

If humans didn't die of old age, would we regret it? | December 2021 | EDITION 153 | The death of death

Imagine a rather educated mouse asking himself if it is theoretically possible to live more than two and a half years his average life expectancy? Of course, it is possible, she would say, look at the human species (...), mammals like us that live thirty to forty times longer! Beyond our biological limits: The secrets of longevity. 2011. Miroslav Radman.

# Theme of the month: If humans didn't die of old age, would we regret it?

#### Introduction

Let's imagine a world not so different from ours. However, humans and most animals would not experience aging.

In this world, would we wish senescence, that is, the progressive degradation until death, on ourselves and our children?



Let's imagine, for example, a biological environment a little more "Lamarckian" than the one we live in. In epigenetic evolutions, acquired characteristics would be more transmissible. An older animal would have, as here, advantages in terms of experience. Moreover, the descendants would benefit from an increased transmission of acquired characteristics. In this case, natural selection would have less "need" for senescence, since the evolution of species could occur because of changes during the life of individuals. Let us imagine that the probability of dying of natural causes is therefore relatively stable, from one year to the next, once the adult age is reached. Let's imagine a planet with no aging death (and also no aging degradation) for most living species.

For the rest, the "laws of nature" would apply: selection of the most adapted, evolution of preys, predators and parasites, competition and cooperation between animals, plants, bacteria, fungi... Animals would live longer, without aging, but would still die from all other causes. <u>Biological immortality</u> is not the same as immortality.

### A world without aging would not be paradisaical but ...

Obviously, it is impossible to imagine all the consequences. Let's focus on humans. Theoretically, some could live for thousands of years. But this would be extremely rare before the development of civilizations because epidemics, predation, violence would strike all individuals.



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But once civilizations appeared, the environment would be radically different. The accumulation of knowledge would be faster, philosophers, scientists, leaders could be influential for centuries. Religions would exist, but they would logically be more peaceful, less focused on the afterlife, more concerned with bodies and souls here than with the afterlife.

Soon enough, in the more prosperous regions, birth control would expand. Soon enough, science and medicine could focus more on preventable causes of death. Indeed, the positive stakes of disease control would be higher, there would be more years of life to gain.

As for these humans, the capacities would not decrease with age, the mechanisms of nostalgia, of withdrawal to the past, would be less. Indeed, nostalgia is often the regret of youth following the loss of energy, health, taste, other senses... Nostalgia following the loss of loved ones would also diminish.

In our contemporary world, philosophy is sometimes defined as "<a href="learning to die" (and to die quickly)</a>. Where death would no longer be inevitable, at least on the scale of centuries, philosophy would be more about learning to live, learning to respect others and oneself. In a more stable world, the need for an environmental balance is more obvious.

Advancing age would be, as in our world, synonymous with wisdom. It would be a wisdom with less bitterness and regret of the past and therefore more openness to the future.

In this place where death is no longer inevitable and is becoming rare thanks to technological and medical progress, it is possible to imagine that any death inflicted, any murder, would not only be unacceptable, it would become unimaginable. Just as today killing a child is almost unimaginable, because he has "his whole life ahead of him", whereas in the past infanticide was often tolerated and sometimes totally accepted, especially because many children died in infancy.

# In a world without age-related degradation, would we invent aging?

Some philosophers, some religious leaders might want the older ones to disappear. Some might say that it is necessary to renew the population, to have children without the risk of overpopulation.

Would the representatives of this current of thought want to kill the most advanced people in age? And if so, create a system where death is slow, insidious, progressive, painful, ineluctable... rather than, for example, creating compulsory euthanasia for some?

This seems unlikely in a world of less violence. Already today, even the most bloodthirsty regimes no longer (almost?) officially practice torture as



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a means of pressure. So inflicting aging and then death ...

### What if the glass was half full?

Let's finally imagine an environment where humans are not amortal, but live twice as long once they are adults. The prime of life would be at 100 years and Jeanne Calment would have lived 245 years.

No one would likely propose ending life after 80 or 90. It is the situation well beyond that which would be "normal" and would appear to almost everyone as desirable... until the situation changes.

Just as no one today proposes to end life at age 50, when that was the "normal" maximum lifespan for most of human history.

#### Conclusion

If aging did not exist, we would not have to invent it. All other things being equal, we probably wouldn't consider it, even for our worst enemy. We would not wish for years and sometimes decades of unbearable degradation ending in death.

Moreover, if we lived in a world without aging, not only human life, but also the lives of <u>sentient beings</u> (capable of suffering) would be far more precious. Even the most disrespectful of individuals, raised in this universe, would have difficulty imagining inflicting the torments of an endless torture called aging. Just as today, even a violent recidivist thief would probably not think of burning the feet of an elderly person to make him confess where his money is, and then murdering him, a <u>common practice in France and elsewhere</u> until the early 19e century

Aging is now inevitable. We have already managed to humanize it considerably. We are also managing to slow it down a bit. Tomorrow we may be able to stop it. In all likelihood, we will not regret it any more than we regret the eradication of the plague and cholera.



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#### Good news of the month

- Japanese scientists develop a vaccine to eliminate cells responsible for aging. The team, including Toru Minamino, a professor at Juntendo University, confirmed that mice given the vaccine had a decrease in the number of zombie cells, known medically as senescent cells. The team identified a protein found in senescent cells in humans and mice and created a peptide vaccine based on an amino acid that constitutes the protein. This news has received significant media coverage. It is part of the many hopes for senolytic products. However, the experiment concerns only mice. Moreover, the maximum life expectancy was verified on "progeroid" mice (with a much shorter life span), but not on "normal" mice.
- The first clinical trial of a nasal vaccine for Alzheimer's disease began in Boston. The vaccine, formulated from an immune-boosting substance (Protollin), is intended to prevent and slow the progression of Alzheimer's disease, the disease associated with aging for which medical research has been slowest... A Phase 1 trial involves 16 participants, aged 60 to 85, all with early-stage Alzheimer's disease but in good general health. They will receive two doses of the vaccine. The research team will measure the effect of nasal Protollin on the immune response, particularly its effect on white blood cells, by examining cell surface markers, genetic profiles and functional tests.

#### For more information:

- See: heales.org, sens.org, longevityalliance.org and longecity.org.
- Source of the image