Some social and cultural perspectives on rejuvenation therapies. The Death of Death. November 2018. N° 116.

Should mankind be augmented? If it's for all of humanity, I'm for it. In the current context, we are promised by transhumanists that all this will happen (around) 2020 or 2030. But between now and the next 10 years, we are already in the midst of extremely rapid change. And the question of augmented mankind must enable us, at least I hope so, to go beyond these great advances in medicine and technology, which are undeniable and will bring us a great deal. I think that this will indeed only be possible - the augmented human - if it is in the context of an augmented humanity. Pascal Picq, paleoanthropologist and writer, source Le Figaro (video of a talk, translation), October 1, 2018.

Theme of the month: Rejuvenation and Society

Very often, those to whom we talk about human longevity imagine a world of decrepit old people with no energy. However, scientific research on aging aims to reduce and even stop the aging processes.

If we succeed, women and men will be able to live much longer in the same state of health as they were when treatment began.





Or rather, it could go far beyond that, the search for therapies to stop the process could be continued and allow rejuvenation, a decrease in the visible age.

The hope of rejuvenation through the intercession of divine powers, especially in the myth of the Fountain of Youth, is probably almost as old as that of a life without aging.

For centuries, women and men have also dreamed of products that could restore the beauty and vigor of youth. Today as in the past, in the cosmetics industry, hundreds of billions of euros, dollars and all the world's currencies are spent on product research and even more on advertising these products to improve physical appearance. But all these cosmetic agents are in principle only effective... cosmetically.

Finally, the hope born of purely medical research is also ancient, from <u>testicle</u> <u>transplants</u> to stem cells. However, despite many promising attempts and even more dramatic announcements, in this year 2018, no substance, no therapy, has a proven long-term rejuvenating effect for humans (or indeed for any mammal).

But today's impossible could become the banality of the day after tomorrow. In 1900, thousands of attempts to fly "heavier than air" had been unsuccessful. Twenty years later, at the end of the First World War, aircraft had been used for countless purposes, from dropping bombs to passenger transport and peaceful mapping to the identification of military targets.

In the rest of this letter, some issues and the potential social, political and cultural consequences of rejuvenation techniques will be discussed.

What age would we choose? The physiological aspect.

Mortality, and to a lesser extent morbidity, increases with age, and exponentially. The most desirable physiological age from this point of view is about 20.

In a world of optional aging, there would probably be a few unconventional people not taking rejuvenation therapy. On the other hand, logically, those wishing to "surpass nature" would probably go as far as the ideal physiological age and would not stop on the way. To draw a parallel with the current situation, there are a few (very few) people who do not cook their food or use mobile phones. Even fewer still cook their food halfway or use a mobile phone every other day.

What age would we choose? The aesthetic aspect.

We have never yet been able to "uncouple" the aging process that allows more experience and the aging process that causes the deterioration and then the death of every human being after a maximum of 122 years. The passage of time to gain experience is of course positive. There is a famous African proverb that says that when an old man dies, it's a library that burns to the ground.

It is therefore conceivable that the women and men of the future will prefer to have a physical appearance of a mature person rather than a young person. However, it is also possible that age may be marked by signs other than those of the body, such as the appearance of clothing. Moreover, at present, differences in physical appearance between the ages of 25 - 30 and 45 - 60 are tending to diminish thanks to overall progress in public health (medicine, diet, lifestyle, etc.).

Parents and grandparents physically resembling their children: would that be disconcerting?

Some may regret the "good old days" when people over 75 were so physically different. They would be deprived of the "beautiful natural spectacle" of progressive degradation.

Theoretically, we could also fear a society of "perfectly young and beautiful", uniform, bland and interchangeable humans.

But strong uniformity is unlikely. Both in terms of physical characteristics and clothing, not to mention personality, it would be logical for citizens to bring out their socio-cultural environment, which of course includes the period during which we grew up. To imagine what could happen, the science fiction film "In Time" is interesting. In this film, citizens experience an eternal physiological youth (but die if a computer clock orders it). As for as everything else goes, society is composed, as it is today, of "nuclear" families (father, mother, children). Quite quickly the viewer clearly "feels" who the children are and who the parents are, whereas all of them are physiologically young. In other words, a society can easily mark the age of its citizens without the need for physiological appearance.

We could also imagine that some people would go through phases of different physical appearance, older and then younger or the opposite.

Rapid changes or sudden changes?

First, we must make a remark based on pure logic. No matter what happens, no one will be more than 200 years old before the year 2100. This is obvious, but it often eludes those who are concerned about the potentially "upsetting" nature of rejuvenation therapies. Indeed, the <u>oldest person in the world</u> is 115 years old today and will only be able to reach 200 years of age in 2103, whatever happens. Even if a perfectly effective therapy were to be discovered tomorrow, it would take decades for a significant number of citizens to live longer than 122 years (the maximum lifespan ever reached so far).

At the same time, if therapies allow rejuvenation, they would probably only allow gradual changes. And even if it were technically possible to change one's appearance overnight, it is likely that the majority of citizens would prefer gradual changes for themselves.

Obligatory rejuvenation or optional rejuvenation?

Those who oppose longevity research often say that stopping aging and dying of old age is impossible (they are right) and will always be impossible (they may

well be wrong, but only time will tell). This statement is often capped off by a somewhat contradictory statement such as "I want to still be able to choose to grow old".

This type of declaration is illogical at two levels.

First, to date, no one chooses to age or not to age. We cannot choose to age any more than a stone endowed with consciousness could "choose" to fall.

Secondly, and most importantly, if rejuvenation therapies are developed, they will not be any more mandatory than it is now mandatory to receive treatment when we have an illness. Initially, few people would take the therapies. Then the movement would spread. As rejuvenation therapies become more widespread, the fundamental right to a healthy life should appear more and more important. Deterioration due to old age could become as undesirable tomorrow as plague and cholera are today.

In this case, an old man who dies would become an exceptional event. Almost all of us would have more time to increase our knowledge, the number of projects we undertake with others, our capacities, and more time to teach and cooperate with those who are the youngest "chronologically". We would also have more time to ensure that the entire planet is a sustainable environment that can support a long life. Life would also become an increasingly precious commodity as our time horizons expand.

At the same time, it would also be important, to be democratic and pluralistic, to allow those who wish to continue to age to do so, like the Amish in the United States who do not use certain technologies.

Eternally young, a deadly bore or a wider field of exploration than ever before?

Millions long for immortality who don't know what to do on a rainy Sunday afternoon wrote British novelist Suzan Ertz.

It is not impossible that one day longevity will be boring and that some people will decide to age again. But in fact, boredom affects as much, if not more, young people who have only "a few years on the clock". Older people are often less bored, although their physical capacities and activities are decreasing. The taste for life would be even greater if people of advanced age were to benefit from rejuvenation treatments.

A world of women and men choosing their biological age would not, however, make the world perfect. This would be a world to be improved with

environmental, technological, social and cultural challenges. It would also be a world where we could "de-haste" ourselves, take time, consume less frenetically, be less competitive and collaborate more with each other.

The good news of the month: The Eurosymposium on Healthy Ageing was a success

From November 8-10, around 100 researchers and research activists for a much longer healthy life met up in the centre of Brussels. This was an opportunity for high-level scientific exchanges, but also for discussions about the financial perspectives (how to find funding for the most promising research) and even political perspectives.

Notably, we may see some pro-longevity candidates in the <u>May 2019 European</u> elections.

To find out more:

- In general, see in particular: <u>heales.org</u>, <u>sens.org</u>, <u>longevityalliance.org</u> and <u>longecity.org</u>
- Photos: Antonin Kovar aged 25 and 102