The Black Swan

Author: Nassim Nicholas Taleb

Taleb's "The Black Swan" is a treat for the reader and covers everything about probabilities, risks and human psychological biases. It is rich with research and peppered with clever analogies that makes the material relatable and interesting to read. At a time when our world is going through a black swan event in the shape of the coronavirus, this book can help individuals navigate volatility, avoid common mental pitfalls and become better, more rational thinkers.

Key Takeaways

- Many aspects of our lives are dominated by unlikely, large and unexpected events
- It is in the nature of humans to focus on the likely and probable
- We all see patterns and causality where, in reality, there is a lot of randomness
- This implies the need to use the extreme event as a starting point and not treat it as an exception to be pushed under the rug
- The past is not a reliable predictor of the future
- One should not waste their time trying to predict extreme events. Instead, one should adjust to the black swans
- Blacks swans can also be positive and offer huge opportunities
- In order to capitalise upon positive black swans, one must constantly be on the lookout for opportunities and should not hesitate to grab them
- You are the only one who can control your destiny. The way you react to an event will determine its impact on you. Take control of your life.

The Black Swan

Throughout history, there have been highly improbable events that catch almost everyone by surprise and can potentially have a large impact on status quo by disrupting human activities and/or creating havoc. Such kind of events are called Black Swans. The name stems from the fact that up until 1697, mankind believed that all swans were white. A belief that was completely confirmed by empirical evidence. However, eventually, Dutch explorers sighted black swans for the first time in Western Australia, completely nullifying the belief that swans can only be white. Thus, the term 'black swan' morphed into describing an event that occurred despite seeming impossible. The sighting of the black swan illustrated a severe limitation to our learnings from observations or experiences and the fragility of our knowledge. All you need is a single observation to invalidate a general belief derived from millennia of confirmatory evidence. Since black swan is the occurrence of a highly unexpected event, conversely, a highly expected event not happening is also a black swan.

For an event to be characterised as a black swan, it needs to have three characteristics:

1. It should be an outlier – the event should be unexpected ie., it should lie beyond the normal range of expectations because nothing in the past can convincingly point to the possibility of its occurrence

2. It should have a massive impact – in addition to being an outlier, the occurrence of the event should have a large impact on human kind, challenging status quo

3. Despite being accorded an outlier status, humans should be able to explain the occurrence of the event after it has happened ie., ex-post it should be explainable and predictable

The triplet to deem an event as a black swan is: rarity, extreme impact and retrospective predictability. It is interesting to note that a small number of black swans that have occurred throughout history can potentially explain almost everything in our world, from the success of great ideas, the spread of religion to various important elements of our own personal lives. The

occurrence of black swan events has, in fact, been increasing at an accelerated pace and so has its potential impact. Black swans are unpredictable not because they are random, but primarily because our outlook, knowledge or field of experience is too narrow to grasp the possibility that the improbable can also happen. Consequently, those individuals who are the least aware of a black swan coming will probably suffer the maximum from its already extreme consequences. As such, black swans cannot be measured. The immeasurability of black swans and the human tendency of discounting their very possibility contributes to its ability to make a large impact.

The field of finance regularly makes an attempt to capture outlier events and fails with equal regularity. Financial professionals use multiple models to capture uncertainty. However, as is evident from history, most portfolio and risk management models fail to capture black swans. A large portion of risk management professionals use the bell curve to understand the probability of risk. However, bell curves only measure the normal or the average occurrence, and tend to ignore the large deviations. When you measure averages, you run the risk of getting useless and dangerous information. If you cross a river that is, on average, 4 feet deep, you will likely drown. Thus, bell curves are ineffective in capturing the unexpected and potentially disastrous events. This is not just true for finance professionals. It is even true for organised sports, where following rules is imperative. Since athletes are trained to make certain moves they become weaker when faced with unexpected events. For example, fighters train with certain rules which makes them more vulnerable in a street fight because they are not trained to expect illegal moves. In real life, you don't know the odds. You need to discover them.

The past is never a reliable predictor of the future

One of the biggest errors that humans make while trying to predict the future is a proclivity to use data gleaned from the past to explain what might occur in the future. Based on things that have occurred in the past, we weave a narrative for the future that makes sense to us. Consequently, we expect the future to unfold accordingly and are completely taken by surprise when it does not. This is because there are many unknown factors that can impact our future.

Take the example of a turkey. Before Thanksgiving a turkey is fed every day. This firms up the bird's belief that it is the general rule of life to be fed and taken care of by the human race. The turkey starts believing that the humans will always look out for its best interest. As the number of feedings grow, it becomes more and more confident that it will be safe. However, on the Wednesday before Thanksgiving, the turkey will be on its way to the slaughter house. This will definitely take the turkey by surprise as he never expected the humans to kill it. The only reference point for the turkey's belief was his past experience with the humans which in no way indicated that they would harm it. On the other hand, while the turkey is surprised before Thanksgiving, the butcher is not. Which means that black swans are relative to your knowledge and expectations. What might be a black swan to some might be completely expected by others. In order to avoid situations where you can be fooled in a huge way, you must actively avoid depending on large and potentially harmful predictions.

Everyone loves a good story. When we look back at history, we tend to interpret it in such a way that it fits into a nice story. We try to make sense where there is none. We try to predict when in fact what actually happened might have been completely random and unplanned. We want to believe that there was a nice clear progression that is predictable and will thus carry into the future as well. The best way to avoid the traps of narrative fallacy is to eschew storytelling in favour of experimentation, history in favour of experience and theory in favour of knowledge.

Assessing real world risk

When faced with the task of assessing real world risk, we treat it as a risk game, assuming certain ground rules and probabilities that we can determine at the onset. This gives us the false sense that we know what is going to happen next and that the decision we are making is the right one. While it is hard for us to assess risk accurately in the real world, oversimplifying it can only make it worse.

For example, if you observe a coin flip game, where the dealer tells you the coin is fair (i.e. lands on heads or tails 50:50), but for 99 times in a row it comes up heads, would you really believe the odds are still 50:50 on the next toss?

Statistically speaking, the odds haven't changed, but any reasonable person would assume that the coin is rigged and bet heads. So what should we do? How do we deal with back swans if we can never accurately predict them? The key is to focus on "anti-

knowledge", or simply on the things that we do not know. Instead of naively trying to predict black swans, we should try to adjust to their existence. And when we adjust to them, we can position ourselves not only to limit the downsides, but also to take advantage of possibly positive black swans, called "serendipitous black swans".

Taking advantage of serendipity (positive Black Swans)

The payoff in a venture is generally inversely proportional to what it is expected to be. Thus, to become successful in a profession, it is important to do something beyond that which is currently within the realm of possibilities. Position yourself in an industry with small losses and huge wins, like venture capital, publishing, scientific research, or movies. These professions usually offer a disproportionate payoff from the unknown, since you typically have little to lose and plenty to gain from a rare event.

Do not rely on a top-down planning approach that narrows your thought process and encourages you to predict. Instead, focus on experimenting and recognising opportunities when they come your way. Seize any and every opportunity or anything that looks like an opportunity. Positive black swans can only benefit you if you are exposed to them. Work hard in chasing such opportunities and exposing yourself to them. Put yourself in situations where the favourable consequences are much greater than the negative ones. Not necessarily more likely, but more life changing. In general, positive black swans take time to show their effect while negative ones happen very quickly— it is much easier and much faster to destroy than to build.

The End

The best way that you can get the better of black swans is by simply snubbing them. It is inevitable that we get exposed to the improbable. We cannot control this. But what we can control is how we react to it. You can always control what you do. Focus on that. For example, missing a train is only painful if you run after it, if you allow yourself to care. If you simply shrugged it off and told yourself that you can just board the next one, you will not be impacted.

In Taleb's words, *"Quitting a high-paying position, if it is your decision, will seem a better payoff than the utility of the money involved (this may seem crazy, but I've tried it and it works). This is the first step toward the stoic's throwing a four-letter word at fate. You have far more control over your life if you decide on your criterion by yourself."*

"The Black Swan" tells us that extreme events will occur and will continue to impact us in myriad ways. Since such events cannot be predicted, it is important to adjust to them. As an investor, you can ensure that your portfolio can adjust to a black swan event by following the principles of portfolio diversification and asset allocation. By spreading your investments across multiple asset classes and uncorrelated investment products, you are ensuring that the impact of an extreme event is limited to only a certain part of your portfolio and not your entire portfolio. Mutual funds can be an ideal investment vehicle for achieving optimal portfolio diversification. Mutual funds offer multiple schemes that invest in a variety of asset classes and offer varying levels of risk and return to an investor.