



**Jorge Luiz Abrantes Pinheiro**

Institution: Federal University of Uberlândia (UFU), Graduation Program in Health Sciences, Faculty of Medicine. Uberlândia - MG, Brazil  
jorgeabrantes@gmail.com  
<https://orcid.org/0000-0002-0149-0940>

**Alcino Eduardo Bonella**

Institution: Federal University of Uberlândia (UFU), Graduation Program in Health Sciences, Faculty of Medicine and Graduation Program in Philosophy. Uberlândia, MG, Brasil.  
abonella@googlegmail.com  
<https://orcid.org/0000-0002-7910-6961>

## Misfortune caused by death, personal identity and what matters in survival

*Infortúnios causados pela morte, identidade pessoal e o que importa na sobrevivência*

**Abstract:** This article presents and discusses concepts and arguments found in debates on three philosophical problems: the misfortune inflicted by death on the person who dies; personal identity; and what is important in survival. First, it outlines the debate raised in the argument by Epicurus, to whom death means nothing to those who die. Second, the rivalry between neo-Lockeans and animalists regarding the most plausible criterion of personal identity is presented and discussed. Finally, a discussion on whether the misfortune caused by death is or not related to personal identity is conducted. The paper concludes that the dimension of the misfortune caused by death depends on both the amount of goods one is deprived of by death and on the interest such an individual would have to continue living. The aforementioned philosophical problems make up a core of acute issues such as decisions regarding the maintenance of life and delaying death.

**Keywords:** Evil of death. Personal identity. Animalism. Neo-Lockeanism. Survival.

**Resumo:** Este artigo apresenta e discute conceitos e argumentos encontrados em debates sobre três problemas filosóficos: o infortúnio infligido pela morte a quem morre; identidade pessoal; e o que é importante para a sobrevivência. Em primeiro lugar, delinea o debate suscitado no argumento de Epicuro, para quem a morte nada significa para os que morrem. Em segundo lugar, é apresentada e discutida a rivalidade entre neo-lockeanos e animalistas em relação ao critério mais plausível de identidade pessoal. Por fim, é feita uma discussão sobre se o infortúnio causado pela morte está ou não relacionado à identidade pessoal. O artigo conclui que a dimensão do infortúnio causado pela morte depende tanto da quantidade de bens de que se é privado pela morte quanto do interesse que tal indivíduo teria de continuar vivendo. Os problemas filosóficos mencionados constituem um núcleo de questões agudas, como as decisões a respeito da manutenção da vida e do adiamento da morte.

**Palavras chave:** Morte. Identidade pessoal, Animalismo. Neo-Lockeanismo. Sobrevivência

## The evil of death

**A** Death is perhaps the most feared event among us. Its ineluctable nature has inspired artists, philosophers and scientists, as well as given rise to religious beliefs and cults of all sorts. Efforts to postpone death, which may be as old as the human species, are at the center of medical interests and so feature in the most acute debates in bioethics. Why, if death is such a natural process and so inherent to life itself? Why is death considered a misfortune?

Denying that death is a misfortune, Epicurus states that “death is nothing to us”. In his “Letter to Menoeceus”, the Greek philosopher formulated this idea in an argument:

Become accustomed to the belief that death is nothing to us. For all good and evil consist in sensation, but death is deprivation of sensation ... So death, the most terrifying of ills, is nothing to us, since so long as we exist, death is not with us; but when death comes, then we do not exist. It does not then concern either the living or the dead, since for the former it is not, and the latter are no more. (Epicuro 1926, 85).

Epicurus’s argument is, in fact, two.

First argument:

1. Every good and evil lies in sensation.
2. Death is the suppression of sensations.
3. Therefore death cannot be good or evil.

In this argument, the first premise expresses the hedonistic postulate, according to which the well-being and ill-being of individuals depend strictly on their experiences (Bradley 2009, 4). Therefore, evil has to be intrinsic or non-relational (Soll 1998, 21). The second premise assumes that death is the end of existence.

Second argument:

1. If one is alive, death does not exist.
2. When death comes, one ceases to exist.
3. There is no harm in 1. In 2, the subject who suffers the harm is nonexistent.
4. Therefore death cannot be bad for those who die.

The second argument has a temporal nature. There appears to be no time when

the evil of death affects the individual, as the existence of one or the other is not simultaneous.

The Epicurean arguments clearly contrast with one's intuition on the evil of death. If death "is nothing" to those who die, efforts to extend life and avoid death have been misguided. Maybe, our moral and legal positions toward the act of killing should be reconsidered. Murder might not be as reprehensible, and suicide, whether rational or not, might also not have to be the subject of such controversy. In addition, our prudence to avoid death might need to be reassessed (SILVERSTEIN 1980 412). Alternatively, one may reject the Epicurean argument. To that purpose, it is necessary to demonstrate that:

1. An event or state of affairs can be bad for someone without being directly disagreeable or injurious.
2. In the event of death, harm may exist in the absence of the subject.
3. There is a time when harm takes place.

In an article entitled "Death" (Nagel, 1970), Nagel considers restricting good and evil to non-relational properties to be arbitrary and argues that death is not a misfortune *because of what it imposes, but rather because of what it removes*. As long as life is considered good, death is considered evil as it means the suppression of such benefit. In other words, the harm caused by death is deprivation. Nagel constructs two cases to show that the evil caused by depriving one of one's goods, not only does not depend on the experience, but also does not occur in an easily distinguishable time.

Case 1. *Betrayal*. A man is treated very well by his friends, but his friends make fun of him behind his back.

Case 2. *Dementia*. An intelligent man suffers a brain injury and has his cognitive capabilities made equivalent to that of a newborn baby.

In case 1, it is hard to deny that the man is a victim of misfortune, even if he has no knowledge of the betrayal and might never have.

In case 2, the child feels happy in his condition, as the damage caused to his brain prevents him from noticing the extent of his misfortune, even though few would deny the seriousness of such adversity.

The second case presents a greater analogy with death, as the losses do not relate to the child that now exists, but to the intelligent adult and all his past efforts, wishes,

hopes, fears, and plans for the future which once existed. An Epicurean would have to go against a strong intuitive feeling to defend that such man was not struck by misfortune.

In both cases, in Nagel's point of view, the lack of awareness of the misfortune by the alleged victim and the difficulty to delimitate the time when the misfortune occurred do not imply that the misfortune did not exist. Arguments such as Nagel's became known as the *Deprivation Approach*, which states that death is evil because it deprives individuals of the goods they would have at their disposal had they not died.

Such strategy requires one to compare two different future outcomes, one where the individual survives and another where they perish. That is why it is referred to as the Life Comparative Account (LCA). If the death is worse than the future the individual would have had, death will have been a misfortune. On the other hand, if the future outcome where he survives is worse (in terminal cases involving suffering without hope, for example), death will not be strike of misfortune.

However, is it possible to assess the goods people would have had available to them had they not died in order to determine the harm caused by death? Fred Feldman believes in the possibility to objectively compare the extrinsic values between two worlds and, to that end, he turns to the metaphysics of counterfactuals. To assess whether the world is better or worse for an individual, it would suffice to compare the level of well-being the individual would have in the two worlds. The level of well-being is calculated by subtracting the amount of pain suffered from the amount of pleasure enjoyed (Feldman, 1991). In the case of death, the comparison is made between the world in which death occurs, and the nearest possible world where it does not occur.

In the LCA strategy, what matters is to evaluate specific deaths. What would life be like, or what would happen to people had they not come across death. What is under scrutiny is not death as a type, but as an instance. McMahan names such strategy *token comparison*. In the author's view, this approach seems to be in tune with our intuitions, which distinguish misfortunes caused by different deaths. Our intuitions say that early deaths are worse than death when one has already enjoyed the *praemia vitae*, to use Bernard Williams's expression. To put it another way, the continuity of life does not make sense if it is at the expense of unbearable or useless suffering.

It may be, however, that the LCA does not always coincide with our intuitions. In order to contrast the evaluation through LCA of misfortune caused by death to the person who dies with our intuitions, one may consider the death of three people at different stages of their lives:

*The case of the three instances:*

1. A 25 year-old young man (J)
2. A 10-year-old boy (G).
3. A developed fetus (F).

According to the Life Comparative Account, the scale of the misfortune caused by death to the one who dies can be measured by the quantity of goods the victim was deprived of. Thus, all else being equal, it is possible to say that:

F's misfortune > G's misfortune > J's misfortune

And what do our intuitions say in these cases? If we compare misfortunes J and G, our intuitions seem to agree that misfortune G is greater than misfortune J, since the deprivation of enjoyable goods suffered by the former is greater. However, when comparing the misfortunes suffered by G and F, our intuitions disagree. The misfortune suffered by G seems worse than the one suffered by F (DeGrazia 2007, 64). The evaluation of misfortune using the LCA approach does not match our intuitions in all three cases.

McMahan says the discrepancy between the assessment using the LCA and our intuitions is motivated by the fact that the LCA assumes that what matters in survival is personal identity. If personal identity is not the basis on which our interests to survive lie, the LCA approach must be replaced or supplemented. This demands an examination of personal identity.

## Personal identity

In Confessions, Book XI, St. Augustine says that if no one asks him, he knows what time is. If he has to explain, he does not. The same perplexity seems to occur in the reflection on identity. Take the hydrogen atoms in a water molecule, for example. Both are strictly identical. However, they do not get mixed up, enabling the formation of a water molecule, when combined with an oxygen atom.

Hence the first distinction: qualitative and quantitative identity. Each hydrogen atom

in a water molecule is qualitatively identical to each other but numerically identical only to itself. Numerical identity, which has been raising philosophical reflection, can be defined as the relationship that each thing *necessarily* establishes with itself and only itself.

On the other hand, intuitive questions about the relationship things establish with themselves are raised. Is anything identical to the material it is made of? How can something that undergoes changes over time keep its identity? What is the difficulty in understanding what we call persistence (Slater 2010, 1)?

Some philosophers apply the concept of identity to the following logical principles: reflexivity, symmetry and transitivity. According to the principle of reflexivity, everything is identical to itself. According to the principle of symmetry, if  $A = B$ , then  $B = A$ . According to the principle of transitivity, if  $A = B$  and  $B = C$ , then  $C = A$ . The concept of identity is still governed by the law of Leibniz, according to which, if  $A = B$ , then all that is true for  $A$  is necessarily true for  $B$ . Identity also has a one-with-oneself relationship “in the sense that nothing is ever identical to two different things” (Lewis 1983, 61).

The same questions on persistence of things in time apply to people. What remains in a person that is responsible for his/her persistence in time as one and the same person? At any given moment there is a power plant operating changes within us, in such a way that our bodies are never strictly the same at different times. Your body and mine are like Heraclitus’s river. So what is it that remains that authorizes us to believe we are the same person? What characterizes the bearer of such changes and that ultimately sews our biographies?

When one reflects on such issues, one reflects on the problem of personal identity. Is there a reliable criterion for the evaluation of *personal identity*? What ensures that a person is one at a given time and the same person at another? If the issue is evaluated from the point of view of the first person, which is how our beliefs about *personal identity* are more clearly revealed, I should consider my own identity (Parfit 1995). I have to reflect on what survived in me throughout my life that caused me to know nearly the entire time that that person was, not coincidentally, myself and that caused me to know now, as I write, that I continue to be such a person. If I look into the future, I should take prudential care with that who I suppose will be myself.

The modern discussion on identity is strongly influenced by the postulates presented by John Locke in the chapter *Of Identity and Diversity*, which came to integrate chapter XXVII in his *Essay Concerning Human Understanding* from the second edition

in 1661. Locke defends that different things have different conditions of persistence, and thus it is necessary to know what something is in its essence so one can investigate how its persistence in time would come to be and therefore “it being one thing to be the same substance, another the same man, and a third the same person” (Locke, 1975, 346). And these three things present different identity conditions over time.

Locke posits that the criterion of *personal identity* is consciousness or continuity of consciousness. What would establish the link between the past and present life of a person would be the conscience the person has of herself. According to this tradition, the persistence of a person in time, which ensures their numerical identity, is dependent on memory (Wiggins 1976 131). So when Locke says that “personality extends itself beyond present existence to what is past, only by consciousness” (Locke, 1975, 346), he is suggesting that connections between memory and remembered experiences are necessary and sufficient for personal identity through time (Garrett, 1998, 42-43).

However, Locke’s classical postulate, usually presented as the *psychological theory of personal identity*, raised objections which have also become classic. One of them, presented by Joseph Butler, states that Locke’s argument is circular. Butler points out that if consciousness is what certifies our *personal identity* and what is necessary for one to be a *person*, so no one existed or perpetrated any action unless they remember it. The theory of memory or consciousness of past actions cannot distinguish false from true memories. Suppose Socrates remembers having carved a piece representing the Three Graces to be placed at the entrance to the Athenian akropolis. How to legitimate this memory and attribute authorship to Socrates and not to Phidias or Sophroniscus? If Socrates *really* remembers having done the sculptures, then the author is himself, but one will have to assume that the young sculptor is the same man as the philosopher, i.e. we have to presume Socrates’s *personal identity*. Such is the circularity condemned by Butler.

Assuming that “real memories” do not comprehend everything that can be considered memory, Sidney Shoemaker introduces the concept of quasi-memory (Shoemaker, 1970, p. 271). Quasi-memories would have a weaker relationship with the individual who had the experiences than with the memories. Thus, one may quasi-remember some lived experience in the past and still not be sure whether this memory refers, in fact, to their experiences or someone else’s. Ordinary memories would be but a subclass of quasi-memories, which means real memories are quasi-memories that are real.

If the possibility of quasi-memory solves the circularity condemnation imposed by Butler, another *tour de force* was necessary to answer an accusation by Thomas Reid, according to whom Locke's criterion goes against the principle of transitivity. Suppose Socrates in three different times:

(A) Socrates, at seventy before the hemlock.

(B) Socrates at forty years of age when Querofonte informed him he had been elected the wisest man in Athens by Pythia.

(C) Socrates as a boy who played with Sophroniscus's chisel.

According to the principle of transitivity, if  $A = B$  and  $B = C$ , then  $A = C$ . Socrates at seventy is identical to the Socrates at forty, who is identical to Socrates as a boy. However, if Socrates at seventy cannot remember Socrates as a boy, both would not be identical to one another according to the criterion of awareness of past experiences presented by Locke, which would therefore fail as a criterion of personal identity (Reid 2002, 276).

In an effort to review the Lockean criteria, Parfit suggests that there are many other forms of direct psychological connections other than the connections established by memory, such as intentions and corresponding actions, beliefs supported for a long time, desires that may or may not be fulfilled, etc. (McMahan, 2002, 39). All these connections are what Parfit defines as psychological connectivity between a person now and someone else in a different time. If the number of connections between the two is sufficiently large, they may be considered to be the same person. As it depends on connections whose number may fluctuate in time, psychological connectivity occurs in degrees, i.e., it can be low when there is a small number of connections, or strong when there is a large number of connections.

Parfit considers connectivity to be strong "if the number of connections, over any day, is at least half the number of direct connections that hold, over every day, in the lives of nearly every actual person" (Parfit 1984, 205). Parfit's formula can be outlined as follows:

DC = number of direct connections over a day.

TC = number of direct connections over every day in the lives of nearly all real people (an average of daily connections that normally occurs in human lives).

Strong connectivity may therefore be determined based on what will be referred to here as: *Parfit threshold*.



$$\text{Parfit Threshold} = \text{TC} \div 2$$

*There will be strong connectivity when DC is equal to or greater than the Parfit threshold.*

Even when there is *strong connectivity* in a given interval of time, such connections might weaken in time and may even disappear, making psychological connectivity logically intransitive. Thus, if psychological connectivity occurs in degrees and is intransitive, it cannot serve as a criterion for *personal identity*. Parfit then turns to the concept of psychological continuity as a continuous flow of strong psychological connections. He states that “There is psychological continuity if and only if there are overlapping chains of strong connectedness.” (Parfit 1984, 206). Connections only need to have a limited scope in time, both for the past (recollected experience) and for the future (intents or desires that will be solved in the future), for example. Thus, besides the classic objections, the thesis of psychological continuity as a criterion of personal identity became very popular among philosophers and came to be regarded as the standard theory. According to this approach, one comes to exist when one is able to build strong psychological connections between two different times, and ceases to exist when these connections are irretrievably lost.

The most debated alternative to the psychological approach defends that the correct criterion for *personal identity* is that we are animals. One does not need a diverse metaphysical arsenal to defend that we are animals. It is clear we are animals and, as well as vertebrates, mammals, primates and members of the *Homo Sapiens* species; and when we are eating, studying or walking, an animal is performing all those tasks. When we look in the mirror we are faced with an animal looking back at us and that is not so by coincidence but because wherever we are, so will the animal we are be.

When Eric Olson argues that we are “animals” he means we are essentially organisms and consequently begin to exist when the embryonic development – after the fertilization of the egg by a spermatozoon - has produced an organism, and cease to exist when our body is unable to maintain its living and functional components. Our existence is therefore inextricably bound to the life that animates such organism and the end of our existence is intertwined with the termination of that life.

If we are animals, as stated by Olson, but are identical to people in a Parfitian sense, we are two entities that are aware of the same experiences and the same actions,

coexisting and sharing the same physical body and thinking the same thoughts. This would imply an expanded ontology and therefore we would never be alone (Noonan 2003, 205). Olson calls this difficulty the *Too-Many-Thinkers Problem*, which he believes to be the hardest challenge faced by the opponents of animalism. The *thinking animal* approach has become the most promising argument in favor of animalism and is its most robust support. Olson exposes his argument as follows:

1. There is an animal located where you are.
2. This animal thinks. And thinks your thoughts.
3. If you share your thoughts with a being that is not you, you cannot know you are not this being (Olson 2004 266).

One of the answers to the *Too-Many-Thinkers Problem* is to deny that there are two trains of thought in each of us. According to Shoemaker, there are two meanings for “animal”. In the first meaning, humans are strictly biological beings and their persistence in time is also dependent on strictly biological conditions. In this sense, animals are unable to think and are different from what we are.

Similarly, Lynne Rudder Baker argues that the fact each one of us is made up of an animal, as we are biologically constituted beings, does not imply we are essentially animals. Take a sculpture, for example. Rodin’s *Thinker* is a sculpture made in bronze and both the sculpture and the alloy in which it was carved occupy the same place at the same time. However, Rodin’s work cannot be reduced to bronze nor copper nor tin or any other metal the alloy is made of. Rodin’s *Thinker* is not identical to the material where it was carved. If the same bronze was modeled into another shape, the resulting sculpture would be anything but the *Thinker*, as it became known; and if the sculpture were melted again, it would be a pile of brass and the piece of art would cease to exist. For Baker, a person is not reducible to the matter it is made of, therefore, we are made up of the same stuff an animal is made of but are different from it (Baker 1997).

Another strategy to solve Olson’s *thinking animal* problem seems much more promising. It advocates that each one of us is not an animal, but certain parts of an animal. McMahan states that we are able to think because we are endowed with a set of neurons that are able to think in a strict sense. According to this approach, a human animal thinks only in a derivative sense just as we can admit that a computer makes calculations because it is equipped with a processor capable of performing sums. Combining the view that we are part of an animal to what such part is capable of producing, McMahan pos-

tulates that we are *embodied minds*. Thus, we would be minds (or consciousness) that depend on the substrate capable of producing them, which means that we are identical to our minds which, in turn, are identical to certain parts of our bodies.

It may not be possible to safely delimit the areas where consciousness takes place, which McMahan identifies as the *embodied mind*. The philosopher himself admits that consciousness may be the result of an integrated and interdependent operation of various areas of the brain, which makes it difficult to pinpoint exactly which areas would be directly linked to the production of consciousness and which would only be subsidiary. The answer to this would depend on empirical evidence, which means that it will happen, if it ever does, with research carried out under neurosciences (Crick and Koch, 1998). Consciousness is the key issue and probably the most difficult in neurosciences. Much research in the field “are trying to track the footprints of consciousness to its actual lair” (Koch 2012, 20) or, to use less literary language, to reveal whether there are *neural correlates* for this phenomenon.

The assertion that every human being is an animal who keeps a close relationship with the other non-human animals does not seem to be enough to convince philosophers that each of us is *identical* to such animal (Bourget and Chalmers, 2014). One of the main reasons philosophers are inclined to disagree with the animalistic thesis is given by our strong intuition that our survival may be linked to something other than the survival of our bodies. When subjected to the challenge of a thought experiment known as brain transplant our intuition does not seem to agree with animalists.

*Two characters, victims of a serious accident, are admitted to the emergency room. One of them, who we will refer to as Capitu, suffered such severe injuries to her body that she did not manage to survive, although her brain remained unscathed. The other, who we will call Diadorim, only suffered mild injuries to her body, but her brain was completely destroyed. In an attempt to save one of the characters, the medical team decides to transplant Capitu's intact brain to Diadorim's viable body.*

The patient who wakes up in a hospital bed after surgery would be just like Diadorim were it not for the fact that now her brain is the one that once belonged to Capitu. Would the persona, as it is called, be Diadorim, Capitu, or yet a third person?

In the neo-Lockean view, the persona would be Capitu, while Diadorim would be the donor, as what was donated was the body, which from now on will be Capitu's biological equipment - the only survivor in the crash. According to animalists, the persona would

be Diadorim, as she was the recipient of the donated organ. Thus, no animal would have been transplanted into Diadorim's body, who would remain the same animal that received a brain transplant from Capitu, just as she might receive the heart or the liver.

The intuition that the persona is Capitu has been proved to be much stronger than the opposite intuition, thus becoming one of the major objections to animalism and therefore a key point in favor of the neo-Lockean thesis (Shoemaker 2004 573). Perhaps, as stated by Harold Noonan, "transplant intuition poses an irresolvable difficulty for animalism" (Noonan 2001 85).

In Olson's view, on the other hand, considering the transplant scenery, both physical and psychological continuities are just a mistake. In his view, the persona is Diadorim but all that matters to Diadorim is what mattered to Capitu. Knowledge, skills, memories, relationships and interests, which once belonged to Capitu, are now Diadorim's. Diadorim feels and thinks he is Capitu, but he is wrong.

However, it can be argued that because the case of transplantation is unreal, it cannot serve as a reliable guide to our theses, regardless of how clear our intuitions seem to be. Alternatively, McMahan proposes the examination of real cases such as that of the American dicephalous twins, Abigail and Brittany Hensel. The twins share the same body below their heads and are two distinctive and separate people. Each has her own mental life and character, apart from having access to sensations from their own side of the body and control the members of that side. According to McMahan, there is no reason to consider the Hensel sisters as being any different from us, which forces us to admit that they are people. However they share the same human body, and since identity is transitive, if one admits the twins are identical to the same body, one necessarily has to conclude that they are identical between each other, which would be patently false. Therefore, if they are not identical between each other, one must conclude they are also not identical to an animal and, if each one of them is no different to each of us, we must conclude that none of us is identical to an organism. If this is the case, animalism can only be false (McMahan 1999, 82 e 2002, 35).

DeGrazia argues that fused twins are only an evidence that organisms may share certain parts of the body and not others, and in the case of the Hensel sisters, there are undoubtedly two people and also two bodies whose separation was not complete, allowing us to talk about two superposed bodies because, although they share some organs, they do not share the same stomach, nor lungs, nor brain, or heart (DEGRAZIA 2005, 57).

The mere counting of shared organs in different cases of dicephaly does not seem to favor either side in the dispute. It is not logically more plausible to claim that there is an animal with duplicate organs than two animals sharing some organs, which makes room for Blatti's claim that, in such cases, there is *more than one animal and less than two* (Blatti 2007 604).

## When one is two and what matters in survival

A second case of transplantation, on the other hand, would raise serious difficulties to neo-Lockeans and animalists besides the concept of identity itself as being what matters in survival.

*Three characters suffer a serious accident. Capitu had her body destroyed, but her brain was preserved. Diadorim and Macabéa had their brains disintegrated but their bodies preserved. The surgeons then decide to save two of the characters by transplanting each of Capitu's cerebral hemispheres to the other two. The left hemisphere is transplanted into Diadorim's body and the right into Macabéa's. So now we have Diadorim and Macabéa's bodies, each with one of Capitu's cerebral hemispheres.*

Suppose each hemisphere carries psychological continuity with Capitu's brain before the accident. Diadorim and Macabéa now remember or nearly remember having had experiences lived by Capitu, starring almost forgotten episodes of love and betrayals. If psychological continuity is a criterion for *personal identity*, then:

1. Diadorim is continuous to Capitu. Therefore Diadorim and Capitu are identical.
2. Macabéa is continuous to Capitu. Therefore Macabéa and Capitu are identical.
3. If (1) and (2) are true, then Diadorim and Macabéa are identical.

The conclusion in (3) respects the logical principle of transitivity. However, such conclusion violates another principle of identity which states that: nothing is ever identical to two different things.

This logic reveals that although psychological continuity may be used as a *necessary condition* for personal identity, it cannot be regarded as *sufficient condition* because in cases where it assumes branching forms, one may be psychologically continuous to two people and therefore identical to both, which would be absurd.

However, one may continue defending psychological continuity as a criterion for personal identity as long as it is revised to accommodate the non-branching clause.

The assumption would be: “a person at a given time and a person at another given time will be the same person if, and only if, there is among them a specific type of psychological continuity and *non-branching*”.

Meanwhile, on the horizon of such metaphysical clash on personal identity was the concern to answer another question: what matters in survival (Martim and Barresi 2000 ix)? This discussion places the fission experiment at the center of interests.

Following the division surgery, two people wake up in the ICU, Diadorim and Macabéa. Should the prudential concerns Capitu had with herself during her life now be directed to Diadorim and Macabéa, only one of them or none?

Parfit coined the expression relation R to designate mental relationships that support personal identity. He defines relation R as the “psychological connectedness and/or continuity with the right kind of cause.” (Parfit 1984, 214). According to the philosopher, when you or I worry about our lives in the future, *what matters* are the relations R. If this is the case, we would have:

1. Capitu has a relation R with Diadorim.
2. Capitu maintains relations R with Macabéa.
3. Therefore Capitu should be concerned about the future well-being of both Diadorim and Macabéa.

Under normal circumstances, what matters coincides with survival. Capitu at present should be concerned with Capitu in the future as they will be one and the same person. However, after the transplantation, there are two people with whom Capitu is psychologically continuous and/or maintains psychological connectivity. There are two people with whom Capitu should have prudential concerns. If relation R is what matters, then in the case of fission, *survival does not* coincide with what really matters.

If identity does not matter according to Parfit’s thesis, the way is opened to Olson’s claims, to whom the intuitive force responsible for the belief that the Persona is Capitu is that both are “the same person”. According to Olson, “same person” would have a more practical sense than a sense of identity (Olson 1997 70). Olson’s point is: if Capitu should be concerned about Diadorim and Macabéa, her prudential concerns are related to other people.

An animalist would have no problem to agree with Parfit’s thesis on what really matters as Capitu should be concerned about the Persona’s future, even though she

is not identical to her. It seems that the animalist approach is even more committed to the idea that prudential concerns - what really matter – do not depend on personal identity. Personal *identity* belongs to the *yes/no* logic. This logic is present on computers that only have the on/off stages or sentences that are true/false. It is not possible to be more or less identical to oneself.

*Prudential concern*, on the other hand, does not follow the same logic. I can be more or less concerned about myself at different points in the future or very little interested about myself somewhere in the past, therefore the selfish concern exists in different gradations. It is a matter of *degree*.

Psychological continuity, on the other hand, is logically equal to *personal identity* and that is why it can be considered a criterion for the latter. Psychological continuity exists or does not exist. There is no fraction of psychological continuity. However, would there be a conceptual gap that would enable one to consider psychological continuity as a relation of degree?

According to McMahan, it is possible to review the Parfitian concept so that psychological continuity is logically considered a matter of degree, becoming compatible to prudential interests. Thus, in case the number of strong connections are slightly above the *Parfit's threshold*, it can be said that there is weak psychological continuity, whereas if there is a number of strong connections well above the threshold, it can be assumed that there is strong continuity. With such adjustment, *psychological continuity* ceases to be logically equal to identity and becomes logically equal to prudential interest.

McMahan states that the LCA approach appears to assume that personal identity is what matters when it comes to scaling the misfortune caused by death. If identity is not what matters, as advocated by Parfit, there will be cases where the loss of goods due to death may mean less from the point of view of the victim, for the relations that really matter - relations R - (which connect the victim to a time in the future in the instant he/she dies) may be weak. McMahan proposes that relations R correspond to what he would call *prudential unity relations*. Therefore, the prudential unity relations do not depend on the identity, but on connectivity and psychological continuity, and therefore can be measured as quantitative variables.

Even though the philosopher does not abandon LCA, he believes one must adopt an approach that, in addition to considering the losses caused by death, is also able to *relativize* the value of these losses according to the interests of the individual to

continue living beyond the moment he or she dies. Misfortune is then *modulated* by two factors:

1. The amount of goods that would be added to his or her life in the future (which coincides with the deprivation approach that compares two lives).
2. The extent to which the individual is connected to himself/herself in the future through prudential unity relations.

McMahan coined this the *Time-relative Interest Account* (McMahan, 2002, 105-106). Time-relative interests are strong and coincide with interests simpliciter when the prudential unity relations are strong. This corresponds to most part of our existence, from childhood to old age. On the other hand, *time-relative interests* are weak or very weak when boundaries between *existence* and *non-existence* are subtle, or as McMahan prefers to call it, problems at the margins of life.

According to the author, such approach fits better the intuition that the death of a baby is a smaller misfortune (to oneself) than it would be to a young person. Take, for example:

I = Misfortune caused by death.

PT = Total losses caused by death.

TRI = Time-relative Interests. (it is possible to turn TRI into a factor to be used as an index reducer. The value of this index may fall anywhere between 0 and 1 according to the prudential interests at play. Thus, value (0) would correspond to inexistent interests and (1) to strong interests.

Suppose an embryo a few days old is miscarried. As the loss of goods has to be evaluated at the time of death, in this case the loss is immense, since the embryo is completely deprived from existence. However, in the event of misfortune caused by death the loss of goods only has moral sense if someone is related to them. There has to be an individual who is "harmed" by the loss. However, in the case of the embryo, there is no such individual, so TRI for the embryo would be (0). Therefore, no matter the dimension of the loss that would be used to measure the misfortune of the person's death, the total loss for the embryo is zero. On the other hand, an adult individual who has obvious interests to continue living is found in the opposite condition of the embryo, and so the TRI index in this case is (1) or the maximum possible. The amount of goods missed that would measure the misfortune of his death would be multiplied by one, which would not change its dimension of misfortune.

This relationship seems to reoccur in the comparison between a baby and a young



adult, but not at the same proportion. Bradley does not share this idea, and disagrees that death is a minor misfortune to a newborn baby than to a young man. On the contrary, he believes that the misfortune that befalls the baby is much greater. Surely, by simple arithmetic - for this version of the deprivation account - the death of a newborn baby implies a much greater misfortune to him/her than death would represent to a twenty-five year-old young man. According to Bradley, the LCA makes room to consider that certain types of things affect well-being. And, given any plausible theory of welfare, LCA will regard the death of a baby as worse than the death of a young man (Bradley, 2008, 293).

If there are difficulties in assessing the total losses caused by death, there are also difficulties in assigning values for TRI, precisely in cases where such an approach would be most useful. However, the time-relative interest account seems to meet our intuitions better. Or, as summarized by DeGrazia: “the time-relative interest account better captures and explains our considered judgments about the harm of death, offering a coherent, plausible framework.” ( DeGrazia 2007, 66-67).

## Final considerations

The bioethical interest in the issues discussed in this article is immense, as such issues are present in debates about abortion, euthanasia, assisted suicide, definition of death etc. No such issues and debates would have any sense were death not considered a misfortune. Death is neither social nor individually neutral and therefore raises ethical issues that call for philosophical answers.

In our opinion such reflections on misfortune caused by death and its relationship with the possibilities to extend or interrupt the course of life do not depend on what we essentially are, but on what matters to the living individual. Each one of us is a series of physical and biological processes that establish a hierarchy among them, on which the so-called life depends on. Some of these processes are more essential than others to maintain what matters in survival.

As we see it, we should follow the philosophers who argue that misfortune and the extent of misfortune caused by death are determined by the intensity of our interest to continue living. And the intensity of this interest depends on the persistence of our physical ability to produce consciousness and keep the contents of our consciousness as our beliefs, values, hopes, fears, etc...

Death is the end of our journey. The complete loss of our ability to sustain conscious-

ness or the awareness that the continuity of existence no longer makes sense characterize the end of one's biography and existence. This is what matters.

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