

# Rethinking the Ethics of VITAL ORGAN DONATIONS

by FRANKLIN G. MILLER AND ROBERT D. TRUOG

Accepted medical practice already violates the dead donor rule. Explicitly jettisoning the rule—allowing vital organs to be extracted, under certain conditions, from living patients—is a radical change only at the conceptual level. But it would expand the pools of eligible organ donors.

r. Jones, aged thirty, is lying in a bed in an intensive care unit, breathing with the help of a respirator. His face looks ruddy, and he is warm to the touch. Indeed, he looks healthier than other patients in the unit. He has also just been diagnosed as "brain dead."

Two ethically important questions arise with respect to Mr. Jones: (1) Is he really dead, or is he a living patient with traumatic brain injury? (2) Is it acceptable to retrieve his organs—including vital organs such as the heart, lungs, liver, and both kidneys—for donation to patients in need of transplantation? According to the moral status quo, the answers to these two questions are linked. It is thought permissible to retrieve vital organs only from dead patients—the "dead donor rule." What makes it permissible to retrieve organs from Mr. Jones (with his prior consent or the consent of his family) is that Mr. Jones is dead, despite appearances to the contrary.

Franklin G. Miller and Robert D. Truog, "Rethinking the Ethics of Vital Organ Donations," *Hastings Center Report* 38, no. 6 (2008): 38-46

The constellation of neurological findings that since 1968 has been called "brain death" is death, pure and simple.

The same two questions are pertinent to patients who have experienced traumatic brain injury but do not meet the criteria for brain death. With increasing frequency, vital organs are extracted from such patients following a decision to withdraw life-sustaining treatment and only a few minutes after their hearts have stopped beating. Are such patients really dead, or are they imminently dying? Is it ethical to retrieve vital organs when it is not certain that the donors are already dead—that the cessation of heart and lung function is irreversible?

Although firmly entrenched, the moral status quo of vital organ donation poses a dilemma. On the one hand, the dead donor rule appears ethically necessary. It is based on the seemingly unassailable principle that it is wrong to kill (or cause the death) of an innocent person to save the life of another. Accordingly, it is ethical to retrieve vital organs only from dead people. On the other hand, scientific and ethical commentators have raised serious doubts about

whether donors of vital organs are genuinely dead at the time that vital organs are extracted for transplantation.

In this article, we argue that it is time both to face honestly the fact that our current practices of vital organ donation violate the dead donor rule, and to provide a coherent alternative ethical account of these practices that does not depend on this norm. Others have contemplated or advocated repeal of the rule, but a systematic justification, including consideration of pertinent objections, has been lacking.<sup>1</sup>

### **Current Practices**

urrently, vital organs are retrieved for transplantation from brain dead patients whose hearts continue to beat owing to mechanical ventilation, and from patients declared dead by traditional cardiopulmonary criteria immediately after life support is withdrawn. Are these donors really dead?

In a New Yorker article provocatively titled "As Good as Dead," Gary Greenberg noted that "By the nineteen-sixties, as doctors began to perfect techniques for transplanting livers and hearts, the medical establishment faced a paradox: the need for both a living body and a dead donor."2 To overcome this paradox, clinicians and ethicists have endorsed the idea that patients diagnosed as brain dead are really dead—despite not appearing dead—thus facilitating retrieval of vital organs consistent with the dead donor rule. According to this idea, living but catastrophically brain-injured patients are not being killed to retrieve their organs; rather, these patients, being brain dead, are actually corpses breathing mechanically. By telling themselves, patients, and patients' families that brain death is a form of death, clinicians and ethicists have become comfortable with "cadaveric" organ donation.

We contend that the proposition that brain death constitutes death of the human being is incoherent and, therefore, not credible. To be sure, brain death is a valid diagnosis of irreversible coma. No one who satisfies the criteria for brain death regains consciousness.3 Contrary, however, to the Uniform Determination of Death Act developed by a president's commission in 1981, many patients properly diagnosed as dead under whole brain death criteria do not have "irreversible cessation of all functions of the entire brain."4 For example, the brains of many patients retain a variety of homeostatic functions, from regulation of temperature to control over salt and water balance.<sup>5</sup> James Bernat and colleagues have responded that brain death should not require the loss of literally all functions of the entire brain, but only those that preserve the "functioning of the organism as a whole."6 According to Bernat, the diagnosis of brain death signifies the loss of those critical brain functions that maintain the integrity of the body as a living organism.<sup>7</sup> The loss of these functions causes the body to "dis-integrate," leading over a period of days to cardiac arrest. This deterioration is claimed to be inevitable, regardless of whether the patient is on

With both theoretical analysis and empirical data, Alan Shewmon has seriously challenged Bernat's defense of brain death. Shewmon has shown, for example, that some patients who fulfill all of the diagnostic criteria of brain death can "survive" for many years.8 With life support systems no more complex than home mechanical ventilation, these patients maintain an array of integrative functions including circulation, digestion and metabolism of food, excretion of wastes, hormonal balance, wound healing, growth and sexual maturation, and even gestation of a fetus. Based on meta-analytic data of brain dead patients maintained on ventilators for one week or more, Shewmon argues that the human body does not need the brain to integrate homeostatic functions, and that integration of these activities is possible even in the absence of these supposedly critical

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brain functions. In sum, patients who fulfill all of the diagnostic criteria for brain death remain alive in virtually every sense except for the fact that they have permanently lost the capacity for consciousness.

The practice of organ donation after cardiac death (DCD)—developed in the early 1990s to retrieve organs from dying, hospitalized patients after withdrawal of life support—also depends on an incoherent determination of death. Under DCD protocols, death is declared typically within two to five minutes of the observed cessation of circulatory function.9 At this point, however, the cessation of circulatory function is not irreversible and thus does not satisfy the standard cardiopulmonary criteria for death. Describing the Pittsburgh protocol for DCD, Robert Arnold and Stuart Younger have stated, "the heart could almost certainly be restarted by medical intervention."10 But as Dan Brock has observed, "The common sense understanding of the irreversibility of death is that it is not *possible* to restore the life or life functions of the individual, not that they will not in fact be restored only because no attempt will be made to do so."11 The dubious declaration of death is needed to square DCD with the dead donor rule.

In sum, our current practices of vital organ donation violate the dead donor rule. This does not mean that we are unethically extracting vital organs from living patients; rather, it means that we need to develop a coherent alternative ethical account of vital organ donation.

# Withdrawing Life Support as a Cause of Death

any physicians prior to the 1976 judicial decision in the Quinlan case were concerned that stopping life support would be considered homicide. This concern was countered by the stance that when treatment is stopped it is the underlying disease or condition that causes death, not the withdrawal of life support. According to the prevailing moral perspective, such treatment withdrawals are seen as merely allowing patients to die, not as killing them.<sup>12</sup> We contend that this stance cannot withstand critical scrutiny, and that describing the withdrawal of life support as causing death is both coherent and ethically sound.<sup>13</sup> We shall argue further that when withdrawing life support is understood as causing the death of patients, vital organ donation can be justified without appeal to the dead donor rule.

Consider a ventilator-dependent patient in a hospital who is interested in remaining alive. If a person plotting the death of this patient entered the patient's room and "pulled the plug," he would be guilty of murder—of wrongfully causing the death of the patient. Suppose, however, this same patient finds continued living with burdensome life support no longer worthwhile and decides to stop treatment. Doctors not only may but are obliged to respect the decision to withdraw life support by a competent patient. Although there is all the difference in the world, morally speaking, between the act of murder and valid treatment withdrawal, it

makes no sense to hold that in the former case, the patient's death is caused by the perpetrator pulling the plug, but is not caused by the same act performed by a doctor.<sup>14</sup>

Another way to put this point is this: the claim that withdrawing life support causes death is entailed by the very concept of effective life-sustaining treatment. A medical intervention works to produce a given clinical outcome by means of a causal process. For example, mechanical ventilation saves or sustains lives by an intervention that causes the body to continue breathing when otherwise respiration would cease and death would ensue. It follows that when mechanical ventilation is stopped, a patient who is incapable of breathing spontaneously will die. The stopping contributes causally to the occurrence of death. To be sure, as Daniel Callahan has argued, stopping life support, such as a ventilator, results in death only for patients who have an underlying medical condition for which treatment is needed to sustain life.15 But, contra Callahan, it does not follow that it is this condition alone that causes death when the ventilator is stopped. For if ventilatory support were continued, the patient likely would continue to live (in some cases for a prolonged period of time).

In arguing that withdrawing life support causes a patient's death, we do not adopt any particular philosophical or scientific theory of causation; rather, we appeal to our common-sense understanding of the causes of particular events, as astutely analyzed by H.L.A. Hart and Tony Honore in their classic text, Causation in the Law.16 They note that "The notion, that a cause is essentially something which interferes with or intervenes in the course of events which would normally take place, is central to the common-sense concept of cause."17 Causes are events or circumstances that make the difference in explaining a particular occurrence. Assuming that a patient who is on life support will normally continue to live for some period of time (though perhaps be vulnerable to dying), the withdrawal of life support brings about death (if death, in fact, ensues after the withdrawal). The withdrawal makes the difference. In discussing inquiries relating to the cause of death, Hart and Honore observe that what is wanted is to "explain *this* man's death *now*." Since the underlying medical condition (for example, the incapacity for spontaneous breathing) occurs both while the patient is on life support and after support is withdrawn, it is a less plausible candidate for causing the patient's death.

A hypothetical example will help nail this point down. Consider two patients who have the same medical condition and both need mechanical ventilation to survive. For patient A, a family member decides to stop treatment, appealing to the patient's expressed preferences. For patient B, a family member insists on continued treatment, reasoning that it is consistent with this patient's preferences. Patient A dies three hours after the ventilator is turned off; patient B continues to live. It is incoherent to hold that the underlying medical condition causes the death of patient A, as patient B with the very same medical condition continues to live.

Maintaining that the withdrawal of life support does not cause the patient's death is even more implausible when artificial nutrition and hydration is the treatment withdrawn. In these situations, it is obviously a stretch to appeal to the underlying medical condition as the cause of death because the patient dies as a result of the dehydration caused by the withdrawal of artificial nutrition and hydration. The underlying medical condition helps explain why the patient is not able to eat or drink on her own, but not why the patient becomes dehydrated. In these circumstances, from the perspective of assigning causation, the underlying medical condition is a "mere condition," not a cause of death. It is for this reason that some commentators who view withdrawal of other forms of life support as allowing patients to

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die, but not *causing their death*, take a different position on withdrawing artificial nutrition and hydration, seeing it as causally contributing to the patient's death.<sup>19</sup>

Although it may be accurate to call the withdrawal of life support a justified killing, the moral valence of "killing" in the medical context makes it counterproductive to apply that label. In any case, a valid withdrawal is certainly not criminal homicide—it is not a legally or morally culpable act of killing the patient.

We have argued that it is a matter of fact, given our common-sense understanding of causation, that withdrawing life support (often) causes death. (Below we consider cases in which patients may be able to survive the withdrawal of life support.) Some might argue that if withdrawing life support causes death, then withdrawing is not ethically permissible. However, the prevailing moral and legal rationale for permitting competent patients and surrogate decision-makers to decide to stop life support is based on considerations that have nothing to do with whether terminating treatment causes death. Rather, there is a right to forgo life support (whether that means withdrawing or withholding it) based on patient autonomy and informed consent—a right that has been recognized by the courts as grounded in the personal liberty and self-determination protected by the U.S. constitution as well as by the common law doctrine of bodily integrity, which makes treatment without informed consent the tort of battery.<sup>20</sup> When patients are not capable of exercising their right to refuse treatment, surrogate decision-makers are entitled to do so on their behalf, informed by the patient's prior expressed preferences, by a "substituted judgment" regarding what the patient would have chosen if competent, or by a determination of what is in the patient's best interests (if the patient's preferences are unknown). The ethical and legal considerations that support end-of-life decision-making are not undermined by recognizing the fact that withdrawing life support causes death.

# **Ethical Donation of Vital Organs**

Having established that stopping life support causes death, we are positioned to face the critical question: How can it be ethical to retrieve vital organs from brain dead patients if they are not really dead? Since 1968, brain death has been understood as legitimating the withdrawal of life support and the extraction of vital organs. Both of these remain ethically appropriate when brain dead patients are understood to be still alive but in a state of irreversible coma. The key point is to understand how withdrawing treatment and retrieving vital organs are linked. In most jurisdictions, clinicians have the unilateral authority to stop mechanical ventilation for brain dead patients. There is no need for family members to consent. The current rationale for this is that since these patients are now dead, there is no point in ventilating a corpse except to facilitate organ donation (or in rare cases, to gestate a fetus). The recognition that these patients are not really dead does not mean that withdrawing treatment and retrieving vital organs is unethical.

Some might claim that treatment can be withdrawn from brain dead patients because it is futile, despite the fact that they are alive. Given the difficulty of determining what clinical conditions make treatment futile, however, avoiding the concept seems preferable. In any case, few family members will insist on continued treatment of patients diagnosed as brain dead once they understand that their condition is irreversible. If it is acceptable to cause the death of a brain dead patient by stopping life support, subject to valid consent, then why is it not acceptable to extract organs before treatment is stopped? In this situation, whether death is caused by stopping treatment or by extracting vital organs is ethicalPatients who fulfill all of the diagnostic criteria for brain death remain alive in virtually every sense except for the fact that they have permanently lost the capacity for consciousness.

ly immaterial. The ethics of withdrawing treatment, properly understood, does all the needed moral work.

The same rationale holds in the case of patients who are on life support but not brain dead. What makes vital organ retrieval ethically permissible for these patients is that it is secondary to-and essentially linked with—a valid decision to withdraw life support. This decision, made by the patient or surrogate, involves an intentional plan that sets in motion a causal sequence leading to the patient's death. If the patient is soon to die because life support has been withdrawn, then there is no harm or wrong done in retrieving vital organs prior to death, provided that the patient (if competent) or surrogate has consented. If there is no wrong done to the patient (or others) by retrieving the organs from the living donor, secondary to the decision to withdraw life support, then the retrieval should not be seen as criminal homicide.

Cases in which life support is withdrawn but the patient does not die raise an important complication. Withdrawing life support can cause death, but in fact, it does not always cause death. If the patient would not have died following the withdrawal of life support, then the process of organ donation would itself lead to the patient's death. We believe that this concern can be mitigated by an examina-

tion of our current approach to palliative care at the end of life.

First, withdrawing life support occurs in two very different contexts. In one case, the clinicians and surrogate, uncertain whether the patient may be able to survive without support, may choose to withdraw treatments like mechanical ventilation and plan not to restart treatment if the patient cannot sustain unassisted respiration. Under these circumstances, opioids and any other respiratory depressants are avoided, at least until the patient's clinical trajectory becomes better defined. Patients in this category would not be acceptable candidates for organ donation.

In the other and more common context, life support such as mechanical ventilation is withdrawn in the belief that the patient will not be able to sustain unassisted respiration. In these cases, no attempt is made to avoid opioids and other comfort medications that depress respiration, since doing so would subject the patient to unnecessary pain and suffering. Indeed, in such cases, patients are often premedicated with opioids and other sedatives before ventilator withdrawal, with additional medications added following withdrawal, depending on the patient's response and degree of comfort.<sup>21</sup> This approach necessarily means that some patients succumb to respiratory failure and death who might have survived if they had not been treated for their shortness of breath and sense of suffocation. The proportion of such patients is not known, but it is probably only a small fraction of those who have life support withdrawn. Accordingly, there is an inherent trade-off in our approach to end-of-life care—rather than refrain from using any respiratory depressants and causing unnecessary suffering for people who will die regardless of what we do, we accept that some patients who might have survived actually die as a result of the medications we administer.

In this context, our proposed justification of vital organ donation is compatible with the current approach to end-of-life care. Some patients will die who might otherwise have lived. But this will occur in circumstances in which the physicians believe that the patient is very unlikely to survive the withdrawal of life support, and the patient's surrogate is expecting and is prepared for the patient's death. Again, there is a trade-off. In the standard scenario, the trade-off is between a small number of survivors versus the comfort of all patients who have life support withdrawn; under our proposal, it is between these potential survivors and the possibility of organ donation, with all of its benefits for the recipients, as well as for honoring the donation preferences of the donor.

It is important to emphasize that our current practices of vital organ donation are inconsistent with the dead donor rule. As we have noted, the "brain dead" are not really dead, given the range of integrative organic functions that can be performed by such patients with continued life support. Patients declared dead under DCD programs are imminently dying but not yet dead. Hence, our current, ethically legitimate practices already violate the dead donor rule, which makes it a dubious norm. Once we face up to the fact that withdrawing life support causes death and is justifiable when it proceeds from valid consent, then we should endorse the retrieval of vital organs from living patients when it is linked to a decision to withdraw life support and also has valid consent. Ethically, we can dispense with the dead donor rule without making physicians guilty of criminal homicide.

The moral status quo endorses the normative stance that it is unethical (and illegal) for physicians to cause the death of patients. Once we see that our current practices of withdrawing life support and organ retrieval involve physicians in acts that cause the death of patients, then we can abandon the dead donor rule while permitting vital organ donation subject to the consent of patients or surrogates. In other words, the moral

implications of our current practices, viewed honestly, pave the way for the seemingly radical and controversial position of abandoning the dead donor rule and affirming the traditional standard of death as cessation of circulation and respiration.

Are we guilty of obfuscation by trying to avoid describing the practices of withdrawing life support and retrieving vital organs from living donors as killing? We think that invoking the notion of "justified killing" as central to our recommended policy for organ retrieval, although not inaccurate, would compromise its potential to be endorsed. This is a matter of rhetoric, not logic. Just as the contemporary use of "suicide" in popular and clinical discourse as indicating mental illness interferes with recognizing that some acts of intended and self-caused death are rational, so the use of "killing" in the medical context interferes with recognizing that many instances of life-terminating medical acts are justified. We would describe both these practices as acts that cause death but are not criminal homicide. The emotionally charged and value-laden language of "killing" gets in the way.

One virtue of arguing for retrieving organs prior to death by drawing an analogy with withdrawing life support is that the argument does not depend on any appeal to a debatable position on the moral status or standing of the patients whose organs are legitimately retrieved. Our own view is that brain dead patients and those in a persistent vegetative state, owing to permanent loss of consciousness, have no interests that can be harmed by ending their lives (provided that they have no prior preferences to continue living under these circumstances); but this judgment about moral standing plays no role in the argument here. The very same considerations that justify retrieval of vital organs from living patients diagnosed as brain dead or in a PVS also justify doing so in the case of ventilator-dependent quadriplegics who choose to end their lives by stopping life support but wish

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to donate their organs. These latter patients are cognitively intact, they are not "as good as dead," and they have interests that can be harmed by killing them. In both cases it is the linkage with a valid prior decision to withdraw life support that makes organ retrieval acceptable (with consent), not any judgment about the moral status of the patient.

# **Implications**

oes the position we have staked out commit us to endorsing active euthanasia? This is yet another complex and controversial topic that we need not discuss systematically, as doing so is not necessary to grounding or defending our position. Although our position is consistent with endorsing active euthanasia (under suitable ethical constraints, including valid consent), it is neither tantamount to nor logically entails endorsing active euthanasia. Yet if retrieving vital organs from living patients is acceptable (assuming it follows valid decisions to withdraw life support), then on what grounds could one ethically exclude the practice of administering a lethal dose of medication for those patients who want to hasten death under these circumstances but are unwilling or unable to donate organs? Arguably, under these circumstances, the lethal dose is a palliative measure and should not be considered criminal homicide, given that the patients have a right to decide to withdraw life support, thus causing their death.

Be this as it may, the case for active euthanasia in such circumstances is much less compelling morally than the case for organ retrieval. There are effective alternative measures available to provide patient comfort pending death, but there may be no good alternative to extracting the organs while the patient is alive (according to cardiopulmonary criteria) though dying owing to a decision to withdraw life support. If clinicians wait until the point of the patient's *irreversible* loss of life, the organs may no

longer be viable for transplantation. Moreover, in contrast to active euthanasia, organ donation saves someone else's life.

Our position also raises the question of whether altruistic donation of vital organs by healthy individuals not on life support should be permitted. Two points argue against vital organ donation by healthy individuals. First, retrieving vital organs from a healthy person would almost certainly count as criminal homicide, despite the donor's consent, because it would not follow a prior decision to cause death by withdrawing life support. Patients who need life support are almost certainly slated to die once the decision is made to withdraw life support, even if their organs are not retrieved. This is not true of healthy individuals who seek to help others by sacrificing themselves.

Second, retrieving vital organs from healthy individuals would be contrary to the professional ethics of physicians.<sup>22</sup> Healthy people are free to make self-sacrificing decisions to help others, with death as the consequence; but they have no claim on others, especially physicians, to assist them by *causing* their death. Physicians are obliged to respect the choices of competent patients to stop treatment, thus causing death, even if they disagree with the choice. Respect for patient autonomy is overriding. Patient autonomy, however, involves a right to refuse treatment, not a right to obtain whatever intervention is desired. Thus, healthy individuals have no right to demand that physicians remove their vital organs. In those circumstances, the professional medical commitment to promoting health overrides the request.

In some cases, patients who are imminently dying but not on life support may wish to donate their organs. Would it be ethical for them to donate organs before death naturally arrives? Our justification of vital organ donation for living patients relies on linking that decision with a valid decision to withdraw life support. This justification is not available for these

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patients. We have come to accept extraction of vital organs from patients who are imminently dying but not vet dead under DCD criteria because their lack of heart and lung functioning is not necessarily irreversible. Why not permit organ donation from patients who are dying but not yet on the verge of death? To permit organ extraction without a decision to withdraw life support would be difficult to distinguish from active euthanasia. We suggest that organ donation for people imminently dying but not on life support should not be permitted until our recommended policy has been well established and obtains public support. Eventually, permitting live donation outside the context of withdrawing life support might become ethically acceptable, given suitable criteria for prognosis and patient consent.

# **Higher Brain Standard of Death**

ne way to attempt to preserve the dead donor rule in the wake of the incoherence of the whole brain standard is to appeal to a higher brain standard of death.<sup>23</sup> According to this latter standard, patients diagnosed as brain dead are dead because they permanently lack the capacity for consciousness, not because all functions of the brain have ceased or because brain death involves the cessation of the functioning of the organism as a whole.

The higher brain standard raises a host of complex and deep philosophical issues, which we do not attempt to address here.<sup>24</sup> From a policy perspective, however, it is unsatisfactory for at least two reasons. First, it is no less counterintuitive than the whole brain standard of death. As we noted above, brain dead patients do not appear to be dead, the permanent loss of consciousness notwithstanding. Yet the higher brain standard is even more counterintuitive; it implies, for example, that patients in a persistent vegetative state are dead. Yet these patients breathe spontaneously and have normal sleep-wake cycles, making it especially difficult to see them as really dead. Second, because patients in a PVS would have to be considered dead, the higher brain standard is subject to unacceptable diagnostic uncertainty. In light of the surprising plasticity of the brain, which science is still revealing, and the likelihood of further progress in treating brain injuries, the recovery of consciousness remains possible.

## **Objections and Replies**

A major source of moral discomfort about the practice of organ donation is that it may conflict with clinicians' primary obligation to take care of patients—to serve their medical interests, not to use them to serve the interests of others. Patients in need of care should not be regarded as a source of organs to save the lives of other patients. The dead donor rule thus might be seen as a safeguard against abusive exploitation by prohibiting the extraction of vital organs from vulnerable patients. Insisting on the dead donor rule may give the appearance of protecting living, severely compromised patients from being used as a source of organs to save other patients. But if our appraisal of current practices is correct, invoking the dead donor rule offers only a veneer of protection, given that most donors of vital organs are not really dead. We need to look elsewhere for real safeguards against abuse.

The key protection is consent, along with the requirement for a valid decision to withdraw life support: organs should not be extracted without the valid consent of either the donor or an appropriate surrogate decisionmaker. Second, the consent process should be free from conflict of interest: consent should not be solicited by clinicians who are involved in extracting the organs or caring for the recipient. Finally, as discussed above, vital organs should not be retrieved from healthy individuals, and we should be cautious about permitting donation of vital organs from patients who are not on life support.

Although ethically important, these safeguards will not eliminate moral discomfort. Given the ethical complexity of organ transplantation, moral discomfort goes with the territory. There is no way we can solve the "paradox" that Greenberg noted—"the need for both a living body and a dead donor." Instead, in order to sustain the lifesaving practice of organ transplantation without moral obfuscation, we must face the fact that this requires extracting vital organs from living donors.

We have argued that the prevailing understanding of the consequences of withdrawing life support and the ethics of vital organ donation should be abandoned so as to provide a more coherent understanding of these practices and legitimately expand the pool of vital organs available for transplantation. We see this as moral progress. Some might object, however, that this position would actually undermine the moral progress that has been achieved over the last forty years in organ donation and end-of-life decisions. The stances that we have char-

acterized as dubious and incoherent appear to be essential components of public trust in and clinical acceptance of our current practices, and they require that withdrawing life support be understood as merely allowing a patient to die and not causing death, that brain death constitutes death, that the death declared in the context of organ donation after cardiac death is irreversible, and that the dead donor rule is sacrosanct. These are empirical claims that we do not think are supported by evidence from survey research on the attitudes of the public or clinicians.<sup>25</sup> In fact, there is considerable empirical evidence regarding lack of clarity and the internal inconsistency of the "conventional wisdom" that underlie our current practices.26

A related objection to our contrarian position is, "If it ain't broke, don't fix it." Alexander Capron appealed to this maxim in defending the Uniform Determination of Death Act: "Theoretical objections of philosophers notwithstanding, the UDDA, with its bifurcated reliance on circulatory/respiratory and whole-brain standards for determining death, seems to work fine."27 If our arguments are sound, the moral and legal status quo is broken on the theoretical level. Nevertheless, if theoretical incoherence does not lead to impracticability, should we leave the status quo alone?

Brock has argued that in making and discussing public policy we sometimes face choices between "truth or consequences."28 If the consequences of abandoning the dubious determinations of death supporting our current practices of organ transplantation and the dead donor rule would be to undermine public confidence and thus reduce, rather than expand, the supply of organs, then it would be better to maintain the moral status quo. Consequences would trump the truth. It is possible that our recommended policy would produce no or minimal net increase in the supply of organs for transplantation. Also, a cost-benefit analysis of the status quo versus the change that we recommend would need to account for the effort required to institute the latter. Repealing the dead donor rule likely would require litigation and/or legislative initiatives, and clinicians and the public would have to be educated about the change. This work would be fruitless without the prospect of a substantial increase in organs available for transplantation. Indeed, a more systematic cost-benefit analysis would also factor in the likely benefits and costs of alternative ways to increase the supply of organs, such as improved measures of procurement within the moral status quo.

Such detailed policy analysis is outside the scope of this article. Nevertheless, it is important to acknowledge the cost of the status quo in maintaining unsound ethical rationales for current practices. The truth matters. One way in which it matters is the deleterious effect on professional integrity that flows from the dubious claims (for example, that brain death is a form of death) needed to support the status quo. Clinicians who see the incoherence in these claims are forced, nonetheless, to appeal to them in order to encourage patients and family members to donate organs consistent with the dead donor rule.<sup>29</sup> We suggest that honesty is the best policy in this case: both the truth and better consequences on the whole can be served by the position that we advocate. At the very least, a more coherent ethical approach deserves consideration and debate.

# A Radical Change?

In evaluating the position we advocate, it is important to appreciate how it differs (and does not differ) from the status quo. On the conceptual and normative levels, it is a radical departure. We describe withdrawing life support as causing death, not as merely allowing patients to die or letting nature take its course. We deny that brain death constitutes death of the human being (because integrative functioning of the organism remains), and that death declared under current DCD protocols counts as death (owing to the absence of certain irreversibility). And we endorse life-terminating acts of vital organ extraction prior to a declaration of death, provided that they are tied to valid decisions to withdraw life support and valid consent.

At the same time, this radical transformation of the way we think and talk about end-of-life decisions and organ donation is, for the most part, a matter of facing up to the reality of our current practices. On the practical level, our position calls for incremental change. With respect to "brain dead" patients, the only practical change is the absence of a declaration of death prior to organ retrieval or stopping treatment. (We set aside the issue of whether unilateral withdrawal of life support by clinicians over the objection of family members is permitted on grounds of futility.) As compared with organ retrieval under DCD protocols, our position would obviate the need to stop treatment, declare death after a short interval, and then subject the patient (currently considered dead) to interventions designed to preserve vital organs prior to extraction. Instead, organ retrieval would be permitted (with adequate anesthesia) while the living patient remains on life support. Accordingly, it would occur earlier in the dying process than under DCD protocols, thus increasing the probability that the organs will be viable for transplantation and likely expanding the pool of patients eligible for organ donation.

Not everyone will be convinced that a transformation in thinking is necessary. Nevertheless, those who agree with us about the living status of "brain dead" and DCD donors face a quandary, at least on the theoretical level. Either it is necessary to insist on the dead donor rule and give up vital organ donation, or some credible rationale must be found for retrieving vital organs from living patients. Of course, we might well be able to muddle through, continuing our current practices and relying on

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the dubious claims that make them appear ethically coherent. But changing the status quo is a better way to achieve ethical coherence.

What drives the appeal to incoherent stances relating to both end-of-life treatment and organ donation is the norm that doctors must not intentionally cause the death of patients. When this norm is seen as unsound as an absolute rule, then both the justification of vital organ donation and withdrawal of life support can proceed without specious claims about which patients are dead and when, and about withdrawal allowing patients to die but not causing their death. With respect to organ donation, our practices and policies are consistent with the dead donor rule only by virtue of such dubious claims. Once we face the reality of our current, ethically justified practices, we can see that they are not coherent with the norms that we espouse. It is time to seriously consider abandoning the dead donor rule, returning to the traditional cardiopulmonary standard of death and expanding the pool of eligible organ donors.

### **Acknowledgments**

The authors thank Dan Brock, David DeGrazia, Arnon Keren, Govind Persad, Robert Veatch, and Alan Wertheimer for helpful comments on drafts of this paper. The opinions expressed are the views of the authors and do not necessarily reflect the policy of the National Institutes of Health, the Public Health Service, or the U.S. Department of Health and Human Services.

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