

INTERNATIONAL SEMINAR OF BARCELONA – XV EDITION
Been Senior: Knowledge and Experience
Barcelona, 19-20 novembre 2020

IN PRAISE OF THE SENIORS

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Abstract

The question of seniority needs to be examined from different points of view. The prevailing one is a bureaucratic point of view that establishes the age thresholds at which people must stop working and retire. This point of view has no interest for us because what we want to talk about is the role that the seniors can have within the society in which they live. Obviously from the physiological point of view an elderly person, even if in good health, cannot run, jump, swim, climb, etc. like when he was a twenty year old.

But we don't care about his physical performance, but the role he can play in based on his mental abilities. So we must stick to what the Nobel Prize Rita Levi Montalcini said: "*In the game of life, the card of greatest value is represented by the ability to assert, in all phases and in particular in the senile phase, all mental and psychic activities in one's possession*".

Keywords

Senile phase, human brain, body and mind

Premise

The considerations set out below on the topic of the “*Been Senior: Knowledge and Experience*” that the Royal Academy has placed at the center of the XV International Conference, come from what the great scientist Rita Levi Montalcini told me many years ago, when she was already ninety-five years.

We were in an airport waiting for our flight and while we were talking about the conference we had just attended, he said to me: “*you know that the press says that I keep myself so well despite my age because I eat very little, even only one apple a day. Do you believe it?*”? Obviously I didn't believe it at all, but I didn't have another explanation either. To which she added: “*the truth is that I do the only thing every day that can allow any of us to remain lucid even in old age, namely to keep our brains working. Believe me, I have been studying the human brain for more than fifty years and I know quite well how it works and the influence it has on how we behave as time goes by*”.

I have never forgotten that lesson and I now draw inspiration from it for some considerations on the question of the seniors.

What does senior mean?

"*Of advanced age*" says the dictionary Devoto Oli (1987) that to the previous headword adds: "*often as a euphemistic or courtesy synonym of old age (...) in which showy phenomena of physical decay are manifested and a general weakening of the organism*".

Faced with such clear-cut definitions, I am amazed and ask myself two questions.

The first is: who determines at what age a person becomes senior?

The only current answer to this question comes from bureaucracy, in particular that dealing with the world of work, which establishes that once a certain seniority, i.e. at a certain age, people have to stop working and they have to retire.

For example, in Italy university professors retire at 70 if they are full professors, but if they are associates or researchers the threshold is set at 65 (maybe they get old faster?); magistrates retire at 75 (are they longer-lived?); in public employment at 65; in the private sector at 66; military personnel at 58 (whether they are jet pilots or desk clerks).

In short, a variety of situations from which nothing transpires that gives an understandable meaning to attributing to everyone the qualification of an old person.

Generally speaking, probably the most sensible thing would be to set a minimum time threshold equal for everyone (perhaps lower only for strenuous jobs) and let everyone decide for themselves when they want to stop working (not when they want to become senior).

But if we remain with the individual case that we are interested in discussing here, then we must move the question to the field of Physiology, always being careful because this is also an insidious terrain since each individual has his own particular physiological history and, therefore, a valid answer for all does not exist.

So the second question is: is there a difference between what a young individual can do and one in old age, by setting the maximum age threshold that can currently be reached at 100 years (greatly changed by time from Homo Sapiens to today)?

The answer seems easy if we consider that no one in his nineties, even without physical impairments, can have physical performance (running, jumping, swimming, climbing, etc.) equal to that of a healthy twenty year old.

But is it this physical confrontation that interests us? Or does it interest us more the role that the individual is able to assume within the social community in which he lives?

I firmly believe that the answer must be sought in this second direction and, therefore, the question lies in the terms clearly expressed by Rita Levi Montalcini: *"I lost my sight a little, my hearing a lot. At conferences I don't see projections and I don't hear well. But I think more now than when I was twenty. The body does what it wants. I am not the body: I am the mind"* And on another occasion he wrote: *"In the game of life, the card of greatest value is represented by the ability to assert, in all phases and in particular in the senile phase, all mental and psychic activities in one's possession"*.

Famous personalities

In support of these statements, Montalcini brings the examples of great characters of history who until old age have created works of the highest level in their respective fields: art, science, literature, philosophy.

I summarize the salient events of some of these, adding Albert Einstein and Montalcini herself, who certainly have the right to a place of honor in that group.

Michelangelo Buonarroti (1475-1564) 89 years old.

Sublime artist - sculptor, painter, architect - he created his works over a period of sixty-five years, the last at the age of 89.

- *La Pietà*, St. Peter's Basilica in Rome, 1499 (at 24)
- *The David*, Galleria dell'Accademia in Florence, 1504 (at 29)
- *The Vault of the Sistine Chapel*, Sistine Chapel, 1512 (at 37)
- *The Moses*, S. Pietro in Vincoli in Rome, 1515 (at 40)
- *The Last Judgment*, Sistine Chapel, 1541 (at 66)
- *La Pietà Rondanini*, Sforzesco Castle in Milan, 1564 (at 89)

Galileo Galilei (1564-1642) 78 years old.

Founder of modern science, his studies, his discoveries, his inventions and his writings span a period of forty years. The latest and most famous writing is at the age of 68.

- *The Synchronism of the Pendulum*, 1592 (at 28)
- *The Telescope*, 1609 (at 45)
- *The Microscope*, 1624 (at 60)
- *The Dialogue on the two highest systems in the World*, 1632 (at 68)

Bertrand Russel (1872-1970) 98 years old.

Mathematician, philosopher, writer, strongly involved in political and social life worldwide, he has written fundamental texts for over sixty years, the last at 97.

- *Principia Mathematica*, 1903 (at 31)
- *Introduction to mathematical philosophy*, 1919 (at 47)
- *Because I'm not a Christian*, 1937 (at 55)
- Nobel Prize for Literature, 1950, (at 78)
- *An ethics for politics*, 1954 (at 82)
- *The Autobiography of Bertrand Russel*, 1969 (at 97)

Pablo Picasso (1881-1973) 92 years old.

One of the major protagonists in the history of world art, his countless works span a period of over sixty years, the last at the age of 90.

- *Self-portrait*, Musée National in Paris, 1901 (at 20)
- *Les Demoiselles d'Avignon*, MoMA in New York, 1907 (at 26)
- *Le Rêve*, Private collection, 1932 (at 51)
- *Guernica*, Museo Nacional de Arte Reina Sofia in Madrid 1937 (at 56)
- *Las Meninas*, Picasso Museum of Barcelona, 1957 (at 76)
- *Self Portrait Facing the Death*, Location not found, 1972 (at 91)

Albert Einstein (1879-1955) 76 years old

Scientist, philosopher, thinker of socialist ideas, absolute genius of the twentieth century, his activity covers a span of almost fifty years, up to a last collection of writings in 1950 at the age of 71.

- *Special Theory of Relativity*, 1905 (at 26)
- *Theory of General Relativity*, 1916 (at 37)
- Nobel Prize in Physics in 1921 (at 42)
- *Vier Vorlesungen über Relativitätstheorie*, 1923 (at 44)
- *Why Socialism*, 1949 (at 70)
- *Thoughts, ideas, opinions 1933-1950* (at 71)

Rita Levi Montalcini (1909-2012) 103 years old.

World-renowned scientist, her discoveries and writings span a period of 67 years. At 96 he founded a new research institute and wrote his last book at 100.

- *Origin and evolution*, 1942 (at 33)
- *Discovery of the NGF-Nerve Growth Factor*, 1954 (at 45)
- Nobel Prize in Medicine, 1986 (at 77)
- *In praise of imperfection*, 1987 (at 78)
- *The axis in the hole*, 1998 (at 89)
- EBRI-European Brain Research Institute, 2005 (at 96)
- *Chronology of a discovery*, 2009 (at 100)

As is evident, these are characters of extraordinary caliber but, as Montalcini points out, *“The brain can maintain its functions even in old age, thanks to the ability of residual brain cells to compensate for the numerical decrease with an increase in ramifications and the use of alternative neuronal circuits”* (and) *“this property of cerebral-mental activities is not limited to exceptional characters such as those outlined, but is common to all members of the human species”* (whose mental abilities) *“are enhanced by the continuous use of brain functions”*.

So we can conclude that nowhere is it written that the senior should resign themselves to the decline of their mental abilities and live regretting the things they did in a past in which being young he was better than in the present.

On the contrary, he must be convinced that he has no mental impairment and, therefore, in the future he will be able to be himself again, perhaps even better than before.