

## DEATH IS A BIOLOGICAL PHENOMENON

– Don Marquis –

**Abstract.** John Lizza says that to define death well, we must go beyond biological considerations. Death is the absence of life in an entity that was once alive. Biology is the study of life. Therefore, the definition of death should not involve non-biological concerns.

**Keywords:** death, life, the organism as a whole, integrated functioning of the body’s major organ systems, irreversible loss of mentation.

John Lizza says, “considerations of our nature that go beyond strictly biological ones strongly support the acceptance of brain death as death.”<sup>1</sup> I shall discuss whether or not Lizza’s claim is true.

The matter of whether the death of the entire brain is a sufficient condition for the death of a human being seemed to have been settled – at least in the United States – in 1981. In that year, the President’s Commission published a report in which it endorsed the following definition of death:

An individual who has sustained either (1) irreversible cessation of circulatory and respiratory functions, or (2) irreversible cessation of all functions of the entire brain, including the brain stem is dead.<sup>2</sup>

The purpose of this report was to defend the addition of (2) to the traditional definition of death, which was (1). That addition had the advantage of permitting vital organ donation from brain-dead patients without killing the donor. This definition was endorsed by the American Medical Association and the American Bar Association. With one exception, it became the law in each of the states in the Union. There was no significant controversy over this definition for the next two decades. Therefore, I shall refer to this definition as “the orthodox definition.”

In 2001, D. Alan Shewmon, a pediatric neurologist affiliated with the University of California at Los Angeles (generally known as UCLA), published

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<sup>1</sup> Lizza (2018): 17.

<sup>2</sup> President’s Commission for the Study of Ethical Problems in Medicine and Biomedical and Behavioral Research (1981): 2.

a thoughtful paper that questioned this orthodoxy.<sup>3</sup> The President's Commission had defended the addition of (2) to the traditional definition of death on the basis of the following, clearly biological and clearly valid, argument:

- (1) A human body is alive only if there is integrated functioning of the body's major organ systems.
- (2) There is integrated functioning of the body's major organ systems only if that body contains a functioning brain.
- (3) Therefore, if a human body does not contain a functioning brain, then that human body is no longer alive.<sup>4</sup>

Shewmon argued that (2) is false because there are many ways in which a body's major organ systems are integrated even in the presence of the total and irreversible absence of all brain function and even if the continuation of that integration requires the use of a ventilator. Shewmon pointed out that in such bodies there is circulatory function and oxygen exchange through the alveoli which enables the oxygen necessary for metabolism to be delivered to cells throughout the body (except the brain, obviously). He pointed out that in such bodies cellular metabolism throughout the body also requires renal function, hepatic function, and the functioning of the digestive system.

Although I believe that Shewmon's view is clearly correct, there is presently no consensus favoring either Shewmon's or the President's Commission's view. I take it that this is one of the reasons why Lizza claims that:

In this paper, I will argue that what it means for an organism to be integrated "as a whole" is undefined and vague [...] as assumed in the biological paradigm of death.<sup>5</sup>

Lizza's claim is puzzling. On the one hand, what it means for an organism to be integrated "as a whole" is indeed undefined and vague. On the other hand, Shewmon and the President's Commission believed that the key property that made an organism living was not an organism being integrated "as a whole," but the integrated functioning of the body's major organ systems. That the former notion is vague does not entail that the latter is vague. Also, Lizza actually does want to understand death in terms of the loss of the integrated functioning of the organ-

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<sup>3</sup> Shewmon (2001): 457-478.

<sup>4</sup> President's Commission for the Study of Ethical Problems in Medicine and Biomedical and Behavioral Research (1981): 32.

<sup>5</sup> Lizza (2018): 2-3.

ism as a whole. This concept is, indeed, vague. One wonders why Lizza does not think that his objection to a vague criterion does not undermine his own account as to what constitutes death.

Fortunately, Lizza provides for us a more definite account of what he believes death is.

The view that I defend is often referred to as a “higher-brain” or “consciousness-related” formulation of death. It distinguishes the death of the human being or human person from the death of an organic body. In this view, death is understood as the irreversible loss of the psychophysical integration of the human being or human person. It accepts the irreversible loss of consciousness and every other mental function as the criterion for determining our death.<sup>6</sup>

Lizza’s account of death enlarges the class of dead humans beyond those who have been determined as dead on the basis of the orthodox definition. Humans with brain stem functioning but who have irreversibly lost all mental functions are still alive according to the orthodox view, but dead according to Lizza’s. Put another way, humans who can breathe without the aid of a ventilator, but who lack all mental functions are still alive according to the orthodox view, but are dead according to Lizza’s. Lizza rightly worries about the difficulties of diagnosing the irreversible loss of all mental function when other biological functions persist.<sup>7</sup> Nevertheless, the epistemic difficulties involved in determining whether a patient meets a criterion for being dead are different from what the criterion is.

What are Lizza’s arguments for his broader account of death? He claims that:

Since interests, values, and ontological considerations besides strictly biological ones affect the concept by which we individuate and identify living things, those non-biological considerations bear on what it means for a particular kind of living thing to exist as a whole.<sup>8</sup>

If this claim is meant to be about what people who think about the definition of death believe, this claim is plainly false. Others who write about the definition of death do not think of death this way including the President’s Commission.

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<sup>6</sup> Ibidem: 3.

<sup>7</sup> Ibidem: 8, fn. 26.

<sup>8</sup> Ibidem: 3.

Therefore, Lizza will have to call upon other arguments to make the case for his definition.

Part of what leads Lizza astray is that he conflates the concept of a human being and a human person.<sup>9</sup> Such a conflation obliterates a standard distinction in bioethics which has featured in discussions on the ethics of abortion for over forty years.<sup>10</sup> According to this distinction, a human fetus is a human being, that is, it is a human organism who is a member of our species. However, such a fetus is not a person because it does not possess the intellectual faculties that distinguish us from lower animals. Many defenders of abortion choice typically go on to argue that having the right to life is associated with being a person and abortion choice is morally permissible because fetuses, while human and alive, are not yet persons. Making the distinction between human beings and human persons does not, by itself, commit one to a prochoice position with respect to abortion.

Obliterating this distinction at the other end of life, as Lizza does, also obscures what needs to be kept distinct. It is plainly true that brain-dead human beings are not human persons, given a rather standard mentalistic account of what a person is. Whether they are human beings is far less obvious. The obliteration of the distinction between human persons and human beings allows Lizza to make an argument that has all of the virtues (as Bertrand Russell said in another context) of theft over honest toil.

Lizza gives two reasons for criticizing the President's Commission's understanding of death as the absence of integrated biological life in an organism. The first is that:

It is not metaphysically neutral because it treats the human being as simply a biological being (an organism) and rejects alternative metaphysical views about its nature.<sup>11</sup>

What can Lizza mean here? Obviously, if we were beings that exemplified *only* biological properties, that is, properties that one would find discussed in a textbook of human physiology or human pathology, then the world's great novels, plays, and philosophies would never have emerged. Nevertheless, we can certainly understand the difference between life and death without taking into account all of these non-biological matters. Furthermore, where are all these other metaphysical views lurking about? The view that we are biological organisms is the

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<sup>9</sup> Ibidem: 3, fn. 6.

<sup>10</sup> See Warren (1973). Warren's essay has been widely reprinted.

<sup>11</sup> Lizza (2018): 5.

scientific view of what we are – this is, after all, the 21<sup>st</sup> century. Therefore, this first reason has no force.

Lizza also claims that:

It is not value neutral because the meaning of “irreversibility” of circulation, respiration, and brain function in its proposed criteria for determining death is not value neutral.<sup>12</sup>

Lizza has endorsed this view on a number of occasions yet there are good arguments to which he has never replied.<sup>13</sup> Note that neither the claim that a patient’s hypercholesterolemia is irreversible nor the claim that her hypertension is irreversible is determined by values. So why should the truth of the claim that a patient’s heart stoppage is irreversible be determined by values? Such a claim has a perfectly clear interpretation independently of values, namely that the necrosis of the patient’s myocardium is so extensive that her heart will never beat again, whatever we do. Therefore, Lizza’s thesis appears to rest on two claims that he does not adequately defend.

Lizza argues that the death of a human being has always been understood in cultural terms, and therefore, to divorce this understanding of death from biological phenomena is not to be faithful to our traditional understanding of death. He says:

Why should we abandon what has always been a commonsense understanding of death that did not depend on knowing a point at which the organism has irreversibly lost its integration as a whole, but has always involved recognition that conscious interaction with the human person is no longer possible?<sup>14</sup>

Lizza claims that “Our death has always been a ‘cultural’ and biological event.” Lizza’s claim is not true. I have a friend who told me that her son passed away four days before he was found dead. His body’s conversion from a state of being alive to a state of being dead (which is what we are really talking about) was not a cultural event. Her belief would be unintelligible if Lizza were correct. My mother became unconscious and died three days later. This claim would be unintelligible if Lizza were correct. I have known of patients (years ago, before the use of gastrostomy feeding) who had suffered a stroke so severe that there was no sign

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<sup>12</sup> Ibidem: 5.

<sup>13</sup> Marquis (2010).

<sup>14</sup> Lizza (2018): 16.

of mentation and who were kept alive with intravenous fluids. (Of course, they did not live long.) These phenomena would be unintelligible if Lizza's account of the traditional meaning of death were correct.

The trouble with Lizza's view, that to properly understand death is to understand more than biology, is that our understanding of death *ought* to be based on biology, not on culture, interests, value, or anything non-biological, as Lizza would have it. Death is the absence of life in an individual who was once living. Determining what the absence of life is involves understanding what life is and this is the particular province of biology.

Biology is the study of living things. What distinguishes the study of biology from the study of chemistry or physics or engineering is precisely that biology is the study of *living*, as opposed to non-living, things. What distinguishes a living organism from a corpse is that the living thing is *living* and the corpse is not. The determination of whether an object is *living* or not is in the province of biology.

Where did Lizza go wrong? I suspect (but I do not know) that Lizza is assuming that to be human and alive is to have the right to life. Furthermore, Lizza assumes that the above statement is true by definition. I would conjecture that this is why Lizza assumes that the definition of death must have a values component.

Legions of philosophers have rejected both Lizza's assumption and (of course) that Lizza's assumption is true by definition. I agree with both rejections. For Lizza to persuade us that his definition of death is correct is to persuade us that his assumption is correct. He has not done so and, indeed, he has not even tried.

I would be remiss if I did not offer a final, but surely important, objection to Lizza's account of what amounts to the death of a human being. Lizza believes that we are biological organisms. Suppose you are doing research on mice. Suppose you are doing research on hepatic function. In order to spare the mouse the trauma of the research, you render the mouse permanently incapable of mentation. A biological organism that has irreversibly lost the capacity for mentation, but on whom you can do research on hepatic function, is surely alive, otherwise you could not do research on the mouse's hepatic function. Corpses lack hepatic function and, if this is so, then surely a human organism in the same situation is alive. However, according to Lizza, such a human organism is dead. We cannot be both alive and dead and plainly an account of death which has these consequences is unsound.

Indeed, this problem becomes apparent from a careful reading of Lizza's text. Lizza wants to distinguish a human being from an organic body. I *am* an organic body. Of course, I have properties that an organic body may not have. How-

ever, the fact that I am more than an organic body does not entail that I am not an organic body. There is a big difference between my being a living organic body and the successor of that body when it, as they say, “will have returned to dust.” That is the difference, indeed, the *traditional* difference, between life and death.

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