

Journal of Buddhist Ethics

ISSN 1076-9005

<http://jbe.gold.ac.uk/>

Buddhism and Death:
The Brain-Centered Criteria

John-Anderson L. Meyer

University of Hawai'i
Email: jalm@hawaii.edu

Copyright Notice: Digital copies of this work may be made and distributed provided no change is made and no alteration is made to the content. Reproduction in any other format, with the exception of a single copy for private study, requires the written permission of the author. All enquiries to: d.keown@gold.ac.uk

Buddhism and Death: The Brain-Centered Criteria

John-Anderson L. Meyer

Abstract This essay explores the two main definitions of human death that have gained popularity in the western medical context in recent years, and attempts to determine which of these criteria — “whole-brain” or “cerebral” — is best in accord with a Buddhist understanding of death. In the end, the position is taken that there is textual and linguistic evidence in place for *both* the “cerebral” and “whole-brain” definitions of death. Because the textual sources underdetermine the definitive Buddhist conception of death, it is left to careful reasoning by way of logic, intuition, and inference to determine which definition of death is best representative of Buddhism.

Buddhism, generally considered, is a belief system that holds as its ultimate aim the elimination of suffering through the cessation of the endless cycle of death and rebirth. The attainment of nirvana, defined by some as “the absolute extinction of the life-affirming will manifested as . . . convulsively clinging to existence; and therewith also the ultimate and absolute deliverance from all future rebirth, old age, disease and death,”¹ is the goal of Buddhism and the outcome of the definitive elimination of all suffering. Central to Buddhism and the attainment of nirvana is the putting to an end of the cycle of rebirth and death; for this reason the exact definition of death would seem to be a topic deserving of close attention. Because death is afforded the importance it is in Buddhism — that is, as indicative of the state of suffering which all non-enlightened beings are forced to endure — it seems only fair to spend some time examining the way death is defined and addressed from within the Buddhist framework. Unfortunately, this topic has been largely neglected by Buddhist scholars, with only a few writing in-depth analyses of what exactly would be classified as a Buddhist definition of death.

The purpose of this essay is to explore the two main definitions of human death that have gained popularity in the western medical context over the past few decades, and to attempt to determine which of these criteria — “whole-brain,” or “cerebral” — is best in accord with a Buddhist understanding of death. Toward this end, it will first be important to give a brief outline of the conceptual work that has been done recently concerning

these distinct definitions of death; this first part of the investigation will necessarily have to take account of what constitutes the “life” of individuals in order to determine what would constitute their deaths. If it can be determined which aspects of humans are of essential importance, it could then be said that the absence of those essential features would represent the death of the individual. Part II will give an overview of the few attempts that have been made by van Loon, Keown, and Mettānando to place Buddhism within one of these definitional camps. In the end, the position will be taken that the subject is not nearly as clear-cut as some seem to think, and that there is textual and linguistic evidence in place for *both* the “cerebral” and “whole-brain” definitions of death. Part III will devote itself to an examination of this evidence and attempt to show that the consciousness/cerebral formulation of death cannot be so easily pushed aside. I will first focus on attempting to draw attention to alternate conceptions of death as they pertain to Buddhism and to show that the “cerebral” formulation, which places the volitional (*cetanā*) aspect of human consciousness at the forefront, is at least as valid an interpretation of Buddhist teachings as is the permanent loss of integrated bodily functioning required under the “whole-brain” formulation of death. Finally, in part IV, I will attempt to show that, because the textual sources underdetermine the definitive Buddhist conception of death, it is left to careful reasoning by way of logic, intuition and inference to determine which definition of death is best representative of Buddhism.

I. Redefining Death

Traditionally, in most of the Western world, death has been determined by the irreversible cessation of cardiac function and its attendant cessation of respiration. Even today, one can still hear it said that a person “was dead” when referring to someone whose heart had stopped (due to trauma or heart attack) and was then restarted by some resuscitative means. The presumption of this formulation has been that it was the integrated functioning of the whole organism — as evidenced by a working circulatory system — that constituted life, and the cessation thereof that defined death. However, in these modern times of ventilators, heart-bypass machines, and the ability to keep people’s bodies functioning long past the point where such functioning otherwise would have ceased, it becomes increasingly important to come to a finer definition of death than a simple “circulatory” model can provide. For this reason, two new theories have been put forward that center the debate on the function of the brain foremost, and — in one case — on the

functioning of the rest of the body only secondarily as an indicator of the successful functioning of the brain itself.

Whole-brain death

One way in which theorists have attempted to reconcile our understanding of death, with the possibilities of prolonging the life-essential organic processes by mechanical means, is by suggesting that “heart and lung function have always been central to the determination of death because of their connection with brain function rather than because of a perception of the intrinsic importance of their own functions.”² The motivation behind this assertion is the desire to move toward a focus on the centrality of the brain as an organ whose role it is to ensure the proper functioning of the organism while still maintaining the overall traditional importance of the circulatory system. This move, however, is not all together convincing on its own, because there is a great deal more to bodily functioning than simply the circulatory operations of the heart and lungs. Indeed, Lawrence C. Becker has asserted that

A human organism is dead when, for whatever reason, the system of those reciprocally dependent processes which assimilate oxygen, metabolize food, eliminate wastes, and keep the organism in relative homeostasis are arrested in a way which the organism itself cannot reverse. It is the confluence of these and only these conditions which could possibly define organic death, given the nature of human organic function. Loss of consciousness is not death any more than the loss of a limb. The human organism may continue to function as an organic system.³

According to the view espoused by Becker, the primary function of the brain is to monitor and control the various functions of the organic human body to which it belongs — so long as the “system” of the body is functioning, death has not occurred. Importantly, there is no caveat here that the functioning of the organism be necessarily spontaneous; assistance in functioning, such as that provided by modern ventilators, does not compromise the life-status of the individual. Becker and others⁴ do not see consciousness *per se* as of any importance in determining human death because consciousness has nothing to do with the actual functioning of the organism as a whole. Accordingly, these scholars have moved to define death strictly in terms of brain-stem death, because it is the brain stem that is responsible for the regulation of the basic somatic and systemic functions of the organism.

Death for the brain-stem (or “whole-brain”) theorist consists in the “irreversible cessation of integrated functioning by the organism as a whole,”⁵ with the understanding that such integrated functioning is the sole result of the appropriate functioning of the brain-stem; without a properly working brain-stem, the organism will not function in an integrated manner, and can thus be considered dead.

Cerebral death

An alternate conception of death can be found amongst those theorists who have asserted that while the persistence of mere vegetative organic functioning — as that required by the whole-brain proponents — may count as a necessary condition for a individual’s being alive, this functioning is by no means *sufficient* therefor. The assertion under this alternate view is that “continuation of respiration and circulation are no longer unambiguous signs of life, so organismic functioning per se is no longer a clear sign of life; and that the irreversible loss of the capacity for consciousness is directly pertinent to the decision that someone has died.”⁶ If organic function alone is not sufficient for life, some alternate essential aspect needs to be located: consciousness. According to Green and Wikler, two proponents of a consciousness-based definition of death,

The fact that the lower brain is the element in the system which keeps other elements acting as a system does not make its continued functioning essential. It is still one among many organs, and, like other organs, could conceivably be replaced by an artificial aid which performed its function. . . . When the lower brain’s job is performed by these substitutes, the body’s life-system continues to function as a system.⁷

If the role the brain plays in maintaining the functioning of the organism is not in fact even necessary — because such function could conceivably be carried out by artificial means — then there is no good reason, according to this argument, to treat the brain any differently than we would treat any other organ the function of which could be fulfilled by artificial means. Under this view, the mere regulatory role the brain happens to play should have no bearing on the determination of death, because these base regulatory functions could in theory be performed by external mechanical or pharmacologic devices.

In an attempt to move further away from the mere organic functioning of the organism as being the essential aspect of life, some have argued that the

death of a human being should be thought of as the “death of the person.”⁸ The *person* being defined here by means of the presence of consciousness, consciousness by this formula is the *sine qua non* of personhood:

As a first approximation, we can say that enough of the brain must survive in order to retain the capacity for supporting consciousness and mental activity. The emphasis here is on capacity.⁹

And further,

The continued existence of the mind, and thus of the self, consists in the survival of enough of the cerebral hemispheres to be capable in principle, or in conjunction with relevant support mechanisms, of generating consciousness and mental activity.¹⁰

Clearly, under this “cerebral” understanding of death, it is entirely possible for a *person* to die while the base organic functioning of the body is still ongoing. The essential aspect for human life under this definition of death is the *capacity* for mentation and conscious activity. In the absence of consciousness — or at least the capacity therefor — the person, as represented by that consciousness, has ceased to exist in any real continuous way, and can therefore be pronounced dead.

Now that a basic outline of the various popular definitions of death has been briefly presented, it becomes necessary to examine the several approaches that have been employed to reconcile the “whole-brain” versus the “cerebral” conceptions of death with Buddhist teachings. Unfortunately, there is no clear-cut Buddhist doctrine spelling out precisely what it is that constitutes death, and so scholars have been forced to examine the various canonical texts from the starting point of the two competing definitions of death just outlined.¹¹ Both the “whole-brain” and “cerebral” formulae each have their proponents from within Buddhist scholarship. Part II will examine the various arguments made in favor of each.

II. Buddhist Arguments

While few writers have directly addressed the question of a Buddhist definition of death, three authors, Louis van Loon, Damien Keown, and Mettānando have taken up the challenge. Van Loon supports the cerebral/consciousness definition, while both Keown and Mettānando prefer the “whole-brain” formulation. This part of the investigation focuses on the reasons given by both

camps for their support of their preferred definition of death. First, however, it is important to outline what, for the Buddhist, counts as humanity.

Keown, expounding the doctrine of the five *skandhas* as taught by the Buddha, points out that there are five categories in terms of which human nature can be examined:

- 1) Form (i.e., the physical substance of the body)
- 2) Feeling (i.e., the capacity to respond affectively to a stimulus)
- 3) Thought (i.e., the capacity to discern, discriminate and conceptualize)
- 4) Character (i.e., the particular tendencies, traits and habits which define people as the individuals they are; the long-term implications of character are what Buddhism means when it talks about “*karma*”)
- 5) *viññāṇa* (a term which Keown prefers to leave untranslated; “sentience” and “consciousness” are two terms often used to translate *viññāṇa*; it is by virtue of *viññāṇa* that we have bodily sensations, that we see, hear, taste, touch and think).¹²

According to this categorical analysis, “human beings are constituted by (1) a physical bodily organism which has the capacity to (2) feel and (3) think. The individual use made of these capacities leads to the formation of (4) particular habits and dispositions which distinguish each person as the individual they are. Although feeling and thought define the architecture of experience, it is (5) *viññāṇa* which constitutes it.”¹³ One factor that is of great importance to this investigation, but which is ignored to a certain extent by Keown, is the dependence of *viññāṇa* on the will (*cetanā*). According to W. S. Karunaratna’s article in the Pali Text Society’s *Encyclopedia of Buddhism*, “*viññāṇa* arises and functions only as a collection of a number of causal factors. . . . Among these factors the most dominant is the will for it is specifically stated that *viññāṇa* becomes active only in so far as it is prompted by the activity of the will.”¹⁴ It is based on this perceived importance of *cetanā* as volition that van Loon bases his conception of a Buddhist definition of death.

Van Loon: The cerebral criterion

Van Loon, in proposing that Buddhism ought to accept the cerebral or “cognitive” definition of death, draws largely from the evident importance of *cetanā* in determining human life. Accordingly, he holds that “volition

death” or the death of the “person” due to cessation of the capacity for conscious thought is tantamount to human death. He proposes that “the Buddhist would like to see death defined as the stage where a patient has experienced ‘volition death’ — when he has ceased to exist as a human person, which generally occurs upon the irreversible failure of his cerebrum.”¹⁵ Such “personality death” takes place when the higher cognitive, volitional capacities of the cerebellum have been “irretrievably lost or destroyed beyond repair.”¹⁶

Van Loon clearly places a great deal of importance on *cetanā* which plays a distinctive role in volition generally, and in making moral choices in particular. Indeed, the moral importance of *cetanā* is clearly shown by various Buddhist sources which state that “*cetanā* is *karma*.”¹⁷ It is unfortunate, as Keown points out, that van Loon does not proffer any textual evidence in support of his belief that Buddhism is in accord with the cerebral definition of death he espouses. In an effort to debunk van Loon’s view, Keown goes to great lengths to show that there is more to being human than simply *cetanā*, and further, that there is no reason to afford more weight to the importance of *cetanā* over and above the several other aspects of humanity that Keown sees as important to Buddhism.

Keown and Mettānando: The “whole-brain” criterion

Keown, following Mettānando, dismisses the cerebral criterion supported by van Loon, and turns instead toward the “whole-brain” definition of death as being more in line with Buddhist doctrine. In an effort to support his position — while simultaneously undermining van Loon’s — Keown sets out to determine what, according to Buddhism, distinguishes a living body from a dead one. Toward this end, he cites his own translation of two passages — the first from the *Saṃyutta Nikāya* and the second from the *Majjhima Nikāya* — which deal directly with the three elements that distinguish a living body from a dead one:

When three things leave the body — vitality (*āyu*), heat (*usmā*) and consciousness (*viññāṇa*) — then it lies forsaken and inanimate (*acetanā*), a thing for others to feed on.¹⁸

How many things, your Reverence, must be absent from the body before it lies forsaken and cast aside, inanimate (*acetanā*) like a piece of wood? Your Reverence, when three things leave this

body — vitality, heat and consciousness — then it lies forsaken and cast aside, inanimate like a piece of wood.¹⁹

The importance Keown sees in these passages is in the fact that there does not seem to be any particular preference of importance to any of these three factors for distinguishing between life and death. Given these passages, as Keown has translated them, it seems that to put undue weight on any one aspect of life (as van Loon appears to do by focusing on the volitional aspect of humanity foremost) is to misunderstand the primary doctrinal sources, and to misrepresent Buddhist beliefs.

Keown latches onto the idea of the tripartite composition of human life with *viññāṇa*, vitality, and heat as the three essential elements. *Viññāṇa* is discussed elsewhere as being the “cause, the ground, the genesis, and the condition of mind and body,”²⁰ but in the passages cited above, it is but one of three elements, all of which — according to Keown — are of equal import; heat and vitality also need to be present if a body is said to be alive. Vitality and heat appear to be dependent on one another for their existence such that one will not be present without the other. Indeed, Keown cites the *Majjhima Nikāya* as saying that heat depends upon vitality in just the same way as, with a burning oil lamp, “the light is seen because of the flame, and the flame is seen because of the light.”²¹ So, the only empirical test that Keown believes ancient Buddhists would have used for determining whether an individual was alive or not was the body’s heat.²² This vitality (*āyu*), which is indelibly linked with heat, is also equated with *pāṇa* (literally “breath,” but “life” by extension), the life-faculty that is closely related to the functions of the brain-stem in humans. The intersection of *pāṇa* and vitality is identified by Keown by the fact that *pāṇa* regulates the basic biologic processes of life. The essential role that *pāṇa* plays in human life is “the coordination and integration of the basic organic processes which sustain life.”²³ It is for this reason that Mettānando — and Keown after him — liken *pāṇa* to the brainstem:

Thus, from the point of view [of] treatment, death occurs in two stages: (1) the irreversible departure of high-level consciousness and (2) the cessation of the physical function. The first case, the irreversible loss of high-level consciousness, is something we often refer to as ‘brain death’. When patients enter a coma or are otherwise permanently unconscious . . . consciousness has withdrawn inside the physical body. . . . Thus the patient is still conscious in an interior sense. This withdrawn state

of consciousness is invisible to doctors and onlookers, although it remains evident in the involuntary nervous system, including breathing and all the reflexes. . . . The condition of the patient may be called (cortical) ‘brain death,’ but all indications show that the brainstem remains intact and functioning. . . . When no brainstem function is present, the artificial respirator no longer gives life support, and we are inflating and deflating the lungs of a corpse, because *prāṇa* has gone and the consciousness has departed for a new existence.”²⁴

Here a clear distinction is made between the cerebral and whole-brain formulations of death. According to Mettānando, the fact of cerebral — or “volitional” death, to use van Loon’s terminology — is nothing more than an indication that the consciousness has retreated deep inside the physical body and is no longer able to exert control. This is *not*, however, death in any important sense. Under Keown’s and Mettānando’s formulation, true death will occur only when the whole brain, specifically the brain-stem, has ceased to function, for it is only then that all three — *viññāṇa*, heat, and vitality — will have left the body: *pāṇa* will have gone, and consciousness will have departed for its next existence.

This part of the paper has attempted to give a basic outline of the two positions that have been argued for concerning a Buddhist definition of death. It will no doubt have been noticed that there was substantially more textual evidence in support of the position held by Keown and Mettānando, that whole-brain death is the only conception of death in accord with Buddhist beliefs. Keown, as has been noted, dismisses van Loon’s argument outright primarily because van Loon does not marshal any textual support for his “volition death” position. While Keown’s argumentation is based on a philologically defensible position, it is not the only such position; the next part of this paper will devote itself to an attempt to bolster van Loon’s hypothesis by showing that there is indeed textual support for the assertion that “volition death” or death of the “person” is an accurate account of the Buddhist conception of death.

III. “Volition Death” Reconsidered: The Importance of *cetanā*

According to Buddhagosa in his commentary on the Monastic Rule, four authorities can be appealed to in questions of Buddhist protocol and belief. They are,

- 1) Scripture itself
- 2) That which is “in conformity with scripture”
- 3) The commentarial tradition
- 4) Personal opinion.²⁵

Keown and Mettānando have relied heavily on the first two of the authorities by referring to multiple scriptural passages as justification for their positions, and the assertion that whole-brain death is the only definition that would “conform with scripture.” Because there is minimal commentarial evidence pointing either way, if it can be shown that the scriptural support cited by Keown and Mettānando is not as determinative as they believe, then we will have to turn to the fourth authority — that of textually informed personal opinion — to decide the issue.

In this section, various textual references will be discussed which lend support to van Loon’s formulation of a Buddhist conception of death. Because Keown bases his argument against van Loon on two primary scriptural texts, the *Majjhima Nikāya* and the *Samyutta Nikāya*, these same references will be used in my attempt to strengthen van Loon’s position. The overarching theme of this section will be the role *cetanā* plays in human life, and what the lack thereof (*acetanā*) ought to entail.

In the previous section, two passages were quoted which Keown cited as support for his position. For ease of exposition, they will be repeated here:

When three things leave the body — vitality (*āyu*), heat (*usmā*) and consciousness (*viññāṇa*) — then it lies forsaken and inanimate (*acetanā*), a thing for others to feed on.²⁶

How many things, your Reverence, must be absent from the body before it lies forsaken and cast aside, inanimate (*acetanā*) like a piece of wood? Your Reverence, when three things leave this body — vitality, heat and consciousness — then it lies forsaken and cast aside, inanimate like a piece of wood.²⁷

While there is no doubt that Keown’s broad interpretation of these passages is defensible, namely that *viññāṇa*, heat, and vitality are all of great importance to determining life, what is questionable is whether there is not something more being said in the passages above. Notice that Keown translates *acetanā* as “inanimate.” The reason for this is unclear. *Cetanā* itself is defined by multiple sources alternately as “the dominant conative function in mentation”;²⁸ “thinking as active thought, intention, purpose, will”;²⁹ and as “inseparably bound up with all consciousness, namely: sensorial

or mental impression (*phassa*), feeling (*vedanā*), perception (*saññā*), volition (*cetanā*), concentration (*samādhi*), vitality (*jvita*), advertence (*manasikāra*).³⁰ There is no obvious mention of “animation” per se anywhere in the various meanings of *cetanā*. It is unclear, therefore, why Keown chose to translate *acetanā* — literally the *lack* of *cetanā* — as “inanimate” rather than as “without will” or “senseless” as Ñāṇamoli did in his translation of the same passage from the *Majjhima Nikāya*:

Friend, when this body is bereft of how many states is it then discarded and forsaken, left lying senseless like a log?

Friend, when this body is bereft of three states — vitality, heat, and consciousness — it is then discarded and forsaken, left lying senseless like a log.³¹

An alternate translation also supports an understanding quite different from “inanimate”:

Friend, when this body is forsaken, useless and lies lifeless like a log, how many things are thrown out of it? Friend, when three things, life, heat and consciousness, are thrown out, this body becomes useless and lifeless like a log of wood.³²

While it must be admitted that “inanimate” might well describe an organism that is “senseless” or “lifeless,” there are very different things being said in each case: if the organism is inanimate, it is so *because* of its being senseless. The lack of “sense” — and more dramatically “life” — is indicative of a loss of the three factors of *viññāṇa*, heat, and vitality, *not* the lack of “animation.” The importance of the three factors is not in question, what is in question is the importance of *cetanā* itself. It would seem fair to say that if the negation, or lack of *cetanā* (*acetanā*) is used to describe the state wherein all three factors used to distinguish a live body from a dead one are missing (death), then it seems equally fair to assert, as van Loon does, that *cetanā* is more important to human life than Keown or Mettānando are willing to admit. Because *acetanā* is the word used as a synonym for “dead” in the passages that speak of the factors necessary for life, then it would seem that *cetanā* could fairly be understood as synonymous with life itself. This obviously lends considerable support to van Loon’s position.

IV. Personal Opinion: The Last Authority

At the outset of the previous section, it was pointed out that where the answer to a question is underdetermined in the scriptural sources and com-

mentarial tradition, it falls to “personal opinion” to determine the issue. Personal opinion, far from being just any individual’s preference or uncritical sentiment, is defined as “the resolution of the question through logic (*ñāya*), intuition (*anubuddhi*), and inference (*anumāna*) independently of scripture, what is in conformity with scripture, or the commentarial tradition.”³³ This “personal opinion” or “reasoning” factor must, however, itself be in accord with the dictates of scripture and the commentarial tradition. In other words, there cannot be a conceptual divide between scripture and the outcome of reasoning: if the answer provided by reasoning does not conform to the prior — and ultimately superior — authorities of scripture and commentary, it is thought to be the result of a poorly calibrated “moral conscience” and must therefore be abandoned. For the purposes of any investigation of Buddhism, only the results of reasoning that are also in accord with the other authorities are worthy of our attention. With this in mind, and with the evidence provided in Part III — that an exact definition of death is underdetermined by the fundamentalist authorities of the Buddhist tradition — we must turn to reasoning in an attempt to determine which definition of death is the most “Buddhist.”

The various arguments that have appeared in the philosophic and medical literature in the past few decades have centered largely around the question of whether there is some unique aspect of humanity that would warrant the death of a “person” as being somehow different from the death of an organism. As was noted in part I, the two prominent definitions of death — whole-brain and cerebral — are distinguished largely by the importance each places on integrated organic functioning or on the presence of a “person.” In an attempt to determine which of these two is best in accord with the basic beliefs of Buddhism, it will first be important to outline just what some of the arguments for and against these two definitions are, and then to determine which of these positions are best in accord with Buddhist scripture and commentarial tradition in general.

In “The Metaphysics of Brain Death,” Jeff McMahan contends that the whole-brain definition of death “constitutes an unstable compromise between the view that a person ceases to exist when she irreversibly loses the capacity for consciousness and the view that a human organism dies only when it ceases to function in an integrated way.”³⁴ He proposes that, while no one criterion of death will be capable of encompassing the importance afforded both of these understandings of death, nothing prevents us from dualistically distinguishing between the death of persons and the death of organisms, and from treating each as the death of separate entities.

In his book *Death and Immortality*, Roy Perrett takes the opposite po-

sition. While also recognizing the distinction between the cessation of integrated organic functioning and the “destruction of a person,” Perrett does not agree with the legitimacy of the move toward the dualistic conception of death inherent in McMahon’s argument. Perrett proposes, rather, a unitary conception of death: that death be identified with the “destruction [or annihilation] of a functioning biological organism”;³⁵ an important part of his argument centers around the idea that “animals *die*, even if their deaths do not involve the annihilation of any persons. . . . [The whole-brain definition of death], then, captures the concept of death that is neutral to all deaths.”³⁶

Dualism: The death of a person versus the death of an organism

According to McMahon, “much of the confusion in the debate about brain death arises from the failure to understand, or even consider, the nature of the relation that we bear to our physical organisms.”³⁷ Consequently, he proposes that we should understand our unique situation such that a person has an organism (that is, a body) and that all persons exist in a complex relation with their bodies, but are not identical with them. McMahon goes so far as to say that this complex association of person to organism “is true of all beings that possess the capacity for consciousness and mental activity. None of these is identical with its physical organism.”³⁸

Of the several arguments McMahon and others who share his view³⁹ have given in support of his position, the most straightforward addresses the possibility of a person and that person’s organism ceasing to exist at different times. According to this argument, while it may be “normal” for persons to cease to exist coincidentally with the biological death of their respective organisms, it is now quite possible for the person to cease to exist long before the organism ceases to exist, and it is likewise theoretically possible for the organism to die before the person ceases to exist.⁴⁰ In this manner, McMahon believes he has shown that it is not necessarily the case that “we” (that is, persons) cease to exist coincidentally with the death of our organisms or when our organisms cease to exist — because a person can continue to exist after the death of the organism, and because the organism will continue to exist (though probably in a rotting state) long after the person will have ceased to exist. He therefore concludes that,

the fact that a person’s organism can be kept alive after his whole brain has died or ceased to function does not show that

the dominant conception of brain death is not death. It shows that brain death is not equivalent to the death of the organism.⁴¹

McMahon then goes on to specify what about the brain in particular is critical to the existence of the person. Ultimately, he holds that the capacity for consciousness and mental activity is essential to our existence as minds, and as persons. As such capacity is directly linked to the proper functioning of the cerebral hemispheres, he believes that the irreversible loss of function of the cerebrum is sufficient for pronouncing a person dead. For McMahon, then, what is constitutive of one's identity, and hence of personhood, is

the continued existence of enough of the cerebral hemispheres to be capable, in conjunction with relevant support mechanisms, such as those in the brain stem, of generating consciousness and mental activity. . . . The criterion of personal *identity* must therefore be the survival . . . of enough of the cerebral hemispheres to be capable, in conjunction with relevant support mechanisms, of generative consciousness and mental activity.⁴²

In the absence of the survival of enough of the cerebrum to be capable of generating consciousness, the person has ceased to exist, and is therefore dead. According to this argument, that the organism is capable of operating in an integrated way has no bearing on the existence of a person, and thus no relevance to the death of that person.

Unity: "Death" as neutral to all deaths

Perrett rejects the dualistic conception of death that is endorsed by McMahon, and instead focuses on the importance of a definition of death that can be universally applied to all organisms. Toward this end, he endorses a definition of death that uses whole-brain death as an indicator of the irreversible loss of integrated bodily functioning.

In his argument, Perrett accepts the ambiguity of the term *death* as it is now used and points out the same distinctions that McMahon also uses: that between (1) the death of the biological organism (that is, the human being), and (2) the death of the associated person. Contrary to McMahon, however, Perrett embraces the former definition in part because it encompasses a conception of death that is neutral to all deaths. Because no special importance is placed on consciousness as such, whole-brain death will count as death for any organism with neurologic processes, because whole-brain death seems to necessarily herald the death of the integrated functioning

of the organism. In situations where there is a nonfunctioning brain stem in humans, any mechanical ventilary support given to facilitate respiration and circulation is merely “inflating the lungs of a corpse.” This conception of death is particularly attractive because it seems to capture death as applicable to all organisms with even rudimentary neurologic processes; the presence of these properly functioning somatic processes is a necessary condition for the integrated organic functioning of the organism as a whole. Indeed, this position has been supported by the medical literature where it has been said that even though there are mechanical means that can aid, for a short time, the processes of respiration and circulation, this type of function does not necessarily denote integrated functioning of the organism as a whole. It has likewise been pointed out that,

when evidence is cited to show that, despite the most aggressive support the adult heart stops within a week of brainstem death and that of a child within two weeks, one is not marshalling empirical support for a *prediction* of death. What is being said is that a point has been reached where the various subsystems lack neurological integration and their continued (artificial) functioning only mimics integrated life. That structural disintegration follows brain death is not a contingent matter; it is a necessary consequence of the death of the critical system. The death of the brain is the point beyond which other systems cannot survive with, or without, mechanical support.⁴³

If it is true that the death of the brain stem does indeed necessitate the complete lack of integrated organic functioning, then this position seems strong. While it does tend to ignore the importance others desire to place on the person, the whole-brain definition has the more general appeal of being universally applicable. Unfortunately for this theory, however, recent findings have caused some in the medical community to doubt that even a properly functioning brain stem is the *sine qua non* of integrated organic functioning.

In a direct attack on the popular belief outlined in the passage referenced above, D. Alan Shewmon has presented data which contradict the “evidence” that has been touted for decades as showing that an adult human with a nonfunctioning brainstem could survive for a “few days at most.” According to Shewmon, this dictum has retained its force primarily because of the tendency for hospitals to withdraw treatment, rather than to “systematically attempt to maintain [brain-dead] patients aggressively to determine survival capacity.”⁴⁴ Shewmon has collected data from 175 cases, 56 of

which provide evidence that survival can last considerably longer than the “few days” that most clinicians had believed to be the maximum. Of the cases he analyzed, one-half survived more than a month, nearly one-third more than 2 months, 13% more than 6 months, and 7% more than 1 year, with the record being 14 1/2 years and counting at the time of publication in 1998.⁴⁵ Unfortunately, because of the tendency for support to be withdrawn (in approximately one-third of the total number of cases analyzed) the total data collected actually *underdetermine* brain death survival potential. However, while there was an observed tendency for whole-brain death to predispose the patient to cardiac collapse, among those who survived this initial stage — and whose support was not withdrawn — there was a tendency toward stabilization and the reduction of aggressive treatment: “homeostasis adjusts, hemodynamic status improves, enteral nutrition can be resumed, and overall management simplifies. . . . Such tendency to stabilization seems strong evidence for integrative unity.”^{46 47} In the end, Shewmon concludes that whole-brain death does not necessarily lead to imminent cessation of organic functioning; “at least *some* bodies with dead brains have survived chronically, and many others must have an unrealized potential to do so.”⁴⁸ Thus, if one of the legitimating criteria for the whole-brain definition of death is that it denotes the disintegration of organic functioning, Shewmon’s article casts serious doubt on the accuracy of this understanding.

The result of reason and accordance with Buddhism

In the previous two subsections, reasoned arguments were put forward for defining death either in terms of the whole-brain or merely cerebral types of brain death. Having examined the reasoned opinions for and against each definition, it is now necessary to return to Buddhism and attempt to determine which of these is best in accord with the first two authorities of fundamentalist Buddhist thought: scripture itself, and what is in accord with scripture. In what follows, I will attempt to show that the conception of death embraced by McMahon comes closest to being in accord with the Buddhist understanding of the unique position of humanity and persons as capable of attaining the state of nirvana. While there is something to be said for the position that there is really only one kind of death (that is, that which applies to all organisms), this view, in my opinion, ignores the basic difference between animals and human persons in the Buddhist tradition.

One vital aspect of the Buddhist tradition is the importance placed on the human condition. Only humans are capable of the rigorous exercise that

is required to reach the state where all suffering is eliminated: only humans can enter nirvana. While animals are respected in Buddhism as being just one more, albeit lower, form of existence into which anyone can transmigrate (depending on their *karma*), there is a very important difference between animals and human beings: humans are capable not only of recognizing their own suffering, but of taking steps to eliminate that suffering once and for all; animals are incapable of altering their behavior, and thus are incapable of escape from suffering and the attainment of nirvana. Because humans are in a unique position vis-à-vis the attainment of nirvana, it does not seem out of line to think of a human existence as being different in a fundamental way from all the other possible forms of existence. When viewed in this way, it seems not at all odd to assert that while one definition of death might serve for all other forms of life, a special definition might be required for humanity, and specifically for persons as such. It is just this uniquely personal sort of death that McMahan espouses with his version of the cerebral definition of death. It has been argued by whole-brain theorists that the cerebral definition places undue attention on some special aspect of human beings — who are somehow supposed to be different from all other non-conscious, non-cognizing animals — and that it should therefore be abandoned in favor of a definition that is neutral to the type of organism referred to. It appears, however, that the very privileged position in which a cerebral definition of death places human beings and persons is more in accord with the basic Buddhist conception of nirvana and the possibility of the attainment thereof. Given the importance Buddhism places on the human existence, and the uniquely human capacity to attain nirvana, the cerebral definition of death seems best in accord with Buddhist scripture.

III. Concluding Remarks

The purpose of this essay has been to explore the various definitions of death that have been most popular in the past few decades and to determine which of these is best in accord with Buddhist doctrine. It was shown, through a philological investigation of the work done by Keown, Mettānando and van Loon, that of the two most common definitions of death espoused in modern times — the whole-brain and the cerebral — there is no definitive Buddhist scripture explicitly endorsing one over the other. It was further shown, in accord with Keown's rather fundamentalist understanding of Buddhism, that where scripture, what is in accord with scripture, and the Buddhist commentarial tradition fail to provide an answer, it is the responsibility of

the investigator to determine — through reason — the best answer that would also conform to the edicts of Buddhism generally. I have proposed that, given the existing epistemological evidence against the position held by whole-brain theorists (*viz.* that the death of the human brain-stem is tantamount to the disintegration of all human organic functioning), the cerebral definition of death — as the death of the person — is the more reasonable of the two. Finally, with the understanding that Buddhism places humanity in a unique position among all the possible forms of existence — as indicated by humanity's possibility of attaining the state of nirvana — I believe the cerebral definition of death is not only the most reasonable definition of death for persons, but also the definition most in conformity with general Buddhist doctrine.

Notes

¹Mahathera Nyanatiloka, “*Nibbāna*” in *Buddhist Dictionary*, Ed. Nyanaponika. N.p.: n.p., 1987.

²Karen G. Gervais, *Redefining Death*. (London: Yale UP, 1986), 34.

³Lawrence C. Becker, “Human Being: The Boundaries of the Concept,” *Philosophy and Public Affairs* 4, no.4 (1975):353.

⁴See, David Lamb, “Diagnosing Death,” *Philosophy and Public Affairs* 7, no.2 (1978):144-153.

⁵Jeff McMahan, “The Metaphysics of Brain Death,” *Bioethics* 9, no.2 (1995):94.

⁶Gervais, 42.

⁷Michael B. Green, and Daniel Wikler, “Brain Death and Personal Identity,” *Philosophy & Public Affairs* 9, no.2 (1980):113.

⁸Gervais, 164.

⁹McMahan, 104.

¹⁰McMahan, 107.

¹¹A more thorough outline of precisely which authorities can be appealed to in determining just what a “Buddhist” opinion ought to be will be presented in part III.

¹²Damien Keown, *Buddhism and Bioethics*. (New York: Palgrave, 2001), 23-25.

¹³Keown, 26.

¹⁴W. S. Kaṇḍaṇḍa, “*cetanā*.” *Encyclopedia of Buddhism vol. vi fascicle 1*. Ed. Jotiya Dhirasekera. (N.p.: Gov. of Sri Lanka, 1979).

¹⁵Keown, 144. (citing Louis H. van Loon, “A Buddhist Viewpoint” *Euthanasia* Eds. G.C. Oosthuizen, H.A. Shapiro, and S.A. Strauss, Human Sciences Research Council Publication No. 65 (Cape Town: Oxford UP, 1978), 56-79.

¹⁶Keown, 144 (citing van Loon).

¹⁷“*cetanā*” *Encyclopedia of Buddhism*; “*cetanā*,” T. W. Rhys Davids and William Stede, eds. *The Pali Text Society’s Pali-English Dictionary*. (Chipstead: Pali Text Society, 1925); and “*cetanā*” *Buddhist Dictionary*.

¹⁸Keown, 145 (Trans. of *Samyutta Nikāya* iii.143).

¹⁹Keown, 145 (Trans. of *Majjhima Nikāya* i.296).

²⁰Keown, 72 (Trans. of *Dīgha Nikāya* i.62f).

²¹Keown, 145 (Trans. of *Majjhima Nikāya* i.295).

²²Because of the possibility for deep meditation states wherein all cognitive activity (*viññāna*) ceases for a time, any measurement which tests only for consciousness would necessarily be suspect. (For a discussion of the “state of cessation” and its implications see Paul J. Griffiths, *On Being Mindless: Buddhist Meditation and the Mind-Body Problem* (Delhi: Sri Satguru, 1999).

²³Keown, 151.

²⁴Mettānando, “Buddhist Ethics in the Practice of Medicine.” *Buddhist Ethics and Modern Society: An International Symposium* Ed. Charles Weisun Fu and Sandra A. Wawrytko. (New York: Greenwood, 1991), 205-6.

²⁵Keown, 14.

²⁶Keown, 145 (Trans. of *Samyutta Nikāya* iii.143).

²⁷Keown, 145 (Trans. of *Majjhima Nikāya* i.296).

²⁸“*cetanā*” *Encyclopedia of Buddhism*.

²⁹“*cetanā*” *The Pali Text Society’s Pali-English Dictionary*.

³⁰“*cetanā*” *Buddhist Dictionary*.

³¹Ñāṇamoli trans. *Majjhima Nikāya, The Middle Length Discourses of the Buddha: A New Translation of the Majjhima Nikāya*. Ed. Bodhi. (Boston: Wisdom, 1995), 1296. (emphasis added).

³²Upalavanna, trans. *Majjhima Nikāya*, sutta 43, Metta Net, Sri Lanka

(7/3/02). <http://www.budsas.org/ebud/majjhima/043-mahavedalla-sutta-e1.htm>. (11/29/02). (emphasis added).

³³Keown, 15 (citing VA i.231).

³⁴McMahon, 91.

³⁵Roy W. Perrett, *Death and Immortality*. (Dordrecht: Martinus Nijhoff, 1987), 14.

³⁶Id.

³⁷McMahon, 97.

³⁸Id.

³⁹See, John P. Lizza, "Persons and Death: What's Metaphysically Wrong With Our Current Statutory Definition of Death?" *The Journal of Medicine and Philosophy* 18 (1993): 351-74.

⁴⁰McMahon uses the example of a brain transplant where the person "continues to exist in association with a new body while his decerebrate organism is left to die." (McMahon, 100).

⁴¹McMahon, 101.

⁴²Id., 113.

⁴³David Lamb, *Death, Brain Death and Ethics* (Albany: State U of New York P, 1985), 36-37.

⁴⁴D. A. Shewmon, "Chronic 'brain death': Meta-analysis and conceptual consequences." *Neurology* 51 (1998), 1542.

⁴⁵Id.

⁴⁶Id.: 1542-3.

⁴⁷Shewmon goes on to state that "even in the acute phase, the effort required to sustain most [brain-dead] patients is not particularly extraordinary for contemporary ICU standards. That many actually need much less sophisticated management than many other ICU patients who are nevertheless quite alive argues strongly that the former possess integrative unity to at least the same degree as the latter." (Shewmon, 1543).

⁴⁸Shewmon, 1543

Works Cited

- Becker, Lawrence C. "Human Being: The Boundaries of the Concept." *Philosophy & Public Affairs* 4, no.4 (1975):334-59.
- Gervais, Karen G. *Redefining Death*. London: Yale UP, 1986.
- Green, Michael B., and Daniel Wikler. "Brain Death and Personal Identity." *Philosophy & Public Affairs* 9, no.2 (1980):105-32.
- Kaṇṇaratna, W. S. "cetanā" in *Encyclopedia of Buddhism vol. vi fascicle 1*. Ed. Jotiya Dhirasekera. N.p.: Gov. of Sri Lanka, 1979.
- Keown, Damien. *Buddhism and Bioethics*. New York: Palgrave, 2001.
- Lamb, David. "Diagnosing Death." *Philosophy & Public Affairs* 7 no.2 (1978):144-153.
- - -. *Death, Brain Death and Ethics*. Albany: State U of New York P, 1985.
- Lizza, John P. "Persons and Death: What's Metaphysically Wrong With Our Current Statutory Definition of Death?" *The Journal of Medicine and Philosophy* 18 (1993): 351-74.
- McMahon, Jeff. "The Metaphysics of Brain Death." *Bioethics* 9.2 (1995): 91-126.
- Mettānando. "Buddhist Ethics in the Practice of Medicine" in *Buddhist Ethics and Modern Society: An International Symposium* Ed. Charles Wei-hsun Fu and Sandra A. Wawrytko, 195-213. New York: Greenwood, 1991.
- Ñāṇamoli trans. "Majjhima Nikāya" in *The Middle Length Discourses of the Buddha: A New Translation of the Majjhima Nikāya*. Ed. Bodhi. Boston: Wisdom, 1995.
- Nyanatiloka, Mahathera. *Buddhist Dictionary* Ed. Nyanaponika. N.p.: n.p., 1987.
- Perrett, Roy W. *Death and Immortality*. Dordrecht: Martinus Nijhoff, 1987.
- Rhys Davids, T.W. and William Stede, eds. *The Pali Text Society's Pali-English Dictionary*. Eds. Chipstead: Pali Text Society, 1925.

- Shewmon, D.A. "Chronic 'brain death': Meta-analysis and conceptual consequences." *Neurology* 51 (1998):1538-45.
- Upalavanna trans. "Majjhima Nikaya" in *Metta Net, Sri Lanka* (last updated 7/3/02). <http://www.budsas.org/ebud/majjhima/043-mahavedalla-sutta-e1.htm>. (visited 11/29/02).