

Brain Death vs. Heart Death

STÉPHANE BAUZON

“There exists in contemporary culture a certain Promethean attitude which leads people to think that they can control life and death by taking the decisions about them into their own hands.”

(John Paul II *Evangelium Vitae*, 15)

This somewhat provocative title, *Brain Death vs. Heart Death*, is aimed at pointing the current debate about having Brain Death as the unique criterion to define human death. Nowadays, Brain Death is commonly well accepted for two main reasons. The first reason, which dominates the current medical practice,¹ lays on the idea that human life ceases with the total loss of brain function. Besides this biological definition of human death, there is also a sociological reason aimed at guaranteeing legal immunity for discontinuing life-prolonging measures and at collecting vital organs for the purpose of saving the lives of other human beings through transplantation.

These two reasons (biological and sociological) are being harshly debated by many scholars, mainly catholic but not only, such as the German ROBERT SPAEMANN, the Italian ROBERTO DE MATTEI, the Japanese YOHIO WATANAE, the American ALAN SHEWMON, and so on. My intent is to give here a synthetic view of their arguments against Brain Death as a sound criterion to define human death as well as to briefly comment on the idea that the *neo-cortex* (the cerebral hemispheres) is the place where human consciousness would be located.

*

In the public opinion as well as for the majority of physicians, Brain Death is perceived as a sound scientific way to define the specific moment of human death. The old criterion of death (still used some decades ago) of the ‘irreversible’ cessation of respiration and heart beat is no longer decisive. Certainly, this irreversibility leads inevitably to the destruction of brain tissue and the death of all other organs but with the invention of mechanical ven-

¹ See World Medical Association (WMA) *Declaration on Death* adopted by the 22nd World Medical Assembly in Sydney, Australia, August 1968.

tilation, the circulation of oxygenated blood can be maintained artificially. Furthermore, the criterion of cardio-pulmonary death does not really indicate the death occurred immediately after the end of breathing and heartbeat, but at a later moment. Then, if we want to declare someone to be a 'corpse' we have to be absolutely certain of the *s p e c i f i c m o m e n t* of death and Brain Death seems to be the right criterion to indicate it. Nevertheless, it is not so sure that Brain Death is not also part of the process of dying and, as a result, Brain Death remains an 'estimated' definition of death.² In any case, as HANS JONAS said, even if we can barely define "the exact borderline between life and death—we let nature cross it, wherever it may be",³ we have to justify discontinuing measures that prolong life. As for this latter point, the definition of Brain Death as "the irreversible cessation of all functions of the entire brain, including the brain stem"⁴ is criticized for its vagueness. According to it, the brainstem, which controls breathing and many other vitally important processes in the human body, must be irreversibly destroyed. This specific clinical evaluation (also called *apnea test*) is a test of the respiratory cephalic reflex. But this diagnosis (which consists in the transient withdrawal of mechanical respiratory support, up to 10 minutes in most countries) may cause irreversible damage to brain tissue. For medical reasons, at least according to DAVID W. EVANS, "the prescribed testing of brain stem function is not rigorous"⁵ enough to define human death. Moreover, the means to register Brain Death differs from one place to another. For instance, the *electroencephalographic* (EEG) is not required in the United Kingdom even if throughout the world we can say that death is now perceived as being equivalent to the flat line in the EEG. We could even be tempted to affirm that death has become an 'isoelectrical silence'! In fact, and on the contrary, we must know that residual EEG activity can last up to 168 hours after the clinical 'diagnosis' of brain death...!⁶ Actually, if Brain Death is well accepted in the public opinion, it is not for its scientific background to define the moment of death, but for a utilitarian reason that allies a medical approach of the process of dying with the social need of having human organ procurement. However, dying is not death! Here lays the risk to think that 'brain death' is as good as death for transplant purpose, and then forget that the improved knowledge on the pathophysiology of coma could now save lives that would have been hopelessly lost years ago. This is the case especially for people in persistent vegetative state (PVS) who could be defined as 'dead persons' at least according to PETER SINGER's standards⁷ (when the organic basis of typical human mental processes ceases to exist, the person is dead) and their organs usefully procured to other patients.

² *Definition of Death* ed. S. J. Younger, R. M. Arnold & R. Shapiro (Baltimore & London: Johns Hopkins University Press 1999) and *Revisiting Brain Death* ed. B.A. Lustig [special issue of the] *Journal of Medicine and Philosophy* 26 (2001).

³ H. Jonas *Technik, Medizin und Ethik Zur Praxis des Prinzips Verantwortung* (Frankfurt 1987), p. 221. See also H. Jonas 'Against the Stream: Comments on the Definition and Redefinition of Death' in his *Philosophical Essays From Ancient Creed to Technological Man* (Englewood Cliffs, New Jersey: Prentice-Hall 1974).

⁴ *WMA Declaration on Death* [note 1], para. 4.

⁵ This criterion ignores evidence of persisting medullary cardioregulatory function, and it declines to make use of special techniques which can reveal active brain stem neural pathways, see D. W. Evans 'The Demise of »Brain Death« in Britain' in *Beyond Brain Death The Case against Brain Based Criteria for Human Death*, ed. M. Potts, P. A. Byrne & R. G. Nilges (Dordrecht: Kluwer Academic Publishers 2000).

⁶ Cicero Galli Coimbra, 'The Apnea Test – A Bedside Lethal »Disaster« to Avoid a Legal »Disaster« in the Operating Room' in *Finis Vitae Is Brain Death Still Life?* ed. R. de Mattei (Rome: Rubbettino-CNR 2006).

⁷ P. Singer *Practical Ethics* 2nd ed. (Cambridge: Cambridge University Press 1993).

As R. D. RUOG wrote: "The most difficult challenge for the concept of 'brain death' would be to gain acceptance of the view that killing may sometimes be a justifiable necessity for procuring transplantable organs".⁸

*

The obvious advantage of 'Brain Death' is to make more organs available for transplantation. Currently, most lay people are convinced that the donation of organs is a noble deed based on humanity and that organ transplantation is a wonderful therapy that can save lives of patients suffering from otherwise incurable illnesses. However, the voice of the antagonists of Brain Death is seldom heard and their criticism of the vagueness of the Brain Death criterion is quickly dismissed by most physicians. Besides, they are not often taken seriously when they denunciate the idea that the *neo-cortex* (the cerebral hemispheres) is the place where human consciousness would be located. The criterion of brain death has become dominant not only for medical reasons (i.e. ventilation techniques) but also for a philosophical assertion that human life is reduced to brain activity with a split between the Brain and the Body. It is true that the biological process of dying can be 'arrested' for some days while the functions of the lungs and the heart are maintained. For instance, a pregnant woman can be 'kept alive' for months until the unborn child can be delivered. Nevertheless, a 'spiritual life' is not only a "material" located in the brain. In other words, one may think that his or her 'spirit' is like an 'algorithmic program', and the brain is like the hardware, and the destruction of the latter implies the 'death' of the former in both cases. But such an opinion is just a mere opinion; it is not a scientific fact. One may think like FRANCIS CRICK that "you, your joys and your sorrows, your memories and your ambitions, your sense of personal identity and free will, are in fact no more than the behaviour of a vast assembly of nerve cells and their associated molecules."⁹ But this is not a scientific assertion, just a mere philosophical opinion (that can be qualified as 'scientific') that will never explain to us the quality or the intelligence of human spirit. As a result, the talk about 'Brain Death' becomes no longer a medical issue but a philosophical one. Locating the 'human spirit' in the brain *cortex* is criticized by those, like R. DE MATTEI, who think that "there is a high possibility that brain-damaged body still retains a soul, just like the embryo almost certainly has one from the very first stage of its development". In this perspective, the most important thing to do is to preserve their lives: *in dubio pro vita!* Certainly enough, one may say that such assertion is a philosophical opinion. There is no doubt about it. But the fact of having more organs for transplantation thanks to a definition of death which is not a certainty (epistemologically speaking, we now know that what was described as 'irreversible' some years ago, no longer is so¹⁰), it is a philo-

⁸ R. D. Ruog 'Is it Time to Abandon »Brain Death«?' *Hastings Center Report*, 27 (1997) 1, pp. 29-37, quoted by W. F. Weaver 'Unpaired Vital Organ Transplantation: Secular Altruism? Has Killing Become a Virtue?' in *Finis Vitae* [note 6].

⁹ F. Crick *The Astonishing Hypothesis The Scientific Search for the Soul* (New York: Scribner 1994), p. 3.

¹⁰ A. Shewmon 'The Brain and Somatic Integration: Insights into the Standard Biological Rational for Equating Brain Death with Death' *Journal of Medicine and Philosophy* 26 (2001), pp. 457-478.

sophical decision. Sociologically speaking, the 'brain death' is *u t i l e* (it provides more organs and less sanity cost) but it ought to be challenged for what it really is: a philosophical opinion!

FACULTY OF LAW
UNIVERSITY OF ROME TOR VERGATA
SBAUZON@LIBERO.IT