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POINT OF VIEW

The Black Swan, Pediatrics And The New Coronavirus

O cisne negro, a pediatria e o novo coronavírus

Sulim Abramovici^{1,2}



Before the discovery of Australia, people in the ancient world were convinced that all swans were white. This was an unquestionable belief, as it was absolutely confirmed by empirical evidence. Finding the first black swan may have been an interesting surprise for scientists. It illustrates a severe limitation on learning through observations or experiences and the frailty of our knowledge.

In his book, *The Black Swan Logic*, author Nassim Taleb argues that in Economics we are constantly at the mercy of the unexpected. These unpredictable events the author called the Black Swan. A Black Swan is an event with three highly improbable characteristics: it is unpredictable, it causes impactful results and, after its occurrence, we find a way to make it less random and more explainable. For Taleb, black swans are the basis of almost everything that happens in the world, from the rise of religions

to our personal lives. Why don't we recognize the phenomenon before it occurs? Part of the answer, according to the author, is because, in general, human beings limit themselves to learning specific content instead of acquiring wisdom in different areas of knowledge. We focus on what we already know and increasingly avoid the unknown. Meanwhile, major events surprise everyone and transform society.

An event can have an extreme impact on those who suffered it, even though it was formed silently and appears explicitly for those who were not prepared.

We were seriously surprised by the coronavirus pandemic, which plagues the world and scares us.

In medicine, we face the greatest crisis of our generation, perhaps compared to other major epidemics, such as the Spanish flu or the black plague. We were not prepared. The challenges

¹ Hospital Israelita Albert Einstein, Pediatria - São Paulo - SP - Brazil.

² President of the Pediatrics Society of São Paulo - SP - Brazil.

Endereço para correspondência:

Sulim Abramovici.

Pediatrics Society of São Paulo. Rua Maria Figueiredo, nº 595, 10º andar, Paraíso. São Paulo - SP. Brazil. CEP 04002-003. E-mail: sulim@uol.com.br

demanded and continue to demand solutions that were not in the medical textbooks. It is a war against an invisible enemy.

Pediatrics was initially more relaxed, since the pandemic was sparing children and adolescents, just as we believed that tropical regions would not be so affected. We trust that most swans would be white.

We are having reports of children being affected, with atypical manifestations, and the appearance of syndromes related to Covid-19, such as the Multisystemic Inflammatory Syndrome.

The Pediatrics Society of São Paulo (PSSP) has published on its website papers related to the specificities of the disease in pediatric patients, focusing on its particularities in children and adolescents.

We must be optimistic, yes, but without being unaware of a new and exotic color of swan.

According to the brilliant historian Yuval Harari, this storm will pass. However, the decisions we make today will change our lives in the years to come.

When choosing between alternatives, we must not only ask ourselves how to overcome the immediate threat, but also what kind of world we will inhabit once the storm has passed. Yes, it will pass. Humanity will survive, most of us will remain alive, but we will inhabit a different world.

Many short-term emergency measures will become lifestyle habits. That is the nature of emergencies. Immature and even dangerous technologies come into service, because the risks of doing nothing are greater.

We need to pass correct guidelines and especially confidence. A dilemma we have today is that not every population believes and trusts science, public authorities and the media.

Also according to Harari, the coronavirus epidemic is a great proof of citizenship. In the coming days, each of us will have to choose between relying on scientific data and specialists in medical care, or on unfounded conspiracy theories and self-interested politicians.

I offer a counterpoint for reflection: could the current pandemic really be classified as a black swan?

In 2015, Bill Gates gave a talk in which he said that if something killed millions of people in the coming decades, it would be more likely to be a highly contagious virus than a war. Not missiles, but microorganisms. He also said that we were investing a lot in anti-nuclear strategies, but very little in a system that could stop an epidemic. We were not prepared for the next epidemic. We did not have a group of epidemiologists ready to act. We did not have a medical team ready to act. We had no way of preparing people. We were much slower to come up with treatment approaches, to assess the diagnostic process, to see what tools should be used.

Can we then consider this pandemic as a black swan?

Figure source: <https://www.worldwide.com/wp-content/uploads/2020/05/iStock-911694528-1-1536x922.jpg>