



Crises that catch many people unawares are often predictable.

PHILOSOPHY

Creative resilience

Michael Shermer sifts through a study of the science of randomness and our responses to it.

Unexpected events have brought down civilizations, economies, markets and corporations. Nassim Nicholas Taleb, who fleshed out such rare, random 'black swan' effects theoretically in *Fooled by Randomness* (Texere, 2001) and *The Black Swan* (Allan Lane, 2007), offers a solution to the challenge they pose in *Antifragile*.

In more than 400 pages of stream-of-consciousness-style writing, Taleb aims to tell us how to live in a world that is unpredictable and chaotic — how to become 'antifragile'. Antifragility, Taleb stresses, is not the same as robustness, which relates to how well a system can resist change. To be antifragile is to have the capacity to prosper from randomness, uncertainty and disorder, and to benefit from a variety of shocks, especially black-swan events. It is a kind of creative resiliency that Taleb discusses in relation to evolution, politics, business innovation, medicine, economics, ethics and epistemology.

So what are the attributes of antifragility? Take size. You might think that being big — as a nation or corporation — would serve as a buffer to black-swan events. Business schools teach the virtues of 'economies of scale', but Taleb warns that "size hurts you at times of stress". Large entities cannot respond as quickly to rapid change as smaller ones, which tend to be freer to shift strategies. Taleb notes that mergers of major corporations can fail to foster efficiency.

Mergers typically show "at best, no gain from such increase in size". The AOL-Time Warner merger of 2000 and the subsequent split in 2009 is a case in point. Taleb conjectures, too, that big species such as mammoths have become extinct fairly rapidly.

I offer two caveats: the hindsight bias and the confirmation bias.

It is easy to pluck out examples from the historical record of animals and corporations that failed to cope with black-swan events (dinosaurs and mammoths, Blockbuster and Borders). But boa constrictors and many large mammals are holding their own, and the Brobdingnagian Apple and Google are flourishing.

Taleb is aware of these exceptions, but none of us is above bias. While reading *Antifragile*, I found myself thinking more of the exceptions than the rule. The book does not fully explain how to make a system antifragile. Nowhere does Taleb offer, for example, a checklist of things companies or countries can do to prepare for black-swan events.

I have long appreciated Taleb's insistence



Antifragile: Things That Gain From Disorder

NASSIM NICHOLAS TALEB
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that we recognize the power of chance and randomness to rule our lives. This is because, by a quirk of our cognition — a process I call 'patterncity' — we tend to find patterns in random noise and concoct probable causal narratives to connect the dots where no connections actually exist. The conspiracy theory is a classic example. For pointing out this tendency alone, Taleb's work commands attention. But much of life is not ruled by randomness and black-swan events, and it is good to bear that in mind when considering what drives change.

The 2008 economic collapse, for example, is cited by Taleb as quintessentially black swanish, but the recovery since has been driven by predictable economic forces implemented judiciously by, in the United States, the federal government and its numerous financial regulators. Moreover, the collapse of the housing and banking industries that triggered the crisis was neither random nor unpredictable. Indeed, Taleb predicted it, on the basis of the long, slow, bubble build-up from easy credit, government policy, Wall Street avarice and other unsurprising forces.

Or take another long-term trend, the decline of violence, documented by psychologist Steven Pinker in *The Better Angels of Our Nature* (Viking, 2011). This has been so slow and steady across so many domains — from wars and homicide to rape, child abuse and beyond — that Pinker needed more than 800 pages to document it. And throughout, no single black-swan-like event emerged to trigger anything but a minor wrinkle in the centuries-long trend.

Most of the time, in most areas of life, the laws of nature and society grind glacially along, oblivious to the occasional blip that may look devastating in the short term, but in the long becomes absorbed in the trendline. On a graph, such events appear black swanish, but on examination are the result of known forces that may have seemed unpredictable at the time, but in hindsight reveal cause-and-effect relationships in complex systems.

Perhaps this is Taleb's message in *Antifragile*. His heavy emphasis on randomness occasionally obfuscates the power of the predictable, and emphasizing the former over the latter in a narrative of this sweep may distract from this larger point. That aside, there is much to learn from a mind this adroit. If nothing else, it makes you see the world in a new light and that is, possibly, the best way to be antifragile. ■

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