Differences between death and dying

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Abstract

With so much attention being paid to the development and refinement of appropriate criteria and tests for death, little attention has been given to the broader conceptual issues having to do with its definition or with the relation of a definition to its criterion. The task of selecting the correct criterion is, however, virtually impossible without proper attention to the broader conceptual setting in which the definition operates as the key feature. All of the issues I will discuss arise because of this lack of concern with conceptual matters. Such problems as incorrectly diagnosing a patient as dead prior to the harvesting of his or her organs, defending the idea that death is reversible, and advocating a brainstem criterion of death, are all, I believe, errors that derive from this misplaced emphasis.

In a paper written a little over 13 years ago, Bernat, *et al* remarked that (1):

'Much of the confusion arising from the current brain death controversy is due to the lack of rigorous separation and ordered formulation of three distinct elements: the definition of death, the medical criterion for determining that death has occurred, and the tests to prove that the criterion has been satisfied'.

Not much has changed in the years since those remarks were first made. Although dividing an account of death into three parts has become more or less accepted in the literature, what has not developed is an equal appreciation and understanding of all components of an account. Instead, disagreements over which criteria are correct, for example, brainstem versus whole brain, versus higher brain, versus cardiopulmonary, have received the greatest amount of attention. This is no doubt because of the fear that if we get the criterion wrong, there is real danger of a misdiagnosis! It is, however, the converse of this attitude that is troublesome, ie, if

we get the criterion right so that there are no false positives, nothing else much matters. With so little attention being paid to conceptual niceties, it is, I suppose, to be expected that questions such as the reversibility of death begin to gain credence!

Definitions of death have two components. One is formal and universal and the other material and particular. The formal requirement is the same for every definition and, that is, irreversibility. This is true simply as a matter of language. It is how we speakers of English have come to use the word 'death'. The material part of the definition explains what, on a particular view, death is said to be. It is in this area that much of the current dispute ought to be occurring, for example, loss of the integrating function of the organism as a whole versus what is essentially significant to the life of a person.

It is the criteria that contain the anatomical reference needed to apply the ideas in the material component of the definition to a particular case. The collapse of that segment of the anatomy selected by the criteria, as measured by the tests, provides us with the proximate cause of death. In a consistent account, the cessation of the functions of the organs designated by the criteria, yield what is meant by 'death' as explained by the material component of the definition. If the cessation of these functions does not create a condition that actually constitutes death, then the account fails, either because the criterion and the material portion of the definition do not coincide, or, because what they pick out is not what we mean by 'death'. Criteria are thus judged in two ways. First they must fulfil the definition, ie, they must be an anatomical reflection of its material content. Secondly, together with the definition, they must properly correspond with ordinary use and ordinary language. Even if they match perfectly, if their application required us to withhold the diagnosis of death from previously clear cases and apply it to only novel ones, their consistency would not matter.

Arguments that support the components of a definition are conceptual and linguistic, whereas those in support of criteria are primarily factual and empirically based. Whether or not, for example, 'the

Key words

Death; definition; brain death.

destruction of the brain as a whole' is both necessary and sufficient in order to end up with 'the loss of integrating function of the organism as a whole' is an empirical issue. Is there anything other than the destruction of the brain as a whole that would, in itself, result in the loss of the integrating function? The answer to that is dependent upon what is physiologically true and one's knowledge of it. Whether or not loss of integrating function is what we mean by 'death' is not, however, an empirical but a linguistic question.

Marking an irreversible episode is a necessary but certainly not sufficient condition for an acceptable definition. It must also mark the right one, ie, it must capture what the public means when they recognize informally that someone is dead. For example, would we call someone 'dead' even though she displayed some degree of integrating capability (2), and, even though a patient showed no capacity at all for sustaining the integration of her systems, is there some other consideration that might lead us to say that she was, nevertheless, alive (3)?

Neurological criteria

The application of a criterion of death to a particular case is always the application of a relative standard. Even though criteria have more stability than tests, they never reflect more than where medicine happens to be at the moment. Specifically, their content reflects what medical practice currently believes to be the point of irreversibility. Prior to cardiopulmonary resuscitations (CPR), a cardiac arrest was appropriate material out of which to construct a criterion of death because people never survived them. But as CPR was developed, it became clear that an arrest was not necessarily irreversible. Consequently, its status as a criterion was challenged on the purely formal grounds of reversibility. If one recovered, clearly he didn't die, so that whatever had happened was not acceptable as a criterion of death. With the publication of the *Harvard Ad Hoc Committee Report* and eventually the President's Commission's *Defining Death*, neurological criteria have become today's irreversible episodes. In the United States, the irreversible destruction of the brain as a whole marks the event from which there is said to be no recovery. But, whether or not that is the correct criterion, there is no reason to believe that it must remain so for all time. As medicine reverses conditions previously thought to be irreversible, there is every reason to believe that this criterion too will have to undergo change.

Generally speaking, as long as an event or item functions as a condition necessary for the occurrence of the death, it may be included as a link in the causal chain that ends in death. The very last link in the chain is, however, special. It is always failure at the physiological spot designated by the criterion of

death. What sets this link apart from any of the other ones is that, first, it must be present in every such causal chain, and second, its fulfilment constitutes death, *ipso facto*. In the United States where the destruction of the brain as a whole is said to be the criterion and 'integrating function of the organism as a whole' (4) is said to be the definition, we would say that at the moment when the brain as a whole was destroyed the patient was dead. That is, the destruction of the brain as a whole gives us, in itself, what we mean when we say that a person is dead. Unlike the other links in the chain, this cause must actually constitute its effect. Not only is it necessary for the occurrence of death, it is sufficient as well. It must, of course, also mark what is currently the point of irreversibility.

Contrast this sense of cause with, for example, saying that what caused the patient's death was a bullet fired into his brain. Even though there is no doubt that it will ultimately lead to death, what we mean when we say that someone is dead must be applicable to absolutely anyone who has died in the past or will die in the future. Clearly people have died and will die without bullets in their brains. But, if the account being considered is correct, no one ever has or will die without his brain as a whole being destroyed, because that is what gives us what we mean when we say that someone is dead, ie, 'a loss of the integrating function of the organism as a whole'.

Christopher Pallis and those who accept his brainstem view defend an account that is vulnerable to criticism based on the above observations. In an argument designed to rebut the re-introduction of the cardiopulmonary criterion, Pallis chastises those who insist that 'the criterion of death should be the cessation of cardiac activity' because, he says, they 'fail to grasp that it is an adequate blood flow of oxygenated blood to "the brain as a whole" brain – not cardiac function *per se* – that is of relevance' (5). The basis of this argument is the distinction between those anatomical functions which, with respect to death, are of importance in themselves, ie, they constitute death, as opposed to those that are important only as a means to something else, ie, they cause death. Cardiac function is important, but only to support cerebral functions and not in itself. Pallis is making the same point here that I made more generally above. Failure of cardiac activity does not, in itself, constitute death. It is, potentially, a cause of death but not in the constitutive sense required of an acceptable criterion.

The brainstem account

The point I want to make is that this same argument applies, I believe, to the brainstem account. Pallis expresses it as follows: 'If human death is defined as the irreversible loss of the capacity for consciousness combined with the irreversible loss of the capacity to breath spontaneously (and hence to maintain a

spontaneous heart beat) the death of the brainstem will be seen to be the necessary and sufficient condition for the death of the individual' (6).

Supplementing this view is the one expressed by Gillon in an editorial in this journal: '... if a human person is necessarily a unity of consciousness and body, and if consciousness (and a capacity and potential for consciousness) has ceased to exist, then the human person has ceased to exist' (7).

Crucial to both expressions is the conjunction of consciousness together with integrating functions as the two constituents of human existence, both of which have their seat in the brainstem. Although I would take issue with this view because of the dualism that it embraces, for the purpose of this discussion I want to focus on just the matter of cause versus constituent part as a way of sorting through criterial candidates (8).

Although the brainstem provides important support for consciousness, it does so only causally and not as a constituent. Just as in Pallis's own example of the 'heartless' Barney Clark, a patient with an infarcted brainstem may do well enough, ie, be alive, on a respirator and in intensive care. It is true that the reticular activating system (RAS) does exercise control over consciousness, but, like the heart, its importance lies in the support that it provides to another structure, the cortex, and not in itself. Cortical failure is a constituent part of death while RAS failure is merely one of its many causes. In this regard failure of the RAS is the same as cardiac failure in that it causes but does not constitute death. But, in another regard, it is not even as closely connected to death as is cardiac failure. When the heart stops, autolysis soon destroys the cells of the cortex. In the absence of the RAS, the cortex, intact, just never gets turned on. Although it is unlikely that the cortex could get turned on via a different circuit that bypassed the RAS, as long as it remains intact as the seat of consciousness, the possibility remains, if only as a theoretical one.

A mindless organism

The other half of this pair, the integrating functions, for example, neuroendocrine control, do actually constitute much of '... the human organism functioning as an integrated whole' (7). What this means is that when the brainstem – exclusive of the RAS – fails, this failure gives us what we mean when we speak of the failure of the organism as a whole. The only way in which one could argue, however, that the destruction of the brainstem constituted death would be by defending a straightforward brainstem *definition* of death in which the material content of the definition promoted just these integrating functions. This would mean that the absence of these functions alone would give us what we mean when we say that a person is dead. That is, I believe, manifestly false. What these integrating functions

constitute is a mindless organism – nothing recognizable as a human being (9). In summary, both components of the brainstem account fail because of requirements of the relationship between criteria and definition. The failure of the RAS causes but does not constitute the irreversible loss of consciousness and while the loss of the integrating function does indeed constitute the destruction of the organism's functioning as a whole, the absence of those functions does not make up the death of what is recognizably a human being.

Startling claim

In a very different area of the same conceptual arena, David Cole makes the rather startling claim that the ordinary concept of death is the concept of a reversible state. In an article entitled 'The reversibility of death' he argues against what he calls the strong construal of irreversible: 'The first construal of irreversibility, on which it is for all time and not relative to the present, has the counterintuitive consequence that one cannot possibly come back to life. Death is defined as irreversible for once and for all – but this surely conflicts with the ordinary concept' (10).

I confess to intuitions totally opposed to the ones had by Mr Cole. Consequently, if we are to avoid gridlock, we need to find something other than our respective hunches. One of the things that makes this resolution difficult is Cole's conception of the 'ordinary concept' of death. Concepts which require support by divine, presumably omnipotent intervention, or 'esoteric' (magic) techniques seem to me far from ordinary. Because they are extra-ordinary or miraculous occurrences, they are the sort of concepts to be contrasted with rather than illustrative of ordinary ones. Perhaps what misleads Cole is the fact that these unusual ideas are sometimes entertained by very ordinary people. If, however, an idea violates both the laws of logic and nature, then, even if it is entertained by a large number of otherwise very ordinary folk, it remains, nonetheless, an extra-ordinary concept. The idea that death might be reversible violates the laws of both sorts.

Simply because we commonly believe that death is not reversible does not mean that all talk of 'reversibility' is always out of place. Everyone accepts the fact that we are able to reverse the dying process in a large number of patients whose cases would have been viewed as hopeless in the past. Reversibility can be sensibly discussed without having to revert to magic, science fiction, or divine intervention. Clearly it is a relative, context-dependent term, whose proper application will vary according to the conditions that obtain at the time. But the conditions whose reversibility may be argued are not now and never have been, the conditions that *constitute* death. Even though in the past there was nothing to be done to save a patient's life after

having suffered, for example, a cardiac arrest or kidney failure, the patient was, at the time of the failure, dying and not dead. What could have been reversed was not, strictly speaking, death but rather the dying process (11).

Death does not occur, however, until that process has been fully completed. Only then do we properly say that the patient is dead. Even though, at an earlier point, it would have been correct to say of a dying patient that her condition was irreversible, meaning that there was no longer any medical option available to reverse her dying, when it is now said, at the moment of death, it has a very different use and a very different type of supporting argument. Whether or not a dying process is reversible is always an arguable issue, depending on who and what is deemed appropriately available. After that process has come to its natural conclusion, however, and the patient is dead, the use of the word 'irreversible' rests on a matter of definition. The 'irreversibility' of the dying process is a matter of the empirical facts of the patient's condition relative to available capabilities and goals of those present. All of these factors make judgments of irreversibility contingent and thus, even when entirely true, subject to denial without fear of formal contradiction.

A conditional statement

A part of what makes this confusing is the apparent absolute finality and certitude involved in saying that death is, by definition, irreversible. No real, empirical certitude, however, is a part of that claim. What follows as a matter of logic is a conditional statement. I.e, if someone has been properly pronounced dead, then it is logically impossible for his condition to be reversed. No matter of fact follows from this. It merely means that if someone has been pronounced dead, and if, *mirabile dictu*, that person then rises up and asks to see the morning paper, it follows, as a matter of logic, that the pronouncement of death was in error. Whether or not such an event is reasonable or just silly, medically possible or entirely improbable is an entirely different issue having nothing to do with the matter of logic.

Tom Tomlinson also takes David Cole to task for his view on irreversibility, but does so, in my opinion, for some questionable reasons. Tomlinson gives the following argument: 'I believe that Cole gets off on the wrong foot by assuming that "death" is essentially and solely an ontological category rather than irreducibly an ethical one as well. Let's restore that ethical perspective by asking a question that Cole never tries to answer: Why would anyone think that the determination of death should be the determination of the irreversible?' (12).

Restoring an ethical perspective means, apparently, recognizing the enormous changes that occur in our moral relationship to the patient when his condition changes from being ill to being dead. We

no longer need to be concerned about, for example, his treatment needs, as they cease when he does. Although it is important to recognize that the body of a former patient has a different moral status from what it had when the patient was ill, it does not follow that the determination of the corpse's irreversible condition is to be established by any sort of moral insight.

Tomlinson's argument is the following: 'Thus, if death has these ethical implications for the demise of our obligations to the deceased, [then] its determination must include a judgment of irreversibility sufficiently secure to warrant the ethical judgments that follow' (13). My objection to this statement is not because, viewed as discrete claims, I believe any of its components to be false. My objection arises because I believe Tomlinson to be saying that the antecedent of the above conditional provides sufficient reason for believing in the truth of its consequent. In other words, death must be irreversible because of the radical change that occurs in our moral relationship once it has been established.

Whether or not a patient's condition is irreversible is in no way a function of the moral consequences that would follow! That these consequences would have to be rejected should this condition turn out not to be satisfied, is enough to cause us to look carefully at a position such as Cole's. But the statement: 'Death is irreversible because if it were not we would be wrong in neglecting the interests of the corpse' is a non sequitur. The issue with Tomlinson is not whether or not death is reversible. The issue is what constitutes a good reason for saying that it is. My point is that unpalatable moral consequences are not, in themselves, a good reason for drawing a conclusion about a statement whose foundation rests unassailed in both fact and language. We might just as well argue that because the organs are so badly needed we will just say that the patients are dead! No one would seriously propose a utilitarian theory of truth.

Tomlinson makes the preceding argument within the context of explaining a protocol developed by the University of Pittsburgh (14). This protocol allows for organs to be harvested from a previously inaccessible group of patients, the non-heart-beating cadavers. It contains, however, some disturbing procedures which raise questions about whether or not the patient is dead at the point at which the surgeons open him/her up to remove the organs. The requirements of the protocol reported in the literature are these. 'For certification of death, the prompt and accurate diagnosis of cardiac arrest is extremely important. Procurement of organs cannot begin until the patient meets the cardiopulmonary criteria for death, i.e, the irreversible cessation of cardiopulmonary function' (15).

Irreversible cessation

Youngner and Arnold go on to say that: 'The protocol specifies that irreversible cessation of

cardiac function will be demonstrated when pulse pressure is zero (as measured via femoral arterial catheter) and when the patient is apneic and unresponsive and has one of the following electrocardiographic criteria: (1) 2 minutes of ventricular fibrillation; (2) 2 minutes of electric asystole (ie, no complexes, agonal baseline drift only); or (3) 2 minutes of electromechanical dissociation' (16).

The preceding determinations are made in the operating room so that after the two-minute waiting period, the patient's chest can be opened up and his organs removed before warm ischaemia has caused a problem. Tomlinson says of such a procedure that: 'An essential element of the present context is that the non-heart-beating donor under the Pittsburgh protocol has volunteered to donate organs only after having exercised his right to refuse any further life-prolonging treatments aimed at resuscitation from cardiopulmonary arrest. To refuse to withdraw the life prolonging respirator therapy or to institute other life prolonging treatments would be a violation of the donor's wishes and of his rights, and so not ethically acceptable' (17).

Active, voluntary euthanasia

I have no problem with Tomlinson's argument. It seems to me to be appropriate, sound, and sufficient to do the job of justifying the procedure. Even though, however, I am persuaded by it, I take serious exception to his analysis of what the argument is being applied to. What this argument justifies is active, voluntary euthanasia. These patients are alive. As long as there are no serious doubts about the medical possibility of reviving these patients after two minutes of asystole (18), the condition of these patients is clearly reversible, and therefore cannot constitute death. This follows as a matter of logic from the accepted definition of death together with the fact of their reversibility.

Continuing the case for the Pittsburgh group, Youngner and Arnold observe that: 'There is little discussion in either the President's commission report, *Defining Death*, or the report of its medical consultants, *Guidelines for the Determination of Death*, regarding what is meant by irreversible' (19).

It is true that there is absolutely no discussion in either of those publications about the meaning of 'irreversible', but that is because, in all likelihood, no one ever dreamt that there might be anything to discuss! 'Irreversible' is a common term in ordinary language whose meaning is straightforward, unambiguous, and on the tip of everyone's tongue. It means, not reversible, that is, not capable of being reversed or reversing (20). The conclusion that the patients in this protocol are not dead then follows, as a matter of logic, from the definition of death as an irreversible state together with the assumption of fact that their condition is reversible.

Although it is true to say that these publications never discussed the meaning of the word 'reversible', it is also true that they devoted almost all of their attention to a determination of the conditions under which one could make an actual diagnosis of irreversibility. It would be a serious misrepresentation, therefore, to imply that they neglected such an important issue. Quite the contrary, they focused on the only aspect of the issue which is important and that is a determination of the actual conditions under which a diagnosis of irreversibility can be safely made.

The sense of reversible invoked in the protocol is something like 'auto-reversibility' meaning, I believe, the capacity of the patient, unaided by any outside support, to reverse his own condition. Tomlinson says: 'The procedures then go on to specify how this "irreversible" cessation will be determined – namely by a set of tests designed to determine that the cessation would be irreversible by auto-resuscitation' (21).

It is important at this stage to be very careful about what is at issue. Mixed up in this protocol are some very powerful moral arguments about what is most important, appropriate and proper to do. None of these are being criticized here because the point is that none of them is relevant. At this stage we are engaged in a factual process of classification, ie, do we have before us necessary and sufficient reasons for saying that the patient is no longer dying but is now dead? The answer is absolutely, no! Surely no one would seriously argue that the condition of a patient, two minutes post-arrest, who is unable on his own to return to a normal rhythm, is, *ipso facto*, dead. If that were true then we should now refuse CPR on similar patients because they are dead! This is not to be confused with the reasonable claim that in similar cases such patients should not get CPR because they are the subjects of Do Not Resuscitate (DNR) orders. The issue here is not whether there are persuasive reasons to resuscitate them but whether or not they are dead. If we continue to insist that they are dead, then we have by dint of this small piece of verbal legislation, ie, by interpreting 'irreversible' to mean 'not-auto-resuscitatable', vastly increased the pool of potential organ donors to include everyone who, without medical assistance, is going to die! The meaning of the word 'reversible' is clear and is clearly not the same as 'auto-resuscitatable' (22).

The difficulties with this protocol do not stop with just the ill-advised analysis of 'reversible' (23). There are difficulties in the manner in which they speak about the cardiopulmonary criteria. These difficulties are not, however, the special creation of this particular protocol. They are another example of the loose ends that the President's Commission did not tie up (24). There is no supporting argument that would allow one to flip-flop between cardiopulmonary and neurological criteria of death, as though either one would do the same job just as well as the other. What might have been merely a

theoretical annoyance when the *Guidelines* were published and the Uniform Determination of Death Act was promoted has become, with the development of the Pittsburgh protocol, a serious issue.

Crucial factor

One crucial factor in evaluating an anatomical region as a potential criterion of death is its relationship to the definition. If we accept 'the irreversible loss of integrating function' as the definition of death, then 'the irreversible destruction of the brain as a whole' and 'the irreversible destruction of the cardiopulmonary system' have two very different relationships to the definition that they are supposed to instantiate. As I argued earlier, satisfaction of the neurological criteria, gives us, in itself, a condition that constitutes death. As Pallis correctly argued earlier, satisfaction of the cardiopulmonary conditions does not do that. It merely sets into motion a series of events which, all other things being equal, result in 'the irreversible loss of the integrating function' (5). The difficulty with the Pittsburgh protocol is that it jumps into the middle of the dying process and so prevents all of the other things from ever becoming equal. Normally, if a DNR patient has a cardiac arrest nothing is done so that the lack of blood-flow to the brain begins its irreversible destruction. But it takes time, and until it has happened the patient is not dead but dying. Practically, in an ordinary clinical situation, the patient would be dead soon enough. Because of the difficulties of warm ischaemia, the conditions of organ harvesting are not normal, and the surgeons open him up before he is dead. A cardiac arrest is a good predictor of death. It fails, however, as a criterion of death because its occurrence does not give us what we mean by death. It is a mistake therefore to declare these patients dead by either criteria – neither neurological nor cardiopulmonary will do the job.

Acknowledgement

I would like to thank my colleague and fellow instructor Stewart Youngner, MD and the students of Case Western Reserve University School of Medicine for providing the occasion and stimulus for this paper. The inspiration is theirs and the errors mine.

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References and notes

- (1) Bernat J L, Culver C M, Bernard Gert. *Annals of internal medicine* 1981; 94: 389–394.
- (2) Evans D W, Hill D J. *Catholic medical quarterly* 1990; 4: 113–121 and, same authors. *Critical care medicine* 1991; 20: 1705–1713.
- (3) Bartlett E T, Youngner S. Human death and the destruction of the neocortex. In: Zaner R, ed. *Death: beyond whole brain criteria*. The Netherlands: Kluwer Academic Publishers, 1988: 205 ff for discussion of locked-in syndrome.
- (4) See reference (1): Gillon: 390.
- (5) Pallis C. *Journal of medical ethics* 1990; 16: 11.
- (6) See reference (5): 10. See also Pallis C. *British medical journal* 1983; 285: 1409–1412. See also, Gillon R. *Journal of medical ethics*, 1990; 16: 3–4.
- (7) See reference (6): Gillon: 4.
- (8) If the structure of the claim is really that of a conjunction, then that conjunction will fail (ie, the person will be dead) if only one conjunct is false even though the other one remains true. So, on this view, either the irreversible loss of consciousness or the loss of integrating function would be sufficient for a diagnosis of death. This is not what the brainstem folk are after. What they want is for the standard for declaring death to be both the irreversible loss of consciousness and integrating function together. For that to work, however, the definition of death would have to be disjunctive. Ie, human death would be either irreversible loss of consciousness or integrating function. It seems to me, however, that there are persuasive reasons for rejecting the integrating function.
- (9) See reference (3): 207 ff. Bernat *et al* do come close to subscribing to this view when they deny that 'persons' die. What dies, they argue, is some kind of organism. See reference (1): 390.
- (10) Cole D J. The reversibility of death. *Journal of medical ethics*, 1992; 18: 28.
- (11) If there is one key to unlock the variety of confusions in Cole's arguments, it is his failure clearly to differentiate between what is true about dying from what is true about being dead. I think that this distinction traces back to the admonition by Bernat *et al* to distinguish between criteria and definitions. See, for example, reference (10): 27: 'But were the world to change in certain ways, death might become both avoidable and reversible'. The avoidable and reversibility of death depend on two vastly different sets of circumstances.
- (12) Tomlinson T. *Kennedy Institute of Ethics journal* 1993; 3: 161.
- (13) See reference (12): 161. And, also 157: "Irreversible" in this context is best understood not as an ontological or epistemic term, but as an ethical one. Understood in that way, the patient declared dead under the protocol is "irreversibly" so, *even though resuscitation by medical means is still possible* [my emphasis].
- (14) Tomlinson T. UPMC policy. *Kennedy Institute of Ethics journal* 1992; pages A1–A15.
- (15) Youngner S J, Arnold R M. *Journal of the American Medical Association* 1993; 269: 2769–2774.
- (16) See reference (15): 2771.
- (17) See reference (12): 162.
- (18) See, for example, reference (12): 157: 'Thus, under the protocol, a patient whose cardiopulmonary arrest might well be reversible by means of standard CPR or other medical means could nevertheless be declared dead for the purpose of organ removal'.
- (19) See reference (15): 2772.

- (20) *Webster's ninth new collegiate dictionary*. Springfield, Mass: Merriam-Webster, Inc, 1983: 1010, entry under 'reversible'.
 - (21) See reference (12): 157.
 - (22) What is very different, and quite reasonable, is to present the lack of 'auto-reversibility' as marking a point at which it would be *morally* permissible to stop medical therapy and to proceed to operate on a dying (thus alive) patient. Clearly this violates the dead donor convention – so be it.
 - (23) It is unclear to me what the relationship is between the rationale actually accepted by the Pittsburgh group and those who write in support of them in the *Kennedy Institute of Ethics Journal*, vol 3, see reference (14).
 - (24) See reference (12): 163–164 for many of the same ideas.
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