
NASSIM NICOLAS TALEB AND PREDICTABILITY PARADOXES

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Abstract

The aim of this text is to show a different side of the human being inspired from the well-known book of Nassim Nicolas Taleb, 'Black Swan'. Using a variety of sociological and philosophical approaches on the condition of the mass-(supra)human, we intended to identify a couple of paradoxes of predictability in the modern world. Modern society, in the complexity of its manifestations, generates a series of challenges in front of knowledge, the effort of realising predictions being determined by the level of knowledge, by the used instruments, by the position of the subject and by the paradigms in which he is situated.

Keywords: (supra)human, modernity, prediction, knowledge

1. Modern man - a mass superman

The problem of the individual in modernity involves a multiple approach, from the perspectives of several sciences: natural, socio-human or from the perspective of hard sciences such as Mathematics, Physics, Chemistry. The common denominator of all this is to explain the human being and the world in which it lives, even tending towards unravelling the mystery of the world and of man with means and methods specific to each science. The stakes seem to be utopian, impossible to achieve: finding *the truth*, discovering that hidden mechanism by virtue of which the world has a new one. In this generous context, law is rather identified as an authorising science of the world, a tool for generating and preserving an order and managing it. This is based on the premise that man and the world cannot exist outside an orderly principle. The idea refers to an original pattern, either in Nature or by divine sorghum. An orderly, regulated social universe is a world dominated by coherence, logic and therefore sufficiently predictable. Every scientist's dream is to make decisions in different spatial-temporal sequences and to make clear, precise predictions about the world in which he lives. Modern science becomes the crystal ball of ancient magicians [1] now dressed in white robes or wearing academic robes.

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Moreover, man in modernity seems to live under the tyranny of predictability. He wants to know what happens at every moment in his body and anticipate all the manoeuvres of his interiors. He is aware of the weather today but wants to know what it will be like in the years to come. Is concerned about the evolution of the real estate market, whether it will win on the stock market, how and what social changes will occur in different time horizons, wants to predict the rate of criminality, the evolution of terrorism, in a word, all life. Thus, the uncertainties give him great trouble, increasing his anguish and anxiety.

In today's world man becomes an extremist concerned with the way things are and how things will evolve. He wants to be in control of the situation at all times. The unexpected, the inexplicable, the novel, the mystery are consigned from the equation of its existence. The superman (germ. *Übermensch*) of Friedrich Nietzsche [2] often takes the face of the present man, wants to be like a god after killing his God. The famous formula 'God died' [3], enunciated by the same German philosopher thus announces this kind of understanding of man and modernity.

How can man control the world today? One of the most predictable and obvious answers would be: through knowledge and its products (objects, technology, information network, etc.). Access to all this creates the impression of dominion, invincibility and power. We are the generation that, thanks to technology, accesses a huge amount of information, travels distances over and shorter time, produces things and resolves situations at a very high speed, or proposes extremely ambitious projects.

Another source of control is legal and social techniques. Norma, for example, is an important engine of the change and transformation of modern man and the society in which he operates [4]. In the 18th century, for example, a group of people questioned the rights of man and the citizen, "any right relating to special endowments was condemned as a privilege. (...) Today, that ideal has been converted into a reality, not only of legislation, which are models outside of public life, but also of the spirit of each individual, regardless of his ideas, or the most reactionary, char if he destroys and shatters the institutions that sanction these rights. In my opinion, anyone who does not understand this moral situation of the masses cannot explain anything that is happening in the world today." [5] The removal of the substantive rule, from the cultural and mental data of a space in which they operate, creates confusion, difficulties of application, repeated interventions and improvements, and the illusion of an order, of control obtained by regulation.

All this creates the idea that we become a kind of superhuman. In fact, modernity comes with an unprecedented democratisation of knowledge products and an accessibility of them, at the same time as a permanent regulation of existence. Comfort and self-confidence increase belief in one's own worth. Society wants to become more predictable, more uniform despite its diversity. A series of criticisms [6-8] of these ideas, which excessively enhance

human qualities and possibilities, draw attention to a process that marks man in modernity: secularization, massification and consumerism [7].

So, on closer inspection, we notice that the modern superman is emptied of religiosity and broken by the vertical relationship with the Absolute. It's enough for itself, and it becomes the measure of all things. Surprisingly, the *superman is massed* and trivialized in mediocrity. He becomes *the man* - a mass to which Jose Ortega y Gasset draws the following portrait:

- is the man emptied of history, of the past;
- is mediocre, self-sufficient, unoriginal and vain;
- holds all the attributes of the master's consciousness (subsumes quantity and number, rejects servitude, obeys his own will, assumes average values that are of all and no one, is the product of specialization and does not possess an elitist spirit).

If Nietzsche announced the concept of superhumans as a mark of exceptionalism, of a positive mutation, Umberto Eco sees it rather in the area of models accessible to the masses, thanks to a uniform cultural production (literary, cinematographic, etc.) [9]. The mass superman is actually a concept that exposes a paradoxical situation, specific to our time: wanting to become master and powerful, the modern man asserts his weakness, vulnerabilities and anxieties. For example, recent research shows that stress and mental health diseases have increased in our civilization. Modern man, in all the greatness he has, becomes more insecure, more suspicious, always in the rush for certainties. He becomes a slave to the world he created and his own rules and schemes of thought. Statistical clichés, the rule of large numbers, the inductive reasoning practiced in modern science, become refuges in finding solutions and in various argumentative constructions.

2. Who is the black swan?

The black swan is no ordinary character. It is the living metaphor of the 'fragility of human knowledge' and owes its existence to Nassim Nicolas Taleb, Lebanese essayist, philosopher and mathematician. The bestseller *The Black Swan: The Impact of the Highly Improbable* exposes in a provocative, erudite and highly plastic way the entire theory on the *possibility of exception* [10].

The premise from which the author departs consists of an empirical observation, as real as possible: before the discovery of Australia, people were convinced that all swans were white. Meeting a single different specimen (a black swan) was enough to create a whole scaffold of knowledge, and beliefs based on observations and experiences. The black swan represents for Taleb an event that has three special attributes:

- it represents a rarity, an isolated case;
- it has an extreme impact;
- it has a retrospective predictability.

At the macrosocial level, the presence of such an exceptional event may explain many historical events that took place and could not be predicted before they occurred. Illustrating in this respect are the rise of Hitler, the first and second world wars, the disappearance of the communist bloc, Islamic fundamentalism, the emergence of the Internet and its rapid spread, the crisis of 1987 and many other events. Here are some factual arguments that show that, over time, “Caprices, epidemics, fashion, ideas, the emergence of styles and art schools – all these follow the dynamics of the Black Swan. Effectively, anything that is meaningful around you can conform to this dynamic.” [10, p. 16]

The author draws attention to the fact that we humans, in general, and modern man in particular are seduced and extremely sensitive to details at the expense of what is large and has a special significance. It can also be a consequence of hyperspecialization and narrowing of areas of competence but also of an invasion/flood of knowledge, information, non-significant data that blurs the image of the world in which we live. “(...) why when we read the newspapers does our knowledge of the world decrease?” [10, p. 17] - asks the author. It is an interrogation that, as paradoxical as it seems, captures a truth that can be proven. In the same register of true paradoxes that mark modern man is the much discussed phenomenon of *functional illiteracy*. The fact attests that although students can read, they cannot understand and use the contents of the texts they read in their daily lives. In 2015, in PISA tests, children aged 15 years in Romania were placed in the penultimate position in the EU, below level two, in the reading performance indicator (38.7%) and Mathematics (39.9%). In 2018 the same PISA test indicates: “42% of Romanian 15-year-olds are functionally illiterate! I can't use a map. I can't use the information I read in a manual to solve problems in everyday life.” [<https://www.edupedu.ro/care-este-procentul-de-analfabetism-functional-in-romania-in-2018/>, accessed on 10.03. 2021]

The phenomenon is as strange as it gets when, according to the law, school is obligatory and free at the primary and secondary school level and the number of primary and secondary school graduates is high.

The situation in Romania is not an exceptional one. The phenomenon is found in different spaces and manifests itself, experts say, as an effect of the use of new technologies by children. Expressions of this kind of behaviour can manifest themselves in different faces characterizing what Mihai Nadin called the *civilization of illiteracy* [11].

In this context, modern man is the perfect exponent of limited thinking, anchored in predictable facts and events. Our attention is captured by events and information that are *at a distance of a click* [12]: they are easily accessible, capture the moment, are constantly moving and lacking in consistency and durability.

In this ever-moving world, modern man wants to be in control, trying different formulas for projection and prediction of the future. This is a rather risky undertaking because the projections can be valid on small units and risk losing value in a context as changeable and complex as the current one. In fact, we are talking about two types of uncertainty. Nassim Nicolas Taleeb points to

two different situations, called metaphorically and which entail specific logical infernos:

1. *Mediocrithan* is a utopian province in which the media cannot be changed by an element, a variation, however spectacular it may be. In terms of concrete life, this imaginary land would correspond to precise situations: height (e.g. average height of people is a dominant, variations and exceptions not influencing the average), weight, calorie consumption, income of a seller, a dentist, death rate, birth rate, crime rate, etc. These are generally measurable situations that are circumscribed to the average and which can allow calculations of assessments and forecasts. By calculating the crime rate in a specific space-time area, we can see that there are no major variations in crime under normal conditions.
2. *The Exmemistan* is another province located in the same utopian universe. It capitalizes on extreme variations, except as an element that counts in the equation of reality. Here's an illustrative example used by Taleb: "Consider the net income of the thousand people you have gathered in the stadium. Add the richest person on the planet - say Bill Gates, founder of Microsoft. Assume his fortune is approaching 80 billion. Compare it to the capital of others - about a few million. What weight would it have in the total amount? 99, 9%?" [10, p. 61] In this situation, extreme variations have an overwhelming influence on the whole and, unlike the mediocrity, there is a full living under *the tyranny of the accident*. Basically, this area gives way to *uncertainties* of the black swan type. Here history leaps, as Thomas Kuhn stated in the famous work *Structure of Scientific Revolutions* [13], predictions are almost impossible based on past information and reality is difficult to understand. In terms of immediate reality, this land can be transferred to a number of concrete situations such as: wealth, the circulation of an author's books, celebrity, the population of cities, the subject, the stock market player, damage caused by earthquakes or war, property prices, inflation rate, economic data, etc.

The distinction between the two random situations is accounted for by Taleb in an illustrative example: "(...) before the advent of modern technology, wars used to take place in Medioristan. It's hard to kill a lot of people if we have to slaughter them one by one. Today, with the tools of mass destruction, all it takes is a button, a cleave, or a small error to blow up the planet." [10, p. 62]

Based on this metaphorical description of those types of uncertainties, we cannot fail to think of some antithetic characteristics that make up the architecture of the present world:

- Hypertechnology and the development of knowledge lead to hyperspecialization, a narrowing of knowledge on the principle of 'knowing everything about nothing'. This, to the detriment of overall and more comprehensive knowledge.
- The abundance of information and its accessibility creates a false impression of knowledge and understanding of reality. It is a slide on a wealth of unstable information and a weakening of knowledge.

- Unprecedented human mobility generates mobility of value [8, p. 13] increasing cultural uncertainty and, by implication, predictability of some phenomena.
- History multiplies and is no longer understood in an unified sense. This crisis of the idea of history, believes Italian Gianni Vattimo, also brings with it a crisis of *the idea of progress*.
- We are witnessing a multiplication of the images of the world and a loss of the meaning of reality. “through a kind of perverse internal logic the world of objects measured and manipulated by science-technique (*the world of reality*, according to Metaphysics) became the world of image commodities, the phantasmagorical world of the media” [8, p. 13], argues Gianni Vattimo. The Platonic metaphor of the cave can be brought up to date. We become trapped in the cave of our mind. Our gaze is taken by the shadows of the world and we can no longer think or imagine another reality.

The whole picture of modernity, pencilled in the two patterns of uncertainty, heralds a universe to our world that is increasingly circumscribed to a problem of complexity. Here the interdependencies are multiple, the extreme variations and the undecidable take up a great deal of room for manoeuvre. We recall here the effects of the economic crisis overseas in 2010 and its influence on Europe; the influence of Brexit on the EU; the pandemic situation at global level and the shockwaves it produces: political, economic, social, psychological; influence power of statements by a politician or celebrity, etc.

3. Predictability paradoxes

In the Explanatory Dictionary of the Romanian language, the paradox is defined as a “contradictory and at the same time demonstrable union; (absurd) contrary to the unanimously acknowledged truth” [<https://dexonline.ro/definitie/paradox>, accessed on 10.03.2021]. Talking about the paradoxes of predictability is in itself a paradox. Why is that? Because the idea of predictability refers to what can be anticipated and demonstrated by different methods, which does not support the idea of contradiction or alternative. But what is predictability? The same dictionary tells us that the term refers to something that can be predicted, predicted, or anticipated. A predictable society is a society that operates according to clear rules and norms, people revolving their lives around a series of legacies, algorithms that can be scientifically calculated and leave no room for arbitrariness. However, although modern man ends up making a dogma out of the idea of predictability, a series of inaccuracies that may stand under the sign of paradox are discernible. Nassim Nicolas Taleb [10, p. 79] considers this to be the cause of our blindness to black swans:

1. *Focusing on certain portions of reality and generalizing based on what we know causes error.* Extending the results to what we do not see leads to a ‘confirmation error’ also called the circularity error because the claims are not interchangeable. For example: ‘Almost all terrorists are Muslims’ and ‘All Muslims are terrorists’. If the first sentence is true, then if we report

this figure (99%), to the number of Muslims on the planet (about one billion), the number of those who are terrorists is extremely small, about 0.001%, Taleb notes. This is an over-appreciation error. Another example is of a man who was accused of killing his wife. The fact that I personally know him as an honest man, that I don't know that he ever hurt anyone, or the fact that I play golf with him and dine regularly is not proof of his innocence. Also, here would be the error that stands under the sign of a negative empiricism. By exemplifying, we can imagine a doctor telling a patient following an investigation that he has no tumour and is healthy. This is a negative inference because it shows the doctor as being interested in the certainty of the absence of a tumour and states that the patient is healthy. The absence of observable and measurable certainty of the tumour cannot tell us about the patient that it is perfectly healthy.

2. *The man is attentive to a series of narratives that have nothing to do with logical thinking and that produce error (narrative error).* This is due to our limited ability to look at different things and phenomena and connect them through logical explanations. Taleb provides a compelling example presented on American news channels: a Parkinson's patient makes an injection of L-dopa, which contains a high concentration of dopamine. It has as side effects the decrease of scepticism and a certain behaviour. The fact that the patient lost a large amount of money at gambling and sued his doctor on the grounds that his loss would be due to the injection made, indicates a random judgment. When we simplify and synthesize information more, we believe that the world is less random. Another aspect that is also related to the errors of narrative is the succession in which their information and its sensationalism are presented. This is where the news channels play an important role. For example, a news story about a company's bankruptcy followed by news of rising crime makes us establish a link between the two. Terrorism is a highly publicized phenomenon and causes hysteria among the public. However, the annual death toll from terrorism is infinitely lower than those who die from natural causes. Basically, narrative errors are born when a connection is made between narrative, sensationalism and emotion.
3. *Unforeseen situations, which are part of the area of extreme variations are ignored, are outside the scope of our concerns and analyses.* In particular, this is the case with scientific and intellectual activities. Training in a series of projects that consume a lot of time and energy is done with the hope of achieving a series of results ignoring the failure and or the appearance of any result. In general, our reasoning is based on the idea of linear progress. In reality, the greatest successes are non-linearities and come out of ordinary logic. We have here the case of Einstein, who at school was considered to be a limited student, unable to solve problems, the case of Sadoveanu whose compositions did not announce any literary talent or plenty of researchers and people of culture or Science died in anonymity.

4. “*What we see is not necessarily all that exists*” - says Taleb [10, p. 79]. Therefore, the invisible area of our lives can play as important a role as the visible area. The lack of concentration over ourselves and the lack of exploitation of the black swans of the past can create what the same author calls to be the “distortion of silent evidence” [10, p. 79]. Horia Roman Patapievici is, much more radical in this regard. He says that “the unseen side decides everything” [14] in the book of the same name. Whether it decides everything or not, however, the invisible side of existence is of particular importance when making predictions. Balzac’s novel, *Lost Illusions*, presents the literary evolution of Lucien Chardon, whose manuscript, over time, has gone through the refusal and then the acceptance of publication without it being read by any publisher. What mattered was not the value of the manuscript but the notoriety of the author won in the meantime. Another interesting example is that of a natural calamity that causes material and life loss (Hurricane Katrina 2005). This can be a good opportunity to build sensational news and to strengthen the public image of political or administrative personages that, using the media, deliver a compassionate and engaging speech at the same time. While developing various public and security theories and strategies, they promise to intervene to save the situation. That way they become saving heroes. What is not seen is that those who will actually intervene are others and the resources allocated are not from their own pocket but also from the population.
5. *Focusing on clear sources of slowness leads to ignoring others.* This would be due to an intellectual routine, knowledge or other nature that takes us into areas of rigid knowledge, turning us into prisoners of our own projects. The situation gives less permeability, plasticity and human creativity. If we focus on sources of uncertainty from the perspective of Science or knowledge, it does not mean that we are paying attention to all kinds of uncertainty. Therefore, the predictions we build are limited by our own intellectual limitations. Here is the case of the doctor who can issue a series of judgments by predicting several scenarios of unexpected evolution of a pandemic. However, his perspective expresses a number of medically extreme variations. The same can be explained by the paradoxical situation regarding the evolution of pupils of 10. Statistics show that few of them manage to perform outstandingly in the areas they have trained for. The surprises come from those who have not been leading and who have not enrolled their creativity in the rigid patterns of Science.

4. Conclusions

The modern world, in all the complexity of its manifestation, generates certain human patterns and at the same time offers numerous challenges in the face of knowledge. After all, the desire to know the logic of the functioning of the world and to make predictions, has always accompanied us. Beyond its

limitations and paradoxes, it represented the constant spark of human curiosity. Hanover, there is always a remnant, something inexplicable, hidden, that escapes our thinking and that composes the ineffable mystery of life.

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