

## Does Time Cause Aging of the Brain?

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### Abstract

The theoretical study of time has shown that time was not a physical phenomenon, but a concept. Among various consequences, time can no more be considered the cause of aging of anything; it includes the aging of the brain, which has additional particular causes.

**Keywords:** Aging; Brain; Time; Biological Age; Chronological Age

### Introduction

So far, the brain is a necessity of the thought. Whether it's a human brain, or an animal brain, it's a complex organ which gets older like everything. The aging of the brain has various causes, including stresses, genetic diseases, etc.

#### The complexity of the brain

For the German philosopher Friedrich Engels (1820-1895): "The mind is the highest product of matter" [1]. Engels forgot the energy; without energy, the electroencephalogram is flat, and a flat encephalogram is the irreversible premonitory symptom of death.

We would say that the mind results from a complex organization of matter and energy; a dendromorphic organization with a network of nearly one hundred billion neurons, each neuron being connected by axons to more or less ten thousand neurons.

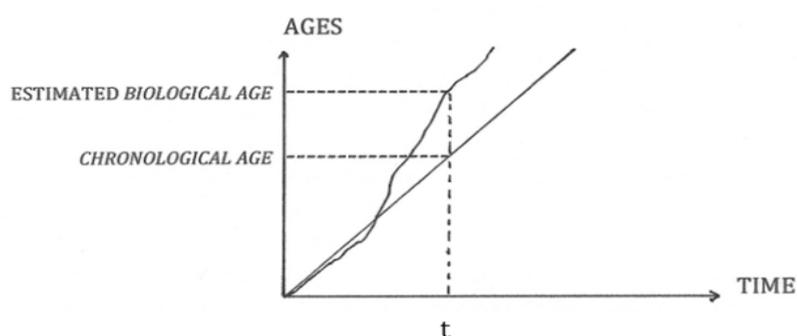
Additionally, the intellectual honesty forbids us to certify that more complex structures don't exist some place else in the Universe. Indeed, according to high energy physics, matter and energy appear to be much more complex than thinking they are able to produce [1].

#### Time is not the cause of aging of anything

It's to be emphasized that aging is a concept instead of a phenomenon. First example: wrinkles, which are observable, are one of the syndromes, revealing symptoms, of aging; aging is not observable as such. Second example: osteoarthritis does not result from aging; instead, it's a cause of aging.

Medicine makes the difference between chronological age (how long since the beginning, how many years) and the biological age (health status, physical and mental condition). Everything gets aged at the same speed, it corresponds to the chronological age, as illustrated below by the bisecting line.

On the other hand, the aging is driven by numerous causes among which we can mention stresses, genetic profile, diseases, etc. it leads to the biological age illustrated as an example by the erratic curve: at time "t" the individual looks older than his chronological age [3].



**Figure 1**

The following graph makes the comparison between the estimated biological ages of two individuals "A" and "B" with the same chronological age, at a given time "t".

However they have the same age, "A" ages faster than "B" and he certainly looks older than "B".

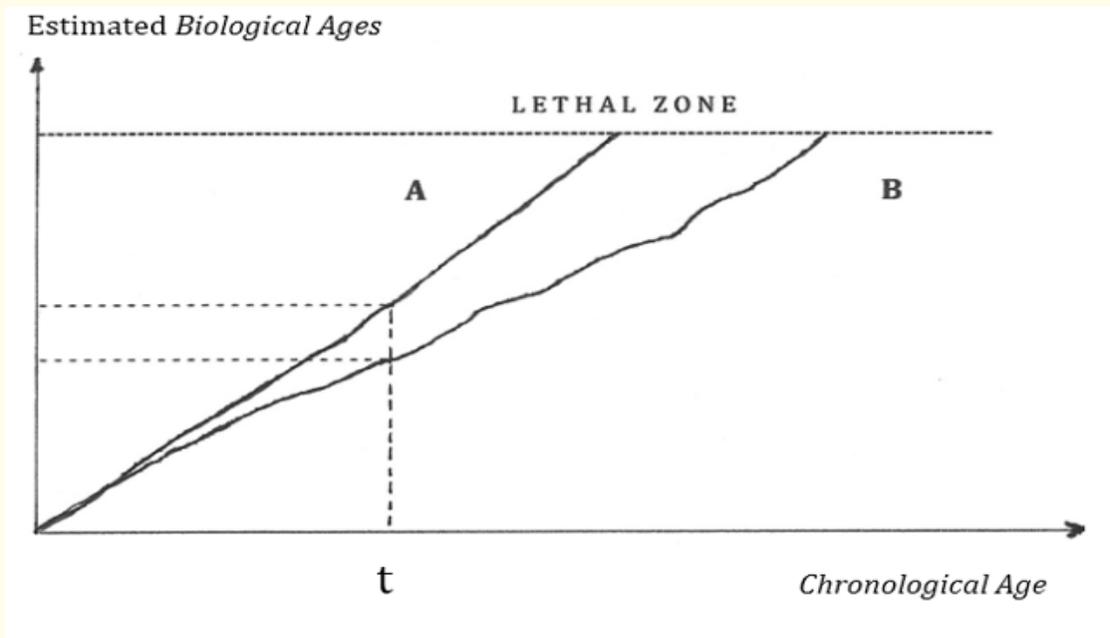


Figure 2

It is worth mentioning the syndrome of Hutchinson and Gilford: Progeria is a genetic anomaly, identified by Jonathan Hutchinson and Hastings Gilford; it results in accelerated aging at the infant stage. This acceleration of biological aging is caused by progerin, a toxic protein that shortens the lifetime of cells and prevents their renewal. It leads to premature aging, with no action on chronological age [3].

### Particular causes of aging of the brain

In addition to the numerous causes of aging, the brain has particular causes related to its complexity; endogenic causes and exogenic causes, with possible potentiation of both. Parkinson's disease and Alzheimer's disease are two syndromes of aging not caused by time but by the exhaustion of certain faculties, by the decrease of mental activity, by the interaction of certain drugs, by genetic dispositions, etc.

### Conclusion

We have emphasized on the difference between chronological aging and biological aging.

All the causes that have been mentioned, lead to the biological aging of the brain, on which time has no action. There is an obvious reason: time is not a phenomenon.

### Bibliography

1. Engels F (1820-1895). "Ludwig Feuerbach et la fin de la philosophie allemande" (Éditions Sociales) (1988).
2. Dassonville P. "L'Inexistence du Temps". Persée (2012).
3. Dassonville P. "The Invention of Time and Space". Springer (2017).

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