IS BRAIN DEATH THE DEATH OF A HUMAN PERSON?[1]

• Robert Spaemann •

"The identification of 'brain death' and the death of the human being can be maintained only if the personality of man is disconnected from being a human in the biological sense . . . . To do this by appealing to the doctrine of St. Thomas is absurd."

1.

Death and life are not primarily objects of science. Our primary access to the phenomenon of life is self-awareness and the perception of other humans and other living beings. Life is the being of the living. *Vivere viventibus est esse*, says Aristotle. For a living being, not to live means ceasing to exist. Being, however, is never an object of natural science. It is in fact the *primum notum* of reason and as such secondarily an object of metaphysical reflection. Because life is the being of the living, then life cannot be defined. According to the classical adage *ens et unum convertuntur*, it holds true for every living organism that it is alive precisely as long as it possesses internal unity.

[1]This essay was delivered as part of the 2010 McGivney Lecture, "Nature and Natural Law in the Present Cultural Situation: Issues Concerning the Dignity of Human Life," at the Pontifical John Paul II Institute for Studies on Marriage and Family at The Catholic University of America, 12–16 April 2010, Washington, D.C. Publication forthcoming (Eerdman's Publishing Co.).

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Unlike the unity of atom and molecule, the unity of the living organism is constituted by an anti-entropic process of integration. Death is the end of this integration. With death, the reign of entropy begins—hence, the reign of "destructuring," of decay. Decomposition can be stopped by means of chemical mummification, but this way of preserving a corpse merely holds its parts together in a purely external, spatial sense. Supporting the process of integration with the help of technical appliances, however, is very different. The organism preserved in this way would in fact die on its own if left unsupported, but since it is kept from dying, it is kept alive, and cannot be declared dead at the same time. In this sense Pope Pius XII declared that human life continues even when its vital functions manifest themselves with the help of artificial processes.

2.

We cannot define life and death, because we cannot define being and non-being. We can, however, discern life and death by means of their physical signs. Holy Scripture, for example, regards breath as the basic phenomenon of life, and for this reason breath is often simply identified with life itself. The cessation of breathing and heartbeat, the "dimming of the eyes," *rigor mortis*, etc., are the criteria by which, since time immemorial, humans have seen and felt that a fellow human being is dead. In European civilization it has been customary and prescribed by law for a long time to consult the physician at such times, who has to confirm the judgment of family members. This confirmation is not based on a different, scientific definition of death, but on more precise methods to identify the very phenomena already noted by family members. A physician may still be able to discern slight breathing, which a layperson might not perceive. Moreover, the physician could nowadays point out that the person whose heart has stopped beating may very well still exist. Due to such sources of error in the perception of death, it is a reasonable traditional rule to let some time elapse between noting these phenomena and the funeral or cremation of the deceased. Similarly, consulting a physician serves the purpose of making sure that a human being is not prematurely declared dead, i.e., non-existent.

3.

The 1968 Harvard Medical School declaration fundamentally changed this correlation between medical science and normal interpersonal perception.[2] Scrutinizing the existence of the symptoms of death as perceived by common sense, science no longer presupposes the "normal" understanding of life and death. It in fact invalidates normal human perception by declaring human beings dead who are still perceived as living. Something quite similar happened once before, in the seventeenth century, when Cartesian science denied what anyone can see, namely, that animals are able to feel pain. These scientists conducted the most horrible experiments on animals and claimed that expressions of pain, obvious to anyone, were merely mechanical reactions.

This incapacitation of perception fortunately did not last. It is returning today in a different shape, however: namely, by the introduction of a new definition of death, or rather the introduction of a definition of death in the first place, in order to be able to declare a human being dead sooner. By the same logic, it would also be possible to define pain in terms of the neurological processes which constitute its "infrastructure," and consequently to define everyone as pain-free for whom these diagnostic findings cannot be confirmed. It is merely a matter of transforming the explanation of pain into a definition, in order to be rid of it as pain. Just like pain, its foundation, life, is equally indefinable. The hypothesis that the total loss of all brain functions immediately and instantaneously brings about the death of a human being frequently eludes discussion in scientific debates by being transformed into a definition: if the death of a human being and the loss of all brain functions are by definition equated, any criticism of this hypothesis is naturally bound to go nowhere. What remains to be asked is whether what is defined in this way is really what all human beings have been used to call "death," as when Thomas Aquinas, in proving the existence of a Prime Mover, a non-contingent Being, etc., concludes his proof with the words: "And this is what all mean when they say 'God.'"

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[2] "A Definition of Irreversible Coma. Report of the Ad Hoc Committee of the Harvard Medical School to Examine the Definition of Brain Death," *Journal of the American Medical Association* 205 (1968): 337–40.

Is "brain death" what all mean when they say "death"? Not according to the Harvard Commission of 1968. The Commission intended to provide a new definition of death, one that clearly expressed their main interest. This interest was no longer that of the dying, namely to avoid being declared dead prematurely, but rather that of other people interested in declaring a dying person dead as soon as possible. Two reasons are given in support of this third-party interest: (1) guaranteeing legal immunity for discontinuing life-prolonging measures that would constitute a financial and personal burden for family members and society alike, and (2) collecting vital organs for the purpose of saving the lives of other human beings through transplantation. These two interests are not the patient's interests, since they aim at eliminating him as a subject of his own interests as soon as possible. Corpses are no longer subjects of interest. The first of the two interests mentioned is, incidentally, bound to an erroneous premise and a correspondingly problematic practice of the judiciary. It presupposes that for every human being not declared dead, life-prolonging measures are indicated always and without exception. When this premise is dropped, the interest in declaring death at an early point ceases to exist. What remains is the second interest, which is self-contradictory, insofar as it requires on the one hand the collection of live organs, for which reason the dying person needs to be kept alive artificially, while on the other hand it requires that the dying person be declared dead, so that the collection of those organs does not have to be considered an act of killing.

4.

The fact that a certain hypothesis regarding the death of a human being is in the interest of other people who would benefit from the verification of this hypothesis does not prove its falsity. It should cause us, however, to be extremely critical, and it requires setting the burden of proof for this hypothesis very high. This holds true all the more so when the hypothesis is underhandedly immunized by being turned into a definition. Precisely because nominal definitions are neither true nor false, the question of whose interests they serve gains relevance. The strategy of immunization by definition thus has a counterproductive effect.

The legislation of my country (Germany) allows for a physician's conflict of interest, insofar as, prior to a transplantation, death has to be determined by physicians who themselves are not involved in the transplantation. Unfortunately, however, transplantation physicians did have their share in drafting the Harvard Commission's criteria for the determination of death. It ought to be in the moral interest of transplantation physicians, with respect to their own personal integrity, to have as little to do with the formulation of these criteria as with their application, even if this is not in the professional interest of transplantation medicine—although the professional interest of transplantation medicine, considered in itself, is a highly moral interest, the interest of saving the lives of human beings. It has to be ensured, however, that saving lives does not happen at the expense of the lives of other people.

It is a fact that since 1968, the consensus about the new definition of death has not been consolidated; to the contrary, objections against it have increased. Ralf Stoecker states in his 1999 habilitation thesis *Der Hirntod* ("Brain Death") that the switch-over from cardiac death to "brain death" is more contended today than it was thirty years ago.[3] The arguments against "brain death" are advanced not only by philosophers, and, especially in my country, by leading jurists, but also by medical scientists, e.g., the American neurologist Alan Shewmon, who was prominent as a radical advocate of "brain death" still in 1985, until his own medical research convinced him of the opposite.

5.

The observer of this discussion is bound to discover that it suffers from a marked asymmetry. The proponents of the new definition argue from a "position of strength." They feel that it is an unreasonable demand to waste more time with arguments, aware that they have the "normative power of the factual" on their side, i.e., an established medical practice that has in the meantime become routine, as well as, for believers, the blessing of the Church (which, however, was categorically called into question in a public statement

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[3]R. Stoecker, *Der Hirntod. Ein medizinethisches Problem und seine moralphilosophische Transformation* (Freiburg: Verlag Karl Alber, 1999), 37.

made by the Cardinal Archbishop of Cologne). They do not even remotely make the same effort to deal with the arguments of their critics as vice versa. Consequently, for every unbiased observer the weight of the arguments has shifted more and more in favor of the skeptics. I myself have to confess that their arguments have meanwhile convinced me. Life and death are not the property of science, hence it is the duty of scientists to convince ordinary laypeople of their point of view. When scientists refuse to make this effort under the assumption that they can use arguments from authority instead, their case is indeed in a sorry state. In the following, I would like to make my own argument against the new definition of death. What this definition defines as death is not *quod omnes dicunt mortem*.

6.

The proponents of the thesis that the loss of all brain functions is identical with the death of the human being can be subdivided into two separate groups. The first group distinguishes between the life of the human being and human life, i.e., the life of a person. According to this group, the term "human life" should only be used as long as mental processes of a specifically human nature can be discerned. When the organic basis of such processes ceases to exist, the human being is no longer a person, hence his or her organism is at the disposal of other persons to use for their purposes. Consequently, a total loss of all brain functions is not even required at all. Sufficient is the failure of those brain areas that constitute the "hardware" for these mental acts. People in a persistent vegetative state are thus considered dead as persons. Not only is this position incompatible with the doctrines of most high religions, in particular Judaism and Christianity, but it also contradicts the tenets of today's medical orthodoxy. A well-known proponent of this position is Australian bioethicist Peter Singer.

The second group sets out from the assumption that we can only speak of the death of a human being when the human organism as a whole has ceased to exist, i.e., when the integration process constituting the unity of the organism has come to an end. According to this second group, this process of integration is terminated with the total loss of all brain functions, since the brain is assumed to be the organ responsible for integration. Hence, according to the

views of this group, the death of the brain is the death of the human being. If the underlying hypothesis is correct, the conclusion must be correct, and even the Church would have no reason to defy this conclusion. But obviously the hypothesis is not correct, and those who wish to adhere to the conclusion are consequently forced to draw closer to the unorthodox theory of the first group, i.e., the cortical death hypothesis.

7.

The hypothesis of at least extensional identity of the total loss of brain functions and the death of the human being is incorrect for several reasons. First of all, it contradicts all appearances, i.e., normal human perception, similar to the Cartesian denial of pain in animals. A German anesthesiologist speaks for many others when she writes that "brain-dead people are not dead but dying," and that even after thirty years in the profession she could not convince herself of the opposite of what everybody can see. One of the most well-known German neurologists, Prof. Dichgans, head of the Neurologische Universitätsklinik in Tübingen, told me recently that he personally was not prepared to diagnose death based on standard neurological criteria, and therefore did not participate in the determination of death. German intensive care physician Peschke reports that, according to his investigations, nurses in transplantation units are prepared neither to donate their own organs nor to receive donated organs. What they see on a daily basis makes it impossible for them to become part of this practice themselves. One of these nurses writes: "When you stand right there, and an arm comes up and touches your body or reaches around your body—this is terrifying." And the fact that the allegedly dead person is usually given anesthesia, so that the arm stays down, does not contribute to putting less trust in one's own senses. Does one anesthetize corpses? This is merely a suppression of vegetative responses, the argument goes. Yet a body capable of vegetative responses requiring complicated coordination of muscle activity is obviously not in that state of disintegration which would entitle us to say that it is not alive, i.e., that it does not exist anymore.

8.

Here the reasons of common sense converge with those advanced by medical science. Thus it was already pointed out by Dr. Paul Byrne in 1979 that it is unjustified to equate the irreversible loss of all brain functions with "brain death," i.e., with the end of the existence of the brain.[4] We do not equate the cessation of the heartbeat with the destruction of the heart, because we know today that in some cases this loss of function is reversible. But it is only reversible because the heart precisely does not cease to exist when it ceases to function. And only because the cessation of breathing was not equated with the "death of the lung" did it became possible to utilize mechanical ventilators to restart those functions.

Based on considerations of this kind, Dr. Peter Safar and others began to work on the resuscitation of brain function in brains considered dead by standard criteria. The reply by some that the loss of function in these "resuscitated" brains had not yet become irreversible makes for a circular argument. Irreversibility is obviously not an empirical criterion, since it can always be determined only retrospectively. It is precisely because we assume that the brain still exists that we try to resuscitate its function.

Similarly circular is the reasoning behind the question as to what constitutes "total loss of brain function." The proponents of "brain death" reject the substitution of this term by "loss of all brain functions" on the grounds that this would also pertain to "peripheral brain functions" which can survive the death of the brain as a whole. What are such "peripheral functions"? The Minnesota criteria are different from the British criteria, and some authors already declare brain stem activity peripheral when the cortex has ceased functioning. Anything that is not identical with the integrative function of the brain for the organism as a whole can apparently be regarded as peripheral. But the question has precisely been to prove just this integrative function. So Paul Byrne's words are arguably still valid: "There is no limit to what real functions may be declared peripheral when the only non-peripheral function is imaginary."[5]

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[4]Paul A. Byrne, Sean O'Reilly, Paul M. Quay, "Brain Death—An Opposing Viewpoint," *Journal of the American Medical Association* 242 (1979): 1985–90.

[5]Paul A. Byrne and Walt F. Weaver, "'Brain Death' is Not Death," Fourth

9.

Is it justified to call the somatically integrative function of the brain "imaginary"? Among the authors who make this claim and give reasons for their views, the most important one is perhaps Alan Shewmon. A summary of his empirical research and theoretical considerations can be found in his essay "The Brain and Somatic Integration: Insights into the Standard Biological Rationale for Equating 'Brain Death' with Death."[6] Here I will only present the abstract of this essay, which of course contains neither empirical evidence nor theoretical arguments, only the theses.

> The mainstream rationale for equating "brain death" (BD) with death is that the brain confers integrative unity upon the body, transforming it from a mere collection of organs and tissues to an organism as a whole. In support of this conclusion, the impressive list of the brain's myriad integrative functions is often cited. Upon closer examination and after operational definition of terms, however, one discovers that most integrative functions of the brain are actually not somatically integrating, and, conversely, most integrative functions of the body are not brain mediated. With respect to organism-level vitality, the brain's role is more modulatory than constitutive, enhancing the quality and survival potential of a presupposed living organism. Integrative unity of a complex organism is an inherently nonlocalizable, holistic feature involving the mutual interaction among all the parts, not a top-down coordination imposed by one part upon a passive multiplicity of other parts. Loss of somatic integrative unity is not a physiologically tenable rationale for equating BD with death of the organism as a whole.[7]

From the actual text of Dr. Shewmon's essay I will only quote a short paragraph:

> Integration does not necessarily require an integrator, as plants and embryos clearly demonstrate. What is of the essence of integrative unity is neither localized nor replaceable—namely the

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International Symposium on Coma and Death, Havana, Cuba, 9-12 March 2004.

[6]D. A. Shewmon, "The Brain and Somatic Integration: Insights into the Standard Biological Rationale for Equating 'Brain Death' with Death," *Journal of Medicine and Philosophy* 26 (2001): 457–78.

[7]Ibid., 457.

> anti-entropic mutual interaction of all the cells and tissues of the body, mediated in mammals by circulating oxygenated blood. To assert this non-encephalic essence of organism life is far from a regression to the simplistic traditional cardio-pulmonary criterion or to an ancient cardiocentric notion of vitality. If anything, the idea that the non-brain body is a mere "collection of organs" in a bag of skin seems to entail a throwback to a primitive atomism that should find no place in the dynamical-systems-enlightened biology of the 1990s and twenty-first century.[8]

10.

A nonmedical person, trained in the theory of science and wishing to form an objective opinion about the *status quaestionis*, must strive to evaluate the arguments brought forth in the debate. Where results of empirical research, which he or she has no way of verifying independently, are concerned, it is necessary to confront them with the counter-arguments. Insofar as these counter-arguments are of an empirical nature as well and challenge the accuracy of the presented research results, he or she ought to abstain from judgment until it can be based upon further empirical verification. As far as a theoretical interpretation of the results is concerned, however, he or she is qualified to verify and evaluate it. Regarding the findings presented by Dr. Shewmon, I am not aware of any criticism targeting the core of his argumentation. I conclude from two facts that such criticism indeed does not exist:

(1) When Shewmon presented his research results at the Third International Symposium on Coma and Death in 2000,[9] which was attended largely by neurologists and bioethicists, there was surprisingly broad acceptance. What ensued was a shift of the domain of the debate from the medical to the philosophical arena, with the defenders of "brain death" appealing exclusively to consciousness-based concepts of personhood rather than the previously-standard medical rationale of bodily integrity.

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[8] Ibid., 473.

[9] D. A. Shewmon, "Seeing is believing: videos of life 13 years after 'brain death,' and consciousness despite congenital absence of cortex," Third International Symposium on Coma and Death, Havana, Cuba, 22–25 February 2000.

(2) In 2002, the *National Catholic Bioethics Quarterly* published an article by editor-in-chief Edward J. Furton which was dedicated exclusively to the debate with Alan Shewmon.[10] In this article, Dr. Shewmon's empirical research results are not disputed, nor is any reference made to literature which would justify such doubts. From this I conclude that indeed there is no such literature.

All the more interesting is Furton's argument itself, which defends the equation of "brain death" with death against Shewmon. I will conclude my own remarks with a critical report about this article, beginning with a summary.

Furton's primarily philosophical arguments in favor of "brain death" convinced me more than anything else of the opposite of his position. The reason is that Furton is only able to sustain his thesis of "brain death" as the death of the human being by distinguishing between the death of the human being as a person and the death of the human being as a living being. He writes: "Although the difference between the death of the person and the decay of the body had long been obvious, it is only in our time that the difference between the life of the person and the life of the body has become apparent."[11] This, now, is exactly the position of Peter Singer, and it is incompatible with the belief of most religions, and certainly with that of Christianity. If Church authorities cautiously accepted the premise of "brain death," this was always done under the premise that the brain is responsible for somatic integration, the loss of the brain functions thus being identical with the death of the organism. It is beyond the scope of religious authority to judge the validity of this premise. When the premise becomes doubtful, the conclusion ceases to apply.

Furton would like to hold on to the conclusion, even though he abandons the premise under the impression of Alan Shewmon's arguments. His appeal to papal authority is, therefore, unjustified, and it is surprising that he makes such excessive use of the argument of authority in his debate with Shewmon. Just because the pope bases his own equally hypothetical conclusion on a scientific hypothesis does not mean that this hypothesis is thereby withdrawn from further scientific discourse.

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[10] E. J. Furton, "Brain Death, the Soul and Organic Life," *National Catholic Bioethics Quarterly* 2, no. 3 (Autumn 2002): 455–70.

[11] Ibid., 467.

If it were otherwise, the Ptolemaic worldview would have been dogmatized forever, just because the Church drew conclusions with religious and practical relevance from it while it was generally accepted. At the same time Furton himself concedes in his essay that "the determination of death does not fall under the expertise of the Church, but belongs to the physician who is trained in this field."[12] (I would like to render this more precisely: The physician is qualified to determine the existence of pre-defined criteria for death. The discourse about these criteria themselves falls into the domain of philosophers and philosophizing theologians after they have received the necessary empirical information from the medical profession.) Furton bases his argument on the Aristotelian-Thomistic doctrine of the soul in connection with the teaching of the Church, dogmatized after the Council of Vienne in 1311–1312, according to which the human soul is only one, from which follows that the *anima intellectiva* is at the same time the *forma corporis*. From this doctrine, however, Furton draws a conclusion which is diametrically opposed to the intention of St. Thomas as well as the Council of Vienne.

Thomas assumes that the human being initially possesses a vegetative and then an animal soul, and that the spiritual soul is created only on the fortieth day of pregnancy, and not in parallel with the other two souls but in their stead, so that it is now the spiritual soul that simultaneously fulfills the vegetative and sensori-motor functions. This is drastically different from Aristotle, for whom *nous*, reason, is not part of the human soul, but is *thyrathen*, entering the human being from outside. St. Thomas, by the way, excludes Jesus Christ explicitly from successive animation: that the Incarnation occurs at the moment of his conception presupposes that Jesus' soul must have been a human soul in the full sense from the very beginning. The Church, herein following science, gave up the idea of successive animation long ago and regards not only Jesus, but any human being as a person from the moment of conception, with his or her soul being an *anima intellectiva*—even though the newborn infant is not yet capable of intellectual acts. This inability is due to the lack of sufficiently developed somatic "infrastructure." Similarly, a pianist "cannot" play the piano when there is no piano available. Just as the pianist nonetheless remains a pianist, the soul of the human being is an *anima intellectiva* even when it is factually unable

[12]Ibid., 463.

to think. The being of man is not thinking but living: *Vivere viventibus est esse*.

Furton's way of thinking is radically nominalistic. For him, a personal soul exists only as long as an individual is capable of specifically personal acts. For Furton, then, the reality of the human soul is not found in allowing man to exist as a living being; the soul is not the *forma corporis* but the form of the brain and only indirectly the form of the body. "The soul is . . . what enlivens a material organ, namely the brain, and from there enlivens the rest of the human body."[13] (This view was rejected already in 1959 by the Würzburg-based neurologist Prof. Joachim Gerlach, for whom the error in the equation of "brain death" and the death of the individual consists in "regarding the brain as the seat of the soul." Similarly, Paul Byrne wrote already in 1979: "'Brain function' is so defined as to take the place of the immaterial principle or soul of man."[14]) Furton identifies that which Thomas calls *intellectus* with factual intellectual consciousness. He does not conclude from the obvious continued existence of a living human organism that the personal soul, which is the form of the human body, is still alive, but contrariwise: if a human being is no longer capable of intellectual acts, the soul has left him and he is, as a person, dead. The fact that the organism as a whole is obviously still living does not play any role. Without actual brain function, the human organism is nothing other than a severed organ, which also still shows expression of life. This position is logical given the premises, and largely coincides with that of Peter Singer and Derek Parfit, for whom persons exist only as long as they are capable of personal acts: hence sleeping people, e.g., are not persons.

11.

Under the weight of the arguments of Shewmon and others, the group of medically and theologically "orthodox" defenders of "brain death" is apparently disintegrating. In light of the untenability of the thesis of the integrative function of the brain, the identification of "brain death" and the death of the human being can be

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[13]Ibid., 470.

[14]Cf. Byrne, "Brain Death—An Opposing Viewpoint."

maintained only if the personality of man is disconnected from being a human in the biological sense, which is what Singer, Parfit, and Furton are doing. To do this by appealing to the doctrine of St. Thomas is absurd indeed. Furton avails himself of an equivocation in the term *intellectus* when he claims that being a human consists in the connection of intellect and matter, as though Thomas understood "intellect" in terms of actual thinking rather than the capacity to think. This capacity belongs to the human soul, and this soul is *forma corporis* as long as the disposition of the body's matter permits it. Instead of concluding: where there is no longer any thinking, the *forma corporis* of the human being has disappeared, we can thus only conclude: as long as the body of the human being is not dead, the personal soul is also still present. Only the second conclusion is compatible with Catholic doctrine as well as the tradition of European philosophy. Furton's adventurous conclusion, to declare a human being dead when his or her specifically human attributes no longer manifest themselves, is contrary to all immediate perception. Even Peter Singer and Derek Parfit are closer to the phenomena when they do declare the person expired, but do not for this reason yet consider the human being dead.

I conclude with the words of three German jurists who, after immersing themselves in the medical literature, made the following statements:

"To be correct, the 'brain death' criterion is only suited to prove the irreversibility of the process of dying and to thus set an end to the physician's duty of treatment as an attempt to delay death. In this sense of a treatment limitation, the 'brain death' criterion is nowadays likely to find general agreement" (Prof. Dr. Ralph Weber, Rostock).

"The brain dead patient is a dying human being, still living in the sense of the Basic Constitutional Law [of the Federal Republic of Germany, ESSJ Art 2, II, 1 99]. There is no permissible way to justify under constitutional law why the failure of the brain would end human life in the sense of the Basic Constitutional Law. Accordingly, brain dead patients have to be correctly regarded as dying, hence living people in the state of irreversible brain failure" (Prof. Dr. Wolfram Höfling, Bonn).

"It is impossible to adhere to the concept of 'brain death' any further . . . . There is no dogmatic return to the days before the challenges to the concept of 'brain death'" (Dr. Stephan Rixen, Berlin).

12.

After all that has been said, for anybody who is still doubtful, the principle applies, according to Hans Jonas, *in dubio pro vita*. Pius XII himself declared that, in case of insoluble doubt, one can resort to presumptions of law and of fact. In general, it will be necessary to presume that life remains.[15] ☐

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[15]Pius XII, *To an International Congress of Anesthesiologists*, 24 November 1957, in *The Pope Speaks*, vol. 4, no. 4 (1958): 393–98.