



# dialogue<sup>®</sup>

## CONTENTS

The Death of Expressed Personhood: A Neuroscientific Model to Solve Our Greatest Bioethical Dilemmas Sharif Ismail Kronemer, <i>Ohio Wesleyan University</i> .....	1
Metaphysical Explanation and Scientific Laws Aurélien Tonneau, <i>Panthéon-Sorbonne University, Institut d'Histoire et de Philosophie des Sciences et des Techniques</i> .....	10
The Morality of Manipulation Kristin Mize, <i>Franklin College</i> .....	15
Psychological Mara: The Formative Identity of Mara in 100 B.C.E. to 600 C.E. Indian Mahayana Buddhism Tarryl Janik, <i>University of Wisconsin-Stevens Point</i> .....	23
Anxiety, Meditation, and This-Worldly Religious Concerns Oda Storbråten Davanger, <i>Earlham College</i> .....	29
The Phenomenology of Revelation: Fallacy in Anselm's Ontological Argument C. Taylor Sutton, <i>University of Central Arkansas</i> .....	38
A Consideration and Critique of Aristotle's and Augustine's Perspectives on the Political Life Thomas Throneburg Butler, <i>Central College</i> .....	48
Epistemicism and the Problem of Arbitrariness for Vagueness Christopher D. Kyle, <i>Westmont College</i> .....	54
A Unified Theory of Ethics Rashed Ahmad, <i>San Diego State University</i> .....	65
<b>Book Reviews</b> .....	73
<b>Books Received</b> .....	76
<b>Editor's Page</b> .....	78
<b>Awards Page</b> .....	81
<b>Chapter List</b> .....	83

## JOURNAL OF PHI SIGMA TAU

INTERNATIONAL HONOR SOCIETY FOR PHILOSOPHY

OCTOBER 2012

VOLUME 55

NO. 1

# DIALOGUE

DIALOGUE is the official journal of Phi Sigma Tau, the International Honor Society for Philosophy.

## EDITORIAL BOARD

Editor

Steve Barbone

Managing Editor

David E. Gibson

Charlie Huenemann  
Dawn Hutchinson  
Joseph Koterski, S.J.

Ann Pang-White  
Lee C. Rice  
Anne Wiles

DIALOGUE publishes original articles in the entire field of philosophy whether or not the author is a member of Phi Sigma Tau or comes from an institution having a chapter of the Society. Articles are accepted from **undergraduate** and **graduate** students, but not from those whose academic work is completed and who are now teaching.

All manuscripts and books for review should be sent to Dr. Steve Barbone, San Diego State University, 5500 Campanile Drive, San Diego, CA 92182-6044. [barbone@rohan.sdsu.edu](mailto:barbone@rohan.sdsu.edu)

## ADVERTISEMENTS

We shall have limited space available in future issues for advertisements of other scholarly journals and books of general interest to our readers. Advertising rates are available on request from the Managing Editor.

## SUBSCRIPTION RATES

Subscription rates (domestic): \$5.00 for one year, \$3.00 for single issue; foreign rates: \$5.50 for one year, \$3.50 for single issue. DIALOGUE appears in October and April of each academic year: plans for issues to appear quarterly are under consideration. Subscriptions received for a current year are not cancellable.

All checks for subscriptions and business correspondence should be addressed to Dr. David E. Gibson, Humanities, Pepperdine University, 24255 Pacific Coast Hwy, Malibu, CA 90263-4225. Please make all checks payable to Phi Sigma Tau.

## REPRINTS

Original Article Tear Sheets (OATS) for all articles appearing in DIALOGUE are available from: Institute for Scientific Information, 3501 Market Street, University City Science Center, Philadelphia, PA 19104, U.S.A. A pamphlet and order form describing the OATS service is available by writing directly to ISI.

EBSCO Publishing, Inc., whose principal place of business is 10 Estes Street, Ipswich, Massachusetts, 01938-0682, USA, is licensed to disseminate the contents of *Dialogue* in an electronic format.

© 2012 by Phi Sigma Tau

## The Death of Expressed Personhood: A Neuroscientific Model to Solve Our Greatest Bioethical Dilemmas

Sharif Ismail Kronemer

*Ohio Wesleyan University*

**ABSTRACT:** Defining “death” is central to addressing bioethical questions. Brain death is the most prominent legal definition of “death” in the US. Nonetheless, there seem to be notable difficulties with the notion of brain death that makes it inadequate to respond to ambiguous bioethical inquiries. Jeff McMahan aims to mend these limitations by positing a second notion of death: death of personhood. Although intuitive, the death of personhood does not acknowledge contemporary neuroscience research and posits dualist notions which we have good reason to doubt. Instead, a third notion of death is necessary: the death of expressed personhood.

Science and technology offer hope for a better future. They also bring increasingly more complex and consequential ethical questions. A contemporary bioethical branch of philosophy has been founded on the modern medical techniques and technologies that define the 21<sup>st</sup> century. One of the most controversial bioethical debates concerns euthanasia in cases of brain death, coma, and persistent vegetative states (PVS). Political rhetoric, religious retorts, highly emotional cases, and complex ethical distinctions make it difficult to investigate the problem of euthanasia. Understanding the conditions that make up life and the end of life is integral in determining the ethical obligations to a patient. Our current legal system defines “death” as brain death. Yet, our intuition seems to tell a different story. Jeff McMahan argues that brain death is an insufficient theory of death. Instead, McMahan appeals to our intuition with two major criteria for death: the death of the organism and the death of self or person. Indeed, McMahan offers in words what many have felt in cases of euthanasia. These two distinct approaches to defining death – the legal concept of brain death and McMahan’s articulation of two elements of death – pivotally determine our moral directives in cases of euthanasia and often in very different ways.

In this paper, I argue that although McMahan’s criticism of brain death is notable, it does not resolve all the questions about death. Furthermore, I will show that McMahan’s argument for dual criteria for death implicitly posits dualist notions which we have good reason to doubt. Instead, a third definition of “death,” one that acknowledges our intuitions about life and personhood while avoiding dubious features of dualism, is necessary for us to respond to the difficulties of brain death. Finally, the value of this unique understanding of personhood is demonstrated through its application in a range of bioethical dilemmas. Science and its technological tools have raised menacing bioethical questions. Likewise, they can solve these queries responsibly by applying the philosophy of ethics to scientific research.

### Brain Death

Early definitions of “death,” or traditional definitions, hypothesized that life and death hinged on the operation of the cardiac and respiratory systems. Today, section one of the Uniform Determination of Death Act states that death is “the irreversible cessation of all functions of the entire brain, including the brain stem” (3). This legal definition of death has been adopted by most states and has gained



support from neuroscience research beginning in the 1960s and 1970s that revealed a strong correlation between the brain and bodily function (McMahan). According to this theory, persons are indistinguishable from their bodies. Implicit in this view is that unconsciousness is the cessation of personhood and, therefore, is death. In other words, when the body dies, personhood is extinguished simultaneously. A theory of brain death differs from traditional theories of death because it defines life and death through the processes of the brain instead of other vital organs like the lungs and heart.

Those who support brain-death definition include Charles M. Culver and Barnard Gert, who explain, "death is a biological concept. Thus in a literal sense, death can be applied directly only to biological organisms and not persons. We do not object to the phrase 'death of a person,' but the phrase in common usage actually means the death of the organism which was the person" (quoted in McMahan, 425). Culver and Gert mean to say that the person is dependent on the body such that speaking about the person as a discrete entity is confused. In this view, there is no distinction between the person and the body in life or death. A person is extinguished if the organism dies, and the person cannot die separate from the organism, or biological body. These premises are the foundation to the legal definition of "death." Yet, there are those who argue we have good reason to doubt this notion.

### Death of Personhood

When René Descartes mused upon his existence, he found that self could be separated from his body. He imagined the body melting away while the person thrived. What personhood is, Descartes thought, is an immaterial, non-spatial, spirit, soul, or mind of a different substance from the body. Dualism has received significant criticism since its inception, although the intuition has not subsided (Blackmore, 9). Indeed, even the most passionate materialist will fancy material dualism with a body

on one side and a material person on the other. Jeff McMahan argues he can propose an intuitive theory of death without "having to embrace a controversial dualism that treats the person and the organism as distinct substance" (426).

McMahan contends that we need two notions of death: one for the person and one for the organism (424). This distinguishes McMahan from brain-death theorists who find no reason to speculate on the death of personhood, as persons are bodies. According to brain death, such distinctions are unnecessary because the person dies with the organism. Moreover, McMahan contends brain death is neither necessary nor sufficient to explain the death of the organism. With two notions of death, McMahan aims to elude the inadequacies of the brain-death definition. For each notion, he defines two distinct criteria. In the death of the organism, he postulates death as a "thermodynamic 'point of no return'" about thirty minutes after cessation of the circulatory system (439). This conjecture is distinguished from brain death by asserting failure of the vascular system, not the brain, as the death of the organism. The death of a person is far more difficult, McMahan admits, but he finally supports destruction of the cerebral hemispheres as sufficient for the loss of personhood. In other words, the irreversible loss of consciousness denoted by the elimination of those brain regions necessary for awareness indicates the cessation of self. McMahan's primary motivation for constructing a dual notion of death is his impression that brain death does not sufficiently explain our intuition about personhood. McMahan outlines two kinds of scenarios he hopes challenges brain-death theorists and warrants the revision described above.

#### 1. Brain Transplantation

McMahan asks that we imagine a scenario in which one's entire brain was surgically transplanted into the head of one's identical twin. If the body from which the brain was transplanted was not

placed on life support, it would certainly die. In such a case, the body would be dead, yet the brain from that body would remain intact. The brain would be alive. In this scenario, although the body dies, the brain is "housed in a different organism" (McMahan, 429). McMahan suggests the reverse is possible: a living organism that has suffered brain death. An elementary example is found in the sea squirt. In the larval stage, sea squirts use a simple nervous system called the "cerebral ganglion" to navigate the ocean. Once the sea squirt has found suitable bedrock, the cerebral ganglion is extinguished (not eaten as popularly described) (Chadderton). In other words, the organism that is the sea squirt continues to thrive even after suffering brain death. McMahan asserts that under certain conditions the same could be true in complex mammals, including humans.

#### 2. Locked-in Syndrome

As further evidence against the brain-death theory, McMahan points to patients who have lost most regulatory functions yet remain conscious. In such cases, the brain stem is damaged while higher brain regions are spared. In severe scenarios, patients will be completely paralyzed although they remain conscious. Certainly, a brain-death theorist would not say that such a patient is not alive. Accordingly, it seems the tenet that the brain must necessarily regulate somatic function, opposed to mechanical systems, for life is inconsistent. McMahan concludes, "thus the brain death theorists' principal rationale [...] collapses" (433).

McMahan believes that these scenarios demonstrate that brain death is neither necessary nor sufficient to explain the death of the organism. Brain death, also, neglects the obvious intuition that the person is separable from the body. McMahan says we need not go as far as Descartes and posit distinct substances in the world, but we can at least account for this difference in two notions of death. Succinctly, two deaths are necessary to deal with the

limitations of brain death: the death of personhood and the death of the organism.

### The Case against McMahan

At the onset, McMahan's two concepts of death seem reasonable and intuitive. Indeed, it was intuition that most motivated McMahan's revision. In his foreword, McMahan's focus is on the "powerful" intuition that *I*, self or person, is distinguishable from the body, to which he hopes to do justice (426). For many, this inner self is immaterial, perhaps a soul or spirit. However, a materialist view of personhood might describe the person this way: "The first-personal stream of consciousness running through our lives – this continuing jumble of thoughts, experiences, and emotions, all self-ascribe [...] in which I am both narrator and central character" (Ismael, 345). In this way, we separate ourselves in two: a self and a body. Although previous distinctions between the body and person have required something immaterial, it is not necessary. McMahan, for example, argues the self is the product of the cerebral hemispheres. Regardless, with this intuition of self, humanity has developed languages, ethics, and notions of free will.

In history, other intuitions have had similar weight yet have led us horribly astray. For example, the structuralists, a popular faction among psychologists in the early 1900s, used first-person accounts to collect data. They met their demise as a result of their false intuition that people have a valid understanding of their minds (Blackmore, 12). Is it possible that the intuition upon which McMahan builds his revision is also dubious? Neuroscience has begun to answer this question. The results tell a much different story about personhood than we could ever imagine.

When Descartes first looked inside himself, he found a continuous self, separate from his body. Today, as neuroscientists peer inside the human brain, they find nothing that resembles Descartes' duality and our intuition. In fact, neuroscience finds nothing at all that could support

our beliefs about personhood. There are no indications of souls, spirits, or immaterial minds. There are no Cartesian theaters or screens where the brain sends sensory input to be projected for the viewing of an inner self. Neither is there a central point or hierarchy in the brain that collects all the neural and chemical data to be bound together into one continuous stream of consciousness. Daniel Dennett, who has written much on self and consciousness, summarizes current findings in neuroscience this way: "The revisionist case is that there really is no proper-self: none of the fictive selves – including one's own first-hand version – corresponds to anything that actually exists in one's head" (39). Succinctly, neuroscience has found only a decentralized organization of brain structures such that an inner self is incoherent.

In this view, the self is either an elaborate illusion or is fragmented across various systems of the brain. This novel interpretation has a significant impact on our understanding of death. In particular, this view gives reason to doubt McMahan's death of personhood as the loss of cerebral function. First, McMahan makes the fundamental mistake of assuming that our intuitions about self tell us something true about personhood. It seems obvious that our reflections should have validity, and yet, neuroscience has shown we are living a fantasy, a confabulation of our brain's attempting to make sense of things. For this reason, there seems little evidence, on account of intuition, to support McMahan's revision. Second, although McMahan states he can do without Descartes' dualism, he implicitly employs a suspiciously dualist viewpoint. By hypothesizing that the person exists in the cerebral hemispheres, McMahan has created a boundary in the brain where consciousness happens, or where the person is bound together. There is no theater, no viewer, nor a place of neural integration that creates the person. McMahan's view is ultimately indistinguishable from the notion of a Cartesian theater because he posits the cerebral hemisphere as the seat of personhood, the screen where sensory

data is sent and projected for the benefit of the observing person. McMahan seems to be what Dennett calls a "Cartesian materialist": a person who claims to be a materialist yet uses a metaphor that indicates Cartesian dualism (Blackmore, 52).

Finally, McMahan's death of personhood is simply inconsistent with current knowledge of consciousness and self. McMahan correctly identifies the cerebral hemispheres as significant to the expression of self. Nevertheless, this does not capture the view that self is likely an illusion or at best decentralized across the entire brain. Indeed, some neuroscientists argue self is decentralized across the entire nervous system. Others protest we need to zoom out further where the self is a combination of the body and the environment in which it interacts (Blackmore, 124-6). Simply, there are no persons to die to support McMahan's death of personhood.

#### McMahan's Insights

Despite limitations, McMahan has important insights on how we should understand death. For one, with his brain transplantation scenario, he accurately shows that the brain-death theorists too strictly join the brain and organism as a unit. The possibility of a brain transplant shows that a brain can thrive without its body. Moreover, the rare and horrifying cases of locked-in syndrome demonstrate a division between bodily function and cognitive processes. This, too, is neglected by brain-death theorists who may falsely claim such patients are ventilated corpses (McMahan, 430). Finally, McMahan points to the importance of considering the person when defining death, doing justice to our intuitions about self. I too believe we should account for the person yet not for the same reason that McMahan offers. Neuroscience shows that the self is experiences loosely linked. However, I argue this does not diminish the importance of a person, illusion or otherwise, when considering ethics. Our ethical obligation to those patients who consider themselves persons, even if an illusion, is

greater than to those in persistent comas lacking such convictions. The illusion of personhood is as morally consequential as a person itself.

We are left with a potentially muddied conclusion. There are two theories that fail to describe death in its entirety. Brain death seems too blunt in handling ambiguous cases like locked-in syndrome. McMahan's revision, however, does not correspond with evidence that reveals there is no place for an inner self in the brain. How can we assimilate the strengths of both McMahan and brain death?

#### Death of the Expression of Personhood

Many look to the brain to find the neural correlates of personhood. These researchers and philosophers hold one of two positions: either the self is "in" or correlated with a defined region of the brain, or the entire brain, through the summation of all its activities, is responsible for personhood. Yet, whenever we probe a neuronal region, the inner self is reliably absent. When considering the entire brain, which seems to eliminate the futile search for a structure that houses the person and Cartesian traps, we are led back to the mistakes McMahan identifies in brain death. In reality, both positions are wrong. We will never find the self in any neuronal structure or in the entire brain. The inner self is a false impression. There are no persons to be found in the brain.

The predicament can be summarized this way: when we define the death of personhood as the extinction of one or several brain structures (e.g., the cerebral hemispheres), we have missed the self entirely; the self is nowhere. When we posit the death of the entire brain as death of personhood, we are too blunt and generate unacceptable moral directives in cases like locked-in syndrome. To remove ourselves from this unavailing debate, a paradigm shift is obligatory.

The necessary revision is that death of personhood is not to be found in the brain. Neuroscience reveals that the inner self cannot be found in the brain and is

likely an illusion. Therefore, any theory of death that attempts to explain the death of persons by a particular malfunction of the brain is bound to fail. For this reason, many may be tempted to forgo considering the death of personhood in ethical debate. This is simply unjustified. I argue that we have as equal a moral duty to humans who are under the illusion of self as to others who may be true persons. In other words, there is no ethical distinction between a person and the illusion of personhood. I submit we should focus our attention on the *expression* of personhood, namely, the belief that there is an inner self. I propose that the death of personhood is the death of expressed personhood (DEP). DEP is when there is no longer a belief, intuition, or concept of an inner self as indicated by the agent in question. Such expressions may be as simple as communicating one's existence, for example, "I am alive." These declarations are even possible among the paralyzed locked-in patients with use of modern technology.

DEP is stronger than previous notions of death because it is consistent with current research and does not assert a particular place in the brain where the person exists. Also, DEP is flexible to case studies that show the illusion of self can continue even when there is significant damage to the brain, as in locked-in syndrome or minimally conscious states. Crucially, DEP offers clear and reliable ethical directives that treat obscure cases with respect.

McMahan was correct when he argued that death should be divided between the body and the person. His mistake was believing this dichotomy reflected something real in the world. Instead, two deaths are necessary because we have a moral obligation to those who express personhood, even if a delusion. For example, McMahan shows how brain death neglects the moral duty toward locked-in syndrome patients. Despite total paralysis and significant brain damage, these patients are not dead. These patients express personhood, and DEP is prepared to account for our moral obligation to them as such.

A concern DEP must address is how we are to handle scenarios when individuals are temporarily unable to express personhood, for example, while sleeping or in a coma. No reasonable person would argue that an individual lacks the moral obligation accorded to a person while he sleeps. Yet, DEP seems to imply as much. Appropriately, ethical debates must consider both DEP and the probability that an individual will recover the capability of expression, or the potential of expressed personhood (PEP). PEP is best understood as a continuum or scale from low to high probability of expression. In cases of sleeping and comas, our ethical duty towards a potential expressed person should take precedence over its absence because these individuals are found on the high end of the PEP scale. In other words, there is significant evidence that these individuals will, again, express their personhood within an explicit period of time. Only in those cases which are found low on the PEP scale (i.e., a low probability that expression will be restored) should our consideration of DEP dominate. In other words, when patients have a minimal chance for recovery, like those in PVS, it is morally sensible to consider them dead according to DEP.

### Applying DEP and the PEP Scale

DEP and the PEP scale are a potent combination in resolving our most pressing bioethical dilemmas. The critical benefit is not that they offer new conclusions to old questions. In fact, in many cases DEP will concur with well-established positions. Instead, DEP can conversely act as a definition of personhood, namely, a person demonstrates a belief, intuition, or concept of an inner self. This allows DEP to resolve cases that do not concern matters of life and death. DEP is a sufficient theory of personhood and its extinction. It does not require additional theories or a change in definition in tedious cases. The following sections demonstrate the versatility of DEP and the PEP scale as they are applied to complicated conflicts: eutha-

nasia, abortion, in vitro fertilization, and animal research.

### 1. Euthanasia

In most cases of euthanasia, a patient is in a PVS. These patients lack many biological functions and are entirely unresponsive. Using the criteria for DEP, these patients must demonstrate a belief of personhood. PVS patients will consistently fail such measures and, as a result, must be considered dead. In these situations, DEP determines euthanasia may be ethical. This answer can be identically found in other models of death, including that of the brain-death theorists, who would consider a PVS patient dead because she is often brain dead, or McMahan's death of personhood that would show the person is lost in cases where the cerebral hemisphere is destroyed (441). DEP offers a clarification to those cases of euthanasia in which the patient lies between PVS and a healthy individual. Here is where debate is muddled and theories diverge. DEP best handles such bewildering cases as locked-in syndrome.

### 2. Abortion

The abortion debate is clouded by converging definitions of "personhood" and "*Homo sapiens*," alongside significant religious ideologies. DEP and the PEP scale cut through these obfuscations. Before DEP can be applied, however, a preliminary premise implicit in most bioethical inquiries must be appreciated: greater moral obligation is required for persons versus non-persons. A person is not necessarily a human being but may belong to any number of species, artificial intelligences, or alien life forms. By way of example, if an artificial intelligence were designed such that it was agreeably a person as defined by DEP, our moral obligation to this intelligence would be greater than to a PVS patient. Although the PVS patient is human, while the artificial intelligence is not, the morally salient element is personhood, which DEP grants to the machine alone.

The abortion debate offers a similar scenario. DEP would find the mother (unless otherwise compromised by illness or an accident) is able to express a belief of self, while a fetus would not exhibit such expressions. In other words, although the common denominator between the mother and fetus is the human genome, the morally salient element is not their humanity. It is the expression of self. Fetuses are not persons; mothers are. Correspondingly, our obligation is to the mother before the fetus. Even so, DEP does not doom the fetus into a bluntly demarcated 'non-person' category. DEP's patent tool, the PEP scale, offers greater moral resolution than previous models of ethics. Along the continuum of PEP, a fetus is found to be between a patient with PVS and a sleeping person. The bleak prognosis of PVS patients contrasts with a far more optimistic outcome among fetuses. Even so, there are greater obstacles for the fetus to express self than a body waking from sleep. In other words, a fetus has greater potential for self-expression than a PVS patient but less than a healthy sleeping human. This ranking along the PEP scale has implications on the weight of a moral debate.

DEP uniquely demonstrates that abortion has greater moral consequence than euthanasia among PVS patients, as the potential of expressed personhood is greater for the fetus than the patient. Nevertheless, the pregnant mother is clearly a person by the DEP criteria and requires a moral duty well above the fetus. Moral obligation and autonomy to the mother is of primary concern.

### 3. In Vitro Fertilization

In vitro fertilization has become a more important topic of debate as women are waiting longer before having children. One of the primary objections to in vitro fertilization is that the procedure involves the loss of embryos that develop improperly or are rejected in the culture dish (Courtts). Using the PEP scale, the embryo falls low. In a fertilization scenario, the embryo is found near PVS patients. Yet,

the embryo's position on the scale can diverge greatly depending on the situation. For example, an embryo being used in stem-cell research has nearly no chance of becoming a person, while another embryo targeted for fertilization has a much greater probability. It is evident that the embryo can develop into a body with self-expression, but the probability is smaller than for the developing fetus. DEP shows the embryo to be a non-person. Correspondingly, moral obligation is strongly in favor of the hopeful mother or surrogate mother. Additionally, between the fetus and the embryo, moral obligation is greater for the fetus with its higher potential for expressed personhood. For some, this argument may seem elementary. Yet, many pro-life advocates find this view inconsistent with their interpretation that the adult, fetus, and embryo have equal moral right. DEP and the PEP scale strikes down this position.

### 4. Animal Research

The use of animals in scientific research has been hotly debated for decades. There are many elements to be considered when discussing animal research, including the purpose of research, the species of animal being tested, the methods, potential outcomes, and prognosis. The DEP and the PEP scale have the potential to address a wide range of scenarios regarding animal research, yet only one example will be demonstrated here. The research in question is the development of a human cancer treatment. In this case, rats are being engineered to contract a fatal cancer on which investigators are testing their latest drugs. Most of the rats will die of cancer related complications or fatal side effects of the treatments. Is this research ethically permissible?

Many who argue in the affirmative may do so, claiming that *humans* have greater moral value than rats. Yet, as discussed earlier, species do not have moral value. Personhood does. Accordingly, when applying the PEP scale, rats are found below the healthy human on account of

the expression of self. In other words, some behaviors of the rat can be expressions of self, yet they are far less evident than those seen in healthy human persons. Considering the criterion of personhood *alone*, using rats to engineer treatments for cancer in human persons is permissible. Nevertheless, other factors not considered here can affect this conclusion.

The application of DEP and the PEP scale in the above bioethical scenarios can be expanded beyond the current explications. Many variables and considerations were neglected in the previous discussions. Instead, the purpose was to demonstrate the range of this new model of death and personhood.

### Limitations of DEP

Although pragmatic models, DEP and the PEP scale are not without important limitations. Most significant is the question of what precisely constitutes an expression of personhood? DEP must specify the demonstrations (e.g., behaviors, vocal and written communications, etc.) that serve as clear evidence of a self. In healthy humans, this task seems straightforward with the use of a survey or oral accounts that are likely to indicate intuitions about self. However, when faced with patients that are 'locked-in,' such techniques are ineffective. These patients cannot take a simple written survey or respond orally to questions that might probe their expression of personhood. We must find new ways to probe this expression. Modern techniques and technology, such as E-tran frames and eyegaze computers, have given new ways to enable patients with limited ability of expression to communicate thoughts and emotions (Rohrer). Even so, what of patients who are minimally conscious who display less awareness than locked-in patients but more than PVS patients? At what point does DEP draw the line that indicates the cessation of an awareness of personhood? To answer these questions, a thorough inquiry of what precisely defines expressions of personhood will be necessary.

With precise criteria, DEP can become a pragmatic tool in ethical debate.

The same limitation is exacerbated when interpreting ethical dilemmas involving other species. How are we to interpret alien vocalization and behaviors that do not correlate with recognizably human expressions? Some may argue such interpretations are possible, as we apply such behavioral analysis each day with family pets. However, what are we to do with non-mammalian species (e.g., squids, birds, and frogs), whose foreign anatomy makes such guesses nearly impossible? For the moment, there are negligible resolutions to these obstacles. However, as technologies develop that may allow humans to interpret expressions of alien species, DEP and the PEP scale will become more accurate and reliable.

Finally, DEP seems vulnerable to imposters. These are individuals who express personhood, who talk the talk, but whose expressions do not amount to a genuine self. Each year computer scientists perfect such imitators of personhood in computer programs that simulate an online conversation. These programs are convincing enough that people will chat for hours, convinced they are speaking with another person. Yet, the true concern for DEP is naturally occurring imposters walking among us. Many might argue that even the potential existence of such imposters is a defeat for DEP, since the difference between a person and a non-person imposter would be undetectable. If this is true, DEP's value is lost. Those who maintain this position, however, have missed the core paradigm shift made in this paper. They are locked in an old paradox. Personhood does not exist beyond its expressions. Accordingly, there can be no imposter of personhood, as it is largely an illusion to begin with. DEP circumvents the fear of indistinguishable imposters by demonstrating that we are all imposters, expressing beliefs and intuitions of an absent inner self.

Recapitulated, DEP is successful because it accommodates neuroscience research that reveals there are no selves,

only the illusion of such persons. It does this by probing not the brain but, instead, the belief of an inner self. I maintain there are two deaths: one, death of the body, as McMahan described, "a thermodynamic 'point of no return,'" and, two, death of expressed personhood (DEP) when a test of cognition shows no evidence of the belief, intuition, or concept of an inner person by the subject in question. Additionally, DEP can be used as a definition of "personhood," a person being something who expresses the belief, intuition, or concept of an inner self. Finally, DEP offers a new tool, the PEP scale, displaying the greatest resolution of any model to distinguish between a wide range of bioethical dilemmas.

How we manage bioethical questions depends pivotally on the definitions for morally consequential elements like "per-

sonhood," "life," and "death." In cases of euthanasia, the definition of "death" is most crucial in treating patients ethically. Unfortunately, the legal definition of "death," or "brain death," is inadequate for distinguishing morally between the body and the person when a difference clearly persists. McMahan aimed to revise this failure by creating a second death, the death of personhood dependent on the function of the cerebral hemispheres. Nevertheless, death of personhood implicitly uses a dualist metaphor and disregards recent discoveries that reveal there are no persons to die. What DEP provides is a third notion of death that avoids the failures of the previous two while remaining sensitive to ambiguous bioethical cases. DEP is a theory of death that treats all people with dignity.

### Works Cited

- Blackmore, Susan. *Consciousness: An Introduction*. 2nd ed. Oxford: Oxford University Press, 2012.
- Chadderdon, Lisa. "Brainless Fish in Topless Bar." *Fast Company*, 1999. <<http://www.fastcompany.com/36891/brainless-fish-topless-bar>>.
- Coutts, Mary C. "Ethical Issues in In Vitro Fertilization." *Scope Note*, 1988. <<http://bioethics.georgetown.edu/publications/scopenotes/sn10.pdf>>.
- Dennett, D. C. & N. Humphrey. "Speaking for Our Selves." In *Brainchildren: Essays on Designing Minds*. Ed. D. C. Dennett. Cambridge, MA: MIT Press, 1998. 31-58.
- Ismael, Jenann. "Saving the Baby: Dennett on Autobiography, Agency, and the Self." *Philosophical Psychology* 19/3 (2006), 345-60.
- McMahan, Jeff. *The Ethics of Killing: Problems at the Margins of Life*. Oxford: Oxford University Press, 2002.
- National Conference of Commissioners on Uniform State Laws. *Uniform Determination of Death Act*. Chicago, IL. 1980.
- Rohrer, Finlo. "How Do People Cope with 'Locked-in' Syndrome?" *BBC News Magazine* 25 Nov. 2009. <[http://news.bbc.co.uk/2/mobile/uk\\_news/magazine/8378262.stm](http://news.bbc.co.uk/2/mobile/uk_news/magazine/8378262.stm)>.