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“Brain Death” is neither Human Death nor its Sign*

An Answer to Condic, Lee, Moschella and other
Defenders of Brain Death Definitions and
Criteria of Human Death

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Abstract

After an introduction, the main arguments in favor of identifying “brain death” with actual human death are first presented and then (immediately following their presentation) refuted.

1. The first main argument advanced in favor of “brain death” definitions is the following: “brain death” is death because it entails a loss of integration of life, without which properly human life of the organism is lost. This chief argument for “brain death definitions” can be refuted in the following ways:

a) An overwhelming amount of integrative / integrated functions and processes remain in the “brain dead” (first “litany” of Shewmon). Moreover, it is precisely the many brain-independent functions on which human life depends. The “brain-dependent” parts of integration are more important for human health and rational conscious life, not for biological life of the organism as a whole.

b) Condic’s claim that Shewmon confounds integrated with merely coordinated functions is shown invalid by demonstrating the unclear and partly contradictory characterization of this distinction by Condic and the clear presence of “integration” in what Condic calls mere “coordination”. Condic’s and Moschella’s attempt to show the arbitrariness of Shewmon’s refutation of the “brain death rationale” and their attempt to “deconstruct” Shewmon’s arguments fail entirely and commit a series of logical fallacies.

c) Moreover, human life is not reducible to “integrated biological life” in all organs and parts of

the body.

d) That loss of integrated unity is not death, is proven by cases of some farther reaching loss of integration without “brain death” and without loss of consciousness; and hence in clearly living persons: such as after spinal shock or lesions in the high spinal cord.

2. The second main argument in favor of identifying “brain death” with actual human death rests on the singular importance of the brain as the organ needed for conscious and rational activity, and, according to Lee and Grisez, also for sentience (and for this additional reason as well for the rationality of the “rational animal”).

a) A first critique of this argument shows that it is based on a false actualism and dissolution of persons into acts;

b) A second critique of “brain death” definitions and their defense by Lee-Grisez shows that they entail a wrong denial of the unity of the source of rational, sensitive and vegetative life in the single soul of man.

c) The plasticity of the brain allows not only that one cerebral hemisphere replaces the other one, but that even the brainstem is used for basic specific human acts: this constitutes an additional reason why “higher brain death” must not be identified with actual human death.

3. The third main (anthropological) argument for “brain death” claims that the brain is the only seat (or condition) of the presence of the human soul in the body that the brain alone ultimately

is the body. This claim is refuted in the following ways:

a) Respiration (that is distinct from spontaneous breathing) and blood-circulation or transfer of oxygen through the blood are more important for the presence of human life than brain functions, on which human life does not depend.

b) The brain arises late in the life of the human embryo, but the embryo has human life from the beginning.

c) Hemispherectomy and the extraordinary plasticity of the brain prove that neither the dominant nor the non-dominant cerebral hemisphere is the 'seat of the soul'.

d) The goal of brain-implantations pursued by neurologists and neuro-surgeons presupposes that "brain death" is not death of the person.

e) If there existed such an absolute link between brain activity and presence of human life in the body, why would then temporary dysfunction of the brain not result in death or be biological death?

f) 'Brain death' is not complete brain destruction and the brain of the 'brain-dead' continues to exist and shows some biological functions.

4. The thesis of Lee-Grisez that the radical loss of the capacity for sentience and for consciousness (RCS/RCC) in the "brain dead" reduces these to vegetative life is refuted in the following ways:

a) A false interpretation of man being a "rational animal" lies at the root of the RCS Argument

b) A "potency/capacity" based actualistic error about personhood (rational nature) is shown to lie

at the root of Lee and Grisez’s thesis on “brain death”

c) The false assumption of the plurality of souls and of gradual de-ensoulment is refuted philosophically and theologically. Without the assumption of 3 souls in man (an assumption which Lee-Grisez reject) the gradual de-ensoulment theory they propose, is even far more unpalatable than in a Thomist framework of delayed animation. The delayed ensoulment theory of Thomas Aquinas clearly contradicts Church teaching and should thus be unacceptable for devout Catholics as Lee and Grisez.

5. The ethical principle *In Dubio pro Vita* shows that even if the defenders of brain death definitions” were right theoretically they would be wrong practically.

6. Coimbra’s cogent scientific and ethical argument against testing for “brain death” is defended: “Apnea tests are risking to kill persons in order to test whether they are dead,” constitute a crass violation of the Hippocratic Oath and of medical ethics.

7. The mystery of the moment of death must not be reduced to the level of a ‘calculable problem’.

8. The primacy of the moral question over utility demands from physicians a return to the Hippocratic oath..

9. *Ceterum censeo definitionem mortis cerebialis esse delendam.* The medical community should reject the deadly construct of “brain death” that leads to countless homicides and return from the ambiguities and sophisms of “brain death” to the

pre-1968 understanding of death which provides a clear, consistent, and firm rational ground of medical activity.

1 Introduction

There are many arguments in favor of “brain death” amounting to actual death that I do *not* wish to discuss critically in this essay. These are of three kinds:

1.1 I omit arguments in favor of “brain death” that presuppose an entirely wrong materialist or process-philosophical theory of the human person

If a materialist theory of the person *were* right and if there *were no human mind or soul* but the person would be identical with, or a product of, brain events, then “brain death” would indeed be death, and not only be the earthly / temporal “death of the ‘person,’” but his definitive destruction or annihilation. Much of my philosophical life work is dedicated to a refutation of this error.¹

¹See Josef Seifert, “Is ‘Brain Death’ actually Death?,” *The Monist* 76 (1993), 175-202; and in “La morte cerebrale non è la morte di fatto. Argomentazioni filosofiche,” in: Rosangela Barbaro e Paulo Becchi (a cura di/Ed.), *Questioni mortali. L’attuale dibattito sulla morte cerebrale e il problema dei trapianti*. Collana “Dialoghi oltre il chiostro”, diretta da Giuseppe Reale, 12 (Napoli: Edizioni scientifiche

1.1.1 I omit pragmatic arguments such as the wish to obtain organs for transplantation or to have a criterion for switching off ventilators

I omit these arguments (the only ones the 1968 Harvard report used when it introduced the “brain death” notion),² because, first, they are not necessarily espoused by advocates of “brain death” definitions and, secondly, because they possess absolutely no theoretical scientific value, but rather constitute additional motives for doubting the scientific objectivity of “brain death” definitions. Such pragmatic arguments should have *absolutely no impact on the philosophical question of the truth about death*. That I can make good use of the organs of a human being does not make him or her dead and if I have no better argument than the usefulness of his organs, I should abandon “brain death” definitions altogether, and indeed, should be ashamed of introducing such arguments into a scientific discussion of death.

Italiane, 2004), pp. 77-97, but also in my books: Josef Seifert, *What is Life? On the Originality, Irreducibility and Value of Life*. Value Inquiry Book Series (VIBS), ed. by Robert Ginsberg, vol 51/Central European Value Studies (CEVS), ed. by H.G. Callaway (Amsterdam: Rodopi, 1997); the same author, *Leib und Seele* and *Das Leib-Seele Problem und die gegenwärtige philosophische Diskussion. Eine kritisch-systematische Analyse* (Darmstadt: Wissenschaftliche Buchgesellschaft, 1989).

²Ad Hoc Committee of the Harvard Medical School to Examine the Definition of Brain Death: 1968, ‘Report of the Ad hoc committee of Harvard Medical School to examine the definition of brain death’, in *Journal of the American Medical Association* /JAMA, 209, pp. 337-343.

1.1.2 I omit both medically and philosophically nonsensical arguments

Nonsensical arguments such as the following will not be discussed:

- (i) the claim that the “brain-dead” person is dead because he will die soon, as if imminent dying would prove present death, rather than refuting it, because dying presupposes life;
- (ii) the claim that the “brain dead” person is dead because he would be dead without the aid of a ventilator. It is obvious that many other clearly living persons would likewise suffer death, if they were to be disconnected from life-support machines.

What remains then for us to discuss?

2 Main Arguments Advanced in Favor of “Brain Death” Definitions and Their Critique

2.1 First main argument: “brain death” is death because it entails a loss of integration of life, without which properly human life of the organism is lost

Summary statement of this argument: The brainstem is the “central integrator.” Without its function, the human body disintegrates or is reduced to a mere collection of disassociated organs and cells. A brain-dead body is basically the same as if, after a deadly accident of your son, you keep his kidney, liver, or heart in your refrigerator – except that the “brain-dead” corpse looks nicer and more human.

This argument favors brainstem death (or whole “brain death”) definitions because only the brainstem can be said to fulfill such a purely biological integrative function.

2.1.1 Objection 1: An overwhelming amount of integration remains in the BD

D. Alan Shewmon has studied this argument, which he had once adamantly defended,³ with a highly commendable scientific rigor and depth, based particularly on the exact study of more than hundred fifty cases of long-term survivors of “brain death.” He compiled two lists or “litanies” of integrative functions, only one of them depending on brain-function. Moreover, he showed that the integrative functions that are not brain-dependent, such as those of the “little brain of the heart”,⁴ are (or at least con-

³See D. Alan Shewmon, 1985, ‘The Metaphysics of Brain Death, Persistent Vegetative State, and Dementia’, *The Thomist* 49 (1985), pp. 24-80; 1987, ‘Ethics and Brain Death: A Response’, *The New Scholasticism* 61, pp. 321-344.

⁴Here I refer to the work of cardio-neurologist Professor A.J. Armour and his extensive research on the “little brain of the heart”, explained briefly in his paper for a 2005 Meeting on “brain death” at the Pontifical Academy of Science. The results of his research are a very interesting further confirmation of the fact that the brain is not the sole and central integrator of physiological organic life. (See <https://www.heartmath.org/our-heart-brain/>. See also his scientific book, *Neurocardiology: Anatomical and Functional Principles*, By J. Andrew Armour, M.D., Ph.D., as well as his widely accessible e-Book: <https://www.heartmath.org/resources/downloads/science-of-the-heart/>.) The proceedings of this meeting (whose participants have been in an overwhelming majority critical of “brain death” definitions and -criteria) had been prepared for print and I had already corrected the proofs of my presentation. Then suddenly their publication has been for mysterious and never explained reasons suppressed. Many of the contributions appeared a year later in Roberto de Mattei (Ed.), *Finis Vitae: Is Brain Death still Life?* Consiglio Nazionale delle Ricerche, (Soveria Mannelli: Rubettino, 2006, 2007).

tain among them) those constitutive and necessary of the life of the organism, while the brain-dependent functions, though they modulate and enhance the others, are not necessary for human life. Their importance flows from the dependence of conscious life and health on them, but human life *per se* does not depend on any of them. Shewmon concluded, as any scientist should do, that it would be scientifically untenable to choose the list of brain-dependent functions as those on which integrated human life depends, over against the other one. Likewise, it would be untenable to uphold his earlier view that “brain-dead” humans lack all integration given the fact that the list of non-brain-dependent integrated functions is not only equally large and impressive, but counts among them those integrated functions on which human life depends. With regard to these, the brain plays only a modulating role; it has no role in life-constitutive integration. Thus Shewmon concludes quite logically:

“The integrative functions of the brain, important as they are for health and mental activity, are not strictly necessary for, much less constitute, the life of the organism as a whole. Somatic integration is not localized to any single ‘critical’ organ but is a holistic phenomenon involving mutual interaction of all the parts. Under ordinary circumstances the brain participates intimately and importantly in this mutual interaction, but it is not a *sine qua non*; the body without brain function is surely very sick and disabled, but not dead. If BD is to

be equated with death, therefore, it must be on the basis of an essentially non-somatic, non-biological concept of death (e.g., loss of personhood on the basis of irreversible loss of capacity for consciousness), discussion of which is beyond the present scope. The point is simply that the orthodox, physiological rationale for BD is precisely physiologically untenable.”⁵

To see the evidence of integration present in brain-dead patients, we only need to consider the cases of brain-dead mothers who were able to carry their gestation until when their child could be safely delivered, as well as the many cases of chronic “brain death” reported by Shewmon. Of these, the most notable case is the boy TK who continued to live on for an additional twenty years after his diagnosis of “brain death” at age 4.⁶ On the basis of rigorous scientific studies, as well as common-sense observations of the degree of integrated relations between the organs, tissues

⁵D. Alan Shewmon, “Somatic Integrative Unity: A Nonviable Rationale for ‘Brain Death’”, Second International Symposium on Coma and Death, Havana, Cuba, February 28, 1996. Published as “The brain and somatic integration: insights into the standard biological rationale for equating ‘brain death’ with death.” *Journal of Medicine and Philosophy*, 2001, 457-478.

⁶This refers to the very well researched case of “TK”. See D. Alan Shewmon, “The ABC of PVS”, in: *Brain Death and Disorders of Consciousness* [Proceedings of the 4th International Symposium on Coma and Death], ed. Calixto Machado and D. Alan Shewmon (New York: Kluwer Academic/Plenum Publishers, 2004). See also D. Alan Shewmon, ‘Is Brain Death Actually Death? An Autobiographical Conceptual Itinerary’, *Aletheia VII* (1995-1996-1997).

and cells in a “brain-dead” mother necessary for a successful gestation of her fetus, the inevitable conclusion can be only the following: the “brain-dead” patient is totally different from a disintegrated heap of organs and cells.

There are different degrees and types of integrated functions, some of which are not present in brain-dead patients. However, a whole host of other integrated functions, equally important, still remain, and they should not and cannot be disregarded as irrelevant just for the purpose of declaring the patients dead. Moreover, we must not identify those brain-dependent integrating functions that have to do with consciousness and health of a person with the life-constituent integrated functions, dismissing the impressive litany of integrated physiological processes as if those who continue to evidence them could be declared dead for a total absence of integration. For precisely on them, and only on them, human life depends. In the words of Shewmon (I quote the text⁷

- “A second main counter to the litany-of-integrative-functions argument is that one could cite an equally long (if not longer) list of truly somatically integrative functions not mediated by the brain and possessed by at least some BD bodies, raising the perfectly reasonable question why the one list should be given such explanatory weight and the other virtually ignored. Two such non-brain-mediated integrative functions have already been mentioned – respiration and nutrition (in the above understood sense) – but many more could be cited that fulfill Criterion 1, including:
- homeostasis of a countless variety of mutually interacting chemicals, macromolecules and physiological parameters, through

⁷“The Brain and Somatic Integration”, cit., pp. 467ff.

the functions especially of liver, kidneys, cardiovascular and endocrine systems, but also of other organs and tissues (e.g., intestines, bone and skin in calcium metabolism; cardiac atrial natriuretic factor affecting the renal secretion of renin, which regulates blood pressure by acting on vascular smooth muscle; etc.);

- elimination, detoxification and recycling of cellular wastes throughout the body;
- energy balance, involving interactions among liver, endocrine systems, muscle and fat;
- maintenance of body temperature (albeit at a lower than normal level and with the help of blankets);
- wound healing, capacity for which is diffuse throughout the body and which involves organism-level, teleological interaction among blood cells, capillary endothelium, soft tissues, bone marrow, vasoactive peptides, clotting and clot lysing factors (maintained by the liver, vascular endothelium and circulating leukocytes in a delicate balance of synthesis and degradation), etc.;
- fighting of infections and foreign bodies through interactions among the immune system, lymphatics, bone marrow, and microvasculature;
- development of a febrile response to infection (Shewmon, 1998b, Table 1);
- cardiovascular and hormonal stress responses to unanesthetized incision for organ retrieval (Fitzgerald et al., 1995; Gramm et al., 1992; Lew and Grenvik, 1997);
- successful gestation of a fetus in a BD woman (cf. many citations in Shewmon (1998b, Table 1));
- sexual maturation of a BD child (cf. Shewmon (1998b, Table 1): cases 'BES' and 'Baby A' – evidently, these children had some residual hypothalamic function, other endocrine manifestations of which are well described in the BD literature (Arita et al., 1993));

- and proportional growth of a BD child (cf. Shewmon (1998b, Table 1): cases ‘Baby A’, ‘Baby Z’ and ‘TK’).
- In addition to fulfilling Criterion 1, the following non-brain-mediated manifestations of integration also fulfill Criterion 2:
- resuscitability and stabilizability following cardiac arrest (Darby et al., 1989; Lew and Grenvik, 1997), and ability to bounce back from episodes of hypotension, aspiration, sepsis and other serious systemic setbacks (Shewmon, 1998b, Table 1);
- spontaneous improvement in general health (in cases maintained for a prolonged time), i.e., the gradual stabilizing of cardiovascular status so that initially required pressor drugs can be successfully withdrawn, the gradual return of gastrointestinal motility so that initially required parenteral fluids and nutrition can be successfully switched to the enteral route via gastrostomy, etc. (cf. many cases in Shewmon (1998b, Table 1));
- the ability to maintain fluid and electrolyte balance in the absence of diabetes insipidus, or even in its presence but with no or rare monitoring of serum electrolytes and no or rare adjustments in administered fluids and hormonal replacement therapy (cf. many cases in Shewmon (1998b, Table 1));
- the overall ability to survive with little medical intervention (although with much basic nursing care) in a nursing facility or even at home, after discharge from an intensive care unit (cf. Shewmon (1998b, Table 1): cases ‘BES’, Teresa Hamilton, Ronald Chamberlain, the case of Pinkus, Babies ‘A’ and ‘Z’, ‘TK’).
- This is by no means an exhaustive list. The category of biochemical homeostasis, for example, can be subdivided almost endlessly down to every particular species of chemical, enzyme, and macromolecule, for each one of which the regulation of its synthesis, degradation and functioning involves indescribably complex interactions among multiple organs, cells

and tissues. Why should all these non-brain-mediated integrative functions be selectively ignored in discussions of BD, especially when they are undeniably immanent, ‘emergent’, non-localized, ‘anti-entropic’, and more truly somatically integrative at the level of the ‘organism as a whole’ than those in the brain-mediated list? This is especially true of wound healing, immunologic defense of ‘self’ against ‘non-self’, and proportional growth. Even in the most apparently localized of these functions, wound healing, multiple bodily systems distant from the wound participate. Moreover, the potential or capacity for wound healing is diffuse throughout the body, and it is remarkably teleological (within limits): e.g., the molding of a bone-fracture callus is ultimately fine-tuned to accommodate the physiological stresses placed on the bone and is qualitatively altogether different from scar formation in the skin.

- Concerning the gestation of a fetus by a BD woman, the rhetorical mechanistic description of her body as a “human incubator” (Glover, 1993; Hunt, 1992) does injustice to the complex, teleological, organism-level, physiological changes of pregnancy (weight gain, internal redistribution of blood flow favoring the uterus, immunologic tolerance toward the fetus, etc.), which occur despite the absence of brain function.
- Note that both circulation and respiration (in the technical, biochemical sense linked with energy generation) are presupposed as means to many, if not all, of the above functions. In the sudden absence of either, the thermodynamic ‘point of no return’ for the organism is reached within a matter of tens of minutes (excluding anomalous contexts such as ischemia-protective drugs, deep hypothermia, suspended animation, etc.). And once past that moment, the progressive increase in entropy characteristic of inanimate matter would not be therapeutically circumventable even in theory (e.g., even by artificial perfusion of the body with oxygenated blood).
- Circulation is not to be equated simplistically with heartbeat, nor respiration with breathing or lung function. Heartbeat

is not a *sine qua non* for mammalian life (the heart can be replaced by a machine), but circulation is; neither is pulmonary function a *sine qua non* (the lungs can also be artificially substituted), but mitochondrial respiration is. Both circulation and respiration are diffuse throughout the body, and neither is brain-mediated. Thus, in referring to the traditional criterion of death, the phrase ‘circulatory-respiratory’ captures much better the biological essence than the old-fashioned terms ‘heart-lung’ or ‘cardio-pulmonary.’

- But the brain’s role here is one of modulating, fine-tuning, and enhancing an already well functioning immune system, not of imperiously micromanaging a passive and basically incompetent immune system. The same could be said for all other somatically integrative functions: they are all the more effective when modulated by the brain, but neither do they entirely vanish without the brain.”

In her paper “Determination of Death: A scientific perspective on biological integration,” Maureen L. Condic claims that Shewmon confuses integration and coordination.⁸ She makes an interesting distinction “between integrated and coordinated biologic activities” and states: “While communication between cells can provide a *coordinated* biologic response to specific signals, it does not support the *integrated* function that is characteristic of a living human being.”⁹

⁸See on the sophisticated elements of her distinction and its use the critique of Doyen Nguyen, *The New Definitions of Death for Organ Donation. A Multidisciplinary Analysis from the Perspective of Christian Ethics* (Bern: Peter Lang, 2018), pp. 184-192.

⁹Maureen L. Condic, “Determination of Death: A Scientific Perspective on Biological Integration,” *Journal of Medicine and Philosophy*, 41: 257–278, 2016. doi:10.1093/jmp/jhw004 Advance Access publication April 13, 2016, p. 257.

In the case of a “coordinated biological response,” we would not have human life; in case of “integrated function,” we would have it. She goes on stating:

“To distinguish between a living human being and living human cells, two criteria are proposed: either the persistence of any form of brain function or the persistence of autonomous integration of vital functions. Either of these criteria is sufficient to determine a human being is alive.”¹⁰

She argues that the simplest criterion of death, total cellular death, which occurs only approximately one week after clinical death,¹¹ cannot be applied, because using it would be counterintuitive and would mean that embalming the dead or burying them prior to one week after death would be killing them. Her observation that after the death of all cells in his body a person is most surely dead is undoubtedly correct. Even prior to total cellular death, when

¹⁰Condic, *ibid.* p. 257.

¹¹*Ibid.*, p. 258:

The simplest criterion for death is total cellular death; i.e., the transition from a living organism to a collection of non-living organic matter with no viable cells present. Yet cellular life persists in the body for hours or even days after an individual has been declared dead by current medical standards; ...live cells have been recovered from human skin..., dura... and retina... up to 48 hours after death, with cells remaining viable in the human cornea for up to a week...”

only a few more body cells are alive, we clearly deal with isolated cells that lack both coordination and integration. If this happens, the person is surely already dead.

2.1.2 What are “integrated” as opposed to “coordinated functions”?

Condic emphasizes the distinction between “integrated” and “coordinated” functions, or, better, between an organism and an aggregate of cells; at first, she expresses their difference very well.¹² However, her effort to liken an entire “BD” human organism with a whole host of clearly “integrated functions,” to an isolated limb, attributing to both of them nothing but “coordination,” seems to overlook entirely the striking differences between the two conditions, as already clearly shown in Shewmon’s “first litany.” Condic likewise entirely overlooks the fact that Shew-

¹²Maureen L. Condic, “Determination of Death: A Scientific Perspective on Biological Integration” *Journal of Medicine and Philosophy*, 257-278, p. 261:

“Tissues and organs in laboratory culture are aggregates of cellular organisms, but not organisms in their own right. In the natural environment of the body, they are parts that contribute to the function and survival of the (multicellular) organism as a whole.

In contrast to human organs, a human being functions as an organism at all stages of life. From the moment of sperm-egg fusion onward, a human embryo enters into a developmental sequence that will produce the cells, tissues, organs, and relationships required for progressively more mature stages” (Condic, 2008, 2014b).

mon's list of non-brain-dependent "integrated functions" which she cites (e.g., proportionate growth) cannot at all be understood in terms her examples of "coordinated functions." Trying to explain the overwhelming number of non-brain-dependent integrated functions in terms of mere "coordination", she is introducing a term whose precise meaning remains unclear. Does she mean a correlation between physiological events which lack any integrating causal source in the body and therefore do not need life to be explained? Taken in this sense, the concept of "coordination" expresses well, for example, the parallel movement of all clocks in a given time zone. Many clocks indicate the same hour without their existing any integrating cause to explain the relation between them. Leibniz, who denies any causal interaction between the body and the mental world of human thoughts and wills, uses this image of the coordination of all clocks in a given time zone by watch-makers, in order to illustrate what he is calling the pre-established harmony between mind and body, which he attributes to a marvelous divine action of perfectly coordinating chains of independent events. The Leibnizean idea, however, would preserve the whole order and unity attributed by Conditio to integration but attribute it to an external cause. Conditio, however, unlike Leibniz, seems to have in mind by the concept of "coordination" a non-intelligent, non-God-ordained, haphazard correlation without deeper meaning, unity or an integrative force in the body.

Mere "coordination" in this non- or even anti-Leibnizean sense can in no way explain, however, the non-brain-dependent order, complex unity and interaction of the live human

body).¹³

¹³See on this the excellent criticisms made by Doyen Nguyen and E. Christian Brugger. See Doyen Nguyen, *The New Definitions of Death for Organ Donation. A Multidisciplinary Analysis from the Perspective of Christian Ethics* (Bern: Peter Lang, 2018), section 2.4.2, in particular section 2.4.2.2, pp 188-190. See also E. Christian Brugger, “Are “brain-dead” Individuals Dead? Grounds for Reasonable Doubt.” *Journal of Medicine and Philosophy*, 41: 329–350, 2016, p. 340:

“The coordination-integration distinction enables us to conceptualize and name expressions of complex, ordered organization in cells and tissues, and to distinguish them conceptually from organization existing in organisms, even when the expressions appear similar. But we need more than a conceptual schema. Condic says that BD bodies exhibit no integrative functioning beyond the cellular level. But they appear in some cases to express true vegetative function. What signs can we identify to distinguish between coordinated and integrated systems? For example, according to Condic’s classification scheme, the body of a persistently comatose, terminally ill patient, who is suffering from multi-organ failure and dependent on a ventilator, constitutes an integrated system, whereas the body of a cardiovascularly stable BD individual whose non-brain systems are functioning normally is merely a corpse expressing localized coordinated processes. What evidentiary basis do we have for concluding that the one body expresses true integration and the other merely coordination? Without such criteria, how is the heuristic useful for more than formal classification? For example, apart from consciousness, how is an endstage LS patient, who cannot move a muscle and cannot breathe, any more integrated than a chronic BD individual? Or again, why are patients who lose neurologically based somatic

Moreover, she goes on to render this distinction even more unclear by giving a definition of “integration”¹⁴ that fails to describe correctly what characterizes the functions human life exerts in the living body, as opposed to what she calls merely coordinated functions... There are countless human beings clearly and fully alive, to whom not all parts of Condic’s definition of integration apply. For example, how does a comatose patient “generate a response that

integration, including cranial nerve reflexes (e.g., rare cases of the autoimmune disease Guillain–Barré syndrome) integrated?”

¹⁴Maureen L. Condic, “Determination of Death: A Scientific Perspective on Biological Integration” *Journal of Medicine and Philosophy*, 257-278, 271:

“Integration: The compilation of information from diverse structures and systems to generate a response that (1) is multifaceted, (2) is context dependent, (3) takes into account the condition of the whole, and (4) regulates the activity of systems throughout the body for the sake of the continued health and function of the whole. Integration is (by definition) a global response and during postnatal stages of human life is uniquely accomplished by the nervous system, most especially the brain.

Coordination: The ability of a stimulus, acting through a specific signaling molecule, to bring responding cells into a common action or condition. Coordination can reflect either (1) a single type of response that occurs simultaneously in multiple cells or (2) a set of synchronous, but cell-type specific responses. Coordination can be local or global and is accomplished both by the brain and by other signaling systems.”

(1) is multifaceted, (2) is context dependent”? How does one take into account the condition of the whole (which he no longer possesses) in a man whose legs and arms have been amputated and whose non-vital organs (e.g., spleen and appendix) have been removed? How does a dying and seriously ill HIV patient “regulate the activity of systems throughout the body for the sake of the continued health and function of the whole”?

Moreover, she misinterprets her untested and non-evident thesis (synthetic proposition) first as an analytic (tautological) judgment and then adds a synthetic part of the proposition, committing, however, the logical fallacy of a *petitio principii* (*begging the question*), saying: “Integration is (by definition) a global response” (what is a global response? Response to what?) “and during postnatal stages of human life is uniquely accomplished by the nervous system, most especially the brain.”¹⁵ Is not this exactly what has been clearly proven to be false by Shewmon, Austriaco, and others?

If her sentence is interpreted as claim that integration in the postnatal stage is “by definition” solely accomplished by the nervous system and the brain, she would claim that the results of Shewmon’s study are “by definition false”, which obviously is not the case. The ideas of integrated life and “accomplished by the brain” are wholly different from each other. Hence, her statement can only be a synthetic one that is *not* by definition true, such that her reasoning is logically flawed.

¹⁵Condic, *ibid.*, p. 271.

2.1.3 A failed refutation

Condic also offers a kind of *reductio ad absurdum argument* to attack the proof of integrated human life in “brain-dead” patients provided by Shewmon. However, her statement about the absurd consequences that she attributes to the result of Shewmon’s investigations both falsifies the real meaning of his argument and commits the logical fallacy of begging the question.¹⁶ Besides, Condic claims that the “view that the body remains alive after the death of the brain” is a “basically reductionistic argument”. However, the phrase she quotes expresses an assertion, not an argument. Moreover, this affirmation is based on a carefully compiled list of non-brain-dependent and undeniably integrated functions, based on empirical research.

Condic also claims, without the slightest scientific basis,

¹⁶(Condic, *ibid*, p, 274):

“If the integrated function that is uniquely provided by the brain at postnatal stages is not required for human life, distinguishing the living from the dead is simply a matter of degree. And if any arbitrary level of coordination is sufficient to conclude that a human organism remains alive, then an organism is nothing more than the sum of its constituent parts; i.e., if parts remain and their functions persist, then a human organism also persists, at least partially. The view that a body remains alive after the death of the brain is fundamentally a reductionist argument that denies the existence of an integrated human whole beyond the properties of the cells and organs that comprise the body.” If this view were correct, then human death would not occur until every single cell in the body had died.”

that “the integrated function” “is uniquely provided by the brain at postnatal stages”. She makes the further surprising claim that if this “function uniquely provided by the brain” were not “required for human life,” “distinguishing the living from the dead would simply be a matter of degree.” This is another *non sequitur*.

It does not follow from the two litanies that distinguishing the living from the dead is “simply a matter of degree”, but rather, that there are two different types of integration: (i) integrative and integrated processes that are indispensable for human life; (ii) integrative and goal-oriented functions of various types that are necessary for human health and consciousness but not for human life. Practically all of the functions belonging to the first type of integration are not brain-dependent. Among those in the second group, some are brain-dependent, others are not. One of the functions that is brain-dependent and necessary for life, as long as it is not replaced by a machine, is breathing. However, breathing is not respiration. Breathing is primarily the mechanical act of inhaling and exhaling air; as such it is not *absolutely* necessary for human life but can be replaced by the ventilator. Respiration, in contrast, is absolutely indispensable for human life to continue and cannot be replaced by a machine. It entails the exchange of oxygen and carbon dioxide in the lungs, and in every organ and part throughout the body.

Certainly, brain-dependent functions are important for health and consciousness. Flourishing of human life through health and consciousness, though, involves a different type and/or a different level of integration than those that are indispensable for human life as such. Hence Condic’s con-

clusion that Shewmon's two litanies of integrated functions entail that distinguishing the living from the dead is "simply a matter of degree" is wholly unfounded.

Moreover, without offering any proof for her claim, Condic arbitrarily calls Shewmon's impressive list of non-brain-dependent integrated functions "an arbitrary level of coordination" that is not "sufficient to conclude that a human organism remains alive."¹⁷ Her calling it "arbitrary" certainly does not make it so, however. Besides, a "level of coordination" cannot be arbitrary, but only Shewmon's claim that the high level of integrated functions in the "brain dead" individual demonstrates that he lives could be called "arbitrary," but is in no way so.

Moreover, Condic claims that, if Shewmon's litany of integrative¹⁸ functions (showing that the "brain-dead" patient is precisely *not* a mere collection of disassociated organs) were sufficient to show that the organism as such is alive, "then an organism is nothing more than the sum of its constituent parts."¹⁹ By means of which logic does the exact opposite of what Shewmon says follow from his observation? Still less logical seems to be her claim, that

"the view that a body remains alive after the death of the brain is fundamentally a reductionist argument that denies the existence of

¹⁷See Condic, *ibid*, p. 274.

¹⁸One could distinguish "*integrative* functions" as those that bring integration actively about from *integrated* functions or processes as those which result from the former. Sometimes, it is hard to choose between these two terms because the phenomena in question are both integrative and parts of the integrated whole of the human body.

¹⁹*Ibid*, p. 274.

an integrated human whole beyond the properties of the cells and organs that comprise the body. If this view were correct, then human death would not occur until every single cell in the body had died.”²⁰

Such extremely dogmatic claims and her use of hypothetical-categorical inferences of the *modus ponendo ponens*, seeking to reduce Shewmon’s arguments to absurdity, do not achieve their purpose, however. The reason for this is simple: the hypothetical premise of her argument is clearly false, and therefore the conclusions of her above-mentioned hypothetical-categorical syllogisms, even if these had a logically correct form, do not have any value. Her conclusions flow from an untrue and illogical hypothetical judgment that affirms that if the “brain dead” body is alive because of its highly integrated life, life must be conceived as a heap of wholly disintegrated cells, and death can only occur when each single cell has died. One can hardly fail to see that her distinction between integration and coordination, the false premises of her arguments, her arsenal of explicit and implicit faulty logical reasonings against Shewmon, and her self-assured pretense of having refuted Shewmon’s solid result of scientific research, that “brain death is not human death,” are without foundation.

²⁰Maureen Condic, “Determination of Death: A Scientific Perspective on Biological Integration,” *Journal of Medicine and Philosophy* 41, no. 3 (2016), 257-278, p. 274.

2.1.4 A second objection against Condic-Moschella: Human life is not reducible to “integrated biological life”

Condic’s and many other defenses of “brain death” depend, moreover, on philosophically flawed concepts of human life as “integrated biological life” or as “a whole of integrated organic functions of the human organism” (instead of “life of an organism as such”). This and similar notions of human life underlie many “brain death” debates, and lead to various errors in the argumentation of Lee and Grisez (abbr. GL), Condic-Moschella (abbr. CM) and others in favor of “brain death” definitions and criteria of death.²¹ One of the consequences of ambiguities in the concept of “integrated life” are flaws in the argumentation in favor of “brain death” definitions and criteria of death.

The union of body and soul in the beginning and during the earthly life of the human person, which confers the inner unity and integration of cells, organs, body systems, and the physiological life of the human organism as such, is part of human nature, it is the *differentia specifica* that distinguishes man from other persons (angels and God). This dwelling of the human soul in union with, and as “form of,” the human body is the source of the integrated wholeness of the cells, organs, systems, and functions of the human organism. Condic and others are correct when they say that the integrated unity of the bodily life of man

²¹See the detailed critique of Moschella’s writings in defense of BD in Doyen Nguyen masterful work, *The New Definitions of Death for Organ Donation. A Multidisciplinary Analysis from the Perspective of Christian Ethics* (Bern: Peter Lang, 2018), ch. 2 and 3.

is not continuing in a cell-culture taken from my arm and analyzed by Condic years after my death.

However, the presence of the living rational soul in the body, though it certainly depends on the life-constitutive functions and on a minimal level of their “integration,” *is not* this integrated whole of body cells, of organs, and body parts. The intrinsically living human soul that bestows life on the body as such is the cause of the integration of cells, but not identical with them nor with the fragmentary life which all the cells of the body possess, even if they may survive the person’s death. Moreover, human life and the presence of the soul in the body persists even when significant portions of the body are lost or no longer participate in the integration of the organism as a whole.

Condic and Moschella seem to have a notion of human life in which instead of the presence of the soul in the body constituting the earthly life of man, the life of man would just consist of “a functional whole of the organs of the human body and of trillions of cells.”²² Therefore, when, upon “brain death” sizable portions of bodily integration are lost, they claim that death has occurred. However, human life does not consist in the entirety of these coordinated functions throughout the whole of the body. The human person lives just as much without arms or legs, without eyes or ears, without other intact senses. Certainly, if man possesses entirely his integral human form, all his limbs and organs function and cooperate in an integrated order for

²²Condic, *ibid.* p. 262: “Thus, a mature human body is composed of many trillions of cells, but these cells are integrated into a single functional unit that autonomously sustains its own life and health.”

the good of his health. In that case, he possesses both the good of health and wholeness. But he lives whether or not his body is wholly intact, and human life can persist with a minimal part of the body being preserved and functioning in an integrated way. If a high cervical cord quadriplegic with panhypopituitarism is a living patient, and therefore an “integrated” organism and not merely a set of “coordinated” functions, then so also is a “brain-dead” patient.

Similarly, Condic’s definition of coordination as opposed to integration is of little usefulness.²³

For “the ability of a stimulus, acting through a specific signaling molecule, to bring responding cells into a common action or condition” that “can reflect either (1) a single type of response that occurs simultaneously in multiple cells or (2) a set of synchronous, but cell-type specific responses;”

is certainly not faintly precise enough to describe all the kinds of integrated responses of “brain dead” individu-

²³ Maureen L. Condic, “Determination of Death: A Scientific Perspective on Biological Integration” *Journal of Medicine and Philosophy*, 257-278, 271:

“Coordination: The ability of a stimulus, acting through a specific signaling molecule, to bring responding cells into a common action or condition. Coordination can reflect either (1) a single type of response that occurs simultaneously in multiple cells or (2) a set of synchronous, but cell-type specific responses. Coordination can be local or global and is accomplished both by the brain and by other signaling systems.”

als, carefully documented by Shewmon. Moreover, Condic seems to return to using a fallacious “begging the question argument” by claiming that integration can only be accomplished by the brain (an alleged “fact” that remains to be proven and certainly is neither a tautological proposition nor an evidently true synthetic proposition), while “coordination can be local or global and is accomplished both by the brain and by other signaling systems.”²⁴ This statement, apart from using ambiguous terms, seems to be contradictory, for how can the coordination she attributes to the “brain dead” body “be accomplished by the brain” (and “other signaling systems”)?

Against the objections of Moschella, we can also advance a further argument against the “Loss of Integrated Unity Rationale” for “brain death”: Integrative unity of biological functions, however clearly indicative of the presence of human life, cannot be identified with human life – human life is the union of body and soul; as such, it can exist at very low levels of “integration”.

Moreover, there are different levels and types of integrations. As the high spinal cord lesion shows, a very large amount of integrated life activity can be lost without the patient being dead. There exists of course a minimal biological condition of integration in the body for a human being to live. Isolated organs in a refrigerator contain many cells and these single cells possess life but they *do not possess human* life. Conversely, in no way is integrated biological life in all body parts and functions necessary for the life of the human organism to persist – since obviously we can lose

²⁴Condic, *ibid.* p. 271.

a tooth or a finger, or a leg or all limbs, and the complex integrated relations between them and the brain without dying.²⁵

**2.1.5 Shewmon's third objection to
BD-Definitions of Human Death taken from
the alleged "Loss of Integrated Unity" That
loss of integrated unity is not death, is
proven by cases of some farther reaching
loss of integration without "brain death"
and without loss of consciousness; and hence
in clearly living persons: such as after spinal
shock or lesions in the high spinal cord.**

Integrated biological function is, at least as much as in the "brain dead," absent in cases of high spinal cord lesions. In these cases it is absolutely clear that these persons are not dead, even when their brainstem function is lost, because they have consciousness; and it is indubitably certain that no one who is conscious is dead.²⁶ Thus the less drastic loss of (a part of) integrative unity that is caused by dysfunction of the brainstem, is neither death nor a valid sign of death. This loss of integrative function is far less radical because it *does not include loss of the integrative functions (a) of the spinal cord and (b) of the non-hypothalamically mediated endocrine systems*, (i.e., the endocrine subsystems that do not depend on the hypothalamic-pituitary

²⁵This leads to the third argument for brain death discussed below.

²⁶See D. Alan Shewmon, 1997b, "Spinal Shock and 'Brain Death': Somatic Pathophysiological Equivalence and Implications for the Integrative-unity Rationale," *Spinal Cord* (1999), 37, 313-324.

axis). Even if additionally the integrative functions of the brainstem are lost by some hemorrhage, without destroying the cerebral hemispheres, the patient may, in principle, be aroused to consciousness by electric stimulation and hence certainly is not dead.

2.1.6 Moschella’s objection to alleged flaws in Shewmon’s Logic

Melissa Moschella, in her article “Deconstructing the Brain Disconnection–Brain Death Analogy and Clarifying the Rationale for the Neurological Criterion of Death,”²⁷ criticizes this particular argument or “trump card” which Shewmon had developed against identifying “brain death” with actual human death. She attributes to Shewmon a variety of logical mistakes in his argument against “brain death” being actual human death, based on his comparison between “brain dead” patients and individuals with high spinal cord injury.

Moschella’s critique of this second argument of Shewmon against identifying “brain death” with actual human death is first based on a mistaken formulation of the premises and logical form of Shewmon’s argument.²⁸ That she does not offer a “deconstruction of Shewmon’s argument”, and

²⁷Melissa Moschella, “Deconstructing the Brain Disconnection–Brain Death Analogy and Clarifying the Rationale for the Neurological Criterion of Death,” *Journal of Medicine and Philosophy*, 41: 279–299, 2016 (abbr. “Dec. . . , cit.”) doi:10.1093/jmp/jhw006. Advance Access publication April 18, 2016.

²⁸Her form of stating his syllogism (argument) is found on p. 280 of Melissa Moschella, “Dec. . . , cit.”

that her criticism of logical mistakes in Shewmon's second main argument against "brain death" being actual death is mistaken, can be demonstrated in a simple positive way as shown below.

Shewmon's premises and logical form of argumentation could be stated in many forms, but the simplest way that allows us to see that both premises are true and the reasoning correct would be this:

1. A patient is dead in virtue of a loss of the integration of the different organs and bodily functions brought about by the brain (stem), if, and only if, there is no case of a clearly living patient who suffered the same or a larger amount of loss of integration of the different organs and bodily functions than their loss brought about by the dysfunction of the brain (stem).
2. There is such a case of a clearly living patient, who suffered the same or a larger amount of loss of integration of the different organs and bodily functions than those brought about by a dysfunctioning brain (stem): namely the patient *who suffered high spinal cord lesions*.

Therefore: a patient is not dead in virtue of the loss of bodily integration dependent on the functioning brain (stem).

Formalized in a non-technical notation:

1. A is B only if not C
2. C

3. Therefore A is not B.

The logical form (expressed in traditional logic) that can be attributed to Shewmon’s argument is a perfectly valid hypothetical-categorical syllogism of the form *modus ponens* (in which both condition and conditioned part of the hypothetical judgment can be affirmative or negative):

1. S is P, if and only if Q is not R.
2. Q is R
3. S is not P

Both of the premises are evidently true; the logical form correct; therefore the conclusion is true as well.

2.1.7 Moschella’s second objection to this second argument of Shewmon against the loss-of-integrated-wholeness argument for “brain-death” is very much based on the following deficient understanding of “being an organism”

“On the basis of the foregoing discussion, I propose the following as a necessary and sufficient condition for being a living organism:

A putative organism really is an organism if it possesses the root capacity for self-integration. Possession of the root capacity for self-integration (of which the soul is the principle) is evidenced

by (1) possession of the material basis of the capacity for self-integration—i.e., the capacity for control of respiration and circulation—or (2) possession of the material basis of the capacity for sentience.”²⁹

This definition raises several serious problems:

1. It does not take into consideration the character of organisms and capacity of “self-integration” of plants that lack sentience and the capacity for the control of respiration and circulation.
2. It implies that animals and men have “control over circulation”, which is something they do not possess.
3. It confounds the fundamentally different phenomena of respiration and breathing. Only the latter is, minimally, under our control. If breathing fails but is replaced by ventilation, respiration will continue regardless of whether the person is conscious or not. There are other problems with Moschella’s statements that I will not consider here. The here-mentioned difficulties with Moschella’s reasoning are sufficient to show that her objection is not valid.

²⁹Melissa Moschella, “Dec...” cit., p. 289.

2.1.8 Moschella’s third objection against Shewmon’s refutations of the “Loss of Integrated Unity Argument” for “BD” being actual Human death:

Moschella’s third and most intelligent objection against Shewmon is based on her thesis that, as the thought-experiment of the decapitated person used by Shewmon himself in 1985 shows, the brain itself is, in the last analysis, the organism that must be integrated, rather than just integrating the rest of the body whose integration flows from the brain. Moschella rightly points out that “integrated function in the rest of the body besides the brain” (which allows a parallel between the effect of “brain death” and the effect of high spinal cord lesions) is not identical with “integrated function in the rest of the body PLUS IN the brain”. If Shewmon (at least implicitly) used the term “integrated function in the body” in this double sense, his argument would be guilty of a *quaternio terminorum* that would render it invalid. Therefore, according to Moschella, if the brain ceases irreversibly to function and thus loses its inherent “integration”, the human being is dead even if the rest of the body continues to function and show integration. As this objection coincides with the third rationale of arguing for “brain death” being actual death, we will treat it below and see that the logical critique of Shewmon’s second argument against “brain death” would be correct *if his argument would contain the mentioned quadruplication of terms*, which it does not.

2.2 Second Main Argument in favor of identifying “brain death” with actual human death and its critique: the unique importance of the brain as the organ needed for conscious and rational activity, and, according to Lee and Grisez, also for sentience (and for this additional reason as well for the rationality of the “rational animal”) is the point of departure for a new argument for “BD” being human death

Summary of this argument: The brain is the organ needed for conscious and rational activity, and, according to Lee and Grisez, also for sentience (and for this additional reason as well for the rationality of the “rational animal”). Therefore, in virtue of its unique importance and indispensability for rational conscious life man can be alive solely in virtue of his brain functions. If the brain irreversibly stops functioning, the person is dead as person, even if he may live as “organism” (vegetable).

The human brain (especially, the cerebral hemispheres) is indeed, not by its inner structure, but by the mysterious link that binds it so closely to our rational life, a unique organ with a quasi “transcendent role” within the

central nervous system because it is, unlike all other parts and functions of the body, in some way, involved in even the highest spiritual, rational, and religious acts of man. Nota bene: It does not *cause neither* knowledge nor free acts, nor spiritual emotions nor religious acts, but it serves them; it is a condition for their activation. As such, it possesses a unique closeness to the human spirit, and derives therefrom a unique dignity that no other part of the body possesses.³⁰ Peter Singer and many “higher brain death” (cortical “brain death”) defenders rightly recognize this extraordinary role of the brain for consciousness, in spite of their erroneous philosophical anthropology which, objectively speaking, leads to a mistaken exaltation of the role of the brain for consciousness as if the brain were the subject and cause of the rational and spiritual life.³¹ Linked to this evolutionary materialism, which confuses the brain with the cause and subject of conscious life, is an actualism

³⁰In quite another way the sexual organs of human persons possess a similar or even higher dignity because on their functions not only the conscious life of persons, but their very life and existence themselves depend.

³¹See Peter Singer, “Morte cerebrale ed etica della sacralità della vita,” in: Rosangela Barbaro e Paulo Becchi (a cura di/Ed.), *Questioni mortali. L’attuale dibattito sulla morte cerebrale e il problema dei trapianti*. Collana “Dialoghi oltre il chiostro”, diretta da Giuseppe Reale, 12 (Napoli: Edizioni scientifiche Italiane, 2004), pp. 99-99-121. Also Alan Shewmon’s defence of brain death criteria was entirely based on this. See D. Alan Shewmon, 1985, ‘The Metaphysics of Brain Death, Persistent Vegetative State, and Dementia’, *The Thomist* 49 (1985), pp. 24-80; see also, Josef Seifert, “La morte cerebrale non è la morte di fatto. Argomentazioni filosofiche,” *ibid.*, Rosangela Barbara e Paolo Becchi, ed., cit., pp. 77-97.

that reduces the being of the person to performing rational conscious acts, without recognizing that these acts depend on the personal subject himself, who is distinct from and irreducible to his acts, and who continues to exist fully, even when he can no longer exercise his faculties because of the so-called “brain death”.

2.2.1 First critique of this argument: False actualism and dissolution of persons into acts

This view, apart from the materialism it entails, also erroneously reduces the ontological status of the *subject* of conscious acts to the conscious experiences as such.

Kant, by his denial of the objective substantiality of the human person (substantiality is the necessary prerequisite underlying all the activities of the person), may be considered as one of the major influences bringing about such an actualism. Nevertheless, contrary to his general philosophical theory, Kant asserts, in a text written after 1781 (publication date of Kant’s *Critique of Pure Reason*), the untenability of this actualism and the irreducibility of the person to acts.

What is so extraordinary about Kant’s text? In his general philosophical theory, he denies the real substantiality of the human soul, but nonetheless he could not refute the evidence that reality places before him: the person is not reducible his acts: *esse praecedit agere*.³²

³²See Immanuel Kant, *Vorlesungen über die Metaphysik* (Pölitz) PM 201-202:

2.2.2 Second critique of “brain death” definitions as entailing a denial of the unity of the source of rational, sensitive and vegetative life in man

Thomas Aquinas and the Council of Vienne formulated the teaching that the human rational soul, once it ensouls the human body, is the *single forma corporis* that bestows all rational, sensitive and biological (vegetative) life on the human body.³³ Michael Potts has explained well the argu-

Wir werden also von der Seele a priori nichts mehr erkennen, als nur so viel, als uns das Ich erkennen läßt. Ich erkenne aber von der Seele:

1) daß sie eine Substanz sey; oder: Ich bin eine Substanz. Das Ich bedeutet das Subject, sofern es //PM202// kein Prädicat von einem andern Dinge ist. Was kein Prädicat von einem andern Dinge ist, ist eine Substanz. Das Ich ist das allgemeine Subject aller Prädicate, alles Denkens, aller Handlungen, aller möglichen Urtheile, die wir von uns als einem denkenden Wesen fällen können. Ich kann nur sagen: Ich bin, Ich denke, Ich handele. Es geht also gar nicht an, daß das Ich ein Prädicat von etwas andern wäre. Ich kann kein Prädicat von einem andern Wesen seyn; mir kommen zwar Prädicate zu; allein das Ich kann ich nicht von einem andern prädiciren, ich kann nicht sagen: ein anderes Wesen ist das Ich. Folglich ist das Ich, oder die Seele, die durch das Ich ausgedrückt wird, eine Substanz.

³³Thomas Aquinas states in *Quaestiones disputatae de anima*, transl. as *The Soul*, by John Patrick Rowan, (St. Louis & London: B. Herder Book Co., 1949):

“It follows, therefore, that a man’s soul, which is ra-

ment against “brain death” based on Thomistic metaphys-

tional, sentient, and vegetal, is substantially one only. This is a consequence of the argument given in a preceding article (Art. 9) concerning the order of substantial forms, namely, that no substantial form is united to matter through the medium of another, but that a more perfect form gives to matter whatever an inferior form does, and something over and above. Hence the rational soul gives to the human body everything that the sentient soul gives to the brute and the vegetal soul gives to the plant, and something over and above. For this reason the soul in man is both vegetal, sentient, and rational.

The following example also attests to this, namely, that when the operation of one power is intense, that of another is impeded; and contrariwise, there is an overflowing of one power into another, which would occur only if all the powers were rooted in one and the same essence of the soul.”

In his Papal Bull *Licet pridem*, given in Avignon 13 Jan 1313, Pope Clement V writes:

“Moreover, with the approval of the said council, we reject as erroneous and contrary to the truth of the catholic faith every doctrine or proposition rashly asserting that the substance of the rational or intellectual soul is not of itself and essentially the form of the human body, or casting doubt on this matter. In order that all may know the truth of the faith in its purity and all error may be excluded, we define that anyone who presumes henceforth to assert defend or hold stubbornly that the rational or intellectual soul is not the form of the human body of itself and essentially, is to be considered a heretic.”

ics of the human person, and has shown excellently the philosophical inconsistency that comes about if a Thomist (of all philosophers) espouses a “brain death” definition of death which totally contradicts the Thomist teaching on the *unity and substantiality of the human soul*.³⁴

Even if a strict identity of the source of all partial biological life-processes with the spiritual human soul cannot be maintained in the light of modern biology, organ-explantation, and other data, as I argued elsewhere,³⁵ still the unity of the human life and human person does not allow a separation between living human non-persons and human persons. Such a dualism between living human non-persons and living human persons is implied in the “brain death” concept and quite openly affirmed by Lee and Grisez. The unity and unicity of the human soul is the very reason why Shewmon’s earlier and original (but quite un-Thomistic) theory of gradual human de-ensoulment (subsequently revived by Lee and Grisez), is untenable.³⁶

³⁴Michael Potts, “Pro-Life Support of the Whole Brain Death Criterion: A Problem of Consistency,” in *Beyond Brain Death: The Case Against Brain Based Criteria for Human Death*, eds. Michael Potts, Paul A. Byrne, and Richard G. Nilges (Dordrecht, Netherlands: Kluwer Academic Publishers, 2000), See on this also Doyen Nguyen, *The New Definitions of Death for Organ Donation. A Multidisciplinary Analysis from the Perspective of Christian Ethics* (Bern: Peter Lang, 2018), especially ch. 2, in which Nguyen refutes such an actualism and shows that is not only false but also contradicts the philosophy of Aquinas which Lee, Grisez, and Condit invoke but radically falsify.

³⁵See Josef Seifert, *Leib und Seele*, cit.

³⁶See D. Alan Shewmon, 1985, ‘The Metaphysics of Brain Death, Persistent Vegetative State, and Dementia’, *The Thomist* 49 (1985),

2.2.3 Third objection to this argument: The plasticity of the brain allows not only that one cerebral hemisphere replaces the other one, but that even the brainstem be used for basic specific human acts: an additional reason why “higher brain death” must not be identified with actual human death

A third empirically derived objection against the cerebral hemispheres being the absolute bodily condition of the life of human persons was a major ground of Shewmon’s drastic switch of position from his earlier defense of higher “brain death” definitions to their rejection. Based on his careful scientific study of two hydranencephalic children, he found that the neurological dogma taught at virtually all medical schools - that *only* the cerebral hemispheres are linked to specifically human life and consciousness – is erroneous.³⁷ Hence at least the idea of cortical “brain death”, to which this argument from the dignity of the brain as “organ of the spirit” is linked, does not hold up to closer scrutiny.³⁸

pp. 24-80. See my critique in “Is ‘Brain Death’ actually Death? A Critique of Redefining Man’s Death in Terms of ‘Brain Death’”; in: R.J. White, H. Angstwurm, I. Carasco de Paola (Ed.), Working Group on the Determination of Brain Death and Its Relationship to Human Death, Pontifical Academy of the Sciences (Vatican City, 1992), pp. 95-143.

³⁷See Shewmon DA, Holmes GL, and Byrne PA: “*Consciousness in congenitally decorticate children: ‘developmental vegetative state’ as self-fulfilling prophecy.*” *Developmental Medicine and Child Neurology* 41(6): 364-74, 1999.

³⁸His article that is cited on the <http://hydranencephaly.com/> contributed to a more general recognition of these facts, expressed in the 2013 statement of this same page:

This leads us to a critical examination of a further argument in favor of “brain death”. Shewmon, in two partly

“Hydranencephaly is a rare neurological condition in which most of the cerebral hemispheres are absent and replaced with fluid.

Unlike in anencephaly where the damage to the brain happens at conception, in Hydranencephaly the baby’s brain develops normally until “something” happens to cut off the flow of blood to the baby’s brain. The affected part of the brain then starts to die and the tissue is reabsorbed by the body and replaced with cerebral spinal fluid (CSF). The “something” that cuts off the flow of blood to the baby’s brain can be quite brief. Some of the most common causes are a stroke in the baby, prenatal drug exposure, and the death of a twin in utero. In many of the children the cause is unknown. The damage to the brain usually occurs in the 2nd or 3rd trimester of pregnancy and can occur up to a year after birth as well.

While the damage to the hemispheres is typically extensive, the child’s brainstem is usually (but not always) intact. Since in our experience there does not seem to be any clear relationship between what remains of the hemispheres and the abilities of our children, it seems that they rely largely on their brainstems for relating to their surroundings, for expressing themselves and for their various emotional reactions. Given the highly sophisticated neural mechanisms housed in the brainstem, this is not as surprising as it might seem at first blush. Although it is often thought that someone has to have a cortex in order to be aware and interact with their environment children with Hydranencephaly prove otherwise.”

autobiographical articles, sheds light on the fact that his switch of position was far from an arbitrary move, as Condic suggests, but instead the result of empirical research and rigorous philosophical knowledge.³⁹

2.3 Third Main (Anthropological) Argument for “brain death” and its Critique: the Thesis that the Brain is the only Seat (or Condition) of the Presence of the Human Soul in the Body – that the Brain *alone* ultimately *is the Body*

Short statement and explanation of this argument: According to this theory, the only link between body and soul is the brain. Therefore, the destruction of the brain is death, because it is simply the destruction of the body, namely of the only part or function of the body that really matters for human life and on which the incarnational mystery of the body-soul unit depends.

Sir John Eccles and many other authors (including Alan Shewmon in 1985),⁴⁰ have held

³⁹See D. Alan Shewmon, 1997, “Recovery from ‘Brain Death’: A Neurologist’s Apologia,” *Linacre Quarterly* (February 1997), pp. 30-96; 1997, ‘Is Brain Death Actually Death? An Autobiographical Conceptual Itinerary’, *Aletheia VII* (1995-1996-1997).

⁴⁰1985, ‘The Metaphysics of Brain Death, Persistent Vegetative

this view: all the parts of the body can be cut off and just the brain is preserved (this is something which the PAS member Professor Robert J. White did with monkeys), and life would still be preserved, with the soul residing in the brain.⁴¹ Therefore destruction of the brain means destruction of the body and hence death.

Obviously, this argument is based on the acknowledgement of a true state of affairs: the fact that a person can lose a foot, an arm, etc., without dying necessarily implies a crucial distinction between body parts which are necessary for human life and those which are not indispensable for staying alive.

But is it really just a functioning brain that binds the soul to the body such that brain functioning is the exclusive condition for human life? Or is it a beating heart? Obviously, the heart alone cannot be that incarnational body-part or body-function necessary for the body-soul unity, because a machine can substitute for the heart (even though only imperfectly, as Armour et al. showed),⁴² by re-

State, and Dementia’, *The Thomist* 49 (1985), pp. 24-80.

⁴¹See Robert J. White, “Isolation of the Monkey Brain: In vitro Preparation and Maintenance“, *Science*, 141, pp.1060-1061; the same author, “Preservation of Viability in the Isolated Monkey Brain Utilizing a Mechanical Extracorporeal Circulation“, *Nature*, 202, pp. 1082-1083; the same author, “The Scientific Limitation of Brain Death“, *Hospital Progress*, pp.48-51;

⁴²J. Andrew Armour, David A. Murphy, Bing-Xiang Yuan, Sara MacDonald, David A. Hopkins, “Gross and microscopic anatomy of the human intrinsic cardiac nervous system,” *The Anatomical Record*,

placing its pumping function and guaranteeing blood circulation. Therefore, non-heart-beating donors are still alive for a few minutes after cardiac arrest. Thus, to have a non-beating heart does not, simply speaking constitute death, given that the heart-beat can be stopped and replaced by a machine in a living patient and that a person survives cardiac arrest by a few minutes, during which he can be resuscitated, which presupposes that he is still alive. Likewise, spontaneous breathing cannot be that incarnational body-function, because many persons clearly live even though their life depends on a ventilator. Thus the brain, or more precisely its function, seems the only candidate left to be that all-important body-part on which the presence of the soul in the body depends.

Against reducing the core of the body just to the brain, however, we advance the following objections:

2.3.1 First argument against the reduction of the body to the brain: Respiration (that is distinct from spontaneous breathing) and blood-circulation or transfer of oxygen through the blood could still be more important for the presence of human life than brain functions:

Respiration is different from breathing, a function that is essentially not different from pumping air into the lungs through a ventilator; the ventilator can replace breathing, but not respiration. Respiration involves the exchange of

Volume 247, Issue 2, 1997, 289-298.

oxygen and carbon dioxide, a process which takes place in the lungs and every part of the body. In a nutshell, the blood “unloads” its carbon dioxide in the lungs and receives oxygen from the lungs. It carries oxygen from there to the organs, tissues, and cells of the body, these “unload” their carbon dioxide onto the blood. The exchange of oxygen and carbon dioxide at the cellular level, both in the lungs and through the body, cannot be substituted by any man-made machine, let alone the ventilator. Thus as long as respiration and blood-circulation take place, human life is present; it depends on these more than on brain function; life can continue for decades in the body of the “brain dead.”

Indeed, do not human life and the body-soul unit lie even deeper than all of the above-mentioned functions? Should we not take a lesson of metaphysics of human life from certain states of animal life and embryonic life? Even when most of the mentioned vital “functions” are not yet present in the embryo, even when all vital activities are temporarily suspended in cryo-conservation of embryos during the first days of their life, or in some frozen simple living organisms in nature, their life can still be preserved, as if it were buried and hidden behind all its suspended functions. Certainly, it requires marvelous techniques of nature to preserve life in such an inert state but that this is possible demonstrates: life precedes ontologically and originates the vital functions, not vice versa.⁴³ This applies much more to the case of the cessation of brain function. The basic vital

⁴³See Storey, Kenneth B. and Janet M., “Frozen and Alive,” *Scientific America* (Dec. 1990), pp. 62-67.

respiratory and circular functions continue in “brain-dead” patients and there is no proof whatsoever against them being more fundamental conditions of human life and thereby of the body-soul union than brain function.

2.3.2 Second argument: The brain arises late in the life of the human embryo, but the embryo has human life from the beginning.

That the brain arises late in the life of the human embryo is in itself an indication that human life does not depend on the brain and the brain cannot be the only and original seat of human life or soul, since human life begins from conception, and not just six weeks later, as adherents of the “brain birth” theory pretend.⁴⁴ Some “brain death” defenders, such as Patrick Lee, however, argue that the early embryo has the potency to develop a nervous system, while the “brain-dead” patient has lost this potentiality. Therefore, he does not draw the logical conclusion from his “brain death” theory, namely that it leads to the “brain birth” thesis and is incompatible with affirming that human life begins long before the formation of the brain. But this argument is of little weight, because the “radical potency” to develop a brain is not the actual brain and brain-function. If brain-activity were the seat and condition of the psycho-physical unity, or even of the life of the human person, then the early embryo could not have human life. The “brain birth” theorists defend this opinion, which obviously contradicts the clear evidence of the

⁴⁴See Jones, D.G. 1989, ‘Brain birth and personal identity’, *Journal of medical ethics*, 15, pp. 173-178, 185.

identity and life of the human organism from conception. While Lee and Grisez hold fast to the view of “human life from conception”, they also defend “brain death”, thereby contradicting their own view about the beginning of life at conception.

2.3.3 Third argument against the reduction of the body to the functioning brain as if it were the only real body and “incarnating tissue”. Hemispherectomy and the extraordinary plasticity of the brain prove that neither the dominant nor the non-dominant cerebral hemisphere is the ‘seat of the soul’.

The removal of one cerebral hemisphere, even the dominant one, in no way eliminates the conscious life of the person, neither of the adult, nor of the child.⁴⁵ Thus, it is evident that, with respect to its functions in relation to consciousness, the dominant hemisphere cannot be that part of the body whose preservation and/or functioning is indispensable for human consciousness or for human life, let alone that of the non-dominant cerebral hemisphere. In other

⁴⁵A hemispherectomy produces few adverse effects in newborns, and only minor problems in children under age two, in contrast to the considerable adverse effects of the same operation performed on adults. The reason for this is the extraordinary plasticity of the brain of young children. See, for a more detailed assessment of the prognosis of cognitive or motor impairment after hemispherectomy:

Motor and cognitive outcomes in children after functional hemispherectomy. Samargia, Sharyl A. MA, CCC-SLP; Kimberley, Teresa Jacobson PT, PhD. *Pediatric Physical Therapy*: December 2009 - Volume 21 - Issue 4 - p 356-361, doi: 10.1097/PEP.0b013e3181bf710d.

words, the mysterious incarnational factor that accounts for the presence of human life cannot be identified with the preservation and/or functioning of any cerebral hemisphere, whether dominant or not. This follows material-logically⁴⁶ from the fact that neither cerebral hemisphere is a condition for human life or even for conscious human life. If one asserts, logically correctly, that this does not prove by the laws of formal logic that it is not necessary for human life that *either* the dominant *or* the non-dominant hemisphere must function, one seems to fall back into the actualism (already critiqued earlier in the text). One forgets that the human soul, which possesses substantial being in itself⁴⁷ can neither be identified with, nor produced by,

⁴⁶The term “material logic” (as distinct from formal logic) refers to arguments that do not gain their validity from the mere form of the premises and conclusions, but require a consideration of the “matter” of the assertions. Tense-logic is an example of non-formal logic. If I infer that events that happened two years ago happened earlier than an event that happened today, the logical correctness of that inference requires that we understand the nature of time and do not proceed from the mere formal structure of these propositions. See the classical phenomenological work on logic by Alexander Pfänder, *Logic*, transl. from the German third and unaltered edition, by Don Ferrari, *Realist Phenomenology: Philosophical Studies of the International Academy for Philosophy in the Principality of Liechtenstein and at the Pontifical Universidad Católica de Chile en Santiago*, Vol. III, (Frankfurt a. M.: Ontos-Verlag, 2009).

⁴⁷Inasmuch as the spiritual soul of man stands in itself in being and is not an accident of any other being, it is a substance. Inasmuch as it forms the one human being jointly with the body, it is an “incomplete substance”. This means that that it does not have the specific human nature in itself alone but is ordained to form the one human being in its union with the body.

brain functions. It is not plausible either, given its substantial character, that the condition or ‘seat’ of the soul in the human body could depend on a sort of ‘either or’-function, that is, on the function of either the dominant, or the non-dominant cerebral hemisphere, neither one of which is necessary for human life, and not even for human consciousness.

Rather, the parts and functions of the organism as a whole, which are necessary for the biological life of the body, and which clearly also persist in the “brain-dead” patient who may survive for years, are found “elsewhere” other than the cerebral hemispheres.

This argument here is further confirmed by what has been stated in section 2. C about hydranencephaly, in which the brainstem assumes many functions that are normally performed only by the cerebral hemispheres.

2.3.4 Fourth argument against the reduction of the body to the brain. The goal of brain-implantations pursued by neurologists and neuro-surgeons presupposes that “brain death” is not death of the person.

The efforts to make brain transplants possible presuppose that the brain-*recipient* would be the beneficiary of such an operation rather than someone else’s soul entering his body. Currently, only partial brain-cell implants are possible. However, such brain implants, whether they are beneficial or harmful to a person, are “used” by the person who receives them (no transfer of one person or soul from the body of the original ‘brain-owner’ to the body of

the brain-recipient takes place). For this reason, and because complete brain transplantations are not yet achievable, there is at least no evidence that the human personal soul would stay in the brain or “go with the brain.” Therefore, there is no reason to believe that the brain *is the body*, i.e., that part of the human body the functioning of which would be the absolute and sole condition of human life.

2.3.5 Fifth argument against the reduction of the body to the brain If there existed such an absolute link between brain activity and presence of human life in the body, why would then temporary dysfunction of the brain not result in death or be biological death?

First, we must distinguish two possible ideas. Is the *brain function* or just the existence of the brain in the body, according to this view, the condition for human life? The brain exists also in the “brain-dead” person. If, however, one regards the brain *function* as the real body on which the presence of the soul in the human being depends, then why does the person not die if this function is temporarily suspended?

2.3.6 Sixth argument against the reduction of the body to the brain: ‘Brain death’ is not complete brain destruction and the brain of the ‘brain-dead’ continues to exist and shows some biological functions.

If one declares that it is not the brain-functioning but the existence of the brain that is the condition of the presence of the soul in the body and, therefore, of human life, then we may reply: ‘Brain death’ is not a complete brain destruction, since the brain of the ‘brain-dead’ person continues to exist, and remains subject to some biological functions. Therefore, a body without *any brain* (as in decapitation) and the state of so-called “brain death” in which an unknown number of functions persist⁴⁸ cannot be considered as equivalent to one another. If it is not the brain function, but the brain itself as an organ that is decisive for the presence of human life, then this brain also exists in the “brain-dead” person.

We cannot fail to recognize that the mysterious link between the body and soul cannot be identified with brain-function. There is no evidence that this link, the core of the human body, the condition of human life and of the presence of the human soul in the body, could be (as claimed by the third argument in favor of “brain death”) localized only in the brain such that a permanent dysfunction of the brain would constitute death even though life still continues in the rest of the body.

⁴⁸This is the reason why some countries have refused to use a “whole-brain death” criterion because this is an empirically unverifiable notion.

2.4 (Lee and Grisez's) Argument in favor of "Brain Death" being actual Human Death: The Radical Loss of the Capacity for Sentience and for Consciousness (RCS/RCC) and a Gradual De-Ensoulement Theory

This objection does not claim, unlike the second one, that the actual possession of rational consciousness or sentience is necessary to be a living human person. Rather, it defends the thesis that personhood depends on the capacity in principle (the radical capacity) to acquire sentience, without which, as emphatically stressed by Lee and Grisez, rational human life is impossible. They furthermore claim, quite dogmatically,⁴⁹ that "brain-dead" patients lack both actual sentience and the radical capacity to develop it. They thus conclude that such patients are neither human beings nor animals, and that the integrated life (which they accept as proven by D. Alan Shewmon) present in these patients is merely that of a vegetable. Austriaco and other scientists have offered ex-

⁴⁹See Nicanor Pier Giorgio Austriaco, OP, "The 'brain-dead' Patient Is Still Sentient: A Further Reply to Patrick Lee and Germain Grisez", *Journal of Medicine and Philosophy*, 2016. See also the convincing defense of actual sentience of the "brain-dead" in: Roberto de Mattei (Ed.), *Finis Vitae: Is Brain Death still Life?* Consiglio Nazionale delle Ricerche, (Soveria Mannelli: Rubettino, 2006, 2007).

cellent arguments against the thesis of Lee and Grisez.

In what follows, I want to show that the identification of so-called “brain death” with actual human death, in the way which Lee and Grisez formulate it, rests on several general anthropological assumptions, which are erroneous, or misleading. Some of these assumptions were made by Shewmon in his 1985 paper, but he revoked them subsequently. What are those assumptions?

2.4.1 First Objection: A false interpretation of man being a “rational animal” at the root of the RCS Argument

The Aristotelian-Thomistic definition of human nature as “*animal rationale*” is not incorrect, but, generally speaking, it is a misleading definition of man. In Lee and Grisez’s understanding, however, it even turns into a serious anthropological error, because they conceive it in rather materialistic and actualistic terms, as if *the rational nature and personhood of man* could come and go during the life of the human organism. They do not only think, as if it were an unquestionable dogma, that actual thinking depends on actual sentience, and the potentiality to think on the actual potentiality to develop sentience. Rather, they hold it to be true that *being a person* and *possessing a rational nature* depend on the empirically verifiable potentiality for sense perception that, in turn, would depend on a functioning brain. Consequently, Lee and Grisez believe that the “brain-dead” individuals have lost the radical capacity for thought which, according to them, presupposes sentience.

Both sentience and thought, as well as the capacity to develop them, would, in their turn, depend on the brain, such that a “brain-dead” individual, although organically alive, would have lost these radical capacities and therefore, (as Lee and Grisez assume), his rational nature. Such a living human organism would thus no longer be a human person or an animal. Instead, by virtue of being permanently incapable of conscious sentience, would be a vegetable, such as a head of lettuce. From these partly empirical, partly philosophical assumptions, all of which are incorrect, they draw the conclusion that the “brain-dead” individual, though possessing “integrated life,” as Shewmon has shown, and thus being a living organism, possesses less dignity than an animal. Thus, according to them, the “brain-dead” individual can be used freely as organ donor, on a par with a lettuce the leaves of which we can freely cut off leaves even if the lettuce dies in the process.

I will try to show that this argument a) is based on false premises due to the false understanding of “rational animal,” b) uses invalid arguments fraught with various quadruplications of terms, and c) is based on false empirical assumptions regarding the absence of sentience, namely, “conscious sentience” in “brain-dead” persons.

My critique will begin with a critical examination of the traditional definition of man through the proximate genus “animal”, with the addition of the specific difference of rationality,⁵⁰ a definition that, if correctly understood, is not

⁵⁰Also used by Maureen L. Condit in her “Determination of Death: A Scientific Perspective on Biological Integration” *Journal of Medicine and Philosophy*, p. 8.

a false definition of man, but it is a deficient one. In order to make sense, it cannot use the very abstract notion of animal (*zoón*) as living being, for in that sense also angels and God are rational living beings (animals, as the Apocalypse calls angels) and the definition would not be one of man but of persons as such. Nor can the Aristotelian-Thomistic definition of man use “animal” in the normal sense of animals in contradistinction to men and to plants, because man is not such. Hence this definition uses the term “animal” in a special type of abstract sense, which, as such, does not exist in reality as a real genus, but rather is an “artificial genus” that we encounter in reality only in two entirely different forms: either in the form of human persons who are “persons *in carne*,” and therefore share with animals having a body, sentience, etc. Or in the “normal sense” of animal, in which all species and subspecies of animals, literally speaking, are beings of the same highest genus “animal”.

In this abstract and ambiguous sense, “animal” is understood as a sentient and in some sense conscious organic being that is endowed with those faculties that we find, at closer consideration only analogously, both in man and in animals, namely a being capable of sense perception, sentience (consciousness), spontaneous locomotion, memory, learning, etc. To this abstractly conceived genus of “animal,” then, the specific difference of rationality is added, to distinguish man from other animals. Now what is the problem?

The problem is twofold: “Rational nature” is conceived here as a mere added feature of man’s fundamental generic nature of “animal.” It defines the proximate genus to which

man belongs, in terms of an animal or “sentient organism”. This definition fails to see that man does not fall under the same genus animal to which dogs, elephants, and lions belong. He is in a sense more different from them than they from stones. Only in a very abstract way can one define man in terms of an animal, forgetting as it were that he does not truly belong to the same genus. 2) The second problem is that this definition sees the basic nature of man as that in man which unites us with animals, instead of that which unites us with angels and makes us persons, images and not only vestiges of God. In reality, however, man is *primarily* a person and what is most essential about him is what he shares with angels, namely being a person. Man is not properly an animal with the specific difference of rationality, but he is primarily a person, with the specific difference of having a body and thereby of course sharing many features with animals.⁵¹

If man is a *persona-in-carne*, this has many consequences: The life of the human person is not properly speaking generated by the parents, but is primarily the life of man’s immaterial, spiritual, rational, substantial, unique soul that has life in itself that it will keep also after death in its state of separation from the body. However, the life of the human person is distinguished from that of an angel precisely by man being a *person-in-carne*, by having a body and by the single spiritual soul that can only come to be by an immediate creation through God, but, as soul and not pure

⁵¹I presented detailed reasons for this new definition of man in “El hombre como persona en el cuerpo,” in: *Espiritu* 54 (1995), 129-156, and in *Sein und Wesen. Philosophy and Realist Phenomenology*. Vol. 3 (Heidelberg: Universitätsverlag C. Winter, 1996), ch. 1.

spirit, animates the body.

In this way, the human spiritual person differs from other persons: It is an individual substance of rational nature, but at the same time a spiritual, rational soul. As such, it is intimately connected with the body as the “form” of the body. The term “form” here has a very unique sense. It is neither the external shape nor the interior structure of the body, nor is it, as Aristotle calls it, “something in and for a body,” as the plant soul,⁵² nor something individualized only through the body.⁵³ Rather, in this fourth sense of “form,” the human soul exists in itself and is in itself an individual and most unique spiritual substance that can exist separated from the body. Moreover, its acts, life and happiness do not have the primary role of animating a body, being only “in it” but not “for it”. No, the human soul is linked with the body in an entirely new, profound and mysterious sense from the beginning of human life and makes the human body human precisely because the human soul is *not primarily* form of a body. Rather, man is primarily a person, only a little lower than the angels, and his personhood is rooted primarily in the soul, not in the brain (as a matter of fact, our brain is 98% similar to

⁵²See Hedwig Conrad-Martius, *Die Seele der Pflanze*. In Conrad-Martius, *Schriften zur Philosophie* (ed.) Eberhard Avé-Lallement, Bd. 1 (München: Kösel, 1963), pp. 276-362; Josef Seifert, *Leib und Seele*, cit; the same author, *What is Life? On the Originality, Irreducibility and Value of Life*. Value Inquiry Book Series (VIBS), ed. by Robert Ginsberg, vol. 51/Central European Value Studies (CEVS), ed. by H.G. Callaway (Amsterdam: Rodopi, 1997).

⁵³Josef Seifert, “Persons and Causes: beyond Aristotle,” *Journal of East-West Thought*, Fall Issue Nr. 3 Vol. 2, September 2012, pp. 1-32.

that of a gorilla). Precisely because the human soul, in its deepest acts, for example of love or praise of God, is not *for the body*, it bestows the humanness and spiritual tone on the human body that, without it, would just be a mass of material organs and tissues, or an animal body.⁵⁴

This distinction between four meanings of “form” is closely linked to another one between many senses of true and false “dualism” to which Cardinal Ratzinger/Pope Benedict XVI referred several times as a valuable contribution to philosophical anthropology.⁵⁵

Neither evolution, nor parental generation, nor the cells

⁵⁴I distinguished the four entirely different meanings of “form” that often are confused, in: Josef Seifert, *Das Leib-Seele Problem und die gegenwärtige philosophische Diskussion. Eine kritisch-systematische Analyse*, cit; the same author, *Leib und Seele. Ein Beitrag zur philosophischen Anthropologie* (Salzburg: A. Pustet, 1973).

⁵⁵See Joseph Ratzinger/Benedikt XVI, *Eschatologie. Tod und ewiges Leben*, (Regensburg: Friedrich Pustet, 6th edition, 1990),

“IV. *Fundamental Lines for a new Consensus*

In today’s philosophical discussion, the fear of the concept of the soul and the concomitant fear of a verdict of dualism has long since remained groundless. J. Seifert has analysed in depth the misunderstandings contained in the expression ‘dualism’ and has elaborated eight different positions which are often forcibly placed within that denomination and which are thus made the object of a suspicion which does not do justice to what some of them mean.

J. Seifert, *Das Leib-Seele-Problem in der gegenwärtigen philosophischen Diskussion*, Darmstadt 1979, 126-130. There one finds more philosophical literature on the topic.”

of the body, nor the gametes, nor the brain or any other organ of the body, can account for the human person, but solely a spiritual rational soul that cannot be caused by any secondary cause but only by an immediate divine act of creation *ex nihilo*. This soul possesses life in itself, immortal life, but from the very first moment of life, it is not only spirit, but also a soul, in the sense that it animates a body. It is mysteriously dwelling in the body as its form. As such, it makes the just conceived zygote (the one-cell embryo) a human being, a full human person

Thus the life of the human being depends on neither brain function nor the presence of a brain, which the just conceived zygote does not yet have. It does not depend either on an integrated unity of organs and functions of organs which the human person, at the zygote stage, does not have at the beginning of his earthly life.

Of course, in virtue of the profound body-soul unity of man, human life depends in a certain way on the integrated life of the zygote, but it does not consist in the mere biological life of that cell. Nor does it consist of the many cells and organs which will eventually form, nor in the integration and interaction of these cells and organs. It consists in the life of a single substantial and spiritual soul that is created, as good metaphysicians of the person understand, and Catholics believe (since the declaration of the dogma of the *Immaculate Conception* and *Evangelium Vitae*), at the moment of conception, and is united with the body as such. Therefore, the life of the human person persists as long as the human body as such shows signs of vegetative life, which are simultaneously a sign that his unique human soul is united to the body and that therefore he, the

human person, and not a lettuce head, lives.

Here we encounter another error in Lee and Grisez that is not expected on the part of Thomist philosophers. The question of whether a human person can *exercise his rational nature*, and possesses actually sentience and rational thought, has nothing to do with whether he is really and substantially a person. An embryo is a human person from conception, although, as far as we know, he cannot yet perform any rational act. The same is true at the end of life in the case of the “brain-dead” patient. Given that he *is* a person and has a single rational soul, it is undeniable that he remains a person as long as he lives.

Certainly, the personhood of the embryo does not manifest itself at the moment of conception, but it is nonetheless mysteriously present in the embryo from the first moment onward. How do we know this? We can know this with some degree of certainty through philosophical insights and arguments, and, at least since the declaration of the Dogma of the Immaculate Conception and *Evangelium Vitae*, with certainty from Catholic faith. Let us first turn to what we know about the dwelling of the soul in the human body from conception by means of human reason.

From reason, we know the being a person of every human being from conception to natural death, with some degree of certainty, by a kind of backward-directed proof. This proof considers the characteristics of man upon awakening to conscious rational life and understands that the substantial subject of this conscious rational life is *the same identical organic-rational human being* that lives from the fertilization of *the ovum* till natural death.

Thomas Aquinas, unlike his master Albert the Great,

failed to understand this identity of the human being from conception on, espousing the Aristotelian notion of delayed ensoulment, according to which the rational soul would be infused into the human body (that first would have a vegetative, then a sensitive, and only after a few weeks’ time a rational soul).

This theory denies the real identity of the human being from conception, partly because of the very vague biology that ignored the human genome as a marvelous language of God that makes that the fertilized ovum is a human body from the beginning.⁵⁶ The Thomistic theory of delayed ensoulment conceived the early embryo at conception as a kind of mixture of menstrual blood and semen and as an unformed mass incapable of receiving any soul except a purely nutritive, vegetative one. But we know through a reflection on recent biology and the human genome as an incredibly complex and efficient language, in which all congenital future properties of a unique human being are stored, that the body of the conceived child is far from an unformed mass incapable and unworthy of receiving a spiritual soul. Rather it is a potentially fully present unique human body.

At the same time, the human genome can only indicate but not at all explain the uniqueness of human life. For this language of the human genome is also stored in each cell in the human body, in each cell separated from the human body, and in each cell of a dead person (at least for a

⁵⁶See Francis S. Collins, *The Language of God. A Scientist Presents Evidence for Belief*. (New York/London/Toronto/Sidney: The Free Press, 2006).

short while after death). Therefore, the human genome, in contrast to the human person, is not really unique but multiplied innumerable times in each body cell. It resembles more a script or plan for an individual human being.

Moreover, the human genome serves nothing without the presence of human life, which is from its beginning the life of a rational soul, of a single human soul that animates the body in a most mysterious way.⁵⁷ This single rational soul

⁵⁷As John Henry Cardinal Newman explains in his “The Mystery-ousness of our Present Being”, *Parochial and Plain Sermons*, sermon XIX:

“1. First, we are made up of soul and body. Now, if we did not know this, so that we cannot deny it, what notion could our minds ever form of such a mixture of natures, and how should we ever succeed in making those who go only by abstract reason take in what we meant? The body is made of matter; this we see; it has a certain extension, make, form, and solidity: by the soul we mean that invisible principle which thinks. We are conscious we are alive, and are rational; each man has his own thoughts, feelings, and desires; each man is one to himself, and he knows himself to be one and indivisible, – one in such sense, that while he exists, it were an absurdity to suppose he can be any other than himself; one in a sense in which no material body which consists of parts can be one. He is sure that he is distinct from the body, though joined to it, because he is one, and the body is not one, but a collection of many things. He feels moreover that he is distinct from it, because he uses it; for what a man can use, to that he is superior. No one can by any possibility mistake his body for himself. It is his; it is not he. This principle, then, which thinks and acts in the body, and which each person feels to be himself, we call the soul. We

do not know what it is; it cannot be reached by any of the senses; we cannot see it or touch it. It has nothing in common with extension or form; to ask what shape the soul is, would be as absurd as to ask what is the shape of a thought, or a wish, or a regret, or a hope. And hence we call the soul spiritual and immaterial, and say that it has no parts, and is of no size at all. All this seems undeniable. Yet observe, if all this be true, what is meant by saying that it is in the body, any more than saying that a thought or a hope is in a stone or a tree? How is it joined to the body? what keeps it one with the body? what keeps it in the body? what prevents it any moment from separating from the body? when two things which we see are united, they are united by some connexion which we can understand. A chain or cable keeps a ship in its place; we lay the foundation of a building in the earth, and the building endures. But what is it which unites soul and body? how do they touch? how do they keep together? how is it we do not wander to the stars or the depths of the sea, or to and fro as chance may carry us, while our body remains where it was on earth? So far from its being wonderful that the body one day dies, how is it that it is made to live and move at all? how is it that it keeps from dying a single hour? Certainly it is as incomprehensible as any thing can be, how soul and body can make up one man; and, unless we had the instance before our eyes, we should seem in saying so to be using words without meaning. For instance, would it not be extravagant, and idle to speak of time as deep or high, or of space as quick or slow? Not less idle, surely, it perhaps seems to some races of spirits to say that thought and mind have a body, which in the case of man they have, according to God’s marvellous will. It is certain, then, that experience outstrips reason in its capacity of knowledge; why then should reason

circumscribe faith, when it cannot compass sight?

2. Again: the soul is not only one, and without parts, but moreover, as if by a great contradiction even in terms, it is in every part of the body. It is no where, yet every where. It may be said, indeed, that it is especially in the brain; but, granting this for argument's sake, yet it is quite certain, since every part of his body belongs to him, that a man's self is in every part of his body. No part of a man's body is like a mere instrument, as a knife, or a crutch might be, which he takes up and may lay down. Every part of it is part of himself, it is connected into one by his soul, which is one. Supposing we take stones and raise a house. The building is not really one; it is composed of a number of separate parts, which viewed as collected together, we call one, but which are not one except in our notion of them. But the hands and feet, the head and trunk, form one body under the presence of the soul within them. Unless the soul were in every part, they would not form one body; so that the soul is in every part, uniting it with every other, though it consists of no parts at all. I do not of course mean that there is any real contradiction in these opposite truths; indeed, we know there is not, and cannot be, because they are true, because human nature is a fact before us. But the state of the case is a contradiction when put into words; we cannot so express it as not to involve an apparent contradiction; and then, if we discriminate our terms, and make distinctions, and balance phrases, and so on, we shall seem to be technical, artificial and speculative, and to use words without meaning.

Now, this is precisely our difficulty, as regards the doctrine of the Ever-blessed Trinity. We have never been in heaven; God, as He is in Himself, is hid from us. We are informed concerning Him by those who were inspired by Him for the purpose, nay by One who "knoweth the

Father,” His Co-eternal Son Himself, when He came on earth. And, in the message which they brought to us from above, are declarations concerning His nature, which seem to run counter the one to the other. He is revealed to us as One God, the Father, One indivisible Spirit; yet there is said to exist in Him from everlasting His Only-begotten Son, the same as He is, and yet distinct, and from and in Them both, from everlasting and indivisibly, exists the Co-equal Spirit. All this, put into words, seems a contradiction in terms; men have urged it as such; then Christians, lest they should seem to be unduly and harshly insisting upon words which clash with each other, and so should dishonour the truth of God, and cause hearers to stumble, have guarded their words, and explained them; and then for doing this they have been accused of speculating and theorizing. The same result, doubtless, would take place in the Parallel cue already mentioned. Had we no bodies, and were a revelation made us that there was a race who had bodies as well as souls, what a number of powerful objections should we seem to possess against that revelation! We might plausibly say, that the words used in conveying it were arbitrary and unmeaning. What (we should ask) was the meaning of saying that the soul had no parts, yet was in every part of the body? what was meant by saying it was every where and no where? how could it be one, and yet repeated, as it were, ten thousand times over in every atom and pore of the body, which it was said to exist in? how could it be confined to the body at all? how did it act upon the body? how happened it, as was pretended, that, when the soul did but will, the arm moved or the feet walked? how can a spirit which cannot touch any thing, yet avail to move so large a mass of matter, and so easily as the human body? These are some of the questions which might be asked, partly on the ground that the alleged fact was

bestows on the body the being of a person, and vegetative, sensitive and rational life at a time when sentient and rational life are of course still dormant and unawakened.

2.4.2 A “potency/capacity” based actualistic error about personhood (rational nature) at the root of Lee and Grisez’s thesis on “brain death”

There is a second metaphysical assumption in the Lee and Grisez defense of brain death, which is rooted in overlooking a number of things:

- 1) that the human person is a *substance of a rational nature*, necessarily means that the rationality of its nature does not depend on the actual awakening of the human person to rational consciousness nor on the actual ability to think rationally,⁵⁸ but only on

impossible, partly that the idea was self-contradictory.”

⁵⁸Maureen L. Condit, *ibid.*, p. 9, holds the same actualistic prejudice, as if with the loss of brain activity which she seems to identify with the actual ability to think, their being and life of a person were lost:

“In contrast, individuals with high-level cervical spinal cord injury (hereafter, SCI) show limited or absent autonomous integration of bodily functions. They are dependent on artificial interventions (i.e., “life support”) to maintain their vital activities, yet their capacity for mental function remains. Such individuals are also severely impaired and they no longer function as a biological organism, but by virtue of the fact that they remain capable of mental function (criterion #1), they are also still alive.

In situations where there is both limited or absent autonomous

the essence and fundamental powers that are rooted in the spiritual substance of persons. Even less does the human person’s rational *nature* depend on brain function, an empirical condition on which only the exercise of rational nature depends in different ways, but by no means rational nature itself. Hence, although in case of some brain damage or other circumstances the person is unable to *use* his intellect and free will, or even to awaken to rational conscious life, he *still fully remains a substance of a rational nature, a person*. Therefore, as long as a man lives, including in the state called “brain death,” he de-

control of the body (patients who are dependent on artificial medical interventions) and the individual is not conscious, great care must be taken to determine if any aspect of brain function persists. If so, no matter how impaired brain function may be, it remains possible that the capacity for some form of mental activity persists, and that the basic natural capacity for rationality (rooted in the soul) still remains. Therefore, such individuals must be given the benefit of the doubt and seen as still alive. This does not imply a moral obligation to sustain such an individual by extraordinary means. But it does require an acknowledgement that removing life support will result in the death of a living (albeit severely impaired) human being.

In contrast, following the irreversible cessation of all brain function, including the brain stem (i.e., “brain death”), the human body exhibits neither of the defining characteristics of a living human being: global autonomous integration cannot be maintained (i.e., the body is no longer able to function as an organism because it has lost the capacity to regulate its own vital activities, criterion #2), and mental function is also precluded (criterion #1).

Therefore, brain death is “real death” because at postnatal stages, the brain is required for both self-directed integration of bodily function above the level of cells and tissues and for mental function.¹” (Condic, *ibid.*, p. 264-265).

serves the full respect owed to a person in virtue of his ontological and inalienable dignity that proceeds intelligibly from the person as “an individual substance of a rational nature.”⁵⁹

Lee and Grisez defend a kind of actualistic notion of the person that implies that the person could cease to exist upon losing the capacity of ever using his or her rational faculties, an ability that, in the present life, depends on brain activity. However, this brain activity neither causes the acts of intellect and will, nor is it a condition of the substantial being and rational nature of the soul⁶⁰, nor of his

⁵⁹ “*Persona est rationabilis naturae individua substantia*” Boethius, *Contra Eutychen et Nestorium*, cap. 3. In *PL* 64, 1343: “*persona est naturae rationalis individua substantia.*”

⁶⁰ Truth obliges us to call both body and soul two substances both of which exist “in themselves,” first of all because neither one of them is an accident of something else, and secondly because they can exist separate from each other: the body in the corpse, and the soul in its separation from the body. Thomas says the same thing in *Summa Theologica* I, Q. 75 in the text quoted before. And yet we also have to call man who is composed of body and soul and is their unity, a substance. The soul is a substance that stands in itself in being and neither is an accident nor just a “form of the body”. It can also exist separated from the body. Yet it is an “incomplete substance” in the sense well expressed by Aquinas: it does not possess in itself the whole nature of the human species, which is only found in the composite substance that is a *tertium* that consists of soul and body and in which the soul possesses the character of the “form of the body”. The substantial being of the human person is constituted primarily by the rational soul, but it entails the human body in such way that we can speak of a kind of trinitarian structure: the union between the substance of the soul and the substance of the body is so profound that a “third substance” (distinct from the two substances:

rational faculties that are rooted in the soul and not in the brain. Since man has only one single soul as source of his vegetative, sentient, and rational life, the rational-spiritual soul of man which makes man an *Imago Dei* lives in the body as long as it possesses any integral life. Neither the existence of the soul nor its dwelling in the body depends on the brain, since it is already present in the fertilized egg.

Once this is understood, and the error of an actualistic and materialist/physiological notion of the person refuted, the argument of Lee and Grisez for “brain death” being actual death of the person wholly collapses.

As good Thomists, Lee and Grisez reject a purely actualistic reduction of human life to rational consciousness and the actual ability to think; they reject likewise a reduction of the person to a lived center of conscious acts as proposed by Max Scheler. It is very strange, however, that in spite of this Thomistic position, Lee and Grisez, espouse this kind of potency-based actualism which is most foreign to Thomistic metaphysics. Thomistic metaphysics has never considered the *rational nature of the human person* to be *brain-dependent*, or as something that a living human being could ever lose once he has it. Lee and Grisez defend a kind of paradoxical “potentiality-based actualism”. Their

body and soul) comes to be: *man*. Language fails us to some extent to describe the marvel of man. Newman says that if angels prior to human persons’ existence were told that there will be men they would not believe it because the union of body and soul is so mysterious that they could not comprehend its possibility.

John Henry Cardinal Newman, *Parochial and Plain Sermons*, Sermon xix, “The mysteriousness of our present being.” (See full quote above).

assumption that living human beings, i.e., “brain-dead” patients, whose integrated life they do not question, are neither animals nor persons, but vegetables, is based on a twofold confusion between:

- 1) Being a person and the “radical capacity” of acting as person,⁶¹ and between
- 2) Rational faculties and the capacity of using them, a distinction inseparable from any true and Thomistic philosophy, which John Crosby had already elaborated clearly several decades ago.⁶²

Underlying this insufficient clarity and the mentioned insufficiency of the definition of the human person is another error discussed below.

2.4.3 The false assumption of the plurality of souls and of gradual de-ensoulment

A fourth false assumption, unexpected on the part of a Thomist, is the assumption of a plurality of souls in man and of a gradual de-ensoulment that leaves in the end a

⁶¹This confusion seems to be also present in Maureen L. Condic, “Determination of Death: A Scientific Perspective on Biological Integration” *Journal of Medicine and Philosophy*, p. 8:

“They exhibit both persistent brain function (criterion #1) and persistent integration (criterion #2), and are therefore still alive.”

⁶²See John F. Crosby, “Evolutionism and the Ontology of the Human Person”, *Review of Politics*, 38 (April, 1976), 208-243; the same author, “Are some human beings not Persons?”, *Anthropos* 2, 1986, pp. 215-232.

merely vegetative soul in the living human body, reducing a human person to a kind of mere vegetable. Yes, it is true that Thomas Aquinas, following Aristotle, teaches a gradual *ensoulment* of the human being that first would be a vegetable, then an animal, finally receiving a spiritual soul. However, Thomas rejects any coexistence of three souls in man and clearly holds that once man has a rational soul, this rational soul is the only one he has got and that assumes the functions of the vegetative and sentient souls that are replaced, their operations being taken on by a human person’s single rational soul. Thus, according to Thomism, in spite of its false gradual *ensoulment* theory (which Lee and Grisez do not share), the vegetative and sentient souls do not continue to exist side by side with the rational soul in man. For these and other reasons to be mentioned later, Thomas himself always rejected such a gradual *de-ensoulment* theory and would, today, entirely reject the gradual *ensoulment* theory of the human embryo.

Lee and Grisez, however, introduce the theory of gradual *de-ensoulment*, which necessarily presupposes the delayed *ensoulment* theory – the very theory which they themselves rejected. In addition to contradicting Thomistic teaching, Lee and Grisez also contradict themselves. If they reject three parallel souls in man, are they proposing that after the rational soul has left, God creates a sentient animal soul; and then, once brain-functions cease entirely, God again creates a vegetative soul, such that this would account for Shewmon’s demonstration that the “brain-dead” person is clearly alive? Finally, they present this odd ontological as if it were a clear proof of “brain death” being the actual death of man.

A critique of this position first requires a philosophical refutation of the theory of the plurality of multiple souls in man. It would have to base itself on the experienced evidence that the “I” that feels pain and the “I” that thinks or wills, are one and the same “I”. It is indeed evident from our conscious experience that we do not have one spiritual and rational soul that thinks and another soul that feels hunger, thirst, pain or pleasure. The brevity of this essay forbids to add other philosophical arguments against the multiple soul and late ensoulment theories.

Furthermore, the theory of gradual ensoulment ought to be rejected by any Catholic philosopher, such as Lee, in virtue of the unity of the human soul declared as dogma in the council of Vienne. It is thus surprising that Lee chose to resuscitate an old thesis which Shewmon proposed in his 1985 paper but subsequently revoked⁶³ – namely, the thesis that a living human body could revert from the state of being a person (possessing a rational soul) to being an animal after the departure of the rational soul and finally to being a vegetable.

This erroneous anthropology presupposes one of two scenarios. One scenario is that man has all along three souls that can gradually leave the body: first the rational soul would leave and what remains would be an animal just like a dog; then the animal soul would leave and what remains would be a vegetable like a salad. The second scenario is this: If Lee and Grisez reject the three soul theory, which

⁶³D. Alan Shewmon, 1985, ‘The Metaphysics of Brain Death, Persistent Vegetative State, and Dementia’, *The Thomist* 49 (1985), pp. 24-80.

they do, they would have to assume that the rational soul leaves the body upon brain death, and a new animal soul (that according to Thomas Aquinas, was destroyed upon the creation of the rational soul) is created. Then, upon the death of the animal-soul, the vegetative soul of man (that according to Aquinas, was the first to exist at the beginning, but later substituted by the single rational soul infused by God) would be recreated. Only using such unfounded assumptions can they claim that the “brain-dead” person is a vegetable.

Both of the above mentioned options for Lee’s defense of “brain death” are untenable metaphysical speculations, grounded neither in reality nor in Thomistic philosophy. If man has one and only one spiritual soul that is the source of his life, then it is absolutely impossible that after “brain death” only a vegetative soul remains. Rather, as long as there is life in the “brain-dead” human body as such (which Lee and Grisez rightly concede to Shewmon’s proof of integrated biological life in “brain-dead” bodies), the single rational and spiritual soul remains united to the body.⁶⁴ It follows logically that the “brain-dead” individual who lives, as Lee and Grisez admit, is neither a vegetable, nor an animal, nor dead.

⁶⁴See also Raquel Vera González, *Relaciones alma-cuerpo en la persona humana como solución al problema bioético de la muerte cerebral en Josef Seifert*, (Madrid: Fundación Universitaria española, 2005); Dietrich von Hildebrand, *Über den Tod. Nachgelassene Schrift*, (Erzabtei St. Ottilien: Eos Verlag, 1980); *Jaws of Death: Gate of Heaven* (Manchester, NH: Sophia Institute Press, 1991); *Sobre la muerte*. Escrito póstumo. (Madrid: Ediciones Encuentro, 1983).

2.4.4 A theological argument against the delayed ensoulment theory of Thomas Aquinas

Catholics recognize the falsity of the delayed ensoulment theory, also in the light of Church teaching. The dogma of the Immaculate Conception declared in 1854 that Mary, the mother of God, was preserved free from original sin from the first moment of her conception. John Paul II teaches in *Evangelium Vitae* (1995) in a quasi-dogmatic way, invoking solemnly the succession of St. Peter, that the human being has to be treated as a person from conception onward. On the basis of his delayed ensoulment theory Thomas argued that the Virgin Mary had only a plant soul at conception. Since the state of original sin presupposes a rational soul, Mary neither had original sin at conception nor could have been freed from it. Therefore, she could not have been immaculately conceived. However, the great doctor Angelicus no doubt would have rejected his ideas on delayed ensoulment from the time of the declaration of the dogma of the Immaculate Conception on. Likewise, Thomas would have rejected his “delayed ensoulment theory,” had he known the solemn and quasi-dogmatic teaching of St. John Paul II about the personhood of man from conception.

Hence, on the basis of both reason and faith, a Catholic philosopher must totally reject the ideas of Aristotle and Thomas Aquinas about delayed ensoulment and the succession of three souls during prenatal development. Moreover, the Catholic must also reject the completely unthomistic theory of gradual de-ensoulment that is presupposed by Grisez and Lee. This theory is not only inherently false,

it also leads to the grievous crime of homicide decried by Hans Jonas as consequence of the “brain death” definition of human death.⁶⁵

2.4.5 Lee and Grisez’s argument that a “brain-dead” individual cannot be a person because he lacks radically any capacity of developing sentience

Grisez and Lee further argue that a “brain-dead” individual cannot be a person because he lacks sentience which, in their opinion, is wholly dependent upon brain activity. Thus, brain-dead patients, although they continue to live as vegetating human beings, are seen by Lee and Grisez as some kind of lettuce heads. Their argument that the “brain-dead” human being is neither a person nor an animal is based, on the dogmatic declaration that the “brain-dead” individual cannot have any sentience. But such a thesis contradicts the reported evidence of “brain-dead” patients feeling intense pain upon the extraction of their organs. For this very reason, some famous anesthetists who assisted in organ transplantations could no longer believe that “brain death” is death.⁶⁶ Since their expression of pain manifested by “brain dead” patients could not be explained as a mere physiological “Lazarus-reflex” (NB: the presence

⁶⁵See Hans Jonas, ‘Against the Stream: Comments on the Definition and Redefinition of Death’, in: Hans Jonas, *Philosophical Essays: From Ancient Creed to Technological Man*, (Englewood Cliffs, N.J., Prentice-Hall, 1974), pp. 132-140.

⁶⁶See <https://es.scribd.com/document/52068691/Transplants-Are-the-Donors-Really-Really-Dead-David-Hill>.

of this reflex is in itself a sign of life). Furthermore, from an experimental biological standpoint, Lee's and Grisez's dogmatically espoused thesis has been successfully refuted by Austriaco.⁶⁷ Apart from the fact that the criteria for "brain death" are based on "brain-stem death," because total "brain death" (which Lee and Grisez demand) cannot be empirically verified, and the dogmatic thesis of Lee that only an individual organic being with an intact brain can possibly feel pain, this thesis is dependent on three other dogmatically asserted assumptions (which I believe to be false) presented below:

- a) On the assumption that nothing is in the intellect that was not previously in the senses; of the many meanings of this thesis we can here just note and admit, at least for the argument's sake, that human experience and knowledge begins in sense-perception. Admitting this truth, there is no need to criticize here the many false senses of this statement. Many ways are open to the intellect to proceed from this starting point to thinking and the nature of justice, of soul, of love, never has been "in the senses".
- b) On the assumption that a person who once had sense perceptions and thereafter thought, cannot have thought any longer if his capacity of sentience radically ended. But there is no shadow of plausibility in the assumption that a person

⁶⁷See Austriaco, N. P. G. 2016. "The brain dead patient is still sentient: A further reply to Patrick Lee and Germain Grisez." *Journal of Medicine and Philosophy* 41:315–328.

who once saw red, orange and yellow colored objects, if he gets totally blind, can no longer think or understand that, in the order of similarity between colors, orange lies between red and yellow. Grisez-Lee’s thesis depends, in this regard, on the complex epistemological issues that surround external and internal perception, and memory. Its refutation is not necessary for our purpose. We can safely omit further investigation on this issue.

- c) The third assumption is the one decisive and most clearly false: namely that a living person who cannot actualize his faculty of sense perception and (allegedly therefore) his faculty of thinking, is no longer a person (an individual living substance of rational nature).

“Brain death” means according to Lee and Grisez the total loss of sentience, and consequently of thinking; and hence the “brain-dead” individual is not a person. This third assumption locates metaphysically the faculty of reason, the rational nature and the personhood of man on the level of the brain and claims that it is dependent on brain functionality. This flatly contradicts the indubitable evidence that the *being, life, radical capacity of sentience, and above all the rational nature* of the person are rooted in the spiritual soul of man, and not in the body, and therefore persist as long as the human person has any life.

Only on the basis of such a deeply erroneous philosophical anthropology and metaphysics of the person can Lee claim that the loss of all abilities of actual and potential rational thinking destroys both the rational faculties themselves and the rational nature of man, thereby resulting in the death the person who suffers the radical in capacity for sentience.

3 In Dubio pro Vita

Even if the medical condition of ‘brain death’ were clearly defined, and even if the diagnosis in concrete cases were established beyond the shadow of a doubt (neither of which is the case), the actual death of a particular person diagnosed as “brain-dead” would not have been verified concretely. This is simply the consequence of the lack of adequate theoretical reasons to prove that the medical condition designated as ‘brain death’ coincides with actual death, i.e., whether the death of the organ brain is actual human death.⁶⁸

The only cogent reason for this assumption lies in a materialist philosophy of the mind, according to which the functioning of the cerebral hemispheres is identical with the person or at least the absolutely necessary condition for being a person. But this can be proven false.⁶⁹

⁶⁸Regarding this section of the paper I am in full agreement with the cited excellent paper by C. Brugger.

⁶⁹See Josef Seifert, *What is Life? On the Originality, Irreducibility and Value of Life*. Value Inquiry Book Series (VIBS), ed. by Robert Ginsberg, vol 51/Central European Value Studies (CEVS), ed. by

It is clear that in our moral life we do not need an absolute mathematical or metaphysical evidence and certitude in order to act. It is enough that we are ‘morally certain’ about morally relevant facts (such as the life or death of someone) or about the moral permissibility of an act.

This so-called ‘moral certainty’ can be purely subjective: our own ‘feeling certain’ – for good or bad reasons – that we are allowed to commit an act or that the objective morally relevant factors are such and such. This subjective moral certainty can at most – and only when it is the fruit of a sincere search for the truth – provide a purely subjective moral justification for an act. Of course, someone may be morally certain in this sense that ‘brain death’ is actual death and that organ-explantation of unpaired vital organs from ‘brain-dead’ persons is permitted. The existence of such subjective moral certainty does nothing but justify or excuse an act subjectively. It can exist even with respect to obviously immoral acts such as blood vengeance or even genocide.

‘Moral certainty’ can also refer to an objectively well-founded conviction which, while being less than indubitably certain, provides objectively a *moral* justification for a certain action, even if the underlying conviction were to turn out false. If this moral certainty does not exist, then an action may be morally wrong even if its underlying conviction itself were in fact correct. Such is the case with harvesting organs from ‘brain-dead’ persons, or shooting at a moving object which might be a human being. This objective ‘moral certainty’, – in contradistinction to the

H.G. Callaway (Amsterdam: Rodopi, 1997), ch. 4.

purely subjective and ill-founded one – is required for the objective moral justification of an action. Therefore, even if a brain-dead ‘living corpse’ were *in fact* nothing but an organ bank, this hypothesis would be at best only probable. Hence in virtue of this ignorance, as Jonas points out, we are obliged to treat this alleged ‘organ bank’ as possibly a living person.

Recognizing the distinction between mathematical-metaphysical certainty and moral certainty, we must say: We do not possess any moral certainty, not even a moral probability, that “brain death” is actually death. As a matter of fact, both the theoretical philosophical arguments sketched above and the practical difficulties of diagnosis of ‘brain death’ prove that no well-founded moral certainty as to the actual death of ‘brain-dead’ individuals is available. Also, uncertain philosophical opinions about the only relevant meaning of “brain death” – namely: actual death of a human being in virtue of irreversible breakdown of brain-function – can never provide a moral justification for actions that constitute a homicide if the victim of such actions is still alive. However, we not only lack theoretical or moral certainty of the actual death of the “brain-dead;” we even have the certainty that they are alive.

Even if it *were objectively true* that “brain death” is really death, it would still not be legitimate to act on this assumption, because we do not know this with any objective *moral certainty*. Moreover, since many acts performed on the diagnosis of “brain death”, namely the extraction of vital organs, would cause death and thus constitute a homicide, we are *absolutely forbidden to perform them*.

One might argue that what has been said thus far pre-

supposes a Cartesian quest for indubitable certainty in the sphere of human actions, a mathematical certainty which indeed is absent with respect to the real death of “brain-dead” individuals. However, this objection fails and is based on an untrue premise. Such an indubitable certainty is not demanded: all that is required for political and moral actions that risk killing human persons is some lesser and practical certainty. It is enough to be ‘morally’ or ‘practically’ certain that certain facts exist and that they have certain morally relevant or moral natures. Now, what is missing is precisely this certainty, which even those, who remain unconvinced that “brain death” is *not* actual human death, had to admit.

Engelhardt admits⁷⁰ that the diagnosis of ‘brain death’ is indeed uncertain. He speaks, however – in what appears to be too light a tone – of “living and dying with less than absolute certainty.” Such a language belittles the grievous negative impact in real life caused by the diagnosis of “brain death,” as well as by the general theory of “brain death” itself, as these lead to homicide through the procedure of organ-explantation. He suggests that it is of little interest whether the person still lives because “a possible survivor with severe brain damage may not have a life worth living.”⁷¹ Here the real possibility that organ-explantation involves an act of homicide is openly admitted. Moreover, such a thesis, that a “life not worth living” permits us to kill a living patient whose life we consider as

⁷⁰See T. H. Engelhardt, Jr., *The Foundation of Bioethics*, (New York and Oxford: Oxford University Press, 1986), p. 207 ff. (2nd ed., Oxford University Press, 1996).

⁷¹Engelhardt, *ibid.*, 1986, p. 207.

worthless, raises the ugly face of euthanasia hidden in the “brain death” debate.⁷²

There are certain actions which we *must not commit when we do not possess moral certainty*, such as actions which will kill a person if he or she is not dead. If it turns out impossible to reach moral certainty⁷³ about the death of ‘brain-dead’ individuals, a position which acknowledges the degree of moral certainty required by the specific nature of a given action demands that we refrain from actions which risk killing a human person.

To commit an action which risks killing a person demands the highest degree of moral certainty, which we definitely do not possess. Such a certainty is not only completely absent in the case of “brain death,” but all the evidence points in the opposite direction. Therefore even if the defenders of the “brain death” definitions were *theoretically* right, they would still be *morally* wrong.⁷⁴

⁷²See Nguyen’s observations on this relation: Doyen Nguyen, *The New Definitions of Death for Organ Donation. A Multidisciplinary Analysis from the Perspective of Christian Ethics* (Bern: Peter Lang, 2018), Introduction, 1.1.2.2., 5.1.2. See also Josef Seifert, “Brain Death and Euthanasia,” in *Beyond Brain Death: The Case Against Brain Based Criteria for Human Death*, eds. Michael Potts, Paul A. Byrne, and Richard G. Nilges (Dordrecht, Netherlands: Kluwer Academic Publishers, 2000).

⁷³This term can still mean two different things: a) a certainty about the moral quality of our acts, or b) a certainty about states of affairs in the world which are not morally good or evil, right or wrong, but which are morally relevant.

⁷⁴We must also remind ourselves of an empirical argument for the uncertainty of our knowledge concerning the time of death. Think of the ‘life after life’ experiences of people who were declared clinically dead and still had all sorts of experiences associated with their

Many laws forbid absolutely the killing of a being when we do not have at least a moral certainty that he is not a living human being. All these laws show that the mere probability and plausibility of there being a human person present is sufficient to forbid morally and legally to kill such a being. The principle underlying these laws should be applied to brain-dead patients, precisely because they are biologically alive.

Even if there could be any justified doubt (which I do not believe to exist) whether the “brain-dead” individual is a living human being or not – *in dubio pro vivo!* In the case of doubt, we must not act upon the assumption of death and risk killing the donor by removing his unpaired vital organ!

In other words, it is ethically not permissible to remove unpaired vital organs from human beings deemed to be probably, if not certainly, still alive.

body. Could not brain-dead persons be in a similar state prior to the occurrence of actual death? See the completely reliable report on such experiences by an author I knew very well: Hellmut Laun, *So bin ich Gott begegnet*, 1983. Limits of length put on this essay forbid the required lengthy discussion of the epistemological value of such experiences.

4 Coimbra's Cogent Scientific and Ethical Argument against Testing for "Brain Death" "Risking to Kill Persons in order to Test whether They are Dead or Alive," a Violation of the Hippocratic Oath

A highly original and self-sufficient argument that is wholly independent from whether "brain death" is actual human death or not was developed by the neurologist and medical researcher Cicero Coimbra.

The verification and confirmation of "brain death" (or "brainstem death") by the apnea test has been proven to be immoral because, as shown by Cicero Coimbra et al., the apnea test frequently causes factual death.

Below is Coimbra's argument:⁷⁵

"An unknown percentage (possibly more than 50%) of patients with brain damage and edema leading to severe intracranial hypertension is actually under global ischemic penumbra (a potentially reversible neurological condition) by the time they undergo apnea for the diagnosis

⁷⁵See *Cicero Coimbra*, "The apnea test – a bedside lethal 'disaster' to avoid a legal 'disaster' in the operating room," in: Roberto de Mattei (Ed.), *Finis Vitae: Is "brain death" still Life?* Consiglio Nazionale delle Ricerche, (Soveria Mannelli: Rubettino, 2006, 2007).

of “brain death” or brain stem death.⁷⁶ (Coimbra, *ibid.*) This is, in fact, a mathematically predictable physical certainty, for the brain circulation cannot reach the lowest values (capable of triggering neuronal necrosis) in patients with progressive intracranial hypertension without crossing the range of ischemic penumbra.

In those patients, apnea testing causes rather than diagnoses death by inducing irreversible intracranial circulatory collapse or even cardiac arrest. Alternatively, timely hypothermia may rescue these patients to normal or near normal daily life, particularly if associated with other novel therapeutic modalities and preventive measures against secondary brain damage.

Ongoing progress in neuroscience is establishing new frontiers between the recoverable and unrecoverable brain, unraveling the mechanisms involved in full neurological recovery from apparently hopeless states like that of Anne Green – a 22-year old maid resuscitated by Thomas Willis (the founder of clinical neuroscience and coiner of the term neurology) after being hanged for half an hour on December 14, Oxford, England.

⁷⁶“It doesn’t necessarily require an apnea test, but usually does. If an apnea test cannot be performed, for whatever reason, the diagnostic criteria still allow BD to be diagnosed if EEG and/or blood flow tests are employed. I don’t think this is diagnostically valid, but an apnea test is not required in order to diagnose BD nowadays.”

This review presents the panorama of the highly conflicting interests and motivations surrounding the diagnosis of “brain death” and harvesting of unpaired vital organs on one side, and the efforts to recover the comatose victim of severe brain injury on the other side. Those who support or perform the current “diagnostic” protocols while neglecting or avoiding a transparent scientific discussion about these issues bear undeniable responsibilities towards those defenseless comatose patients who undergo apnea testing as a replacement for proper treatment.”

Coimbra’s careful researched study constitutes a totally sufficient ethical argument against applying the “brain death” criterion for organ-explantation. Like the ethical arguments from *in dubio pro vita*, albeit coming from a different perspective, it is wholly independent of any opinion about whether “brain death” is or is not the actual death of a person.

To ignore Coimbra’s argument, and/or to insist that “brain death” is human death, would be proof of an ideological, immoral and purely pragmatic pursuit of organ-explantation from “brain-dead” patients, without any regard for their life and human dignity, and without respecting proper ethical standards.

5 Objection to the Reduction of the Mystery of the Moment of Death into a ‘Calculable Problem’

“Brain death” fulfills a set of biological and medical criteria which, as soon as they are established, lead to the assumption of death. The subsequent procedure of organ harvesting presupposes that it can be firmly established and ‘calculated’ that death has already occurred – prior to the setting in of the phenomena of natural death. Only if this is possible, may one assume that one does not risk killing a living person by the explantation of his vital unpaired organs while he still is alive biologically.

Death in the classical sense does not pose these problems. It does not just involve irreversible cardio-pulmonary arrest and cerebral dysfunction but is accompanied by many other indubitable signs: from the cessation of all vital functions to the deathly pallor, and from the *rigor mortis* of the corpse to the actual decomposition of the body.

To declare death when the first indubitable marks of death set in, for example when after cardiac arrest one cannot resuscitate a patient, or after the *rigor* and the *frigor mortis* have set in, is not presumptuous. Yet to proceed with the dissection of a body on the first declaration of clinical death is presumptuous because of the mystery of the dissolution of the body-soul unity, the exact moment of which cannot be determined by any man-made technology. It is even more presumptuous to determine the

occurrence of death by means of some rudimentary set of scientific facts and theories that a particular part of the body contains the person, and at the same time, ignores that the body as a whole, the body qua organism, still lives. Since human death, by its own objective essence, consists in the mystery of the end of the union of soul and body that constitutes personal human life, it becomes quite unjustifiable to declare, on the basis of various “brain death” criteria that the death of the individual, who is biologically alive, has occurred prior to the occurrence of irreversible circulatory-pulmonary death.

In the past, it has been a wise custom, even after a person was declared clinically dead, not to bury nor dissect his body immediately because, in view of the mystery surrounding the exact moment of death, there is a certain risk of mistaking apparent death for real death,. To act otherwise would be lacking respect for a human person, who might still be alive, and who is only in the process of dying instead of being already dead. There is likewise the tradition in the Catholic and in the Orthodox Church to allow the last rites, which are permitted for living persons only (i.e., for the dying), during some time after the first signs of ‘clinical death’. This was done undoubtedly for the reason that it is not immediately clear whether the mystery of death itself (the definitive leaving of the soul) takes place only sometime after the symptoms of clinical death have occurred.

In light such traditions, which confess man’s not knowing the exact moment of death, the situation in which a transplantation team jumps on the biologically live ‘warm corpse’ and tears his organs out, ought to strike any civil-

ized person as an incredible barbarism. Human ignorance with regard to when the mysterious moment of death occurs constitutes another reason to reject the definition of “brain death”.

6 The Primacy of the Moral Question over Utility and a Return to the Hippocratic Oath

The medical, ethical and economic consequences of recognizing that “brain death” is not death, especially since “brain death” serves to justify organ harvesting for the purpose of saving many lives, can be greatly difficult for many to accept. I feel sorry thinking about all persons – among whom can be my closest relatives, friends, and myself – who will die if the *truth about “brain death” not being true death* becomes again the foundation of medical action, as I would hope.

The killing of living “brain-dead” persons can never be justified by the good and life-saving use of their organs! The good, and even the best, use of organs *never* justifies defining living humans as dead or killing them.

The great utility of the hearts of newborn babies, the blessing these hearts would represent for innumerable numbers of organ recipients, can never justify the crime of killing them. The atrocious misdeed committed if mothers (with the intent of aborting their babies) started to extract and sell their babies’ organs to fill all the “needs for organs” could not be made good by thousands of smiling

heart-recipients! *Primum non nocere! The first duty of the physician is not to inflict harm!*

Medicine would lose its ethos and moral nobility, if considerations of utility of organs for third parties or economic advantages were allowed to take precedence over the truth that “brain death” is not actual death.

Moreover, even if objectively speaking “brain death” were actual death, we would not know this with certainty. There are only two truths which we know for certain, and which are enough to guide our actions to abandon the use of the “brain death” criterion for the purpose of extracting organs from patients deemed to be “brain-dead”:

- 1) The apnea-test used to confirm brain death, causes real death of some patients “in order to see whether they are alive or (“brain”)dead”.
- 2) *In dubio pro vita!*

If pragmatic considerations were to continue to guide medical practice – not only surreptitiously but openly – this would constitute a radical break with some of the highest principles of medical ethics.

Moreover, to give up both the “brain death” determination and the apnea test would not be a grandiose ethical deed, nor is it about a religious (or a specific Christian) virtue that could not be proposed to a secular medical and political community, as Engelhardt believed, but a simple return to the Hippocratic foundation of medicine and to the ethical principles of his true and rationally knowable “pagan medical ethics.” Medicine was built on these ethical principles, summarized in the *Hippocratic Oath* that

goes back to that famous ancient physician who belonged to the circle of Socrates’ friends and students:

“I swear . . . that . . . I will use treatment to help the sick according to my ability and judgment, but never with a view to injury and wrongdoing. Neither will I administer a poison to anybody when asked to do so, nor will I suggest such a course.

Similarly, I will not give to a woman an instrument to cause abortion. . . Into whatsoever houses I enter, I will enter to help the sick, and I will abstain from all intentional wrong-doing and harm.”

7 **Ceterum censeo definitionem mortis cerebrialis esse delendam⁷⁷ Ceterum censeo definitionem mortis cerebrialis esse delendam**

Thus, we are led to the conclusion that the “brain death” definition of human death ought to be rejected by every

⁷⁷ *Ceterum censeo Carthaginem esse delendam* (For the rest, I judge that Carthago ought to be destroyed) is a phrase with which, according to tradition and to Plutarch’s famous comparative biographies (between Greek and Roman personalities), Cato Maior - the Roman statesman Cato the Elder (234–149 BC) - ended every one of his political speeches.

legal and medical ethical code, and that its introduction into the legal system of many states lacks a sufficient philosophical and ethical basis. In the light of philosophical considerations about life and death, the criterion of “brain death” must be dismissed as an aberrant definition of death, and medical praxis built on it ought to be recognized as a deviation from firm and universally knowable medical ethics.

I realize that the derivation of legal and ethical norms from reason contradicts Engelhardt’s opinions about a public ethics for ‘moral strangers’ – “individuals who do not participate in a common moral vision“ (Engelhardt, 1996,⁷⁸ 2000)⁷⁹ – when they meet in a pluralistic, non-coercive society. Engelhardt would say that the preceding reflections propose outdated ethical standards, which he labels as ‘modern’ public standards born from the spirit of Enlightenment and from a rationalist philosophy which believed in the universal appeal of a reason capable of forming public social and political life. Such a spirit looked for rational social, ethical and legal standards which seek to recover universal values, rights, or ontological truths by means of human reason. The hopeless postmodern relativism and pluralism of our present society, however, would, according to him, render dreams of this sort obsolete, so that we should develop postmodern standards in a pluralist society, which – “since we cannot derive moral authority from God

⁷⁸*The Foundation of Bioethics*, (New York and Oxford: Oxford University Press, 1986), 2nd ed., Oxford University Press, 1996.

⁷⁹Tristram Engelhardt, *The Foundations of Christian Bioethics*, (Oxford: Taylor and Francis, 2000).

or reason”⁸⁰ – “can only be derived from the agreement of the individuals who join in a moral undertaking”.⁸¹

This position, however, is neither logically consistent, nor plausible nor compatible with rational evidence. It is inconsistent because it is obvious that Engelhardt accepts quite a few principles as rational and reasonable with which not everyone agrees: namely all those principles which he defends as ground-rules of an ethics in a pluralist society and which happen to coincide with the most liberal standards of a non-coercive, libertarian American society. They contain such values as ‘non-coerciveness’, ‘mutual respect’, liberty as absence of attempts to impose private morals on public society, etc. Other ethical tenets of ‘the public ethics for moral strangers’ include a theory of justification of abortion and infanticide. Each of these elements contains a great number of further presuppositions of ethics, epistemology, ontology, and legal philosophy. On each of these many individuals do disagree, even though a majority of Americans today might give their assent to most of them. Hardly any of these norms is object of universal consensus or assent; some – for example Engelhardt’s ideas about infanticide – are not even of majority opinion. Thus either he has to claim that these principles derive their justification from ‘reason’ or he has to abandon them, and has in fact nothing left as content of his ‘postmodern ethics’.

The position is also implausible in that it forgets that man has always lived in a pluralist society. Relativists and disagreement existed since millennia. Why should the

⁸⁰Engelhardt, 2000, p. 33.

⁸¹ibid.

power of human reason be trusted less today than before? There is no evidence to support such a thesis, except perhaps Engelhardt's own despair of objective rational knowledge, and his skepticism which happens to be contradictory to, and also presuppose (as does any conceivable skeptical doubt), quite a number of evident truths and alleged evident truths, some of which Engelhardt himself recognizes.⁸² On the other hand, public ethics and law were always the result of some consensus of some segments of society. But this does not liberate men from the duty to base their consensus and norms, as far as possible, on truth and knowledge. Engelhardt's position contradicts the evidence that even public ethics can never derive its justification from consensus alone and per se, but has to be guided by all available objective knowledge as to the nature and sources of moral and legal norms. To bring to appropriate evidence the real goods, obligations, and legal norms is, I submit, the only legitimate way of influencing public ethics and of bringing about a rational democratic consensus.

Hence I dismiss objections from the side of a relativistic 'postmodern public ethics' and strongly advocate a return to the metaphysical investigation of the nature of death as the expression of an important objective side of the essence of death. The metaphysical notion of death as the separa-

⁸²See Josef Seifert, *The Philosophical Diseases of Medicine and Their Cure. Philosophy and Ethics of Medicine. Vol. 1: Foundations*. Philosophy and Medicine, vol. 82 (New York: Springer, 2004) e-book, 2005, ch. 4-5. *Unbezweifelbare Wahrheitserkenntnis. Jenseits von Skeptizismus und Diktatur des Relativismus*. (Mainz: Patrimonium-Verlag, 2015); *Der Widersinn des Relativismus: Befreiung von seiner Diktatur*. (Mainz: Patrimonium-Verlag, 2016).

tion of the soul from the body has to guide our action, in that any reasonable doubt as to its occurrence must forbid operations which might bring it about.

As to the medical concept of death or of its basic signs, I defend the notion, accepted for many millennia, that death has occurred when “a complete and irreversible cessation of all central vital functions (including circulatory-respiratory activity and total brain infarction)” has taken place. I argue not in favor of conceivably limited and outdated notions of clinical death (from which awakening is possible), but defend just the acceptance of that *urphenomenon* of death which begins with irreversible circulatory-pulmonary arrest and is often designated as ‘clinical death’ in which the essence and the signs of death, as well as epistemological and ontological categories merge and are somewhat confused. This notion of an ‘irreversible clinical death’ corresponds to the classical medical criteria of death, which, prior to 1968, were universally accepted.

Every layperson knows the main signs and consequences of death. Certainly, we can no longer share the unquestioning simplicity with which the classic German jurist Friedrich Carl von Savigny wrote in 1840: “Death, as the end of the natural capacity of being the subject of rights, is such a simple natural event that, like birth, it does not require an exact determination of its elements.” Nonetheless, we argue for a critical return to the datum of this ‘simple natural event’ of death, and against (i) the sophistry of dissolving the unity of personal and biological human life and, (ii) the sophistry of dissolving the ‘simple’ notion of death or reducing it to its partial aspects.

The question ‘what is death?’ is, moreover, not a matter

of ‘normative convention’ but of finding what it truly is. As A.M. Capron says: “Calling a person dead does not make him dead”.⁸³ I must discover the nature of the human person and of his biological and personal life and being. Only from this perspective of the truth about man and human life can I determine the objective nature of death and the criteria by means of which death can be ascertained.

The only acceptable medical criterion for personal human life, we conclude, is biological human life – i.e. the life of a human organism, as it exists from conception. Accordingly, the only acceptable criterion for death is the irreversible end of all central biological vital functions of the ‘organism as a whole,’ of the body as such, and the phenomena following thereupon. Most importantly, death, in the ultimate ontological sense, is the departure of the soul from the body – the rational human soul that is the innermost principle of human life.

If biological human life is accepted as the only viable criterion of personal human life, such an acceptance has of course important consequences for medicine and the moral, political and legal order:

1. It forbids the use of the criterion of “brain death” for the justification of organ donation and explantation or other forms of killing.
2. With the necessary restrictions (incalculability of the moment of ‘objective death’, etc.) and additions (e.g., taking into consideration the distinction between ‘live cell-cultures’ and live human organism, and the

⁸³*American Medical News*, April 17, 1987, p. 1.

possibilities of modern resuscitation techniques), the customary criterion of irreversible clinical or ‘natural’ death of the organism as a whole should be reintroduced as the medical and legal criterion chosen for the determination of death, best suited even from a democratic consensualistic point of view.

What are the reasons for this proposal?

A. In the first place, all the other definitions and criteria of man’s death are arbitrary, disputable, and ambiguous, while the end of biological human life is a non-arbitrary, non-disputable, and unambiguous notion and criterion of human death. It is highly arbitrary to identify the end of human life with the destruction of the neocortex, or with the irreversible non-function of the brainstem or of the whole brain, while other vital organs are still alive.

The natural death of the organism as a whole, however, is a clear and unambiguous endpoint of human life. Everyone will agree that after the end of the biological life of the human organism as a whole, there is no human life present in the body. Thus it fits excellently as a standard in the kind of pluralist society and suits even the argument which Engelhardt relates to the postmodern age. A complete consensus is possible with regard to the thesis that no human life is present before the beginning or after the end of the biological life of the human organism. No similar consensus can be achieved with respect to any other limit. Therefore, this most natural, unambiguous definition and criterion of human death – which has full consensus in the sense described – is preferable to any other criterion or definition of death.

B. Secondly, any other criterion is unsafe, because as long as the human organism manifests biological life, then the person (and therefore, personal human life, even though not actualized), exists. Since there are many reasons for (and no clear reasons against) the thesis that biological life and personal human life begin together, and that the soul is present in man from conception until natural death, one risks killing a human person when one kills a biologically living human being, whether in the earliest stages of embryonic development or in the latest phases of human life. Hence, it is at least ‘unsafe’ to take the organs from a person who is ‘brain-dead’ but otherwise a biologically living being.⁸⁴ The mere probability of a human person being present and the absence of moral certainty of his death, as well as the precept of natural law, make it morally wrong, to kill him.

C. Thirdly, the best theoretical understanding of human life commends the criterion of biological human life as indicator of personal human life – in view of

- a. the demonstrable errors in all four discussed arguments for the identification of “brain death” with actual human death and as a result of the refutation

⁸⁴This same argument from the uncertainty is defended by Jonas in: ‘Against the Stream: Comments on the Definition and Redefinition of Death’, in: Hans Jonas, *Philosophical Essays: From Ancient Creed to Technological Man*, (Englewood Cliffs, N.J., Prentice-Hall, 1974), pp. 132-140, p. 138: “We do not know with certainty the borderline between life and death, and a definition cannot substitute for knowledge... In this state of marginal ignorance and doubt the only course to take is to lean over backward toward the side of possible life.”

of all other arguments in favor of identifying “brain death” with actual human death;

- b. in view of the unity of body and soul and of the human being as a whole;
- c. in view of ethical and scientific reasons which show that the verification of “brain death” through apnea testing might lead to killing patients;
- d. in view of the principle: in case of doubt, decide in favor of life!

Thus we can say that the rejection of the “brain death” definition of human death is necessary for theoretical and ethical philosophical reasons.

In order to see clearly the immorality of the “brain death” definitions as alleged human death, one must stop looking at this problem as something to be resolved primarily by medical scientists. Rather, it should be recognized that the issue at stake in the “brain death” discussion is philosophical, not medical. People who agree on all medical facts and evidence disagree on this issue purely on philosophical or religious grounds.

Given the immense practical pressure (from the established centers of organ-transplantation) on medical institutions, and since the duty of the philosopher is toward the truth, we must certainly refuse to adapt to prevailing modern opinion about death simply because it prevails in medical circles. The philosopher, if he true to his calling, must resist the temptation to adjust his position on any issue in accordance with social expectations and desires of

hospitals or patients. Rather, the philosopher has the task to speak the truth in season and out of season, while undertaking every effort to make the truth understood and accepted by men. But precisely the truth, I argue, obliges us not to accept the identification of ‘brain death’ with *actual human death*.

In the light of our theoretical and ethical-practical arguments (that are partly independent from whether or not “brain death” is actual human death) and in the spirit of Hippocrates we must conclude:

Ceterum censeo. . . For the rest I judge that the definition and application of “brain death” ought to be entirely abandoned! Ceterum censeo definitionem applicationemque “mortis cerebrealis” esse delendas!