

The Brain-Dead Body Is Alive, One, and Human: A Response to Maureen Condic and Other Proponents of Brain Death

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ABSTRACT: This paper succinctly refutes the main arguments currently brought forth in defense of the concept of brain death. I begin with a reminder that a sound definition of life was articulated by Aristotle and accepted by St. Thomas Aquinas. Neglecting that definition and its underlying philosophy leads to confusion. Such confusion is apparent in the way scientists and philosophers who defend brain death have misinterpreted the significance of persistent cellular life in cadavers and in explanted organs. I conclude by also showing that, despite a permanent loss of capacity for rational thought, brain-dead bodies cannot be considered subhuman.

SUPPORTERS OF THE CONCEPT OF BRAIN DEATH often argue that the brain-dead body is not alive, or that it is not one (integrated), or that it is not human. I will try to briefly address those three contentions in this essay. Readers can find a more detailed refutation of brain death in a paper that I previously published in the *Proceedings* and elsewhere.¹

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¹ M. Accad, "Of Wholes and Parts: A Thomistic Refutation of 'Brain Death',"

Let me first start by quoting Professor Maureen Condic, who is a prominent proponent of the idea of brain death. In the opening sentence of a recent paper, she states: “Determining when a human has died is scientifically challenging.”²

Condic is correct, but the reason that the determination of death is so challenging for the scientist is that it requires grounding in a sound definition of death, which naturally must be based on a sound definition of life. Unfortunately, there is no consensus among scientists on how to define life. From the standpoint of scientific theory, there are many competing proposals about the criteria necessary to define a body or substance as living or non-living.³

The reason for the confusion, of course, is that the question of the definition of life and death is pre-scientific, philosophical, and metaphysical, but modern science implicitly proceeds as if metaphysics were superfluous, or on the basis of a faulty mechanistic paradigm that cannot distinguish the living from the inanimate.

A sound philosophical definition of life is one that coheres with our common experience and says that a body is alive when it is *self-moving*. That definition, of course, was provided by Aristotle and remains perfectly adequate to this day. A body is alive when it is self-moving, and that is why all of us recognize that the embalmed body of Lenin on display at the mausoleum in Moscow is indeed dead and not alive.

Now, this may seem like a trivial point, but it is an important one. The reason why it is important is that when a body is self-moving, i.e., alive, there is nothing wrong with thinking that a part of the body could be essential to the motion of the whole body, or that a part of the body could initiate the self-movement and impart it to the rest of the body. As a matter of fact, in large animals and in humans, such a part does exist, namely, the heart. The primordial role of the heart in the self-movement of large animals and human

Linacre Quarterly 82 (2015): 217-34 and also published in *Life and Learning XXIV*.

² Maureen Condic. “Determination of Death: A Scientific Perspective on Biological Integration,” *Journal of Philosophy and Medicine* 41 (2016): 257-78.

³ For example, some choose to believe that viruses are living organisms while others deny that assertion. The review by Jean Gayon titled “Defining life: Synthesis and Conclusions” as well as the entire issue of its publication journal, *Origins of Life and Evolution of Biospheres* 40/2 (2010) will give the reader an appreciation of the difficulties that vitality poses for modern science.

beings was presciently recognized by Thomas Aquinas, who referred to that organ as the “material principle of self-movement.”⁴

That being the case, then, it is sufficient for the heart (or the cardiac tissue) to stop moving to cause death. Absence of cardiac motion and pulse, of course, is the traditional and perfectly adequate criterion to determine that a body has died. When the heart stops beating permanently, all other parts of the body will eventually stop moving, and we say that the body is dead.

Condic rejects these ancient notions about life and death and proposes instead a more elaborate definition of death that takes into account the persistence of cellular life for weeks after the heart stops beating.

Her definition is as follows: “Human life...concludes when globally self-integrated organismal function irreversibly ceases.”⁵ This definition is meant to emphasize biological *integration* in the definition of life. Her point is that the remaining cells that are alive after the heart stops beating are simple collections of cells, which are not integrated with one another.

The problem with Condic’s focus on integration is not that it is irrelevant but that it is misplaced. Integration is important not to determine whether a body is alive but to determine that it is *actually a body*. To be a body and to be one are convertible concepts. Condic and anyone else who admits that the brain-dead body is *a body* necessarily admit that it is integrated. There is no reason to prove or disprove this further, unless the integrity is in question.

But the integrity of the brain-dead body is not in question. Scientists and clinicians, as well as family members, speak of it as being *one* thing, not *many* things. Further, the various coordinated functions that brain-dead bodies demonstrate (homeostasis, healing, growth, sexual maturation, immunity, etc.) corroborate that integrity.

When Condic objects that these functions are also seen in isolated cells and tissues maintained in culture, her objection reflects an equivocation that pervades the brain-death debate: terms by which we designate bodily parts and functions do not refer to the same things when they are used in contexts that are outside the body.

For example, when Condic makes the point that immunity, stress response, temperature regulation, and so on can occur in culture dishes, she is mistaken. Immune defense cannot occur outside the body because there is no

⁴ Thomas Aquinas, *De Motu Cordis*.

⁵ Condic (2016), p. 262.

body to defend. Temperature cannot be regulated in the culture flask because there is no body whose heat must be maintained. Wound healing cannot occur in the laboratory because healing only makes sense in a whole organism, and so on. All that we see in the culture dish are cellular behaviors that may indeed have some relevance to mechanisms of action in the body. But the relevance of these behaviors to bodily function cannot be used to deny the integrity of the brain-dead body.

Condic and others argue as follows, saying: “look, we know that coordinated cellular processes like immune function, wound healing, temperature regulation can occur outside the body under artificial means. What happens in the brain-dead body is that these same cellular processes are happening not in a culture dish, as it were, but in the environment of the hospital bed, and are kept artificially going by the ventilator and the intensive care.”

Similarly, Professors Lee and Grisez, in their own paper defending brain death, devised a thought experiment in which they consider a lung explanted from a body, on its way to being transplanted into another person’s body.⁶ They reason that if this lung were connected to a bunch of other organs (but not to a brain) and maintained artificially alive, the collection of organs would never constitute something that we would call a human being. Lee and Grisez thus argue that the brain-dead body is like that: a collection of organs working together under the artificial support of the ventilator.

The problem with the contention of Lee and Grisez is, first, that their thought experiment is pure science fiction. We are nowhere near the point to claim that we can do this, nor can we easily expect that such a construction would be metaphysically possible.

Second, and more to the point, it is wrong to say that the explanted lung is actually a lung. Following Aristotle’s remark made centuries ago,⁷ we should also say that an explanted lung is called a lung only equivocally. It is truly a lung only if it facilitates gas exchange for a body. An explanted lung does not do anything of the sort. It is cut off from its supply of blood vessels that normally feed it blood, and it is not an organ because “organ” means “instrument” and a separated lung is not an instrument of anything.

⁶ Patrick Lee and Grisez Germain, “Total Brain Death: A Reply to Alan Shewmon,” *Bioethics* 26 (2012): 275–84.

⁷ Aristotle, *De Anima* II.1, 412b20.

So, how are we to think about a so-called organ that has been explanted and can be implanted into another body? Precisely as a mass of cells that is *potentially* a lung and can be actualized into becoming a lung if it is implanted rapidly enough into another suitable body.

What has eluded the proponents of brain death is that the ontological status of cells changes when they are separated from the body. When cells are part of a body, they are informed by the entitative principle – the form and soul – of that body. When cells are separated from a body and remain alive, or when the body *as such* dies but cells in the body remain alive, these cells have now a different entitative principle. They have “recovered” a vegetative nature that informs them as individual, separated cells.

The doctrine that explains this ontological change is the doctrine that Aquinas termed “the virtual presence of elements in complex bodies.” Although he was unaware of the existence of cells, his theory applies perfectly to the cellular phenomena that modern science has revealed.⁸ Attention to this doctrine avoids the equivocation that confuses the proponents of brain death.

The explanted lung, then, is a mass of vegetative cells that, for a brief period, maintains a disposition to be informed again by a human soul. Past that time, however, the matter is no longer disposed for transplantation. The cells either die or behave as simple vegetative cells that are no longer matter for being united to an animal body.

Even when derived from a human or an animal, cells in a culture dish are vegetative substances, and the behaviors that they manifest are vegetative behaviors: growth, nutrition, and reproduction. Now, the cells may emit certain chemicals that we know would be involved in immunity, in gas-exchange, or in blood filtration *if the cells were present as part of an animal body*. But, in the culture dish, the cells certainly do not immunize, exchange gas, filter blood, and so on.

Inside the brain-dead body, however, the cells clearly function as part of a unified being, a *body*. That body is integrated because it is a body and alive because it is self-moving. The provision of artificial support (the respirator) does not alter the fact that the motion remains *intrinsic*. The motion comes from within. The respirator allows gas exchange to take place, but in no way

⁸ I recently examined the application of the doctrine of virtual presence to cellular life in a paper entitled “Hylomorphic Elements and the Cell Theory: A Basis for Biological Law?” in *The Thomist* 80 (2016): 563-82.

generates the motion of the body. That motion is generated intrinsically by the heart that, so long as it is beating, identifies the body as being alive.

Having countered the arguments raised to cast a doubt regarding the integration and vital status of the brain-dead body, I will now address those casting doubt on its humanity.

The position that the brain-dead body is not human has been advanced by Patrick Lee and Germain Grisez but also by the late Fr. Benedict Ashley.⁹ It boils down to saying that a brain-dead body cannot be disposed to a rational soul because the body lacks permanently the capacity for rational thought.

That argument is erroneous because the power of reason is a spiritual power and belongs properly to the soul. The intellect and will are operative potencies of the soul. They manifest its “second act” as its operations, not its “first act” as an entitative principle. Moreover, operative potencies are not exercised at all times throughout the life of the person. For example, when our eyes are closed, we do not exert our power of sight, and when we sleep, we may not exert our powers of reason and will. We are fully human whether blind or in a slumber.

The fact that a body lacks in a radical way the capacity that would allow the soul to exercise an essential power is not, in and of itself, an argument to conclude that the body lacks the disposition for that soul. For example, the power of reproduction is an essential power for all forms of life, including vegetative life. Yet, nature sometimes produces sterile organisms. If a sterile plant is indisposed to that essential power, are we to conclude that it is not informed by a vegetative soul? If it were not, it would be dead!

To argue that the brain-dead body is not apt for a human soul commits a kind of materialistic error. It attributes to matter the power to *identify* the essence of the organism. It says, in effect, that “not having a certain material part identifies a being as non-human.” But this is assertion begs the question. The old dictum is worth remembering: *action follows being*. We know what something is by how it behaves, not by what it is made of. It is from the actions and operations that we can determine the kind of being that it is. And who is to say that the behavior of a brain-dead body is not in fact perfectly compatible with human action and operation following severe brain damage?

⁹ Benedict Ashley, “Integrative Unity and the Human Soul,” *National Catholic Bioethics Quarterly* 1 (2001): 7–9.

Besides, if we reason that the brain-dead body is not informed by a human soul, then the question arises as to what kind of soul would be informing it. By the same reasoning it cannot be an animal soul, since the body lacks the capacity for sentience, so it must be a vegetative soul. But what kind of vegetative soul has the power to maintain body parts that are clearly animal parts, like hearts, kidneys, liver, etc., or (more improbably) allow its body to gestate and carry to term human beings, the way some brain-dead bodies have?

Clearly, this is an untenable proposition and we must conclude unequivocally that the brain-dead body is alive, is one, and is definitely human.