
*CONCEPTUAL ISSUES IN THE
DEFINITION OF DEATH:
A GUIDE TO PUBLIC POLICY*

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ABSTRACT. Current medical and legal literature generally favors a definition of death based on total cessation of brain functioning. It does not, however, supply the reasoning for this recommendation. None of the arguments for whole-brain death is convincing; there exists, however, a satisfactory rationale for identifying death with cortical death. Policy-makers should refrain from endorsing any of these arguments, focusing instead on the pragmatic tasks involved in guiding medical care at the end of life.

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1. INTRODUCTION

The conceptual issues involved in the recent controversy over the definition of death connect to many of the most profound questions of philosophy, such as the relation of body to mind or soul, the possibility of the soul surviving bodily death, and, on the most abstract level, the logic of such notions as "ceasing to exist" and "human essence." An attempt to survey these problems in a brief paper, however, would cloud rather than clarify the issues with which policymakers will deal. I direct my discussion here to a set of issues more directly relevant to the policy issue of definition of death, questions which are more tractable and whose analysis may be of concrete assistance to legislators and other policymakers in organizing thinking on the medical and social problems at hand.

2. FRAMING THE QUESTIONS

Ours is not the only age in which the definition and determination of death has been a matter of concern to the general public. Over a century ago, physicians debated the possibility of a person's reviving after having been pronounced dead,¹ and stories of premature burial were rife in the popular press. The concern of that era, however, differed from that of our own in two crucial respects. First, the earlier problem was one of false *negatives* in the examination of bodies for vital signs, i.e., a fear that persons who seemed dead were in fact alive. Today the problem is precisely the opposite: physicians complain that patients who are in fact dead (according to the brain death definition of death) appear to be alive because of supposed "vital signs" which are merely artifacts of ventilators and other mechanical "life"-supports. The physicians want to declare the patients dead but some have felt constrained by the public's acceptance of breathing and heartbeat as signs of life, which the physicians regard as false *positive* signs.

1. Elizabeth Thomson, "The role of physicians in the humane societies of the eighteenth century," *Bulletin of the History of Medicine*, 1963, pp. 43-51.

A second difference between the controversies in the past and present times is just as important. The subject of the earlier debate was the reliability of the indicators used by physicians in diagnosing death. There was no dispute over what death was, that is, what the indicators were supposed to be indicators of. Death was permanent cessation of heartbeat and respiration. The public's concern was whether physicians could be sufficiently certain that the cessation of vital functions in a given patient was truly permanent. In the current debate, the problem is to decide what state to diagnose: whether death consists in permanent cessation of heartbeat and respiration, or in permanent cessation of brain function, or in some other condition. This most basic question would remain even if physicians had perfectly reliable techniques for diagnosing these various states. There is, in fact, controversy over the reliability of diagnostic methods for brain death and other states, but this is a secondary, and conceptually much less problematic issue in deciding the definition of death.

This historical note suggests two points of which policymakers might wish to take note. First, because of the need to distinguish the problems of false negatives and false positives, and of definition of signs and definitions of states, it is easy to misunderstand the nature of the problem of the definition of death. Indeed, there is ample evidence of public confusion over these points. For example, opponents of redefinition of death often mention anecdotes of patients who regained consciousness after long periods of coma. This betrays a misunderstanding of the problem as being one of the reliability of diagnostic indicators. Unless the public becomes better educated about the nature of the brain death controversy, any new proposals for revising the definition of death may have to deal with strenuous but ill-informed opposition from persons who fear that medical care may be prematurely withdrawn from living patients.

The other thesis to be derived from the historical note above is the importance of distinguishing medical and non-medical aspects of the brain death controversy. The earlier concern over false negatives focused on a question of medical science, viz., whether there existed reliable means for determining permanent cessation of vital functions. Though members of the lay public became parties to the debate, it was

and remained a question which could only be answered by those with medical expertise. It was an empirical matter which had to be settled, if at all, by ordinary scientific investigation. Such is not the case in the current controversy. The question of whether a brain-dead patient who is breathing normally is to be considered dead cannot, in my opinion, be settled by any experiment. It is, at least in part, a conceptual or philosophical issue, and its resolution requires analysis of concepts and concerns broader than those of technical medical science. One path through this conceptual thicket is plotted in Section 3 of the present paper. Sections 4 and 5 consider the bearing which the conceptual issues may have on the public policy debate on the definition of death.

3. ARGUMENTS FOR THE BRAIN DEATH DEFINITION

Medical opinion in the United States today clearly favors a definition of death as brain death. It is plain why the definition has achieved this support. Brain-dead patients may continue to exhibit respiration and other vital signs for considerable periods when maintained by the machinery of the intensive-care unit. These patients occupy beds which others need, and the cost of continued care is high. If these patients could be declared dead, termination of care would be uncontroversial, and the resources of the intensive-care unit could be put to better use. The brain death definition also facilitates the work of the transplant surgeon, whose removal of vital organs from the brain-dead donor will not be regarded as killing the donor if the donor has already been pronounced dead.

That a brain death definition of death would be useful for doctors and (most of) their patients will not, however, convince those who are skeptical of the new definition of death. To one who holds to the old definition and regards any patient showing "vital signs" as alive, the case for a redefinition of death has not yet been made. On the skeptic's view, "pulling the plug" on a brain-dead patient is euthanasia. It may or may not be justified euthanasia, but it is euthanasia nevertheless, since

a patient who was breathing and who had normal circulation and temperature was permitted to become a corpse.

What divides the brain death advocate and the skeptic is not (necessarily) any difference of opinion over the care of the brain-dead. They may both believe that care should be withdrawn from brain-dead patients (unless continued maintenance is required for transplantation). The difference is that to the skeptic this treatment will consist of (perhaps justified) killing; while to the brain death advocate, cessation of care is merely a routine response to a patient's death. To settle this dispute requires more than a demonstration that cessation of care of the brain-dead is morally or economically desirable. It demands a convincing argument showing that patients whose brains have ceased to function are dead. Though the medical literature on brain death is extensive, it has been concerned for the most part with the technical problem of assessing the reliability of indicators used in diagnosing brain death. Only a few authors have put forward any arguments addressed to the more basic questions of why the brain-dead should be considered dead. I will discuss the most important of these arguments briefly.

3.1. The Weight of Medical Opinion

It seems often to be assumed that the brain-dead are properly classified as dead simply because most physicians now accept the brain death definition of death. This view regards the definition of death as a straightforwardly medical matter, and is hence a question to be resolved by polling doctors.

In the absence of further argument, however, this assumption cannot be accepted. Acceptance of this definition by physicians might merely be a prejudice or an expedience. It is instructive that certain parties to the abortion debate have claimed that it is a medical or biological fact that fetuses are human beings, while others have insisted that medical science has proven the opposite. It has become clear that the fetus's status as a human being is not a scientific question, and that physicians' opinions on the matter possess no ultimate authority. The same might well be true of death. It is not enough that physicians

accept the brain death definition; what matters is whether their reasons for doing so are sound.

3.2. Artificial Maintenance

One function of the brain is to regulate and maintain vital functions such as respiration. Patients whose brains have died could not breathe without mechanical respirators, and they cease to breathe when the machines are turned off. Their continued functioning is, in this sense, wholly artificial; if it were not for the "heroic" efforts of the attending physicians, brain-dead patients would soon be dead by any definition.

Still, it is a conceptual mistake to attach much significance to the fact of artificial maintenance. After all, a good many persons owe their continued functioning to artificial aids, from pacemakers to dialysis machines to equipment for intravenous feeding. This is no reason to consider them dead. The argument that the brain-dead are dead because they are artificially maintained addresses itself to the wrong issue, that of whether a person's continued functioning is "natural" and spontaneous. Whether the patient is alive or dead must depend on the kind of functioning which is occurring, not whether that functioning is the product of "artificial" intervention.

3.3. The Brain as the Basis of Life

The brain death definition of death is promulgated by some authors as a discovery in physiology.² Scientists only recently determined the brain's key role in regulating systemic life processes, it is said, and it is time to adjust the definition of death accordingly. Again, however, the premise of this argument does not support its conclusion. It cannot be denied that physiologists have provided us with a new understanding of the brain's key role in the body's life processes. But this was accomplished some time ago, long before the current proposals to define death as brain death. The present trend toward the redefi-

2. David Lamb, "Diagnosing death," *Philosophy and Public Affairs*, 1978, pp. 144-153.

nition of death seems to be the result of practical problems confronted by transplant surgeons and ICU clinicians rather than a result of any breakthrough by the basic scientists.

The body's principal life processes cease when the brain dies, unless artificial aid is administered; but this does not, in itself, show that the brain is the key organ of the body. All vital organs, by definition, contribute to continued life. The mechanical ventilator, and certain of the other resources of the intensive care unit, can be viewed as a kind of artificial lower brain, analogous in their role to the dialysis machine when it substitutes for kidneys. No organ is essential for life if a functional substitute is available. The skeptic of the brain death definition of death is left asking why it is that that which goes on in the artificially-maintained body after brain death should not be regarded as life.

3.4. "Death of the Person"

Perhaps the most commonly encountered rationale for the brain death definition of death is that loss of brain function marks the death of the person, where "person" is used with a meaning distinct from that of body or of biological organism. To maintain a brain-dead patient on a respirator, in this view, is not to care for any person but only for the remains of one. The life that remains after brain death, the life supported by the machinery of the intensive care unit, is merely a biological process that continues after the person's death until the plug is pulled. That biological process does not, in this view, constitute personal life any more than does the metabolism which occurs in certain cells of non-breathing corpses for a period after heart-lung death.

It is surprising that this rationale for the brain death definition commands much of that definition's popular support, for it does not square with the account which medical authorities have provided. Brain death involves two catastrophic changes in functioning. One is irreversible coma, the permanent loss of consciousness and of awareness of the world. This is the event which constitutes "death of the person." The other is the loss of the brain's ability to regulate certain autonomic body processes, such as respiration, which contribute to the maintenance of internal homeostasis. The two events can (and often do) occur

at different times. Different (though possibly overlapping) parts of the brain sponsor the two functions of consciousness and autonomic regulation. Thus we may refer to two "brain deaths": *cortical* death (coma) and *brainstem* death (loss of regulative function; the anatomical labels are imprecise). The latter is usually called "whole-brain death," since it almost always occurs after cortical death, and results in total cessation of all brain function.

The definition of death now standard in the medical literature, and taken over intact (explicitly or implicitly) in recent legislation and case law, is *whole-brain death*. "Brain death," in this sense, is an event which can occur considerably later than cortical death, and hence patients who are merely cortically dead are not brain-dead in this sense. Thus the "death of the person" does *not* constitute death under the dominant medical definition of death as brain death. It follows that the medical, whole-brain definition cannot be directly supported by arguments to the effect that "death of the person" constitutes death. Those who identify "death of the person" with death actually argue *against* the dominant brain death definition, not for it.

This point is widely misunderstood. In the celebrated case of Karen Quinlan, for example, none of the judges' decisions seriously considered the view that the patient was dead by any new definition of death, even though she was thought to be in a "persistent vegetative state," i.e., in permanent coma. It was thus unfortunate that the case was publicized as a test case for the new definition. Ms. Quinlan was (and is, as of this writing) alive according to the dominant medical brain death definition, since her lower brain continued to regulate her breathing and other life processes.

If a "death of the person" argument constitutes the theoretical rationale for a brain death definition of death, the definition thus supported will involve cortical death rather than whole-brain death. This definition has in fact been urged by Robert Veatch, among others, but it has not received significant medical or legislative support.³ Fortunately, the practical importance of the difference between definitions involving

cortical and whole-brain death is not great. Those who, like Veatch and the present author, support the cortical-death definition due to acceptance of a "death of the person" argument will also classify whole-brain dead patients as dead, since all of the latter are also cortically dead. The complaint of supporters of the cortical definition against the whole-brain definition will be only that the whole-brain definition does not go as far as can be theoretically justified; it still counts as a step in the right direction and is not to be disputed.

Thus "death of the person" arguments, if successful, lend support (however indirect) to the dominant medical definition after all. The arguments therefore deserve the consideration of policymakers. It must be cautioned, however, that careful scrutiny of these arguments is required. "Death of the person" is a phrase which means different things to different writers, and if the phrase is to be used to defend a brain death definition of death, its specific content must be made plain. An examination of the literature on brain death reveals three quite different arguments for the brain death definition which would make use of this notion. They may be briefly summarized as follows.

3.4.1. *Essence of Personhood*

This argument seeks to establish a definition of "person" and then to show that, according to that definition, the brain-dead patient is no longer a person. A definition of "person" as *conscious agent*, or *individual capable of social relations*, for example, would lead to the conclusion that the patient loses his personhood upon brain death.

Arguments of this sort command a leading position in the bioethical literature but they face two serious conceptual problems.⁴ One is that no consensus exists, either among bioethicists, philosophers or the general public, on what a "person" is. Yet the argument obviously requires acceptance of a single definition. The other problem is in making clear the link between loss of personhood and death. A philo-

3. Peter M. L. Black, "Brain Death," *New England Journal of Medicine*, 1978, pp. 338-344 and 393-401; and "Editorial," *The Lancet*, 1976, p. 1065.

4. Robert M. Veatch, "The whole-brain oriented concept of death: An out-moded philosophical formulation," *Journal of Thanatology*, 1975, pp. 13-30; and *Death, Dying and the Biological Revolution: Our Last Quest for Responsibility*, New Haven, 1976.

sophistically sophisticated defender of the heart-lung definition of death may find it perfectly consistent to say that a given patient has lost his personhood but not his life, and that after brain death there may follow a period of life during which the patient is not a person. The definition in question is the definition of death, after all, and it needs to be made clear why any definition of personhood leads to a solution of the problem.

3.4.2. Personal Identity

This second version of the "death of the person" argument proceeds not from any particular definition of personhood but from a theory of personal identity. Theories of personal identity, in academic philosophy, seek to establish the criteria according to which an individual at one time is to be deemed the same person as an individual at a later time. Such theorizing is usually only a philosopher's enterprise, but it is thought by some writers, including myself, to have an important bearing on the brain death controversy.⁵ Though the argument is too complex to be displayed here, its flavor can be conveyed by a brief thought experiment. Suppose that, sometime in the remote future, a neurosurgeon were able to remove a healthy patient's brain and hook its nerve endings up to appropriate sensors and motor outputs while the brainless body were kept oxygenated by using the resources of the surgeon's intensive care unit. According to the argument under discussion, there would be no question as to whether the brain or the body would be the patient, supposing that the disembodied brain were capable of ordinary conversation. The brain would be the patient, and the body would be merely a body. This thought experiment is supposed to show that an otherwise functioning body without a brain is not identical with the person whose body it was when the body contained the functioning brain. The suggestion, then, is that a body containing a permanently non-functioning, i.e., dead brain is no longer the patient; the body may be both extant and alive, but the patient is neither. Hence, in contemporary clinical contexts, brain death is the patient's death, and if the

5. Roland Pucetti, "The conquest of death," *The Monist* 59, (1976) 252.

body continues to live afterwards, it is not at that time the (living) patient's body. Upon brain death, the patient ceases to exist.

Since I believe this argument to be correct, I can find no major faults in its logic. Because it involves a number of complex and rather unusual philosophical maneuvers, however, it might present problems in communication to the public were it embraced by policymakers as an "official" rationale for the brain death definition of death.

3.4.3. Life's Value to the Person

One philosopher writing on concepts of death states:

If someone suggested to me that my body might survive death of the neocortex for several months or years, provided it were fed and cleaned properly, etc., that would have no greater appeal to me than preservation of my appendix in a bottle of formaldehyde. For in the sense in which life has value for human beings, I would have been dead all that time.⁶

This sentiment is understandable. Continued respiration cannot be a boon to a patient in irreversible coma. The immediate conclusion is that continued body functioning is of no value to the patient, that all that makes life worthwhile is lost when brain death occurs. The person thus derives nothing from continued medical care, even if the body responds to it. A problem with this argument, however, is that it is not to the point. It seeks to establish the proposition that life is valueless after brain death, but that is quite different from showing that life ends at brain death. Valueless life is still life. If the argument implicitly concedes that what follows brain death is yet more life, it cannot count as support for the brain death definition of death. In the context of this argument, the phrase "death of the person" is not to be taken literally, for the argument does not show that the person dies.

6. Michael B. Green and Daniel Wikler, "Brain death and personal identity," *Philosophy and Public Affairs* 9, (1980) 105-133.

I conclude, then, that two of the "death of the person" arguments for a definition of death based on brain death are not convincing. The argument that loss of consciousness removes a person's essence founders on the lack of consensus on the concept of personhood. The view that life ends when it ceases to have value mixes apples and oranges. The personal identity argument is, I believe, correct. But it should be noted that it, like the other two "death of the person" arguments, has one feature which may prompt opposition from many quarters. These views all imply that an individual is dead after the cortex ceases functioning, regardless of the state of the brainstem. It follows that an individual may be thus classified as dead even though he is breathing without any assistance from a respirator.

This in turn seems to imply that there would be no impropriety in removing the device which provides nutrients to a cortically-dead patient, such as Karen Quinlan, who is breathing on her own. The notion that one might bury someone with a beating heart seems, at first thought, to be so preposterous that any argument for brain death which supported it should be rejected. But this reaction is, in my view, unsupportable. If physicians feel uncomfortable in removing life supports from a cortically dead patient, the "death of the person" arguments do not suggest that they do so. The argument simply insists that it be recognized that the patient being maintained is in fact a spontaneously-breathing corpse.

Besides, those who favor the whole-brain definition conclude that removing "life-supports" from a breathing body is proper, since they do not hesitate to turn off respirators. The differences are in the perceived "artificiality" of the respirator as opposed to the intravenous feeding device, and in the amount of time which will elapse between the removal of "life-supports" and the cessation of breathing (seconds and days, respectively). Neither of these is suitable as a basis for classifying patients as alive or dead.

3.5. The Moral Argument

The third "death of the person" argument, just recounted, may seem to have more plausibility than it is credited with here. This is so

because it suggests a further, distinct argument which has commanded some allegiance in the philosophical and bioethical literature on brain death. The argument, briefly put, is this: when life loses all value, it is morally right to discontinue care and remove organs for transplantation; to treat the body in this way is to treat it as a dead body; and since it is right to treat the body in this way it is right to pronounce the body dead.

This is a *moral* argument for the brain death definition of death. It rests on an explicitly moral premise concerning what may properly be done to brain-dead patients, and purports to draw from this moral thesis a judgment on when the patient has died. Its moral premise is, moreover, one which will command widespread agreement. The question to be put to one espousing this argument is whether the acceptance of the definition is logically required of those who accept the moral claim. I think not; the case against this moral argument, however, is best made in the context of a general analysis of the task of redefining death, to which I now turn.

4. THE TASK OF REDEFINITION

Defining death is not one but several tasks. Consider these three questions: (1) Should the brain-dead be ruled legally dead? (law); (ii) Should brain-dead patients be pronounced dead and treated accordingly? (morals); (iii) Are brain-dead patients dead? (facts). I will argue that these questions are, despite appearances, quite different from one another, and that finding the answers to them requires different kinds of data and expertise. Dividing the issue in this way may help to identify policymakers' task in defining death.

4.1. Facts and Morals

The subtlest, yet the most important, distinction among the three tasks is that between (ii) and (iii), which I have (rather inexactly) labeled questions of morals and of facts, respectively. One common view of the task of defining death expressed in the "moral" argument for the brain death definition above, is that choosing a definition is

simply a matter of deciding how we should test brain-dead patients. To hold that brain-dead patients are dead means, in this view, to treat these patients as we do dead ones: to discontinue care, to remove vital organs for transplantation, and, further, to mourn them and to prepare to bury them. Once we have decided whom not to treat and whom to mourn, in this view, we have decided whom we shall regard as dead. The definition of death, it would be said, is not to be discovered, but to be decided upon, and only moral and medical considerations concerning patient care are relevant to the job. Defining death is thus seen as a strategic task, a matter of setting policy.

This account of defining death, however plausible on first consideration, does not square with many of our judgments concerning the diagnosis of death. The fact is that cessation of medical care does not always, or even usually, coincide with the judgment that the patient has died. Physicians frequently cease the maintenance of dying patients before brain death occurs, at a time when there is not thought of pronouncing the patient dead. One can record moral approval of many of these medical decisions without thereby endorsing any particular definition of death. The decision to withhold care must be decided on the merits of the case; the moral question is in this sense autonomous. There is no inconsistency in holding that care should be withdrawn from brain-dead patients while insisting that brain-dead patients are alive as long as they continue to breathe. These are two distinct judgments, one moral and the other factual.

The reason that pronouncing death might seem to amount to prescribing cessation of medical treatment is that certain moral principles are simply assumed without question and even without notice. These principles are that there is no point in giving medical care to the dead and that life ought always be preserved. Once these assumptions are made explicit, and hence open to question, the thesis that the definition of death is a moral decision is undermined. The reason many wish to change the definition of death is to license the withdrawal of care from brain-dead patients. But there is nothing in the older, heart-lung definition of death which required pointless medical maintenance of the brain-dead. That prescription comes from the unstated moral principle that the living must always be kept alive. If we revise our morality so

as to permit termination of care prior to death (which in clinical practice we have already done), there is no logical compulsion to revise the heart-lung definition of death.

My conclusion here is that the moral and factual issues ought to be kept distinct in defining death, with each of the two issues resolved by consideration of the (quite different) values and facts relevant to it. My own views are that the brain-dead should not be treated, and, in light of the personal identity argument given above, that the brain-dead are dead; but I see no intrinsic connection between these two judgments. The definition of death is to be "discovered," through philosophical analysis; what is to be "decided" is not the definition of death but whether to administer medical aid to brain-dead patients.

4.2. Facts, Morals and Law

The other distinction to be made among the tasks comprising the definition of death is rather more straightforward. In my view, the question of whether the brain-dead should be ruled legally dead is not to be decided simply by determining whether the brain-dead are dead and whether the brain-dead should be given medical care. This is so for several reasons.

The first reason to treat the legal definition as a separate question is that the law is not a perfect instrument of morality: not everything that is morally right should be required or even permitted by law, and not everything which is immoral should be made illegal. The primary purpose of the brain death statutes adopted by the states is, as I understand them, to relieve physicians of legal and criminal liability when medical care is withdrawn from the brain-dead. This rationale presupposes that physicians would otherwise be in real danger of lawsuit or prosecution for their treatment decisions, which is a thesis requiring empirical evidence. If no such protection were needed, the main reason for brain death statutes would be removed. It is conceivable that these statutes serve other good purposes, such as that of educating the public; but, again, empirical evidence is needed.

A second reason to treat the legal question independently is that the statutes' purposes might be served as well or better by other kinds

of laws. A statute declaring physicians free of civil or criminal liability in withdrawing care from the brain-dead would resolve the problem of the physicians' legal jeopardy even though it would not change, or even mention, the definition of death. Such a law would, of course, have different implications for such matters as inheritance than a brain death statute, but it remains to be seen whether the changes would be less desirable. If the two sorts of statutes were judged equal in value in these respects, the state and federal government would be free to sidestep the controversy over the definition of death.

Third, the advisability of brain death legislation is to be determined in part by considerations which are peculiar to law. This provides a further motive to consider the legal question on its own merits. One consideration of special interest to legislators in a federal state is the desirability of uniformity in certain matters of law. In some American states, the whole-brain definition of death is in force because of statute or case law; in others the heart-lung definition prevails. It may be desirable to adopt a federal statute to resolve the practical and legal problems attendant to this diversity; yet this consideration is largely independent of the moral and factual elements in the brain death controversy.

There is a further consideration which yields especially strong support to the thesis that the legal issue should be treated independently. Statutes, especially federal ones, are (or purport to be) expressions of public sentiment. As such, they not only authorize the execution of policies implementing the public's wishes, but also serve as concrete record of them. These records then exert their own influence on public attitudes, which can lead to further legislation. These possible effects must, then, be taken into account in deciding whether to enact the original statutes. Policymakers must attempt to determine the effects, good and bad, on public opinion of laws concerning the brain-dead.

Consideration of effects on public attitudes, in my opinion, will tend to favor brain death statutes over other kinds of laws designed to serve the same purpose. A problem with a law which simply licensed cessation of care for the brain-dead, and which left the definition of death unchanged, is that a step would be taken down a slippery slope.

Such a law might be followed by statutes which licensed withdrawal of care from other patient populations whose lives were thought to be of little value to the patients; and, finally, to permission to withhold care from those whose lives are deemed to lack value for others. Advocates for the senile, the retarded, and the chronically ill might wonder whether the legal treatment of the brain-dead might be extended to the other vulnerable populations. A brain death bill avoids this danger. It likewise authorizes withdrawal of care from the brain-dead. But it does not set a dangerous precedent, for the simple reason that none of the other groups' members are likely to be considered dead. This safety factor should, in my opinion, recommend a brain death bill even to those who reject the view that the brain-dead are dead.

5. CONCLUSION

Three issues have been discussed in this paper. First: are brain-dead patients who maintain vital signs thanks to intensive medical care, alive or dead? I have surveyed a number of distinct arguments for classifying them as dead; all save one are, in my opinion, problematic. The argument which I do find convincing gives its direct support to a brain death definition (cortical death) which differs from that currently endorsed by medical authorities. Second: Ought brain-dead patients be given medical care? Third: Ought the brain-dead be ruled legally dead? My own response to the second question is affirmative, but because it does not directly bear on the definition of death, I have omitted substantive argument. The third question is, I argue, a matter for lawyers and policymakers rather than philosophers.

As important as any of the individual arguments which address these questions is the distinction between the three issues. Though a truly comprehensive consideration of the brain death controversy would include a full study of all the questions, policymakers may find it possible to focus their attention more narrowly on the legal and moral aspects. The factual question, whether brain-dead patients are dead, is, in my opinion, a philosophical one, and its resolution requires detailed conceptual analysis. This could prove to be difficult to present to the

public in a manner which assures both soundness of argument and ease of comprehension. (This is not, however, to say that a satisfactory resolution of the issue cannot be achieved by these methods.) Moreover, the whole-brain death definition is practically a *fait accompli* in that medical and legal thinking have moved to this opinion and the public seems to be following along. Perhaps this acceptance has come about for the wrong reasons, but this is of little practical importance. A detailed treatment of the philosophical issues would be necessary only if policymakers find cause to reject all of the arguments for the brain death definition and to uphold the heart-lung definition.

The legal question, narrowly construed as that of the desirability of a federal brain death statute, is still open. It is desirable that this question be recognized as independent of the philosophical and moral issues, and policymakers may consider the legal issue on its own merits. The goal of this paper has been to outline the philosophical and conceptual background of the public policy debate.

AFTERWORD (SEPTEMBER 2000)

At the time that the preceding information was given to the President's Commission for the Study of Ethical Problems in Medicine, the new definition of death as brain death seemed to be perched uncomfortably between two stools.

The traditional definition of death, according to which a body still circulating blood, breathing, and even gestating, was a living body, seemed not to apply to a patient who had suffered cessation of brain functions—so long as these functions were maintained by artificial means. These means made the ICU as a whole, in effect, into a prosthesis. The fact that the functioning was "artificial" was no more indicative of death than the use of a pacemaker.

A definition of death based on capacity for consciousness, however, would put the moment of death at the instant at which this capacity was lost, if this could be accurately determined. This might happen long before (whole) brain death occurs.

Both of these definitions appealed to familiar concepts of life and death. In the view of some people, the traditional definition defined "living body," and the consciousness-based definition defined "living person."

But what concepts of life and death did the whole-brain definition embody? Though the President's Commission attempted to answer this question, its attempt was not convincing to me, then or now, and my view has been joined in much of the consciousness-based definition, a choice we may make on philosophical or religious grounds. My own view is argued in Green, M. and Wikler, D., "Brain Death and Personal Identity," *Philosophy and Public Affairs*, 9(2):105-133, Winter 1980.

On a practical level, however, the utility of the whole-brain definition of death has been enormous. Many thousands of lives have been saved through transplantation of vital organs, and in the majority of these cases, the organs have been removed from breathing bodies that had been diagnosed as dead by using whole-brain criteria. Countries such as Japan that have refused (until very recently) to accept brain death have motivated desperate, very ill patients to fly to the United States and elsewhere for treatment, and many Japanese have died for want of needed organs.

Though it is reasonable to ask that public policy be based on defensible concepts and criteria, brain death and transplantation may be the exception: to save lives, it seems to be necessary to put up with a bit of nonsense.