state, nor in terms of (1) and (2)—where (2) stipulates that cardiopulmonary function cannot be restarted with resuscitation measures—because that will restrict organ retrieval to nonoptimal times, the only hope for an analysis that will meet these demands of ontology and pragmatism lies in whether we can analyze it in terms of (1) alone. There is something to be said for thinking we can. We can call foods "fat-free" when they are not totally free of fat, watermelons "seedless" when they have occasional seeds, a drawer "empty" when there is dust in it, and a road "flat" when there are some irregularities on its surface. Similarly, one could suggest, we can call a state "irreversible" when it is not absolutely irreversible, when, although it is perhaps conceivable that it

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could reverse itself or be reversed by resuscitation, the chances of that happening are very slim. This is exactly the state one is in when (1) obtains. For (1) refers to a state in which the chance of autoresuscitation is either (as the committee alternatively puts it) nonexistent or vanishingly small, and once one is in such a state—as one would be after 5 min of no spontaneous or artificially supported cardiopulmonary activity—the chance of successful artificial resuscitation is also nonexistent or very small as well. Thus if "irreversible" as applied to death functions like "fat-free" as applied to yoghurt or "flat" to roads, then (1) captures the sense of irreversibility in the ordinary concept of death.[13]

The problem is that the examples to which we are invited to assimilate the concept of irreversibility do not involve any misrepresentation. There is an asterisk explaining what "fat-free" or "seedless" means, and no expectations are contradicted by the presence of dust in drawers or irregularities on the surface of a road. In the case of the concept of irreversibility involved in the determination of death, however, neither of these things is so. There is no similar warning about fine print, and it would come as a surprise to ordinary people to hear that one could be declared dead when cardiopulmonary function has ceased if it could conceivably be restored by vigorous resuscitation efforts. That would be found odd even if there were no chance of that function starting on its own; it would be found odder still if there were some—albeit vanishingly small—chance of autoresuscitation.[14] In ordinary language, in contexts where calling someone dead implies that it is now appropriate to initiate some behavior such as excising organs for transplantation, starting an autopsy, or transferring property, death is an irreversible state.[15] And the surprise and oddity ordinary people would find in the above indicates that the irreversibility associated with death, declared with that point and purpose, rules out calling someone dead when the person is in a state where autoresuscitation is known to be empirically possible and we cannot say that it is technically impossible for artificial resuscitation to here and now restore cardiopulmonary function. When declaring death has behavioral significance, the claim that death is irreversible is like the claim that there are no nuts in a product or that a cheese does not contain rennet or that the dancers in a club will be nude. Close to nut-free, rennet-free, covering-free, or reversible-free is not good enough, and the public could rightly complain of misrepresentation if it got less.

But if we cannot reconcile the concept of irreversibility involved in the ordinary concept of death with the possibility of resuscitation by treating "irreversibility" as a legal/moral term, or as an epistemic/ontological one, we cannot reconcile those things at all. It follows that *any* cardiopulmonary criteria for the determination of death that will not restrict organ retrieval to nonoptimal times will not identify a state that will be readily recognized as death. We may agree that that state identified by such criteria is just as good (or bad) as death, that in some cases it may actually be death, and that when it is not it is very close to death, but we cannot say that any state so identified *is* death. To say it is makes a word mean what it does not, and to do that without warning is necessarily to mislead. "I did not have sexual relations with that woman," and "The United States does not torture" meant one thing for those who said them, quite another for those who heard them, and the IOM committee speaks

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a similarly private language when it talks about death. Thus those who become non-heart-beating organ donors on the promise that their organs will be taken only after they are dead get something different from what they or their families bargained for.

Deception and Consent

The IOM proposes that prospective non-heart-beating organ donors be given full information about the procedures involved and what will happen when. They will be told, for example, that death will be determined by cardiopulmonary criteria, and that it will be diagnosed after 5 min of no spontaneous or artificially supported respiration and heartbeat. But they will not be routinely told that and how death diagnosed in this way differs from death diagnosed by the prolonged absence of respiration and heartbeat or by neurological criteria, that is, death in the ordinary meaning of the term. The modal policy will be to take consent to organ retrieval at death for purposes of non-heart-beating transplantation to be consent to organ retrieval at death determined by cardiopulmonary criteria.

This may well satisfy legal consent requirements. If (as is the case in Canadian law) death is declared by a physician in accordance with "accepted medical practice," and the IOM's criteria for the determination of death meet that requirement, consent to organ retrieval at death for purposes of non-heart-beating transplantation is legal consent to organ retrieval at death determined by cardiopulmonary criteria.[16] This poses no problem as long as those criteria identify a state that is recognizable by ordinary people as death. But because this is not so, securing what the law regards as consent is not to secure actual consent, that is, what ordinary people would regard as consent. It is clear that if one consents to x at D, understanding that D occurs when one is in state S, one has not consented to x when one is in an earlier state, S − c, that does not have all the characteristics of S. Thus if one consents to organ retrieval at death, understanding that in the ordinary meaning of the term (namely, as entailing that there is no known empirical possibility of autoresuscitation and that it is technically impossible here and now to restart cardiopulmonary function by vigorous resuscitation efforts), one has not consented to organ retrieval at death determined by cardiopulmonary criteria.

Two things emerge from this. The first is that, because we can have legal consent when there is no assurance that what is done to the individual is consented to by the individual, the moral justification for proceeding on the basis of legal consent remains to be found. We will return in a moment to see where this can be sought. The second is that, whatever the law may say to the contrary, consent to organ retrieval at death determined by cardiopulmonary criteria requires that prospective organ donors understand that and how death determined in that way differs from death in the ordinary sense of the term. If that understanding cannot be presumed, as it almost never can be, the information necessary to ensure it must be provided on pain of proceeding without consent.[17] Nor can we avoid the necessity of providing that information by securing consent to organ retrieval at death *and* consent to death being declared 5 min after the cessation of cardiopulmonary activity. For, without that information, it would be natural for one to understand that after 5 min the person

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will be dead in the ordinary sense, and thus again we would not have consent to organ retrieval at death determined by cardiopulmonary criteria.

Providing this information will significantly complicate the consent process and may result in fewer organs. Still, if organ retrieval requires consent, there is no escaping those consequences, and hence it would be nice if we could find a way to ethically deny that organ retrieval requires consent. There are two ways in which we can try to do this. The first is to contend that the information necessary for consent would not make any difference to individuals or families who consent to organ retrieval at death for non-heart-beating transplantation, and hence we can withhold it. We would not have consent, but if the parties would have consented even if they had that information we would have hypothetical consent, and that (so the claim goes) is just as good. The second is to argue that even though the information may make a difference to decision-making, any violation of autonomy or other harm that this may cause is outweighed by the benefits of withholding it. We would thus come to rest in a utilitarian judgment. It is in these alternatives, if anywhere, that the moral justification for proceeding on the basis of legal consent must reside.

To begin with the first, it is not clear that hypothetical consent removes the need for actual consent when actual consent can be sought. If it is very important that you have some money, and you know that I would give it to you if you asked but you cannot ask, you would be entitled to take it from my wallet. If, however, you could ask but do not, it is not clear that you can rely on hypothetical consent and take it anyway. But even if hypothetical consent could act as a surrogate for actual consent in such circumstances, invoking it here faces a crushing problem. This is to show that hypothetical consent can be presumed in all cases in which there is legal consent to organ donation for purposes of non-heart-beating transplantation, but the patient or family is not given the information necessary for actual consent. It is very implausible to claim that that information would not make a difference *to anyone* in that position. For at least some of those will hold the dead donor rule, and we could expect at least some who subscribe to that rule to require not just that the person be dead according the view of some committee, but dead in the ordinary sense of the word. Anyone who takes the dead donor rule seriously in the way the IOM does, namely, as allowing for a deviation from the ordinary concept of death, should not be surprised if others take it seriously in another way, namely, as not allowing for that.

Nor can we solve the problem of ensuring that hypothetical consent will be suitably universal by selective disclosure. For there does not seem to be any reliable way of determining to whom the information about the nature of death would be important and to whom it would not be. We cannot infer the irrelevance of the information from the fact that the patient or family has an interest—even extreme interest—in organ donation, for that may disappear on hearing more about when organs will be retrieved. Nor can we infer it from the absence of specific enquiries about the nature of death determined by cardiopulmonary criteria, for the public has no reason to think that death determined in that way is anything other than ordinary garden-variety death. Nor, finally, is it realistic to suppose that any other criteria or cues used by healthcare providers or organ procurement personnel to make the selection will be so accurate as to identify everyone for whom the information would be relevant.

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And it would avail nothing to say here that those who remain unidentified are few and far between. We do not know this, and even if we did, we would still have to justify proceeding with organ retrieval in those cases.

If we cannot expand the concept of death to encompass a reversible state or find a surrogate for consent in hypothetical consent, the only way in which the IOM's proposed consent protocol can be justified is to appeal to a utilitarian judgment. One must argue that although that protocol might result in some individuals doing things they otherwise would not do and which they have no obligation to do, on the whole it will yield the best consequences, and hence we may adopt it. This judgment may be based on some variety of utilitarianism. Alternatively, it may be grounded in the so-called Four Principles approach to ethical decisionmaking, where one has made a "considered judgment" that in this case the principle of beneficence trumps the principle of autonomy. For our purposes it does not matter which or whether it has some other foundation. It is enough to understand that it is morally acceptable to take consent to organ retrieval at death for purposes of non-heart-beating transplantation to be consent to organ retrieval at death determined by cardiopulmonary criteria if and only if that judgment is acceptable.

That judgment, however, faces stiff opposition, as it is incompatible with a number of good-looking moral principles: never treat others as mere means,[18] never interfere with the liberty of individuals when they are not doing or threatening harm to others,[19] and never keep information concerning matters of public policy—which a non-heart-beating transplantation program surely is an instance of—from the people in a democracy.[20] Given this, it is hard to see how that judgment can be shown to be *required* by morality. At the same time, it is also hard to see how that judgment can be refuted. For rather than give up the judgment because it conflicts with these (or any other) principles, one may reject those principles because they conflict with the judgment, and it is not clear how one can insist that this gets things the wrong way round without begging the question. The fact of the matter seems to be that the only clean way of refuting that judgment is to take it in its own terms and show that, all things considered and in the long run, utility will not be served by the IOM's consent protocol.

I do not, however, think that this can be shown. Calculating whether actions will promote utility is notoriously complex and plagued by both uncertainty in predicting effects and subjectivity in evaluating utilities. And so it is here. Against the potential benefits of deception, one has to take into account the likelihood and consequences of its discovery, whether it will set a precedent for deception elsewhere, how it will affect the character of those engaged in it, the effect on democratic procedures and institutions, and many other things besides. These are risks that must worry anyone tempted by that judgment. But there is also no reason to rule out the possibility that those risks can be managed with suitable circumspection and public relations. This may require us to speak like Kantians while behaving like utilitarians and, if challenged, to raise a dust so that others cannot see. But if prevarication and obfuscation will promote the general good, that is the thing to do.[21] Thus a deceptive policy about the determination of death may well do some good in the world and may even do more good than any alternative action open to the agents in question. There may be disagreement over whether it is a rational gamble to try

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to bring that good about, but I do not know how the gamble can be shown to be positively irrational from the point of view of promoting utility.

The IOM's protocol for recruiting organ donors can thus find a haven in an appeal to utility and, if the above is right, can *only* find one there. To be sure, the IOM does not appeal to utility. It holds that death determined by cardiopulmonary criteria is death in the ordinary sense of the word, and so consent to organ retrieval at death is consent to organ retrieval at death determined by cardiopulmonary criteria. But once we see that this is not so, the consent protocol that the IOM recommends can only rest on a utilitarian judgment. Many, however, will not accept that we can forgo consent to promote the good of others, and those who will not—and this must include all those in healthcare who endorse the currently dominant autonomy ethic that puts transparency and consent at the heart of healthcare provider–patient relationships—which is nearly everybody—cannot proceed as the IOM proposes. We thus have motivation to take a closer look at what alternatives are available.

Alternatives

Given that consent to organ retrieval at death is not consent to organ retrieval at death determined by cardiopulmonary criteria, if we do not want to deny that consent is necessary for organ retrieval we must choose between second-best alternatives. We must either restrict organ retrieval for non-heart-beating transplantation to nonoptimal times or provide the information necessary to get consent. It is sometimes argued that waiting the little extra time required for death determined by cardiopulmonary criteria to coincide with death determined by neurological criteria would not greatly reduce the number of usable organs.[22] If so, that is a real alternative. It is, however, the second alternative that I want explore here.

There are three ways in which we can provide that information. The first is to hold, as the Uniform Determination of Death Act and IOM do, that there is a single disjunctive definition of death, according to which an individual is dead if and only if there is *either* irreversible loss of brain activity *or* irreversible loss of cardiopulmonary function,[23] to define the criteria for the determination of irreversible loss of cardiopulmonary function exactly as the IOM does, but then to require that prospective donors be routinely told that and how death determined in that way differs from death in the ordinary sense.

The second is to abandon the view that there is a single definition of death with two sets of criteria, and view those criteria as two definitions of death, namely, neurological death and cardiopulmonary death. A "two-definition" account of death has been adopted in some states—Kansas is perhaps the most famous example—and has been the object of much criticism.[24] But it has the advantage of providing us with a clean way to secure consent to organ retrieval for non-heart-beating transplantation. For then we could secure consent to organ retrieval at death for non-heart-beating transplantation by securing consent to organ retrieval at cardiopulmonary death. Of course, for this to solve the consent problem, cardiopulmonary death must again be explained in such a way as to make it clear that it is not death in the ordinary sense.

The third is to reject the dead donor rule and uncouple organ retrieval from the concept of death altogether. In this view, patients or families who have

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refused life-sustaining treatment and consented to organ donation would have organs retrieved at an agreed-on time without any need for calling the patient dead. This agreement may authorize organ retrieval after the 5-min interval recommended by the IOM, after some longer or shorter interval, or without any interval at all. It may even (as Truog[25] has suggested) authorize organ retrieval "under general anaesthetic without first undergoing an orchestrated withdrawal of life support," thus making what would otherwise be a non-heart-beating donor a heart-beating donor. My preference is for this third alternative, which uncouples the concept of death from organ retrieval. If it is bad to keep the word "death," change the meaning, but not tell the people, it is better to keep the word, change the meaning, and tell the people. But if we are going to tell the people, there is no need to keep the word and change the meaning. And, because death determined by cardiopulmonary criteria or cardiopulmonary death stand to death as ultra leather stands to leather, it is better not to. My aim here, however, is only to argue that any one of these approaches is a genuine alternative to violating consent requirements or restricting organ retrieval to nonoptimal times.

I want to begin by setting aside my preferred alternative for the moment and considering the first two. To accept either of them requires that the public comes to accept two things. (1) The state that constitutes death is not something that is *discovered*, like the melting point of lead, but something that is *decided*, like the age of majority. (2) The state that constitutes death for purposes of non-heart-beating transplantation should be decided to be different from that that constitutes death for purposes of heart-beating transplantation. One may object that bad consequences could flow from allowing the public to understand these things. People may wonder if patients are "really" dead when organs are retrieved. They may also take a cynical view of the medical profession rejigging the determination of death to increase the supply of transplantable organs. The result may be a reduction in organ donation or confidence in the medical profession, and it is thus sometimes argued that it would be wise not to disturb the public's fiction that "the moment of death is an objective, technologically determinable issue for which human value choices are irrelevant."[26]

We must remember, however, that our task here is to explore what alternatives to deception are available, and this does not require showing that they will have equally good consequences. If the proposed consent protocols will only impair but not outweigh the benefits of a non-heart-beating transplantation program, they may be accepted as the price of honesty. Of course, if those protocols had consequences that would cancel any benefits of such a program or make matters worse, then they would not be genuine alternatives, and the only option for those unalterably opposed to deception would be to reject non-heart-beating transplantation altogether. There is, however, no firm ground for either sort of pessimism. The specter of bad consequences coming from honesty rests on the view that the public is a little simple, that (as Jack Nicholson put it in *A Few Good Men*) it "can't handle the truth." But, so far as I can see, there is scant evidence to think this. Indeed, there is some evidence that the public would not have difficulty with either proposition.

This comes from the fact that the public already accepts analogues of (1) and (2) in other matters. With respect to (1), the public has no difficulty with the view that decisions determine such things as the age of majority, speed limits,

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permissible levels of alcohol in the blood while driving, whether one with the anatomy of a woman but chromosome count of a man is a man or woman, whether seaplanes are boats or planes, and whether one's automobile parked on a public road is a private or public place. And with respect to (2), the public easily accepts that different jurisdictions have sometimes decided these matters differently. It also accepts without difficulty the fact that the same jurisdiction sometimes defines the same word or phrase differently for different purposes. The public accepts, for instance, that whether one has achieved the age of majority depends on whether we are talking about the right to drive, drink in public, or vote, that how fast one can drive depends on whether one is on a highway or in a school zone, that permissible blood-alcohol levels depends on whether one is driving one's automobile or a bus, that whether one is a man or woman depends on whether we are issuing a passport or assessing eligibility to enter athletic events, that whether a seaplane is a boat or plane depends on whether it is in the water or the air, and that whether one's automobile parked on a public road is a private or public place depends on whether solicitation for purposes of prostitution is taking place in it.

In all these cases when we ask "What is X (e.g., the age of majority)?" or "Is someone or something an X or Y (e.g., a man or woman)?", the answer will cite some feature of the person or thing (e.g., 18 years old; chromosome count), perhaps qualified by mention of some purpose (e.g., voting; entering a shot-put competition). That answer will be based on a decision and can be viewed as providing either (a) the *criteria* for the determination of X or the difference between X and Y (perhaps for some purpose Z) or (b) the *definition* of these things. But if the public can accept how decisions can yield different criteria for the determination of, or different definitions of, the same thing in these matters, it is hard to see why it cannot accept the same in the matter of the time of death. Some may say that, however receptive the public may be to fiddling with terms elsewhere, it will not allow that in the case of death. But this is a view that stands in need of evidence, and until it is provided, the presumption must surely be that similar reasoning will be similarly acceptable.

But—to now turn to my favored alternative—if the public can accept heart-beating transplantation taking place when death is determined by neurological means (i.e., when one is in state S), and non-heart-beating transplantation when death is determined by cardiopulmonary means (i.e., when one is in state $S - c$), it should be able to accept non-heart-beating transplantation when one is in state $S - c$ when that is uncoupled from the concept of death altogether. Some of the public may, like the IOM, expand their concept of death and understand this last state as meeting the criteria of death; others may understand it as a species of death; still others may take it not to be death at all, but sufficient to justify initiating transplant proceedings just as if it were. In any case, there is no reason to think that acceptance of the third alternative requires official encouragement to view the state that justifies the initiation of non-heart-beating transplantation to be criterially or definitionally connected to death.

Conclusion

There is no question that any of the above alternatives will make organ procurement more difficult and that they may result in fewer transplantable

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organs (though we cannot be sure of this; the public may respond well to transparency). The question is whether they are better than facilitating organ procurement by engaging in deception and forgoing consent. At the end of its chapter on non-heart-beating donation and end-of-life care, the IOM writes that: "The issue at stake in the determination of death is one of trust that the health care system will provide optimum end-of-life care regardless of the demands of organ procurement."[27] If this is the issue at stake, choosing deception is a real option, for all that is needed to maintain trust is to ensure either that the deception is not discovered or, if it is, that there are no lasting negative effects. Thus we can take consent to organ retrieval at death for purposes of non-heart-beating transplantation to be consent to organ retrieval at death determined by cardiopulmonary criteria as long as the utilitarian calculation on which the decision to so proceed makes that a good gamble. But if the aim is not just to maintain trust, but to do so by being trustworthy, deliberate deception that bypasses transparency and consent is forbidden, and we cannot proceed in that way. We are forced to choose between restricting non-heart-beating organ transplantation to nonoptimal times or resorting to one of the three expedients articulated above, regardless of the demands of organ procurement.

The real issue at stake is thus not what the IOM identifies, but whether trustworthiness is a value to be sought. And, if the central argument of this paper is right, to take sides on the question of whether consent to organ retrieval at death authorizes organ retrieval at death determined by cardiopulmonary criteria is to take sides on that issue. But however important and nice it would be to settle those issues, I do not, as I said earlier, think that we can. Standing in the way is our inability to establish or refute the kind of utilitarian judgment that would sanction deception to facilitate non-heart-beating transplantation. We can rationally determine what choices are forced on us and what views consistency requires us to hold and abandon, but we cannot similarly settle the question of what choice to make. Still, it is not nothing to be able to see the issues clearly and face them squarely, to understand the choices for what they are, and ourselves for who we are.

Notes

1. See further Doig CJ, Rocker G. Retrieving organs from non-heart-beating organ donors: A review of medical and ethical issues. *Canadian Journal of Anesthesia* 2003;50(10):1069–76.
2. Institute of Medicine. *Non-Heart-Beating Organ Transplantation*. Washington, D.C.: National Academy Press; 2000.
3. Shermie SD, Baker AJ, Knoll G, Wall W, Rocker G, Howes D, et al. Donation after cardio-circulatory death in Canada. *Canadian Medical Association Journal* 2006;175(8, suppl.):S1–24. Also available from the Canadian Council for Donation and Transplantation web site at www.ccdt.ca.
4. See note 2, Institute of Medicine 2000:108.
5. Institute of Medicine. *Non-Heart-Beating Organ Transplantation: Medical and Ethical Issues in Procurement*. Washington, D.C.: National Academy Press; 1997.
6. See note 2, Institute of Medicine 2000:24.
7. See note 2, Institute of Medicine 2000:16.
8. See note 2, Institute of Medicine 2000:22.
9. See note 2, Institute of Medicine 2000:21–2.

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10. The President's Commission for the Study of Ethical problems in Medicine and Biomedical and Behavioral Research. *Defining Death: A Report on the Medical, Legal and Ethical Issues in the Determination of Death*. Washington, D.C.: US Government Printing Office; 1981:16–7.
11. See note 2, Institute of Medicine 2000:24. The reference in the quotation is to Menikoff J. Doubts about death: The silence of the Institute of Medicine. *Journal of Law, Medicine & Ethics* 1998;26:157–65.
12. See note 2, Institute of Medicine 2000:24–5.
13. This analysis of irreversibility was suggested to me by the discussion of absolute concepts in Dretske FI. *Knowledge and the Flow of Information*. Cambridge, Mass: The MIT Press; 1981:107–11.
14. Nor is this just my ear. Similar linguistic intuitions are expressed, for example, by Younger SJ and Arnold RM. Non-heart-beating cadavers: The beat goes on. In: Spielman B, ed. *Organ and Tissue Donation: Ethical, Legal, and Policy Issues*. Carbondale and Edwardsville: Southern Illinois University Press; 1996:73; note 12, Menikoff 1998:158; Brock DW. The role of the public in public policy on the definition of death. In: Younger SJ, Arnold RM, Schapiro R, eds. *The Definition of Death: Contemporary Controversies*. Baltimore, Md.: The Johns Hopkins Press; 1999:297–9.
15. It is sometimes denied that irreversibility is part of the meaning of death. See, for example, Cole DJ. The reversibility of death. *Journal of Medical Ethics* 1992;18(1):26–30. This does not seem right. It is true that some dictionaries (e.g., the *Concise Oxford*) make no mention of irreversibility in the definition of death. But others (e.g., the *OED*, *New Shorter Oxford, Webster's New World, Collins*) variously define death as the "final" or "irreversible" or "permanent" end of life. The fact is that sometimes we allow death to be reversible, as in miracle or medical stories of people "coming back from death." But in other contexts, as in the present one, where calling someone dead has behavioral significance, ordinary language requires us to treat death as an irreversible state.
16. See note 3, Shermie et al. 2006:S6.
17. Public surveys on whether non-heart-beating transplantation will adversely affect the process of providing optimal end-of-life care will also be invalidated by the absence of this information. For a fine-print understanding of the criteria for the determination of death may well make a difference to people's perceptions of the quality of end-of-life care.
18. Kant I. *Foundations of the Metaphysics of Morals*. Royal Prussian Academy edition. Berlin: G. Reimer; 1902–1942:429.
19. Mill JS. *On Liberty*. London; 1859:Ch. 1, para. 9.
20. The classic statement of this is Meiklejohn A. *Political Freedom. Part One: Free Speech and its Relation to Self-Government*. New York: Oxford University Press; 1965:3–28. See also note 14, Brock 1999;303–4.
21. This has been long acknowledged in the utilitarian tradition. See Sidgwick H. *The Methods of Ethics*, 7th ed. London: MacMillan & Co. Ltd; 1907, 1962:429–30.
22. See note 11, Menikoff 1998:162, and the references in footnotes 53 and 54 of his article.
23. See note 2, Institute of Medicine 2000:18, 24.
24. For an exposition and critique of the Kansas statute, see Capron A, Kass L. A statutory definition of the standards for determining human death: An appraisal and a proposal. *University of Pennsylvania Law Review* 1972;121(87): esp. sect. VI, 108–11.
25. Truog R. Is it time to abandon brain death? *Hastings Center Report* 1997;27(1):34–5.
26. Burt RA. Where do we go from here? In: Younger SJ, Arnold RM, Schapiro R, eds. *The Definition of Death: Contemporary Controversies*. Baltimore, Md.: The Johns Hopkins Press; 1999:335. For a helpful discussion of Burt's article and the possibility of deception see note 14, Brock 1999:293–307.
27. See note 2, Institute of Medicine 2000:26.

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