May 1998

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Recommended Citation

Tonti-Filippini, Nicholas (1998) "Revising Brain Death: Cultural Imperialism?," *The Linacre Quarterly*: Vol. 65: No. 2, Article 5.
Available at: <http://epublications.marquette.edu/lnq/vol65/iss2/5>

Revising Brain Death: Cultural Imperialism?

by

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There is little doubt that acceptance of the practice of diagnosing death by the death of the whole brain criterion is collapsing. Both the ethical and medical literature contain numerous articles indicating an overwhelming flaw.

Robert Veatch puts the case well.¹ He acknowledges that laboratory testing shows "nests of brain cells" may continue performing brain functions after clinical diagnosis of brain death. This would invalidate the application of the legal definition of death in terms of the irreversible cessation of all brain function.

The legal definition of death, in jurisdictions that have formally adopted brain death, usually defines death as either irreversible cessation of the circulation of the blood or the irreversible cessation of all functions of the brain. In practice the latter depended on what came to be known as the Royal Colleges or Harvard Criteria.

In 1968 a report entitled "A definition of Irreversible Coma", prepared by an Ad Hoc Committee of the Harvard Medical School to Examine the Definition of Death, was published.² The Committee listed the following purely clinical criteria: unresponsivity and unresponsivity, no movements or breathing (or absence of spontaneous breathing after turning the respirator off for three minutes), and no reflexes, and the non-clinical criterion of a flat electroencephalogram.

However, the Committee held that it was not necessary to do the latter. Though it recognized that an EEG offered confirmatory data, the Committee found that the abolition of function at cerebral, brain stem, and often spinal levels should be evident in all cases from clinical examination alone. However, they added that the neurological assessment gains in reliability if the aforementioned neurological signs persist over time and there is no accompanying hypothermia or evidence of drug intoxication.³ The clinical criteria specified became known as "the Harvard Criteria".

The Canadian Medical Association published a similar "Statement on Death" in November, 1968⁴, adding that in coma of unknown origin, all the tests be repeated twenty-four hours later.

In 1976, the Conference of Medical Royal Colleges and their Faculties in the United Kingdom published a statement entitled "Diagnosis of Death".⁵ The Royal Colleges were a little more specific about excluding hypothermia, metabolic and endocrine disturbances, depressant drugs or relaxants. They also required certainty of irremediable structural brain damage and an established diagnosis of a disorder which can lead to brain death. The clinical criteria then listed are more or less the same as the Harvard Criteria, although the Colleges are more confident that an EEG is not necessary. They also held that other investigations such as cerebral angiography or cerebral blood flow measurements are not required for diagnosing brain death.⁶

In 1979 the Royal Colleges added a memorandum entitled "Diagnosis of Death" in which they proclaimed that brain death represents that stage at which a patient becomes truly dead.⁷ Medical practice in English speaking countries since then has been to diagnose brain death by employing the Royal Colleges or Harvard criteria alone.

In recent times, it has become more and more evident that meeting those clinical criteria alone often does not satisfy the commonly accepted legal definition of irreversible cessation of all function of the brain. Despite the recent evidence having grown to be overwhelming, with many studies now showing continued function of a variety of parts of the brain after diagnosis of brain death⁸, that eventuality is held by some to be unimportant.⁹ Veatch argues that it is accepted in the same way that the President's Commission accepted that not all individual brain cells were necessarily dead.¹⁰ To the contrary, however, there would seem to be a vast difference between a

few cells remaining alive, and sufficient sections of the brain remaining alive in such a way that some brain functions continue.

Veatch claims that the legal definition of whole brain death does not in fact refer to the death of the whole brain any longer¹¹, and he is troubled by the fact that individual neurologists, philosophers, theologians, and public commentators seem to be determining just which brain functions are significant and which are not. There is a lack of consistency in clinical practice and a failure to refer the matter to the community and to elicit informed community opinion about the de facto adoption of new and variable standards for what constitutes death. According to Veatch, higher brain functions are the only significant functions, and he wishes to have the irreversible lack of higher brain functions adopted as the universal standard.

Peter Singer argues similarly to the effect that the medical concept of brain death was more or less a fabrication, accepted to be so by the President's Commission¹², never supported by the medical facts and adopted pragmatically as an arbitrary cut off point. He would like to see it replaced by the criteria by which capacity for consciousness is the cut off point.¹³

Daniel Wikler attacks the notion of whole brain death itself, contending that the central argument, the integration thesis¹⁴, which supports whole brain death, is incoherent and is likely to fall as soon as neurologists are able to diagnose persistent vegetative state (PVS) with certainty.¹⁵

John Catherwood goes one step further and argues that organ harvesting is permissible from the "irremediably dying" and hence that the discussion over the definition of death is irrelevant.¹⁶ He would thus be satisfied with a prognosis rather than a diagnosis of death.

Veatch suggests that applying a higher brain definition of death is consistent with a Judeo-Christian concept of mind-body integration: only when there is capacity for organic and mental function present together in a single living entity is there a living human being. He supports a higher brain definition with the possibility of conscientious objection in which those who wanted a more rigorous standard could object to organ donation.¹⁷ There are some problems with Veatch's concept of mind-body interaction, and with using conscientious objection as a solution in the actual circumstances of organ transplantation. These are addressed later.

The above are radical solutions which involve a significant change in thinking about what constitutes death. There are seemingly two medical responses which would leave the legal status quo¹⁸ intact and not challenge the apparent community acceptance of whole brain death as the appropriate definition, in these circumstances of the collapse of the Harvard and Royal Colleges criteria.

The first is to follow the established French practice of requiring ancillary testing such as angiography, and that can now be supplemented by the range of newer diagnostic techniques in order to achieve greater certainty of the determination that complete cessation of all brain function has occurred. As described earlier, the Harvard and Royal Colleges criteria are clinical criteria only and do not require ancillary testing such as cerebral angiogram, Doppler ultrasound, and X-ray using contrast media to assess brain flow in the various parts of the brain and electroencephalograms. Laboratory assays establishing the presence of hormones originating from that part of the brain known as the hypothalamic-pituitary axis would also be significant.¹⁹

There does, however, seem to be resistance to this approach which may be partly a result both of a concern about limiting the availability of organs even further by excluding some donors who are now diagnosed as dead by the clinical criteria but would be shown to have some brain function if ancillary tests were done, and of the belief of many that some existing brain function in a person who will never regain consciousness is insignificant. The latter line is supported by Catherwood, Wikler, Veatch and Singer (above) amongst others, but it does involve a complete change in the accepted understanding either of death or of the legal status of those who suffer persistent coma. Whether such a change would be acceptable to the broader lay community is a matter that ought to be pursued.

A major problem with adopting the looser determination, using death of the higher brain alone, is that cadaveric organ donation is not a one-to-one gift from donor or donor family to recipient which can be treated as a private matter subject only to the moral acceptance of those immediately engaged. First, the State has a responsibility to protect the right to life of members of the human family.²⁰ Second, there are regional, state or national schemes or registers (and even international registers for some tissues) by which organs from a single donor are allocated to multiple recipients throughout a region. The recipients

need to have confidence that the organs are, in fact, taken from people who are really dead according to the recipients' own understanding of death. For this reason, Veatch's proposal for a combination of higher brain death and provision for conscientious objection is an inadequate solution. With the bureaucratically imposed secrecy about identifying the particular link between an organ donor and the recipients of his or her organs, the recipients must trust the general national standards for diagnosing death. These having collapsed, though not to any great extent yet publicly, the situation of informed conscientious potential recipients whose moral beliefs equate with the common legal standard of whole brain death, is unenviable. If one adopts the contemporary, legally accepted view that death has not occurred until there is irreversible cessation of all functions of the brain and knows the truth of the matter in regard to the practical collapse of its clinical application in recent times, then one is obliged to refuse organ donation and suffer the consequences. The proposition that one accept an organ taken from a person while still alive, in a process which brought about his or her death, would be acceptable to only the most amoral or morally indifferent, by ordinary standards²¹, for organ procurement would be the cause of death, so death would have been caused in order to provide the organ.

The reality of the circumstances of organ procurement *and* *recipience* is that a conscience clause could not function to permit individuals to choose their own definitions of death based on their religious and philosophical convictions as Veatch suggests it would.²²

A second medical alternative being pursued by some is the exploration of organ transplantation after cardio-respiratory death.²³ This has the practical problems of reducing the number of potential donors and hence organs, and the fact that steps have to be taken immediately after cardiac death to preserve the organs. Brain death is a relatively unstable state (generally not a state that lasts more than twenty-four hours when properly diagnosed²⁴) but does allow greater time between diagnosis and harvesting organs.

A quite different development happened in Denmark with the Danish Ethics Council's rejection of the brain death definition altogether and its insistence on irreversible cessation of cardiac function as the end of the death process. The argument is based upon what the Council claimed was the "ordinary everyday definition of death". The

Council argues that relatives still relate to a brain dead person and that such a person should be treated as dying but not yet dead because of that relationship. However, they did accept that transplantation from the brain dead could occur (because they are in the process of dying) and the transplantation procedure would be taken as the end of the death process. There seems to me to be some confused thinking in that conclusion. There seems to me to be a problem with accepting organ harvesting from a person judged to be still alive and, if the community consensus is that death has not occurred until cessation of cardiac activity, why would it accept "beating-heart" donation?²⁵

The Danish Ethics Council's argument that death has not occurred until cessation of cardiac activity would seem to be valid, but it is sound only if the premise that the general community does not understand whole brain death to be death is true. It would indeed be quite wicked in practice to impose on the families of organ donors, and on transplant recipients, a concept of death determined by the brain death criteria, if their cultural belief was that life continued until circulation had irreversibly ceased. A religious or cultural judgement that life continues while blood circulation continues, even though there may be permanent loss of consciousness, need not be based upon a misunderstanding of the medical facts. In fact it may reflect belief in the sacredness of human beings in which the capacities which depend on consciousness constitute part of the reason for regarding human beings as sacred but that the reasons for holding each individual of human generation to be sacred may not be reduced to just consciousness or higher brain functions. The reductionism involved in seizing upon consciousness as a necessary feature for the many and complex aspects of the way in which we hold other human beings in high regard is by no means universally acceptable.

In recent times greater attention is being given to the needs of bereaved families and that attention has significant advantages. There is a much greater likelihood of a family donating organs if attention is paid to their needs.²⁶ The view of the Danish Ethics Council (in regard to brain death, though not its view about using the dying, but not dead, as organ donors), ought not be regarded as completely eccentric. There is a problem with the status quo, in regard to the way in which both the families of donors and the transplant recipients are treated, if the actual clinical determination of death would not in fact meet the general

community standards and match its understanding of death.

As an ethicist I have frequently encountered circumstances in which families of donors, who in the aftermath (sometimes very much later) of having agreed to donation, doubt whether their relative was in fact dead at the time. Grief can be vastly complicated in such circumstances by the notion that one has betrayed one's relative.

A source of difficulty is that in the urgency and the shock of dealing in rapid succession with:

- massive brain trauma to a relative
- the extraordinary context of the intensive care unit
- having brain death explained (usually for the first time)
- being asked for consent to donation, and
- then having to leave (abandon) the dead (dying) relative at a time when he or she still has all the appearances of continued life especially respiration (albeit machine assisted), a beating heart and muscle reflexes.

the family is forced to place great trust in the health professionals for whom none of this is new or shocking, but routine, and who have the confidence of being in much greater possession of information.

Later, when the family re-examines, in a more leisurely fashion, what happened, they do not have to place such trust in what they were told, and they often question the details they were told (or do not adequately remember) and the validity of what they were told. At that time, their cultural or religious resistance to the concept of brain death, or to accepting the certainty of the medical diagnosis, may assert itself and compound their grieving. The latter is particularly the case because, when death is diagnosed by the Harvard or Royal Colleges criteria alone, there is no evidence to present to the relatives that death has, in fact, occurred. The clinical tests do not confirm death to a layperson. Ancillary testing could provide the means to remedy that with ultra-sound or X-ray pictures showing complete loss of circulation to the brain and the extent of the brain destruction. When members of the family later investigate and find out, for instance, sometimes for the first time, that organs are taken while the heart still beats, or that the practice is to administer a general anesthetic to donors for the harvesting operation (which the relatives often interpret as implying the need to suppress capacity to feel pain indicating continued brain function), they may be extremely distressed and feel exploited.

In many accounts of their experiences given to me by donor families, even by those who do not regret donation, the matter of being confronted by the concept and reality of death by brain death, and being asked for consent to donation, was later seen as part of the original trauma. In a sense, they may feel assailed or assaulted, not just by the devastating events that led to the relative suffering the brain injury, but also by the additional events which occurred for the sake of organ transplantation.

On the other side of the ledger, as a hemodialysis patient I have often sat with other patients²⁷ to whom the alternative of a cadaveric kidney transplant was being put most forcefully, on both economic and personal health grounds, and seen the patients' disquiet at the prospect, and their unanswered questions about anything to do with the source of the organs. The bureaucratic separation between donation and procurement on the one hand, and transplant and recipient on the other, is complete both practically and conceptually. The notion of *giving and receiving* has largely been replaced, through the large scale and bureaucratic nature of the process, by *taking and getting*²⁸, and this is humanly most unfortunate. Further, there seems to be a complete absence of understanding, for instance, that recipients for their own sake often need to know something of the nature of organ procurement and to have confidence in and, hence, knowledge of the circumstances of brain death and its diagnosis. The tendency seems to be to steer them away from such questions and to play down the nature of the source of the organs. One ought to be circumspect about matters that the health professions consider important to surround in secrecy, even though the latter may be for the best of motives.

The opinion that we ought to be moving toward determining death according to whether the patient has permanently lost consciousness is one which I do not believe would have the broad acceptance necessary for adoption within our current structures of regional registers. Further, as I have indicated, this is the perspective that needs to be adopted. It is not a matter which can be addressed by simply providing for conscientious objection. The standard by which death is judged to have occurred needs to be narrow enough to be broadly, even if not universally, accepted.

On that basis it need only to be shown that a significant spectrum of belief in the community would not accept the change in

order to defeat the proposal that Veatch, Singer, Catherwood, Wikler, Raanon Gillon, and others have argued – the proposal that permanent lost consciousness or higher brain function be all that is required.

Raanon Gillon editorializes²⁹ on the Danish Council of Ethics decision in a way which highlights a problem of arrogance and cultural intolerance amongst the advocates of the higher brain criterion:

...For whatever one's concept of a person is, one feature widely acknowledged as *necessary* for a person is a capacity - or at least the potential for a capacity - for consciousness. It follows that when a person has permanently lost the capacity for consciousness - as occurs in brain death - the person no longer exists, the person is dead.

Even if "widely acknowledged", which I doubt that it is, outside of the narrow circles of this elitist discussion, it is not anything like a general or a universal acceptance. The proposal for conscientious objection, based on differing understandings of death, would be likely to create uncertainty about brain death and mistrust. There needs to be a standard which is tight enough to be generally acceptable. A double or variable standard would vastly complicate community understanding and the application of the law. More than that it would foster uncertainty and undermine confidence in the care of those who are severely brain damaged and their protection under the law.

Veatch states something similar (to Gillon's position):

No one really believes that literally all functions of the entire brain must be lost for an individual to be dead. A better definition of death involves a higher brain orientation.³⁰

There would seem to me to be a significant body of opinion to the contrary. I am not alone in believing that functions of the brain (not just activity in individual cells or clusters of cells) are significant, particularly if they are functions that integrate systemic and organic functions of the rest of the body.³¹

The problem arises, I suspect, from both reductionism and a category mistake.

It has always been a category mistake to refer to "brain death" as a definition of death, and doing so encourages a failure to actually define death. It makes sense to say that one may diagnose death by

criteria which establish death of the whole brain, but that leaves open the question as to what it is that death is. What is it that death of the whole brain is being used to diagnose?

Gillon is suggesting that death is permanently lost consciousness, and brain death the criteria by which it can be recognized. The mistake with that, it seems to me, is that we know that a person is much more than merely consciousness, and that when the entity that we have held to be a person no longer has the capacity for that one feature but retains many others and continues as a living entity, it is not altogether clear what or who it is that continues to live, and whether it is proper to describe as death what is in fact only partial death even though death of such a significant feature as the capacity for consciousness.

The substantial issue in defining death is not the question of how it might be diagnosed. Rather it is to define what the concept means. It is only then that one can turn to examining the criteria by which it might be diagnosed.

It seems trite to say, as a dictionary may, that death is the final cessation of vital functions of an organism or the end of life.³² But that would seem to be a reasonable starting point prompting the questions: *what is life?* and *what are vital functions?* What is it that is essentially or necessarily ended for death to have occurred?

In this respect Peter Singer points to the anomaly that "brain death" is only for humans, and the oddity that for a human being to die now requires a different concept of death from that which we apply to other living beings.³³

There does seem to be a significant difference between a body that is stiff, cold, and rotting, and a body which has permanently lost consciousness but retains all other living functions, except those dependant on consciousness. The latter is at least as alive as a healthy tree or vegetable. Though many wish to say that a person in such a state is dead, for many others, as a member of our community he or she continues to share in the solidarity of that community, passively, but still a living relative and the subject of attention and love, love perhaps reciprocated for love once received.

It seems that redefining death, in the way in which it came to be applied in clinical practice, did not involve actually redefining death. Rather it involved declaring that a living human being who was so

damaged as to lose the capacity for consciousness could be treated as though they were dead, and that permanent loss of consciousness could be said to have occurred when the specified clinical criteria were met. (It seems that, to those who were in the know so to speak, brain death meant permanently lost consciousness and was accepted as death even though publicly the definition was narrower. The legal definition that death had occurred when there was irreversible loss of all function of the brain was misleading as it was often not applied in clinical practice.) The idea that death had been re-defined is, and always was, something of a category mistake. The life is not ended in a person who has permanently lost consciousness but functions otherwise. To say that they are dead is simply a falsehood.

This category mistake was particularly misleading because it was generally believed by those who sought to be informed in the community that the legal declaration was being applied, which it never was. Until relatively recently (1992), as an ethicist, I was myself misled in this respect, having had brain death explained to me and seen it explained to donor families many times as the brain event equivalent of having been guillotined. Having now studied the medical literature, I know that to be false, and more than that, it was known to be false as early as 1977 following the multi-center study funded by the National Institutes of Neurological Disease and Stroke.³⁴ The legal definition of death in terms of loss of all function of the brain was far more acceptable than the actual clinical practice, because it does actually correspond to a state which would be recognizable as death in any living species. There would not be a problem if there were strict medical compliance with the current law common to most Western jurisdictions.

The law which defines death of all function of the brain as death is acceptable because some function of the brain is essential for keeping the body together as a unit which has integrated functions. Properly speaking a human body no longer exists as a single living body when it has no brain because its organs no longer have integrated functions. It is a fact that in humans the integrated functioning of the organs occurs through systems that are exclusively controlled by the functions of the brain, for integration occurs through the endocrine and neural systems and they are controlled from within the brain. If the brain (including the brain stem) is removed or totally destroyed the integrated

connectedness of the organs no longer occurs.

If I break a tree into pieces, I may, by planting the pieces, the cuttings, have a continuity of life, although the individual tree itself is no longer alive. A wood heap is not a tree, even though for some time life is retained and may regenerate in planted cuttings. A bag of loose organs no longer functioning in an integrated fashion but each retaining its own separate life, as it were, is not a living body, it is not one discrete entity but many. A human body with no brain is as dead as a tree is dead when it has been cut up into a heap of cuttings and logs of wood. Life continues only in the distinct parts, not as life of a whole.

On these grounds, the legal declaration of brain death in terms of death of all function of the brain was broadly acceptable as death. No really significant change in the general concept of death was being asked of us. We could understand keeping the organs of a guillotined body alive by machines although the body as a body had been disintegrated (by the severing of the dynamic connection between the organs through the loss of a functioning brain), and hence was dead. But that, we now know, was in practice a very misleading description as, in fact, some brain functions often continued, and were known to do so.

We may well want to argue, as Peter Singer does,³⁵ that it is the capacity for consciousness and higher brain functions that are crucial. That is to say, those capacities are crucial for the way in which we treat people. However we ought not falsify death declarations. We may advocate using the irretrievably dying and the persistently comatose as though they were dead, but it is utterly false to claim that they are dead. There is a similarity here to the abortion debate. One may argue as Judith Jarvis Thomson has done³⁶ that abortion is legitimate as a woman's right to do with her own body as she chooses, without also claiming that the developing child in the womb is not a human being. It is not accurate to argue for abortion on the grounds that a human being is not destroyed by it. Similarly it is not accurate to treat of the matter of the care of people who are permanently unconscious, (I find the term permanent vegetative state, PVS, utterly dehumanizing and insensitive), or their mooted use as a source of organs for transplant, on the assumption that they are not alive.

The further point to be made is that the treatment of integration by Veatch³⁷ essentially expresses a dualism that is not broadly

acceptable within the Judeo-Christian tradition. It is certainly not acceptable within the Catholic Tradition, for the latter rejects dualism. The Tradition considers the human being to be a profound unity of soul and body in which the soul is the "form" of the body:

...it is because of its spiritual soul that the body made of matter becomes a living, human body; spirit and matter, in man, are not two natures united, but rather their union forms a single nature.³⁸

Raanon Gillon³⁹ refers to a unity of consciousness and body in commenting on the Danish Ethics Council rejection of dualism, but this unity is not a unity which is recognized by the Catholic Tradition at least, if not by other less formalized Christian traditions. The distinction between mind and body is not a dichotomy that the Tradition recognizes. It is not part of the Catholic Tradition to make a distinction between mind and body or consciousness and body. Rather, the Tradition holds to a unity of soul and body and so defines them as to make it impossible for there to be a living body without a soul. A body without a soul would not be *animated*⁴⁰, that is to say it would not have a life principle, it would not be *formed* by a soul. There is nothing in the Tradition that would suggest that the capacity for consciousness is essential for the human being to be treated with the respect owed to a human being, made in the image and likeness of God. To the contrary, the Second Vatican Council held:

Man, though made of body and soul, is a unity. Through his very bodily condition he sums up in himself the elements of the material world. Through him they are thus brought to their highest perfection and can raise their voice in praise freely given to the Creator. For this reason man may not despise his bodily life. Rather he is obliged to regard his body as good and to hold it in honour since God has created it and will raise it up on the last day.⁴¹

It is also false to claim, as Peter Singer does with some cynicism, that the whole brain criterion was accepted by leading Catholic commentators because they saw it as a way of heading off the pressure for euthanasia.⁴² That would imply that the acceptance of the concept of recognizing death of the whole brain as indicative of death was not itself the reason for their acquiescence to the Harvard Committee

proposal. In fact, two of those to whom he refers, Germain Grisez and Joseph Boyle, adopted first a definition of death which they thought properly characterized what death of an organism is, which they described as "the permanent termination of the integrated functioning characteristic of a living body as a whole" and, on the basis of the empirical evidence, judged that, in humans, that had occurred when "there is complete and irreversible loss of the functioning of the entire brain."⁴³

Singer also misrepresents Pope Pius XII by selectively quoting him in the following way:

In replying, Pius XII had reiterated the Church's concept of death as the complete and final separation of the soul from the body, but he also said, "It remains for the doctor, and especially the anaesthesiologist, to give a clear and precise definition of 'death' and the 'moment of death' of a patient who passes away in a state of unconsciousness."

and

This statement must have made it very difficult for those within the Roman Catholic Church to mount any opposition to the Harvard Committee's proposal.⁴⁴

Singer's account mischievously selects from a general discussion of the issue that the Pope indulged in before seeking to address three separate questions, which he chose to answer directly under the headings: *A doctor's rights and duties* (in regard to maintaining artificial respiration and who can make the decisions), *Extreme unction* (whether the sacrament now known as the Sacrament of the Sick can be administered), and *When is one dead?* It is the answer to the latter which is relevant to this discussion. Singer's analysis is not consistent with the following passage from the Pope's direct answer under the heading *When is one dead?*:

Where the verification of the fact in particular cases is concerned, the answer cannot be deduced from any religious and moral principle and, under this aspect, does not fall within the competence of the Church. Until an answer can be given the question must remain open. But considerations of a general nature allow us to believe that human life continues for as long as its vital

functions - distinguished from the simple life of organs - manifest themselves spontaneously or even with the help of artificial processes. A great number of these cases are the object of insoluble doubt, and must be dealt with according to the presumptions of law and of fact of which We have spoken.⁴⁵

Earlier in the text he states:

In case of insoluble doubt, one can resort to presumptions of law and of fact. In general, it will be necessary to presume that life remains, because there is involved here a fundamental right received from the Creator, and it is necessary to prove with certainty that it has been lost.⁴⁶

Singer's claim that the Pope's response would have made it difficult to mount opposition to the Harvard Committee's proposal is at least obscure, if not simply mistaken. The fact that some vital functions may continue in those who meet the Harvard criteria, including assisted breathing, spontaneous cardiac function and some integrating brain functions, would seem to require, in the terms that the Pope uses, that the presumption of doubt must in general be given.

In passing, given that Singer chose to bring Popes into the discussion, it is worth noting that the present Pope, John Paul II, referred to this matter by way of expressing the following caution:

Nor can we remain silent in the face of other more furtive, but no less real, forms of euthanasia. These could occur for example when, in order to increase the availability of organs for transplants, organs are removed without respecting objective and adequate criteria which verify the death of the donor.⁴⁷

Belief in the dynamic unity of soul and body is held by a significant group within society including those who belong to the Catholic Tradition. But for them, the proposal for redefining death in terms of the capacity for consciousness is not acceptable and the change would, in effect, make the regional registers for organ transplantation, in principle, unavailable to them as recipients and create anxiety and mistrust when families are asked to donate. It would also create yet another difficult area of conscientious objection for health professionals.

One would hope that, in a pluralist society, a more broadly acceptable definition of death would be used. A definition in which death is understood as the complete and permanent loss of the integration of the body, which empirically may be established as having occurred when all function of the brain permanently ceases (the definition recognized in the law of most Western countries), would seem to be more broadly acceptable, even if narrower than some of the contemporary protagonists would prefer. The problem is to ensure that the criteria used comply with the culturally accepted notion of death, and to insist upon more reliable determination than is currently provided by the Harvard and Royal Colleges guidelines which only require a clinical determination. Better technologies are available.

The deception of the community, in which a practice that fails to fulfil the explicit legal requirements has been adopted by many in the profession, is likely to be most injurious to the image and reputation of intensive care and transplant practice, once it is generally exposed to public scrutiny.

The mooted option of validating that deception by pragmatically adopting the notion that anyone who permanently loses consciousness is therefore dead vandalizes the language and reflects a cultural imperialism that ought not be tolerated. It would seem both just and pragmatic to properly adhere to the current law which requires irreversible cessation of all functions of the brain.

Appendix

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2. *JAMA*, Aug. 5, Vol. 205, No. 6, pp. 337-340.

3. Ibid.

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6. Ibid.

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8. See the appended list of publications.

9. Hermeren-G "The New Debate on Brain Death is a Storm in a Cup of Water", *Lakartidningen*, 1993 May 26; 90(21): 2067-8.

10. Veatch, Op Cit.

11. Veatch is mistaken in this. There has been no change to the law. It still refers to the cessation of all function of the brain. What has happened is a de facto departure from the legal definition by those in the medical profession who still depend on the Harvard or Royal Colleges criteria alone.

12. President's Commission for the Study of Ethical Problems in Medicine, *Defining Death: A Report on the Medical, Legal and Ethical Issues in the Determination of Death*, US Government Printing Office, Washington, DC, 1981.

13. Peter Singer, "How Death Was Re-defined", *Rethinking Life and Death*, (The Text Publishing Company, 1994) Chapter 2, pp. 20-35.

14. The view that functions of the various organs in a comatose patient are morally significant only if they are coordinated and thus functionally related to one another as functioning parts of a living whole. The integration of the body parts into one functioning, living body is thought to depend on the integrating functions of the brain.

15. Daniel Wikler, "Brain Death: A Durable Consensus?", *Journal of Bioethics*, Vol. 7, number 2/3, 1993, p. 239-246.

16. John F. Catherwood, "Rosencrantz and Guildenstern are 'Dead' ", *Journal of Medical Ethics*, 1992 18, 34-39.

17. Veatch, Op Cit.

18. The legal status quo, as distinct from the clinical status quo, is that death is defined as having occurred when there is irreversible cessation of a function of the brain.

19. Discussion of the various ancillary tests now available is the subject of the references collected in the Appendix.

20. "Universal Declaration of Human Rights" (1948) Article 3, in United Nations, *A Compilation of International Instruments*, Vol. 1 (Part 1) Universal Instruments, United Nations, New York and Geneva, 1994, p. 1, and the "International Covenant on Civil and Political Rights" (1966) Article 6, Ibid. p. 22.

21. A utilitarian might have no moral difficulty with this in principle but, even for a utilitarian, to accept the practice as a rule would raise serious social doubts about the security of one's own person once admitted to hospital in a brain damaged state.

22. Veatch, Op.Cit.

23. SJ Younger; RM Arnold, "Ethical, Psychosocial, and Public Policy Implications of Procuring Organs from Non-Heart-Beating Cadaver Donors", *JAMA*, 1993 Jun 2; 269(21): 2769-74; JC Fackler; RD Truog, "Life, Death, and Solid Organ Transplantation Without Brain Death", *Crit-Care-Med*, 1993 Sep 21 (9 Suppl): S356-7.

24. Advice given to me in a personal communication by a senior neurologist, Dr. E. Byrne, St. Vincent's Hospital, Melbourne, and published in Nicholas Tonti-Filippini, "Determining When Death Has Occurred", *Linacre Quarterly*, 58 February 1991, pp. 25-49.

25. B.A. Rix, "Danish Ethics Council Rejects Brain Death as the Criterion of Death", *Journal of Medical Ethics*, 1990, 16, 5-7.
26. Cerney, "Solving the Donor Shortage by Meeting the Bereaved Family's Needs", *Crit-Care-Nurse*, 1993 Feb; 13(1): 32-6; T. Pottecher; F. Jacob; L. Pain; S. Simon; M.L. Pivirotto, "Information to Relatives of Organ Donors, Factors of Consent or Refusal, Results of a Multi-Center Study" *Ann-Fr-Anesth-Reanim*. 1993; 12(5): 478-82. Recently there have been reports of a change of approach in Spain in which patients, whose conditions are likely to proceed to brain death, and their relatives, are approached well before death, and consent to donation in the event brain death is obtained. In Australia and Britain and the United States I suspect such patients are seldom ever ventilated and so they do not survive in a brain dead state required for most organ procurement. Reportedly, the Spanish approach would seem to have a high rate of acceptance in the regions where it has been tried. (The experiment is limited to those areas which have a relatively high compliance rate with organ donation. Anecdotally, the wealthier, more educated communities in Spain have a relatively low compliance rate with organ donation.) The problem with implementing the new approach in most other Western countries would be the economics of ventilating a category of patients who would not ordinarily be ventilated. That raises resource allocation questions.
27. Travelling, I have been a patient of fourteen different hemodialysis units
28. Renee C. Fox & Judith P. Swazey, *Spare Parts: Organ Replacement in American Society*, (New York: Oxford University Press, 1992), pp. 34-38.
29. Raanon Gillon, "Editorial: Death", *Journal of Medical Ethics*, 1990, 16, pp. 3-4.
30. Veatch, Op Cit.
31. A similar concern has been expressed in a thorough treatment of the medical issues by Peter McCullagh, *Brain Dead, Brain Absent, and Brain Donors: Human Subjects or Human Objects?*, (John Wiley and Sons Ltd., Chichester, 1993), pp. 7-56.
32. *The Concise Oxford Dictionary (Ninth Edition)* (Oxford: Clarendon Press, 1995).
33. Peter Singer, Op Cit, p. 22.
34. Earl A. Walker, et al, "An Appraisal of the Criteria of Cerebral Death: A Summary Statement", *JAMA* 1977 N.237, pp. 982-986.
35. Singer, Op Cit.
36. Judith Jarvis Thomson, "A Defense of Abortion", *Philosophy and Public Affairs*, No. 1, Winter 1975, pp. 47-66.

37. Veatch, Op Cit.

38. Council of Vienne (1312) cf. *Catechism of the Catholic Church* (Vatican City: Libreria Editrice Vaticana, 1994) n. 365.

39. Gillon, Op Cit.

40. *Catechism of the Catholic Church*, (Vatican City: Libreria Editrice Vaticana, 1994) n. 364.

41. Second Vatican Council, *Gaudium et Spes* (*Pastoral Constitution of the Church in the Modern World*) 1965, n 14, cf. *Catechism of the Catholic Church* (Vatican City: Libreria Editrice Vaticana, 1994), n.36.

42. Singer, Op Cit, pp. 28-9.

43. Germain Grisez and Joseph Boyle, *Life and Death with Liberty and Justice* (University of Notre Dame Press, 1979) pp. 59-85.

44. Singer, Op Cit p 29.

45. Pope Pius XII, "The Prolongation of Life", *The Pope Speaks*, Vol. 4, 1957, pp. 395-398.

46. Ibid p. 396-7.

47. Pope John Paul II, *Encyclical Letter: Evangelium Vitae* (Libreria Editrice Vaticana, 1995) n. 15.