

Brain Death: From Mistaken Assumptions to Legal Fiction and a Threat to the Living

*R. Mary Hayden Lemmons**

ABSTRACT: The first part of this essay examines the assumptions that led states to enact laws identifying death with the brain's inability to function. The second part argues that survivors of brain death prove the neurological definition of death to be a legal fiction. The third part explains why it is possible to survive a brain death diagnosis and evaluates the argument that death needs to be redefined in order to accommodate the role of brain death in harvesting organs for transplantation. The fourth part criticizes philosophical pro-brain death arguments and argues that states ought to adopt the religious exemption enacted by the state of New Jersey; rather than the religious accommodation policy enacted by New York State. The essay concludes by arguing that justice demands that states repeal the laws identifying death with the brain's inability to function. Until then the legalization of brain death threatens the living and inculcates values antithetical to caring for the vulnerable among us.

1. The Mistaken Assumptions that Legalized Brain Death

Ever since Plato, life has been identified as an act of the immaterial soul; and ever since Aristotle, the soul has been identified as that which brings unity

* *R. Mary Hayden Lemmons* received her Ph.D. at the University of St. Thomas in Houston, Texas and is now an Associate Professor of Philosophy at the University of St. Thomas in St. Paul, MN. She typically teaches courses in ethics, philosophy of person, and philosophy of law. Her research primarily focuses on the thought of Thomas Aquinas and John Paul II. Besides publishing many articles on their thought, she has published a book *Ultimate Normative Foundations: The Case for Aquinas's Personalist Natural Law* (2011). In addition, she founded the Society for Thomistic Personalism and, along with Deborah Savage, co-founded the *Siena Symposium for Women, Family and Culture*.

to a type of matter that would otherwise fail to cohere. Aristotle's hylomorphism insightfully anticipated the more contemporary finding that entropy decreases within a living organism and increases when death begins the body's slow disintegration into dust. Organ transplants are accordingly most successful when disintegration has either not begun (as shown, for instance, by kidney transplants from living donors) or has not progressed very far (as shown, for instance, by corneal transplants from dead donors). Interest in successful organ transplantation thus presses the question of what is the earliest moment at which we can be certain that death has occurred.

During the twentieth century, the argument was made that death can be identified by the lack of activity in the brain and a total lack of responsiveness to stimuli. This position was set forth, for example, by the 1968 Harvard Criteria for Brain Death, even though Harvard recognized the inadequacy of these criteria in cases of hypothermia and barbiturate overdose.¹ It was also argued by the prestigious President's Commission for the Study of Ethical Problems in Medicine and Biomedical and Behavioral Research in 1981 that ventilators could mask the signs of death by forcing the lungs to move and the heart to beat: "The lungs breathe and the heart circulates blood *only because* the respirator (and attendant medical interventions) cause them to do so, not because of any comprehensive integrated functioning."² As this quotation

¹ "A Definition of Irreversible Coma Report of the Ad Hoc Committee of the Harvard Medical School to Examine the Definition of Brain Death," *Journal of the American Medical Association* 205/6 (1968): 337-40. For a critique of this report, see R. Mary Hayden, "A Philosophical Critique of the Brain Death Movement," *Linacre Quarterly* 49 (1982): 240-47. Doyen Nguyen argues that there is some evidence of duplicity among members of the Harvard Committee about whether the point of the criteria was to facilitate the acquisition of organs for transplantations; see Doyen Nguyen, *The New Definitions of Death for Organ Donation: A Multidisciplinary Analysis from the Perspective of Christian Ethics* (Bern: Peter Lang, 2018), pp. 15-16; and Doyen Nguyen, "Brain Death and True Patient Care," *Linacre Quarterly* 83:3 (2016): 258-82.

² The President's Commission for the Study of Ethical Problems in Medicine and Biomedical and Behavioral Research, *A Report on the Medical, Legal and Ethical Issues in the Determination of Death*; (Washington D.C.: U.S. Government Printing Office, 1981), p. 37. Accessed 9/10/2019 at https://repository.library.georgetown.edu/bitstream/handle/10822/559345/defining_death.pdf. Also see, for instance, Jason Goldberg's citation of *People v. Eulo*: "a dead body may be attached to a machine so

shows, the Commission identified respiration with the ventilator's ability to move air in and out of the lungs rather than acknowledging that respiration actually involves the lung's own ability to oxygenate blood. It also shows the Commission's willingness to suggest that ventilation forces the heart to beat rather than providing the oxygenated blood that enables the heart to continue to beat. Finally, the passage shows that the Commission rejected the continued self-functioning of the heart as proof of "comprehensive integrated functioning." Why this rejection? Was it because they were not acting as scientists but as advocates for the legalization of brain death? Indeed, the Commission did propose the legalization of brain death through the Uniform Determination of Death Act (UDDA).

Some states have adopted this Act word for word.³ It states that an individual may be declared legally dead "if the individual sustains irreversible cessation of (1) circulatory and respiratory functions; or (2) all functions of the entire brain, including the brain stem..., made in accordance with generally accepted medical standards."⁴ Other states have adopted this Act but have restricted the use of the neurological criteria to individuals on respirators.⁵ They have also added various other specifications. For example, Virginia requires brain death to be accompanied by loss of respiratory function.⁶ Oklahoma "prohibits a determination of death until after 'all reasonable attempts to restore [the patient's] spontaneous circulatory or respiratory functions' have proven futile."⁷ And New Jersey requires the cardio-respiratory criteria be used "if an authorized physician has reason to believe that an individual on artificial ventilation has religious opposition to determination of death based on neurological criteria."⁸ New York likewise requires religious

as to exhibit demonstrably false indicia of [somatic] life." In Jason Goldsmith, "Wanted – Dead and/or Alive: Choosing Among the Not-So Uniform Statutory Definitions of Death," *University of Miami Law Review* 61/4 (2006): 871-930 at p. 882 n54.

³ Nikolas T. Nikas, Dorinda C. Bordlee, and Madeline Moreira, "Determination of Death and the Dead Donor Rule: A Survey of Current Law on Brain Death," *Journal of Medicine and Philosophy* 41 (2016): 237-56 at 242, Figure 1.

⁴ 2018 Minnesota Statutes. Accessed 8/21/2019 at <https://www.revisor.mn.gov/statutes/cite/145.135>.

⁵ Nikas, p. 242, Figure 1.

⁶ Nikas, p. 243.

⁷ Goldberg, p. 911.

⁸ Nikas, p. 245.

accommodation in its hospitals but allows hospitals to determine their own policies.⁹ Idaho allows the customs of individual communities to override the application of the Uniform Death Declaration Act.¹⁰

A key factor in this widespread legalization of brain death was the belief that those suffering brain death *were dead*. The Commission explicitly stated that was the case: “Thus, *brain-based criteria do not introduce a new ‘kind of death’* but rather reinforce the concept of death as a single phenomenon – *the collapse of psycho-physical integrity*. The statute merely allows *new ways to recognize* that this phenomenon has occurred.”¹¹ What made this belief feasible was the idea that without the brain’s interventions, the heart would stop beating and the bodily integration would cease.

John Paul II, in his famous address to the 18th International Congress of the Transplantation Society, made death the indispensable condition for identifying that the “complete and irreversible cessation of all brain activity” is a “*sign*” that integration had ended:

Specifically, this [neurological criterion] consists in establishing, according to clearly determined parameters commonly held by the international scientific community, the complete and irreversible cessation of all brain activity (in the cerebrum, cerebellum and brain stem). This is *then considered the sign that the individual organism has lost its integrative capacity...* Here it can be said that...the *complete and irreversible* cessation of all brain activity, if rigorously applied, *does not seem to conflict with the essential elements of a sound anthropology*.¹² (emphasis mine)

This passage shows that John Paul II characterized “the international scientific community” to be identifying brain death as “the sign” of lost integrative capacity. As such, brain death “does not seem to conflict with...a sound anthropology.” By identifying brain death as a sign that bodily integration and unity had been lost, John Paul II reaffirmed the hylomorphic identification of the soul as the source of bodily integration and the soul’s departure as the cause of death. That this is the case can be seen by examining the anthropology

⁹ Nikas, p. 244, Figure 2.

¹⁰ Nikas, p. 245.

¹¹ President’s Commission, *Report*, p. 58. (emphasis mine)

¹² John Paul II, *Address of the Holy Father John Paul II to the 18th International Congress of the Transplantation Society*, August 29, 2000, #5. Accessed 8/28/2019 at http://w2.vatican.va/content/john-paul-ii/en/speeches/2000/jul-sep/documents/hf_jp-ii_spe_20000829_transplants.html.

explicated earlier in his address:

In this regard, it is helpful to recall that the death of the person is a single event, consisting in the *total disintegration of that unitary and integrated whole that is the personal self*. It results from the *separation of the life-principle (or soul) from the corporal reality* of the person. The death of the person, understood in this primary sense, is *an event which no scientific technique or empirical method can identify directly*. Yet human experience shows that once death occurs certain biological signs inevitably follow, which medicine has learnt to recognize with increasing precision. In this sense, the “criteria” for ascertaining death used *by medicine today should not* be understood as the technical-scientific determination of the exact moment of a person's death, but as a *scientifically secure means of identifying the biological signs that a person has indeed died*.¹³ (emphasis mine)

This passage reinforces John Paul II’s definition of death as the moment “total disintegration” begins with the soul’s departure. As a spiritual reality, the departure of the soul is not medically or empirically verifiable. The best that medical science can do is to confirm that death has occurred. For that reason, brain death cannot be more than a *sign* that death has occurred. In other words, like Aristotle and Aquinas, John Paul II would not identify a human body as dead if it were *not* in the state of disintegration – a disintegration made obvious, for example, when the heart refuses to beat despite drugs, electric shocks, and a functional ventilator. Those with *self-beating* hearts thus *cannot* be identified as dead according to John Paul II’s analysis – even if they need a ventilator for the continued functioning of their lungs.

John Paul II’s Address also stated that the Church leaves it to medical science to determine whether brain death could be a sign that death’s “total disintegration” was underway and that, from this perspective, brain death “does not seem to conflict with...sound anthropology.”¹⁴ John Paul II – like most

¹³ Ibid., #4.

¹⁴ Ibid., #5: “With regard to the parameters used today for ascertaining death – whether the ‘encephalic’ signs or the more traditional cardio-respiratory signs – *the Church does not make technical decisions*. She limits herself to the Gospel duty of comparing the *data offered by medical science* with the Christian understanding of the unity of the person, bringing out the similarities and the possible conflicts capable of endangering respect for human dignity. Here it can be said that...the *complete and irreversible* cessation of all brain activity, if rigorously applied, *does not seem* to conflict with *the essential elements of a sound anthropology*.” Accessed 8/28/2019 at

doctors in the late twentieth century, including D. Alan Shewmon – did not imagine that it would be possible to live with brain death for weeks, even years. After all, the predominant medical theory at that time was that the brain’s functioning was so integral to human survival that none could survive for long without it.¹⁵ With the assumption that brain death was a sign of death, the legalization of brain death – as set out in the Uniform Determination of Death Act – swept the country.

2. Living with Brain Death

In the twenty-first century there have been cases of people diagnosed with brain death living for substantial periods of time. Consider, for instance, the lives of Areen Chakrabarti, Israel Stinson, and Marlise Munoz.

Areen was fifteen years old when pronounced brain dead at Children’s Hospital of Philadelphia in April of 2018.¹⁶ When his family lodged a religious objection to this determination, he was kept on the ventilator as his family transferred him to a hospital in Guatemala for a tracheostomy and then to the Newark Beth Israel Medical Center. Although his family reported that he was responding to music and to conversations, the Center refused to treat him for a possible urinary tract infection before he died of heart failure. He had lived for about three months as a brain-dead person.

Similarly, in 2016, two-year-old Israel Stinson was able to live as brain-dead for four months until he lost his lawsuit to retain his ventilator and a California court ordered its removal.¹⁷ *Marlise* lived for less time after she was declared brain-dead in 2013. But she was able to continue gestating her baby until a Texas court ruled that the dead do not need ventilators and ordered the John Peter Smith Hospital in Fort Worth to unplug her ventilator with fatal

http://w2.vatican.va/content/john-paul-ii/en/speeches/2000/jul-sep/documents/hf_jp-ii_spe_20000829_transplants.html (emphasis mine).

¹⁵ For instance, see President’s Commission, *Report*, p. 17.

¹⁶ Mari A. Schaefer, “Parents of NJ Boy Declared Brain-dead by CHOP say His Heart Has Stopped.” *Philadelphia Inquirer* (August 1, 2018). Accessed 8/28/2019 at <https://www.inquirer.com/philly/health/areen-chakrabarti-brain-dead-childrens-hospital-of-philadelphia-life-support-20180801.html>.

¹⁷ Michael E. Miller, “‘He’s gone’: Anger, grief as plug is pulled on toddler after sudden court decision,” *Washington Post* online on August 26, 2016. Accessed 9/19/2019 at <https://www.washingtonpost.com/news/morning-mix/wp/2016/08/26/hes-gone-anger-grief-as-plug-pulled-on-toddler-after-sudden-court-decision/>

results for her fetus.¹⁸ In 2015, Nebraska's Methodist Woman's Hospital kept a gestating mother on her ventilator for 54 days and her baby was able to leave the hospital as a healthy infant.¹⁹ Fortunately, the Nebraska case is more typical, with life support being required either for all pregnant women diagnosed with brain death (twelve states), for those carrying viable fetuses (4 states), or for those likely to have a live birth (14 states).²⁰ Yet these states have not also reconsidered revoking their reliance on brain death as a sign of death. It is time for them to do so: corpses, after all, do not have self-beating hearts and are unable to gestate babies.

The ability to survive brain death, moreover, has been known by neurologists for about two decades. In 1998, the peer-review journal *Neurology* published a meta-analysis of 56 cases: "Of the meta-analyzed cases, one-half (28/56) survived more than one month, nearly one-third (17/56) more than two months, seven (13%) more than six months, and four (7%) more than one year, the record being fourteen years (and still going)."²¹

Such cases led D. Alan Shewmon to end his endorsement of brain death six years earlier.²² For in 1992, he consulted on a case where a brain-dead teen lived for sixty-three days and had begun to undergo puberty.²³ Also, in that year, he realized that some spinal cord patients could live without receiving signals from their brains and that meant that the brain was not as important to bodily integration had been assumed.²⁴ Since then Shewmon encountered three cases of brain-dead patients who lived for substantial periods of time with liquified brains.²⁵ The evidence is undeniable: the assumption that had driven

¹⁸ Caleb Hellerman. Jason Morris and Matt Smith, "Brain-dead Texas woman taken off Ventilator," CNN (Mon January 27, 2014). Accessed 8/28/2019 at <https://www.cnn.com/2014/01/26/health/texas-pregnant-brain-dead-woman/index.html>.

¹⁹ Nikas, p. 248, Figure 3.

²⁰ Nikas, p. 248.

²¹ D. Alan Shewmon, "Chronic 'Brain Death': Meta-analysis and Conceptual Consequences," *Neurology*. Vol 51:6 (12/01/1998): p. 1538-1545. p. 1542. Accessed 9/17/2019 at <https://n.neurology.org/content/51/6/1538>.

²² D. Alan Shewmon, "Controversies Surrounding Brain Death," in *The Ethics of Organ Transplantation*, edited by Steven J. Jensen pp. 21-42 (Washington, D.C.: The Catholic Univ. of America Press, 2011), p. 29.

²³ Ibid.

²⁴ Ibid., p. 31.

²⁵ Ibid., pp. 31-38.

the legalization of brain death was false. Brain-death could be survived.

The survivability of brain-death was acknowledged by the 2008 President's Council on Bioethics. It cites Shewmon's 2001 paper, published in the *Journal of Medicine and Philosophy*, as proving that somatic integration can continue in those with total brain failure.²⁶ The Council accordingly stated that it is a "false assumption that the brain is the "integrator" of vital functions."²⁷ The Council also admitted: "If being alive as a biological organism requires being a whole that is more than the mere sum of its parts, then it would be difficult to deny that the body of a patient with total brain failure can still be alive, at least in some cases."²⁸ This affirmation that life can continue in the brain-dead means that brain death is not a sign that death has occurred. Continuation of integrated functioning and the heart's ability to circulate blood oxygenated by the lungs means that the human soul is still present. The brain dead are thus alive. If this were not the case, the drug cardioplegia would not be needed to stop a brain dead donor's heart from beating prior to removal.²⁹ Donor hearts that are placed in solution for transport to distant recipients remain viable only for four to six hours.³⁰ Yet, once surgically united with the recipient and re-animated by the soul, the donor heart can beat for years. Consequently, a self-beating heart suffices as a sign of life and the soul's continued presence. Thus, those without functional brains but with self-beating hearts are not dead and ought not be used as heart-beating organ donors. In 2008, Benedict XVI reinforced this point by stating: "vital organs cannot be

²⁶ President's Council on Bioethics, *Controversies in the Determination of Death: A White Paper by the President's Council on Bioethics*, The President's Commission on Bioethics, Washington, D.C. 2008, p. 56.

²⁷ *Ibid.*, p. 60. Also see Joseph L. Verheijde "Neuroscience and Brain Death Controversies: The Elephant in the Room," *Journal of Religion and Health* (2018) 57: 1745-63.

²⁸ *Ibid.*, p. 57. Also see p. 75: "Some of the body's systems may continue to work together in an integrated way, and it may be possible to sustain this level of functionality for an indeterminate amount of time."

²⁹ Syed Hussain, "The Amazing Life of a Heart — Transplanted Lifesaving process requires impeccable teamwork," *Health Essentials* (Cleveland Clinic: March 8, 2016). Accessed 9/22/2019 at <https://health.clevelandclinic.org/day-in-the-life-of-a-heart-transplant-team/>.

³⁰ Columbia University Irving Medical Center. Accessed 9/22/2019 at <https://columbiasurgery.org/heart-transplant/faqs>.

extracted except *ex cadavere*.”³¹ Benedict reminded all that this is the official teaching of the Catholic Church as stated in the *Compendium of its Catechism* n. 476.³² This passage states that “Before allowing the noble act of donation after death, one must verify that the donor is truly dead.”³³

That those with self-beating hearts who also meet the criteria for brain death are not dead is proven beyond a shadow of doubt not only by the weeks that Israel Stinson, Areen Chakrabarti, and Marlise Munoz lived as brain-dead as well as by Shewmon’s cases, but also by the unanticipated recoveries of brain-dead Taylor Hale and Jahi McMath. *Taylor* was diagnosed as brain dead in 2011 and her parents were told that her brain had turned to mush and had slipped down into her spinal column.³⁴ After Blank Children’s Hospital had turned off her oxygen and stopped her medications, she unexpectedly started breathing on her own and sufficiently recovered to graduate from high school! The case of *Jahi* did not end so happily. In 2013, when she was thirteen years old, she suffered catastrophic brain failure and was placed on a ventilator.³⁵ When she was declared brain dead by Children’s Hospital of Oakland in California, she was issued her first death certificate.³⁶ Her family moved her to New Jersey, where she underwent puberty, became somewhat responsive to commands, and lived four more years until dying of liver failure. New Jersey issued her a second death certificate.

³¹ Benedict XVI, *Address Of His Holiness Benedict XVI to Participants at an Inter-national Congress Organized by the Pontifical Academy For Life*, Friday, 7 Nov. 2008. Accessed 8/29/2019 at w2.vatican.va/content/benedict-xvi/en/speeches/2008/November/documents/hf_ben-xvi_spe_20081107_acdlife.html

³² Ibid.

³³ *Compendium of the Catechism of the Catholic Church* (Washington, D.C.: U.S. Conference of Catholic Bishops, 2006), §476, p. 139.

³⁴ Elizabeth Chuck, “Taylor Hale, Teen Whose ‘Brain Had Turned to Mush,’ Set to Graduate High School,” *NBC News* (May 16, 2015 updated May 17, 2015). Accessed 8/28/2019 at <https://www.nbcnews.com/news/us-news/teen-whose-brain-had-turned-mush-set-graduate-high-school-n359506>.

³⁵ For additional details about Jahi see Paul A. Byrne, “Brian Death” Is a Mendacity,” *Life and Learning*, (2017): pp. 241-247, pp. 241-42.

³⁶ Samantha Schmidt, “Jahi McMath, the Calif. Girl in Life-Support controversy, is now dead.” *The Washington Post* (June 29, 2018). Accessed 8/28/2019 at <https://www.washingtonpost.com/news/morning-mix/wp/2018/06/29/jahi-mcmath-the-calif-girl-declared-brain-dead-4-years-ago-is-taken-off-life-support/>.

In each of these cases of brain death, *a human being lived* while being meeting the criteria for brain death. No disintegrating corpse has a self-beating heart, can process nutrients, and metabolize oxygen. Consequently, *brain death is not a sign that bodily disintegration* is underway. The brain death experiences of Areen, Taylor, Marlise, Israel, and Jahi along with Shewmon's cases prove that the soul's animation of the human body is not reducible to the functionality of the brain. Brain death is thus not the reliable sign of death that it was assumed to be when the legalization of brain death swept the country.

3. Redefining Brain Death

The fact that those with brain death can live for a long time was acknowledged by the 2008 President's Council on Bioethics.³⁷ It explained that the "lengthy survival" of some brain-dead patients occurs when "globally coordinated work continues to be performed by multiple systems, all directed toward the sustained functioning of the body as a whole."³⁸ The Council also noted that the current criteria for brain death does not require the total cessation of all brain activities: "*In reality, and somewhat at odds with the exact wording of the UDDA, 'all functions of the entire brain' do not have to be extinguished in order to meet the neurological standard under the current application of the law to medical practice.*"³⁹ (emphasis mine)

Nevertheless, the Council did not recommend abandoning the neurological criteria for identifying when someone has died; for that would require either eliminating the "dead donor rule for organ donation" or eliminating organ harvesting from "heart-beating cadavers."⁴⁰ Either choice is unacceptable because:

A human being whose death has been determined according to a neurological standard is the *ideal source* of transplantable organs. The reason for this is straightforward: with artificial support of respiration and circulation, blood continues to circulate through the body, thereby maintaining the vitality of organs targeted for surgical removal and thus optimizing their utility for their eventual recipients. If surgeons wait for the more

³⁷ President's Council, *White Paper*, op. cit., p. 75: "Some of the body's systems may continue to work together in an integrated way, and it may be possible to sustain this level of functionality for an indeterminate amount of time."

³⁸ *Ibid.*, p. 57.

³⁹ *Ibid.*, p. 18.

⁴⁰ *Ibid.*, pp. 70-72.

traditional signs of death, the organs endure a period of “warm ischemia” during which they are deprived of nourishing blood and oxygen. While it is possible to procure some organs under these circumstances, concerns about ischemic damage *make the heart-beating, “brain-dead” donor the preferred source of organs.*⁴¹ (emphasis mine)

For the sake of this industry, the Council urges that brain-death be retained as equivalent to the death of a human being and that the justification for this retention be shifted from a lack of integration to the inability to fulfill an organism’s “fundamental work.”⁴² The Council identifies an organism’s fundamental work to be “its commerce with the surrounding world.”⁴³ Commerce requires receptivity and acting on the world to satisfy basic felt needs.⁴⁴ This redefinition of life in terms of commerce as the organism’s fundamental work was carefully crafted to usurp the traditional understanding of life as integrative unity. It enables the Council to equate respiration with moving air in and out of the lungs and to claim that “the exchange of gases”... [effected by respiration] is neither an achievement of the organism nor a sign of its genuine vitality.”⁴⁵ The need for a ventilator is thus taken as proving an inability to respond to stimuli and a failure to feel a need to breathe. Those on ventilators are then to be considered dead – unless there are other vital activities.⁴⁶ Neither bodily integration nor a self-beating heart, however, can be identified as one of those vital activities. Only interactive consciousness precludes being declared dead. “Thus, on this account,” states the Council, “total brain failure can continue to serve as a criterion for declaring death – not because it necessarily indicates loss of integrated somatic functioning, but because it is a sign that this organism can no longer engage in the essential work that defines living things.”⁴⁷

This redefinition of life and death leaves unchallenged the current practice of extracting organs from the brain-dead – even when their hearts are still self-

⁴¹ Ibid., p. 8 (citation omitted). This is not to say that all body parts need to be removed so soon: “skin, heart valves, corneas, tendons, and veins...can be taken...hours after the heart has stopped beating” (Ibid).

⁴² Ibid., p. 60.

⁴³ Ibid., p. 61.

⁴⁴ Ibid.

⁴⁵ Ibid., p. 63.

⁴⁶ Ibid., p. 64.

⁴⁷ Ibid.

beating. This redefinition also redirects the attention of family members and the public away from other on-going vital activities that show the continuation of life towards ventilation and the cessation of brain activity. The redefinition thus inculcates a sense that the very use of a ventilator proves the brain-injured patient is dead, even if the trauma just occurred and shock has caused the brain to shut itself down temporarily in the attempt to preserve itself. The brain temporarily shuts itself down by restricting blood flow and by becoming non-responsive for an indeterminate period of time without losing the ability to recover – as shown by the surprising cases of Taylor and Jahi. Their recoveries show that it is possible for the brain’s cells to be kept alive by an adequate but undetectable blood flow.⁴⁸ As a result, it was possible for Taylor and Jahi to meet the current guidelines for brain death. Alan Shewmon confirms that in Jahi’s case, there was “no question that in December 2013...Jahi McMath fulfilled the widely accepted pediatric guidelines for determining brain death . . . as well as the adult guidelines.”⁴⁹

The brain’s response to shock explains why some heart-beating, brain-dead patients who are scheduled for organ-harvesting can “awake up” just in time to unnerve hospital personnel. Evidently, this is what happened in 2008 with Zack Dunlap. Thirty-six hours after crashing his ATV in Oklahoma, a PET scan showed no blood flow and brain death was declared. His family opted to honor his wish to donate organs and an organ harvesting team began traveling to his local hospital. But when Zach responded after his cousin began to dig under his fingernail, he was declared alive. Zack reports that he heard the doctor declare him brain dead and was angry but unable to express it.⁵⁰ It is important to note that the redefinition of death offered by the 2008 President’s Council would not have saved Zack from having his organs harvested. It is time to end the charade that brain death suffices as a sign that a person has died

⁴⁸ Oxygenation, explains Doyen Nguyen, can occur during “global ischemic penumbra” even though the brain cannot respond to stimuli; see “Brain Death and True Patient Care,” *Linacre Quarterly* 83/3 (2016): 258-82.

⁴⁹ Alan Shewmon, “Declaration of D. Alan Shewmon to the Superior Court of California, March 8, 2018.” Accessed 8/31/2019 at http://thaddeuspope.com/images/Shewmon_Decl._12-2017.pdf.

⁵⁰ Mike Celizic, “Pronounced Dead, Man Takes ‘Miraculous’ Turn,” *Today.com* (3/24/2008). Accessed 9/17/2019 at <https://www.today.com/news/pronounced-dead-man-takes-miraculous-turn-2D80555113>.

and accept that brain death is a disability.

4. Redefining Human Life

Although brain death does not suffice to prove that a person has died, it does suffice as a sign of a traumatic brain injury that can cause severe disability as, for example, in the cases of Areen, Marlise, Israel, and Jahi. Nevertheless, there are some who argue that those who continue to live after a diagnosis of brain death are *not* suffering from a disability because they are *not* living human beings. The key to these arguments is the adoption of a property-based definition of a human being. The 2008 President's Council adopted a property-based view when it identified life as commerce.⁵¹ Loss of this property means, according to the Council, that one has ceased to be human – even if one's body lives. This is the way in which the human embryo and the human fetus lost their right to life: they were defined as less than human because they were developmentally immature. Thanks to the widely adopted Uniform Determination of Death Act, the brain-dead have lost their right to life as well. For instance, both Marlise and Israel died after brain death was declared and their ventilators were unplugged – because the dead have no right to treatment. As Dr. Cheryl Lew said about Israel: “It is clear...there is no possibility that this child's brain will recover to the extent...that he could resume his personhood...his corpse must be treated with respect [and not subjected to] inappropriate medical interference.”⁵²

Various philosophers concur with this analysis of brain death and argue that persons cannot live without functional brains. William E. May, for instance, argued that when the brain is destroyed, the soul departs and the person dies as the body undergoes a substantial change – even if integrated functioning and the heart's self-beating continues.⁵³ Such integrated functioning does not prove human life, according to Melissa Moschella, because brain-dead bodies lack “the unity proper to its natural type which involves a capacity for centralized regulation and coordination, nor does it

⁵¹ See President's Council, *White Paper*, pp. 60-61 and this paper's Part Three.

⁵² Claudia Buck, “Court Documents Reveal Final Details Behind Brain-dead Toddler Case,” *Miami Herald* (9/11/2016). Accessed 9/14/2019 at <https://www.miamiherald.com/news/nation-world/national/article101240392.html>.

⁵³ William E. May, 2008, p. 352.

possess unity proper to any natural type.”⁵⁴ Brain death kills a person, argue Germain Grisez and Patrick Lee, because without the brain, there is no “radical capacity” for sentient and rational activity.⁵⁵ In an analogous argument, Christopher Tollefsen argues that humans cannot survive the loss of an “irreplaceable part” and identifies the brain to be such a part, since it is “most deeply linked to your identity as a person – your thoughts, choices, sensations, memories, emotions and so on.”⁵⁶

One crucial problem with these arguments is that brain death does not produce a corpse: the ventilator enables the lungs to oxygenate the blood that

⁵⁴ Melissa Moschella, “Integrated But Not Whole? Applying an Ontological Account of Human Organismal Unity to the Brain Death Debate,” *Life and Learning* (2016), pp. 3-16 at 12; Christian E. Brugger, “Reply to Melissa Moschella,” *Life and Learning* (2016), pp. 17-22; Michel Accad, “The Brain-Dead Body Is Alive, One, and Human: A Response to Maureen Condic and Other Proponents of Brain Death,” *Life and Learning* (2017), pp. 233-39; and Michel Accad, “Of Whole and Parts: A Thomistic Refutation of ‘Brain Death,’” *Linacre Quarterly* 82 (2015): 217-34.

⁵⁵ See Patrick Lee and Germain Grisez, “Total Brain Death: A Reply to Alan Shewmon,” *Bioethics* 26 (2010): 275-84 at 277. In his more recent reiteration of this argument, Lee takes pains to stress that while the radical capacity for personhood is lost in the brain dead, it remains in the embryo as shown by the ability to develop a brain; “Having a Rational Nature as the Basis for Being a Subject of Rights,” *Life and Learning* (2017), pp. 51-65 at 55. Lee, however, overlooks that the embryo’s “radical capacity” for developing a brain resides in the human soul’s ability to animate stem cells and that since even adults have stem cells, it may be possible, in the distant future, to use stem cells to generate cerebral neurons that would enable a person to regain consciousness and relearn everything. When Lee and Grisez sought to counter an earlier version of this stem cell counter-argument as proposed by Shewmon, they dismissed it by pointing out that in the brain dead, the relocation of stem cells into the skull would have to be done by others (p. 280). The issue, however, is not whether a technician would be responsible for relocating the stem cells, but whether relocation would enable the brain-dead person to regain consciousness, a feat that would not be possible if a person’s soul were not animating the entire body, including the head so that it does not decompose. The soul’s continued animation would enable the relocated stem cells to regenerate. In this imaginative case, the stem cell transfer would be analogous to a heart transplant.

⁵⁶ Christopher Tollefsen, “Brain Death and Irreplaceable Parts,” *Life and Learning* (2016), pp. 23-35 at 24. Also see Thomas V. Berg, “Existing as My Soul: A Response to Christopher Tollefsen,” *Life and Learning* (2016), pp. 36-40.

enables the heart to continue beating on its own and integrated functioning to continue as well. Such self-motion has been traditionally identified with life, while the absence of self-motion has been taken as evidence that death has occurred and that the life-giving soul has departed. Lack of self-motion is what proves that a substantial change has occurred. Hence, there is no evidence that a person has died and that a substantial change has occurred when the heart of the brain dead continues to circulate oxygenated blood.

A second key problem is that any argument that the human soul cannot continue its animation of the entire body when the brain is destroyed is an argument denying that the true source of the radical capacity for thought and choices is the human soul. Identifying the soul as the ultimate source for what is most human about the person precludes identifying the destruction of the brain as a destruction of one's radical capacity for personhood. It is rather the case that the destruction of the brain is a non-lethal impediment to rationality that is unable to destroy the soul's ability to continue animating the rest of the body. If this were not the case, it would not be the case that the heart and other organs can continue to function without the brain.

A third significant problem with identifying brain death as the death of a person is that it is incompatible with identifying the soul as the form of the entire body, from the brain to the toe. Arguments that brain death kills a person – even when the body's integrative unity continues – presupposes that the human soul informs just the brain. If this were so, intense concentration could not affect one's hunger or enjoyment of food. But, as Thomas Aquinas points out, “when one operation of the soul is intense, it impedes another, which could never be the case unless the principle of action were essentially one.”⁵⁷ Recent research into the loss of efficacy caused by multi-tasking confirms the keenness of Aquinas's observation and the accuracy of holding that the soul is the form of the body.⁵⁸

A final problem is that arguments supporting the viability of brain death are taken as supporting current brain death legislation, despite any disclaimers

⁵⁷ Thomas Aquinas, *Summa theologiae* I.76.3c. For Aquinas's other arguments about the truth of hylomorphism see the *Summa Theologiae* I.76.3-5.

⁵⁸ Mayo Oshin, “9 Ways Multitasking Is Killing Your Brain and Productivity, According to Neuroscientists,” *theladders.com* (9/10/2018). Accessed 9/17/2019 at <https://www.theladders.com/career-advice/9-ways-multitasking-is-killing-your-brain-and-productivity-according-to-neuroscientists>.

by their authors.⁵⁹ This is worrisome because current brain death legislation compromises the free exercise of religious beliefs that reject the neurological criteria of death. Catholics, for instance, are taught by the *Catechism* §365, that the human soul is the substantial form of the body.⁶⁰ As such, the soul is responsible for a body's integrative functioning and unity. This is the central doctrine ofhylomorphism that Aquinas defended⁶¹ and that John Paul II used to identify death with the cessation of bodily integration as the result of the soul's departure.⁶² This affirmation of hylomorphism has been accepted by Catholicism, according to Thomas V. Berg, since 1312.⁶³ Consequently, now that brain death survivors have proven that integrative functioning continues in the brain dead on ventilators, there is irrefutable evidence that their bodies remain informed by their souls. Brain death can thus no longer be taken by Catholics – nor by anybody else – as a sign that a person has died.

States that take seriously the requirement to protect the free exercise of religion thus need to provide a religious exemption to their brain death statutes as does the state of New Jersey.⁶⁴ New Jersey's law not only exempts religious

⁵⁹ Grisez and Lee, for instance, explicitly state that their arguments for brain death is not to be taken "as supporting the adequacy of the procedures that have been used in pronouncing patients brain dead" (op. cit., p. 284).

⁶⁰ *Catechism of the Catholic Church* §365: "The unity of soul and body is so profound that one has to consider the soul to be the "form" of the body: i.e., it is because of its spiritual soul that the body made of matter becomes a living, human body; spirit and matter, in man, are not two natures united, but rather their union forms a single nature."

⁶¹ For Aquinas's arguments about the truth of hylomorphism, see the *Summa theologica* I.76.3-5.

⁶² See John Paul II, *Address*, discussed above in part one of this paper.

⁶³ Berg, p. 39.

⁶⁴ New Jersey Declaration of Death Act. Accessed 9/22/2019 at <http://www.braindeath.org/law/newjersey.htm>: Section 26:6A-5: "The death of an individual shall not be declared upon the basis of neurological criteria pursuant to sections 3 and 4 of this act when the licensed physician authorized to declare death, has reason to believe, on the basis of information in the individual's available medical records, or information provided by a member of the individual's family or any other person knowledgeable about the individual's personal religious beliefs that such a declaration would violate the personal religious beliefs of the individual. In these cases, death shall be declared, and the time of death fixed, solely upon the basis of cardio-respiratory criteria pursuant to section 2 of this act. L.1991,c.90,s.5."

believers from being declared dead on the basis of neurological criteria but also requires insurance companies to continue their coverage.⁶⁵ Without the codification of the latter exemption, insurance companies are not required to cover expenses after brain death is declared, as the Orthodox Jewish family of Yechezkel Nakar discovered. He was declared brain dead in 2017 and was issued a death certificate by New York's Columbia-Presbyterian Hospital before being transferred to Maimonides Medical Center where he lived for about three weeks before succumbing to cardiac arrest.⁶⁶ In January of 2019, the Brooklyn Supreme Court ruled in favor of the wife's lawsuit claiming that the hospital had performed tests to ascertain brain death without permission, had failed to provide "reasonable accommodation" for their religious beliefs, and had issued a premature death certificate.⁶⁷ On the one hand, this decision could be significant in so far as it overturns the assumption that the "reasonable accommodation" for religious belief required by the state of New York could be satisfied merely by delaying the removal of life support after a determination of brain death.⁶⁸ On the other hand, New York law clearly states that hospitals can determine for themselves what constitutes reasonable accommodation.⁶⁹ The Court's decision faults the hospital for failing to follow its own policies.⁷⁰ Either way, as the public becomes increasingly aware that

⁶⁵ *Ibid.*, 26:6A-7: "No health care practitioner or other health care provider, and no health service plan, insurer, or governmental authority, shall deny coverage or exclude from the benefits of service any individual solely because of that individual's personal religious beliefs regarding the application of neurological criteria for declaring death. L.1991,c.90,s.7."

⁶⁶ Kathianne Boniello, "Man dies after hospital prematurely issues death certificate," *New York Post* (June 24, 2017). Accessed 9/22/2019 at <https://nypost.com/2017/06/24/man-dies-after-hospital-prematurely-issues-death-certificate/>.

⁶⁷ Rafael Hoffman, "Judge Rules that Hospital Must Rescind Death Certificate for Orthodox Patient," *Hamodia: The Daily Newspaper of Torah Jewry* (January 20, 2019). Accessed 9/22/2019 at <https://hamodia.com/2019/01/20/judge-rules-hospital-must-rescind-death-certificate-orthodox-patient/>.

⁶⁸ *Ibid.*

⁶⁹ *Guidelines for Determining Brain Death*, New York State Department of Health and New York State Task Force on Life and the Law (November 2011). Accessed on 9/22/2019 at https://www.health.ny.gov/professionals/hospital_administrator/letters/2011/brain_death_guidelines.htm.

⁷⁰ Hoffman, *op.cit.*, "Judge Rules."

brain death is survivable, states can expect lawsuits of this kind to continue until they enact laws granting religious exemptions with insurance benefits as does the state of New Jersey.

Conclusion

Given that the legalization of brain death proceeded on the false assumption that it was a sign of death, it is time for states to update their laws. The brain dead are not dead! Failure to repeal laws permitting death to be identified with the cessation of activity in the brain thus permits unplugging the living from their ventilators – despite their religious beliefs and against the wishes of family members. It also permits harvesting organs from those living with brain death, albeit via consent given by family members or by donor cards. It is to endow doctors, nurses, and medical practitioners seeking to transplant organs from heart-beating, brain-dead donors with the legal right to intend the death of a seriously ill person. Is this why the state of Georgia – like the state of New Jersey⁷¹ – passed a law “that a person who makes a determination of death in good faith will not be liable for civil damages or subject to criminal prosecution as a result of making the determination”⁷²?

Now that it is clear that the death of those with self-beating hearts and non-functional brains is a legal fiction, states must repeal their outmoded identification of death with brain death. Failure to do so perpetuates a grave injustice against those without functioning brains. Continuing the legalization of brain death, moreover, inculcates the attitude that life is not a basic good, that the religious beliefs of patients can be overridden, and that the innocent lives of the brain dead can be intentionally ended for the sake of harvesting organs. This rejection of the prohibition against intentionally killing innocent human life eviscerates a basic criterion for determining what is objectively

⁷¹ *New Jersey Death Act*, op. cit., 26:6A-6: “Immunity granted to health care practitioner, provider, hospital A licensed health care practitioner, hospital, or the health care provider who acts in good faith and in accordance with currently accepted medical standards to execute the provisions of this act and any rules or regulations issued by the Department of Health or the Board of Medical Examiners pursuant to this act, shall not be subject to criminal or civil liability or to discipline for unprofessional conduct with respect to those actions. These immunities shall extend to conduct in conformity with the provisions of this act following enactment of this act but prior to its effective date. L.1991,c.90,s.6.”

⁷² Nikas, op. cit., p. 244.

good and evil.⁷³ A disturbing sign that current practices have already begun eroding belief in the sanctity of innocent human life is the growing interest in ending the rule that organ donors must be dead.⁷⁴

Furthermore, the refusal to repeal current brain death legislation despite the falsification of its assumptions not only undercuts the sacred moral duty to care for others but also endangers all suffering from severe brain injury, even those without the diagnosis of brain death. This is because both types of patients have self-beating hearts, require ventilation, and look like they are sleeping. Neither are physiologically dead, and each must be cared for as living human beings – if we, the caretakers, are to remain human ourselves.

⁷³ See, for instance, my *Ultimate Normative Foundations: The Case for Aquinas's Personalist Natural Law* (Lanham MD: Lexington, 2016), pp. 364-65, 368; Ayn Rand, "The Objective Ethics" in *The Virtue of Selfishness: A New Concept of Egoism*, pp. 13-35 (New York NY: New American Library, 1964 [1961]), pp. 15-16.

⁷⁴ Nikas, p. 251. In support, Nikas cites A. L. Caplan, D. C. Magnus, and B. S. Wilfond. "Accepting Brain Death," *The New England Journal of Medicine* 370 (2014): 891-94.