Checkmate to Alzheimer's

According to various scientific indications, playing chess frequently delays cerebral aging.

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Important notice: It has not been scientifically proven that playing chess could prevent Alzheimer's, a terrible disease that affects 7% of the Spanish population over 65 years old. Nevertheless, as this article states, there are signs that show something even more important: playing chess frequently delays cerebral aging which affects 100% of human beings. If to prevent is better than to cure then we definitely have a reason to introduce chess on a big scale in schools.

''The first thing that is attacked by Alzheimer's is memory and concentration,'' I read about three years ago in different interviews and articles so I told myself: if memory and concentration are two functions that are developed the most by playing chess, we have interesting material to investigate further. Moreover, studies that showed the inverse proportion between the mental activity and the risk of suffering from senile dementia started to be published; the most convincing study, from Wilson and others, was published in the magazine Neurology the 28th May 2008.

The first fact that I found encouraged me to pursue further research: the study that Verghese and others conducted with 469 persons over 75 years old in Albert Einstein Hospital in New York, published in New England Journal of Medicine the 19th June 2003. The authors of the article did not previously think about chess in any particular sense, but while analyzing the facts they found out something quite significant: those who developed their cognitive capacity during the period of experiment and at the same time reduced the risk of having Alzheimer's by up to 75%, were the ones who played chess and bridge. The result was the same for people who dedicated their free time to dancing (dancing requires good coordination between the mind and the rest of the body). Contrary to this, the worst results had those persons who dedicated their time to playing a musical

instrument, doing crosswords, reading, walking, swimming, looking after children, looking after the household, writing, team sports, taking part in group discussions or cycling.

The same day The Washington Post published article, based on statements by above-cited Verghese and others specialists, with the following title: ''Mind-stimulating games can triumph over Alzheimer's; one study cites the effects of bridge and chess''. And Verghese was very convincing: ''It will not take very long that our doctor will recommend us a game of chess or a crossword on daily basis in addition to physical exercise and healthy diet.''

Even more significant was the study that finished in 2008 in the Clinical Hospital of Valencia, financed by the Generalitat (the autonomous government of País Valenciano). Unfortunately (or, more precisely, because of the misery that dominates the political life in Spain and other countries), in this case I cannot cite any scientific magazine because the study is yet to be published. However, the neuropsychologist Isabel de la Fuente, one of the medics that carried out the study, gave me the details of the research: 120 persons took part, their age was between 55 and 87 years, but 75% of them were between 65 and 79. They were divided into two groups of 60, and almost all of them beginners in chess. One person attended chess classes every week for an hour and half during one year, another attended other non-chess classes. Both of them underwent aptitude tests before, during and after the classes. In the group of new chess players, 65% saw the increase of their cognitive performance, in the other group there was no improvement in any case. There are two important distinctions: Firstly, that those who were more mentally capable before the test were the ones who's abilities improved least noticeably, and secondly, whereas the norm is for cerebral performance to diminish, year on year, in this case there was an improvement.

In almost all of the conferences that I have given in the last three years and in various newspaper articles I reiterated the same question: Does anyone know of cases where a regular chess player has died of Alzheimer's or other senile dementia? Out of my many attendees and readers, only six answered in the affirmative. The lack of scientific rigor in this method not withstanding, the

difference between those six cases, and the 6% of the French population over 65 years old currently suffering (and, indeed, the 7% of Spanish people) is so considerable that it cannot be a coincidence.

In one of these cases, published in Neurocase, 25th February 2005, the evidence is in favour of chess. One British chess player was showing little memory loss during two years of minor cognitive deterioration. The person had a normal life, was self sufficient, even though he had difficulty following a full conversation. He sometimes repeated the same ideas and lost the capacity to calculate variations when he played a chess game. Seven months later, he died of an unrelated illness, and the result of the autopsy was astonishing: the findings in his brain indicated that, in reality, he suffered from Alzheimer's in an advance phase. The hypothesis is clear: playing may not prevent Alzheimer's, but it does delay it.

I consulted with more than 40 neurologists on these findings. Doctor Jose Felix Marti Masso, the head of the neurology unit at the Donostia de San Sebastian Hospital, invited me to a meeting with all of his team (about 30 doctors – neurologists, psychologists, psychiatrists, epidemiologists etc.). I presented all of my arguments with scientific details and then I received a lot challenging questions. The conclusion was very positive but with a warning: ''To scientifically demonstrate, in an irrefutable manner, that chess prevents Alzheimer's would be very expensive and it would take too long (we would need, for example, 5000 volunteers during five years), and moreover very complicated from the methodological point of view. Above all, because of the so-called 'bias auto-selection' which means that persons with previous natural tendencies towards mind games would voluntarily enrol to play chess but those who do not enjoy any mental activity would not sign up, corrupting the result. However, Dr. Masso made me notice something more positive and important: ''You have gathered solid facts to assert that the frequent practise of chess delays the cerebral aging. This is of an enormous importance, because the life expectancy keeps getting higher in a lot of countries, and governments are already investing big amounts of money to look after elderly people. The better the physical and mental health gets the less public money would have to be spent.''

If to prevent is better and cheaper than to cure, then we have a very strong argument here, to introduce chess on a large scale to all schools all over the world, moreover, to promote it amongst citizens of all ages. Dr. Masso suggested the best motto for this campaign: Chess is the best gym for the mind. Just as going to the gym regularly can strengthen our muscles and prevent a lot of illnesses , if we frequently attend the mental gym we would be strengthening the connections between the neurones, and we could prevent not only Alzheimer's , which is the worst that one could suffer from, but also other cerebral problems.''

Somebody could rightly say that chess is not the universal panacea nor the treatment for all the ailments; how we have already seen, there are other mental activities that are also very useful to delay the cerebral aging. This is more than clear, but also chess has more advantages. Firstly, you can learn the rules of the game in few hours. Let's suppose that the French authorities would promote studying Japanese. The complexity of the language would probably make it quite an adequate tool to stimulate the cognitive potential. It is almost certain that is campaign would fail because few French people would like to learn Japanese. On the other hand, a campaign that would promote that millions of children play chess would have more probability to succeed.

Here we have ten reasons to support chess: 1. It develops intelligence at any age, and mostly with children, 2. It delays cognitive deterioration , 3. It has been very useful with various social uses (prisons, drug addicts, unprivileged, hyperactive or autistic children), 4. Is it the only sport that can be practised on the Internet, 5. It is universal, 6. It is cheap, 7. It has been documented for at least 15 centuries, 8. It has very interesting connections between art and science, 9. It produces fascinating personalities, 10. It gives good image to anyone who sponsors it.

I will conclude with another personal experience that seems to me very significant. When I commentate tournaments in public places (like the tournament in Bilbao), I tend to mix the technical commentaries of the games with others related to whatever aspect of chess. And very often, I see that some people who listen to me and don't understand anything about chess, get interested in everything that I described in this article.

Up to now, chess' major flaw has been in its marketing: we have a magnificent product that has been sold very badly. However, we have never had such strong arguments as now to sell it well and achieve chess' increasingly popularity, as predicted by Jacques Attali-famous French intellectual- in his book Dictionarie du XXI siècle. It is all up to us.