

# About Immortality: A Socio-Anthropological Approach

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## I. Introduction

Rationally speaking, the notion of immortality, like the notion of infinity, is only an abstract word. Time, as perceived historical duration, runs on relentlessly from the past to the future via the present. This means that everything that has a beginning must have an end. If the universe had a beginning, no matter how or when, then it will inevitably have an end. Therefore, even if human beings could live as long as the universe lasts, they would still disappear at the end of it. So while the fundamental dimension of human existence is time we cannot speak of immortality, but we can replace the term with that of extreme longevity.

The question could be stated as follows: what does this extreme longevity mean for different cultures and why do people want to attain it? Statistics show that, in Europe at least, life expectancy is increasing from year to year. In the distant future, it will reach some currently unexpected values which could be described as extreme longevity. But all the statistics also show that the gap between life expectancy and healthy life expectancy is widening, especially for people over 65. In these circumstances, do people still want extreme longevity? In the folk story that all Romanian children read and know, the promise is not only of life without end, but also of youth without old age.

### *A. Immortality in Mythical Thinking*

The ancient creation myths show different ethnic groups' views about the creation of the world and the ordering of the known universe.

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Awakening from chaos, primordial waters, sacrificing the primeval giant, and other creation myths are essential to our understanding of the mythical thinking of the peoples around us. Anthropogony is the name given to stories that tell us how and why man appeared in this created universe.

Cyclical time - the quintessence of collective immortality - In Romanian mythology, the twin beings Fârtatul and Nefârtatul are the makers of the Universe, who tried to create a being worthy to rule the Earth. The result of the first attempts of these two creators of the world was the Ogres (Căpcăuni), but this represented a failure and their era ended with an aquatic cataclysm. In the second anthropogonic cycle, the Giants suffered the same fate. They were followed by People in the third anthropogonic cycle, which is still in progress. The Blajini (kindly “hobbits”), who will dominate the fourth cycle, already exist on Earth, live in the shadow of people, and help them<sup>3</sup>.

Linear time - the implacable end - The ancient Germans had a particular interest in the End of the World which is announced as early as their cosmogony, their myths about the creation of the world. This is accomplished by the sacrifice of the primordial anthropomorphic being Ymir (symbol of the primordial whole) at the hands of the god Odin and his brothers, who then created the world as we know it from the fragments of Ymir's torn body. The Cosmic Tree, Yggdrasil, symbolizes and constitutes the Universe as a whole. Ever since its emergence, Yggdrasil has been threatened with destruction: an eagle devours its leaves, its trunk rots, and a snake gnaws at its roots. On the day the Tree collapses, the end of the world, or, as it is called in German, Ragnarök, will come. Etymologically, Ragnarök means the end of the gods or the final destiny of the gods<sup>4</sup>.

Myths of individual immortality - The myth of Gilgamesh can be found on Sumerian tablets recounting events in the life of the king of the city of Uruk sometime in the second millennium BC. With the death of his friend Enkidu, Gilgamesh faces for the first time the irreversible loss of a being dear to him and the implacable fate of people. Unsurprisingly, the powerful Gilgamesh goes in search of immortality, regarding which

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<sup>3</sup> R. Vulcănescu, *Mitologia română* [Romanian Mythology] (Bucharest: Academiei Publishing House, 1987)

<sup>4</sup> M. Eliade, *Istoria ideilor și credințelor religioase* [History of Religious Ideas and Beliefs] (Iași: Polirom), 2011.

he has learned that it had been granted, exceptionally, to a single man, the wise Utnapishtim, the survivor of the Great Flood. When he reaches him, Utnapishtim tells him how he and his wife became immortal, thus revealing a route by which immortality can be attained, namely by submission and faith. Since Gilgamesh does not understand the advice, Utnapishtim tries another way to achieve his end and subjects him to a resistance test of not sleeping for six days and seven nights. The attempt fails, but Utnapishtim's wife takes pity on Gilgamesh and begs her husband to give him the secret of immortality. Gilgamesh learns of a certain plant that only the gods can collect and which he must eat. Determined to take it home to his city of Uruk in order to share the mystery of immortality with the rest of the population, Gilgamesh submerges himself in the depths of the water and succeeds in obtaining the plant of immortality, which he christens suggestively "old-man rejuvenates". But on his way home, when he pauses to bathe in a spring of fresh water, a snake, sniffing the scent of the plant, secretly seizes it and sloughs off his old scales. Thus Gilgamesh is forced to admit defeat in his attempt to become immortal, although, paradoxically, as we know from this renowned Sumerian epic, he was a demigod, or more precisely, he was two-thirds god and one-third human<sup>5</sup>.

In Romanian folklore, the myth of immortality is found most prominently in the popular fairy tale Youth without age and life without death. Setting out in search of youth without old age, in order to fulfil the destiny promised to him at birth, Făt-Frumos (Prince Charming) is obliged to make a series of attempts on his journey to maturity. In one snatch of dialogue we read:

- Welcome, Prince Charming! What are you doing here?
- We are looking for youth without old age and life without death.
- If you are looking for what you say, here it is.

He spends a forgotten time there, without realising how time was passing, because he remains as young as when he had arrived. He passes through the forest, without a care in the world. He enjoys the golden palaces, living peacefully and quietly with his wife and her sisters, appreciating the beauty of the flowers and the sweetness and freshness

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<sup>5</sup> *Epopoea lui Ghilgames* [The Epic of Gilgamesh, consulted in Romanian translation], (Bucharest: Gramar, 2008).

of the air, as a blessed being. He often goes out hunting. It is while doing so that he walks unintentionally into the Valley of Grief. The animal that diverts him from the path of immortality and returns him to the status of a mortal man is a simple rabbit. The phenomenon of crying, an illustration of human ephemerality, is very frequently encountered in the story: his crying in his mother's womb, the crying of his parents at Făt-Frumos' unwavering determination to go out into the world, and his uncontrollable longing for his parents after he has stepped into the Valley<sup>6</sup>.

After millennia in which the hope of immortality had always been present in so many of the world's cultures, yet as part of a magic-symbolic universe of rituals and representations governed by the idea of being, people have now come to reconfigure the same aspiration, but by replacing magic with medical and technological processes characterised by doing. The ancient knowledge preserved in the myths of immortality has been transposed into the exact sciences and so humans have begun to transform their own bodies in pursuit of extreme longevity.

### *B. Bio-hacking - the modern mythology of immortality*

Biohacking is a term used to describe the application of modern technological tools and solutions based on new scientific findings, in order to maximize biological potential. Biohacking procedures are based on "self-quantification" through the private use of tools such as EEG monitors, sleep monitoring devices and other biofeedback gadgets (which measure muscle activity, heart rate variability, etc.). Biohacking thus aspires to create a new human race, a perfect synergy between biology and the digital world. The followers of techno-biology stand at the boundary between dream and reality because they try to update the brain, the body and human nature itself<sup>7</sup>. We present a select gallery of such self-styled biohackers:

Dmitri Itskov (38) is a Russian billionaire who has announced his intention to upload his brain to a computer, thus defeating death. In his

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<sup>6</sup> P. Ispirescu, *Tinerete fara batranete si viata fara de moarte* [Youth without old age and life without death] (Bucharest: Doxologia Junior, 2017).

<sup>7</sup> S. Samuel. *How biohackers are trying to upgrade their brains, their bodies – and human nature*. (Vox 6, 2019), <https://www.vox.com/future-perfect/2019/6/25/18682583/biohacking-transhumanism-human-augmentation-genetic-engineering-crispr> (accessed May 10, 2020).

quest for immortality, he set up the 2045 Initiative Foundation, which already employs 30 scientists. According to the official website of the organization, the creation of the first humanoid “avatars” that can be controlled with the help of the human mind is planned for 2020.

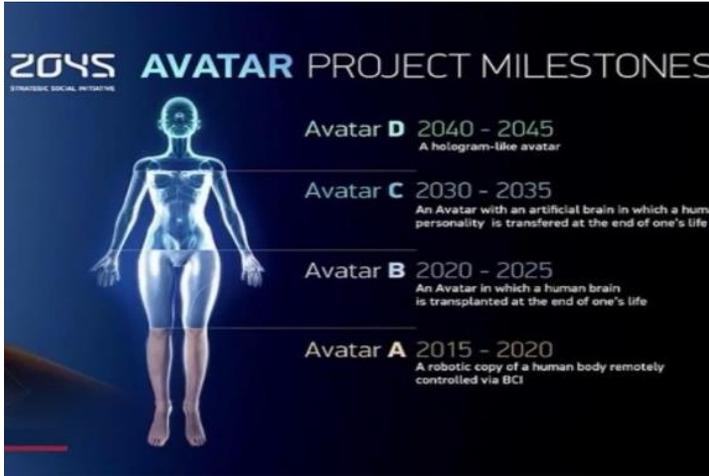


Fig. 1. The AVATAR project milestone ([www.2045.com](http://www.2045.com))

Dave Asprey (American entrepreneur and author, 46) has created Bulletproof Supplements. For him, biohacking is “the art and science of changing the environment around you, so you have complete control over your own biology”. Asprey loves experimenting on his body: injecting stem cells into his wrists, taking dozens of supplements. He bathes himself in red light every day, as just one of many extreme treatments, and is animated by a desire to live to the age of 180.

Jack Patrick Dorsey, American programmer, co-founder of Twitter (43). There are multiple therapies, from cryotherapy and neurofeedback to virtual floating pools, that Silicon Valley spends hundreds of thousands of dollars on. Jack Patrick Dorsey meditates for two hours a day, eats only one meal a week with a complete fast from all food and drink at the weekend, and has an ice bath every morning before walking 8 km to the Twitter neighbourhood.

Zoltan Istvan, American transhumanist, journalist, entrepreneur and futurist. The most radical species of biohackers, called grinders, go as far as implanting chips into their bodies. For Zoltan Istvan, sometime

presidential candidate as leader of the Transhumanist Party, having an implant is fun and convenient: “I rely heavily on technology”. Implants make possible a wide range of actions, from opening doors to the subcutaneous monitoring of blood glucose levels.

Serge Faguet, Russian millionaire entrepreneur, extreme biohacker (35), who plans to live forever, says: “Here in Silicon Valley, people have a technical mindset and see everything as an engineering problem. Many of us look strange, but as soon as our methods work, the prejudices against us will melt away”.

Aubrey de Gray, English author and biomedical gerontologist (57). Some biohackers strongly believe that they will discover eternal youth through technology. Gerontologist Aubrey de Gray claims that the first person who will live to the age of 1,000 has already been born.

## II. Material and methods

### *Life expectancy – some facts and statistics*

How long are we living today? A growth in wellbeing and the good life all over the world is a reality of the past three decades. Following the Rosling model, the majority of the world’s population are living in level 2, on up to 8 USD a day, and is moving toward level 3, with up to 32 USD a day<sup>8</sup>.

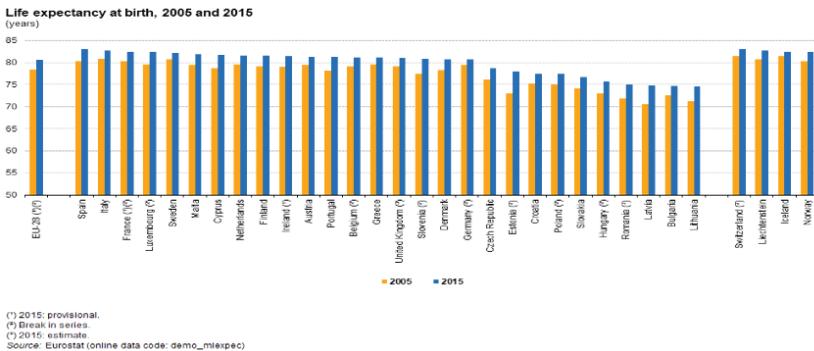


Fig. 2. EU life expectancy at birth, 2005 and 2015  
 (https://ec.europa.eu/eurostat/)

<sup>8</sup> H. Rosling, *Factfulness* (Bucharest: Publica, 2018).

Life expectancy has been increasing constantly during the last half century, due above all to advances in the provision of primary medical services, child vaccination and safe water supplies. Even in Europe, in a single decade average life expectancy at birth increased by four years - from 77 in 2005 to 81 in 2015. The ten-year improvement record for each EU country is presented in Figure 2.

From this chart, it can easily be observed that all the former communist countries of Central and Eastern Europe were below the EU average in 2005 but had made up some ground by 2015. The social services and quality of life in all these countries clearly still need to close the gap separating them from the western part of Europe.

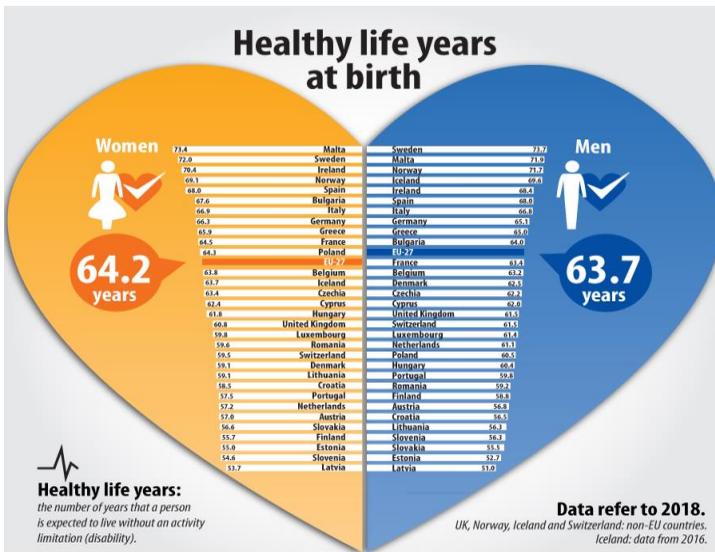


Fig. 3. Healthy life years expectancy at birth in the EU 2016  
(<https://ec.europa.eu/eurostat/>)

A particular aspect of this topic is represented by healthy life expectancy at birth, the enhancement of which has become the public policy analogue of the mythological idea of youth without old age. This statistical indicator represents the number of years that a person is expected to continue to live without limitations in functioning and without disability. This indicator is impacted not only by the safety of

living conditions and the state of health services but also by improvements in the quality of life (limited stress, healthy food, leisure, etc.). The EU country by country projection of healthy life years at birth in 2018 is shown in Figure 3. For this data set, the Central and Eastern European countries are almost all below the EU mean, but we can observe an overlap with some Western European countries.

### III. Results

#### *(micro)Sociological research project regarding the desirability of immortality*

How long do people in today’s society actually want to live? Of course, this is largely a rhetorical question, but it can also be an interesting topic for a sociological research study. We started from this research question, chiefly out of curiosity and with a minimal research design: a one-question anonymous online questionnaire (with two supplementary factual questions about age and gender). The questionnaire was promoted online (social media and emails) for only two days (19-20 September 2019) and 137 answers were collected. It is not possible to assess how representative they were, since this was only a test piece of research on an available sample. The single question was: “You meet the “golden fish” that can fulfil your every wish. How long would you ask to live?” The sample structure is presented in Figure 4.

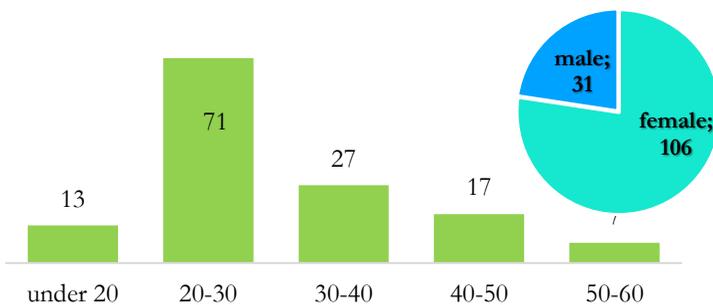


Fig. 4. Age and gender distribution of the sample

Even with a non-representative sample, what was completely unexpected is that only three subjects indicated that they wanted to live forever. The remainder of the sample formulated very reasonable answers (85% requested lifespans of less than 100 years):

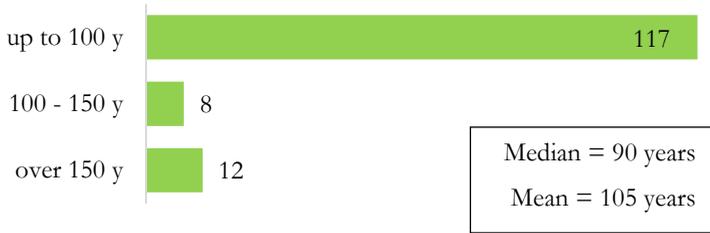


Fig. 5. Average desired life expectancy

There is a significant difference between genders, with males having a significantly greater mean desired life expectancy than women, as can be observed in Figure 6 ( $t=2.546$ ,  $\text{Sig}<0.012$ ):

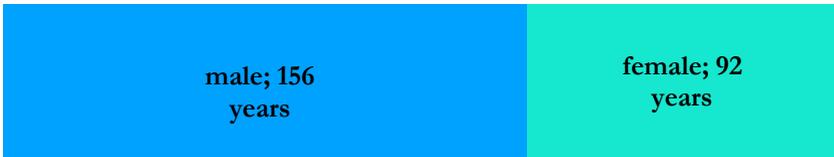


Fig. 6. Average desired life expectancy by gender

The distribution of the desired life expectancy by age intervals reveals a quite constant value of 89 to 100 years, with only one exception: subjects aged between 30 and 40 opted for an average lifespan of 140 years, as can be observed in Figure 7. Of course, the sample was too small for us to draw firm conclusions from this, but the transition from young to mature adult could be a plausible explanation. For more accurate mean values the extreme values were discarded.

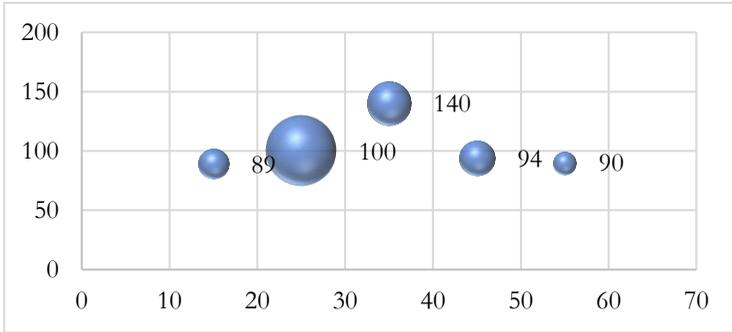


Fig. 7. Average desired life expectancy per age interval

Finally, the “remaining” lifetime, calculated as the difference between desired life expectancy and current age, reflects a clear decrease in expected “rest of my life” with age, as can be seen in Figure 8:

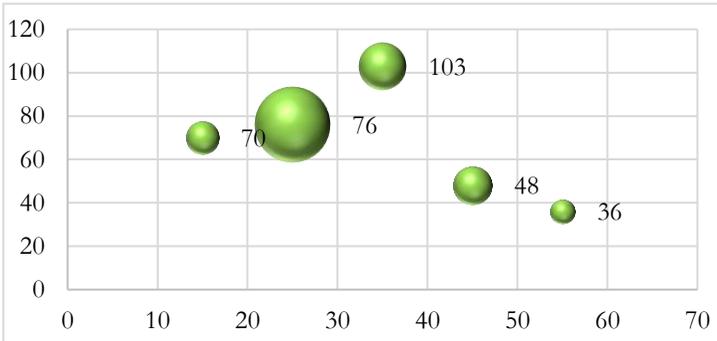


Fig. 8. “Remaining” lifetime = desired life expectancy – current age

#### IV. Discussion

Immortality is impossible in our present ontological paradigm based on the Big Bang model. If the universe has a beginning moment than it must have an end point. Thus a more practical approach is to think of extreme longevity instead of immortality. During the twentieth century global life expectancy rose from around 40 years to 80 years. This has been achieved simply by eliminating many of the causes of premature death. The

challenge for the twenty-first century will be to double life expectancy toward 150 years, but by the upgrading of our body functionality<sup>9</sup>.

The current social system is not prepared for extreme longevity (people living more than 150 years). It is very difficult to imagine an active life of 100 years in the same domain of activity. Extreme longevity does not as yet appear even to people themselves to be a desirable achievement. More than having an extremely long life, people are interested in having a healthy one. If the trends in the most recent statistical data are maintained it is to be expected with confidence that the next two or three decades will see a significant improvement in healthy life expectancy at birth.

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## References

- Eliade, Mircea. *Istoria ideilor și credințelor religioase* [History of Religious Ideas and Beliefs]. Iași: Polirom, 2011.
- Harari, Yuval Noah. *Homo Deus. Scurtă istorie a viitorului* [Romanian edition; published in English as *Homo Deus. A Short History of the Future*]. Iași: Polirom, 2018.
- Ispirescu, Petru. *Tinerete fără bătrânețe și viață fără de moarte* [Youth without old age and life without death]. Bucharest: Doxologia Junior, 2017.
- Rosling, Hans. *Fact Fulness*. Bucharest: Publica, 2018.
- Samuel, Sigal. *How biohackers are trying to upgrade their brains, their bodies – and human nature*. 2019, [www.vox.com/future-perfect/2019/6/25/18682583/biohacking-transhumanism-human-augmentation-genetic-engineering-crispr](http://www.vox.com/future-perfect/2019/6/25/18682583/biohacking-transhumanism-human-augmentation-genetic-engineering-crispr) (accessed May 10, 2020).
- Vulcanescu, Romulus. *Mitologia română* [Romanian Mythology]. Bucharest: Editura Academiei, 1987.
- \*\*\* Avatar project available at [www.2045.com](http://www.2045.com).

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<sup>9</sup> Y. N. Harari, *Homo Deus. Scurta istorie a viitorului* [Romanian edition; published in English as *Homo Deus. A Short History of the Future*] (Iași: Polirom, 2018), 30.

- \*\*\* Eurostat (2019) Life expectation at birth by sex available online at [https://ec.europa.eu/eurostat/web/products-datasets/product?code=sdg\\_03\\_10](https://ec.europa.eu/eurostat/web/products-datasets/product?code=sdg_03_10).
- \*\*\* Eurostat (2019) Healthy life years by sex available online at [https://ec.europa.eu/eurostat/statistics-explained/index.php/Healthy\\_life\\_years\\_statistics](https://ec.europa.eu/eurostat/statistics-explained/index.php/Healthy_life_years_statistics).
- \*\*\* Epopeea lui Ghilgameş [The Epic of Gilgamesh, consulted in Romanian translation]. Gramar, Bucharest, 2008.