

## WHEN THE SUM IS BETTER THAN THE TOTAL



stimulate the brain neurons to proving the antifragile nature of our brain—something gained from stress. To be frank, I had no inkling of such a term before this. Even dictionaries do not contain this term. So, it was a complete unearthing of a new concept.

Let us see what is meant by ‘antifragile’. We all understand the meaning of fragile. If we ask anyone what the opposite or antonym of ‘fragile’ is, quick will come the answers ‘robust’, ‘sturdy’, ‘resilient’, ‘solid’, etc. But do they really imply the opposite of ‘fragile’? According to the author, the answer is NO. The author gave an interesting example in a satirical way. When a fragile object is packed, we put

I recently read a book titled “Antifragile” written by Nassim Nicholas Taleb. The book is simply fantastic and I could not resist sharing the ideas presented in the book with the readers of this journal. The very title of the book drew my attention and I found that the book is full of insights, stories and intriguing ideas which gather more wisdom towards

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*Our natural or biological system could be both ‘antifragile’ and ‘fragile’, depending on the amount of stress imparted to it. For example, human body is antifragile up to a certain stress level. Stress (read exercise) helps us to grow, to keep ourselves fit. Keep yourself in bed for weeks and your muscles will suffer from muscle atrophy - or will lose the vitality to move. Even occasional fasting (mild stress) triggers healthy benefits. A small dose of poison (stress) is found to be beneficial and used as a medicine, known as hormesis in pharmacology. However, over-exercise or taking too much of poison is not only harmful to the body (fragility) but may even cause death.*

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a label marked “Please Handle with Care” on it. Logically, the exact opposite of a fragile package should then be labelled “Please Mishandle” or “Please Handle Carelessly”. ‘Fragile’ is a package that would at best be unharmed, ‘robust’ would be at best and at worst unharmed. And the opposite of fragile would therefore be what is at worst unharmed. If we look deeper, ‘fragility’ is mostly a loser in a sense that it changes from order to disorder with stress or time, ‘robust’ is static and does not change with stress or time, while ‘antifragility’ would usually (not always) be a gainer from stress, and gain something from disorder or randomness. As the opposite of ‘positive’ is ‘negative’ and not ‘neutral’, opposite of ‘fragile’ is ‘antifragile’, not ‘robust’ which is ‘neutral’.

A fragile object breaks with stress, while according to Taleb, antifragile things not only resist stress but may grow, strengthen, or gain from mild and even unpredictable stress. When an object is labelled ‘fragile’ like the china in a cupboard, we protect it from mishandling by keeping it away from children’s reach. This obviously means that fragility loves tranquillity, prefers to remain in peace and hates any kind of volatility, randomness, and chaos. Since antifragility is opposite of fragility, it should then love volatility, randomness and chaos with time. Yes, time. However weird it may sound, time is functionally

equivalent to volatility—more time may result in more events, more randomness, more disorder.

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By now, it should be clear that robust resists shock and remains unaltered whereas antifragile will resist shocks and at the same time develop under its influence. According to Taleb, “this property is behind everything that has changed with time: evolution, culture, ideas, revolutions, political systems, technological innovation, cultural and economic success, corporate survival, good recipes, the rise of cities, cultures, legal systems, equatorial forests, bacterial resistance...even our existence as a species on this planet.” The antifragile nature of Mother Nature has helped her survive for billion years by evolving over time and environmental changes. Same is true of humankind; it has evolved with stress.

We could also relate volatility to the amount of stress in things around us or in everyday life. In social life, we find that those who are fragile or feel insecure try to avoid challenges in life, and prefer to proceed along a predictable path in fear of any harm. These people are resistant to progress and may have fewer opportunities to improve themselves. On the other hand, there are people who welcome challenges, love to explore and experience, and

in the process subject themselves to different kinds of stress which eventually works towards their benefit. In a way, stressors (source of stress) are information; the more you are exposed, the more you make mistakes, and every mistake provides you some more information which helps you to avoid that mistake again. We meet many people in our life who are physically fragile but emotionally or mentally antifragile.

One major difference between fragility and antifragility is that, for fragile objects mistakes are rare (as they are kept under protective environment - think of

the china in the cupboard) but if the mistake is made, it is extremely harmful and may cause a disaster, an irreversible damage. On the other hand, experimenting with small mistakes helps a system to move towards antifragility. Nature is antifragile upto a certain limit, although that limit is very high. It allows small mistakes while generating a genetic code (mutation) which induces so much variation in our species. But if the extent of mutation is very high, it may backfire.

If we look at the Services sector, the of triad fragile, robust and

antifragile is very common. Persons who are employed in corporate sector (IT for example) are well paid, with periodic business meetings in swanky places like a beach resort, gifts after every five years of completion of job etc. But their employment is very fragile; one mistake, and you are out of the company when you have nowhere to go. On the other hand, employment in government jobs is very robust in nature. The job is secured, employees in general (except a few) do not need to face challenges with the result that they do not change much. The entire system is very robust. Now consider a self-employed person, say, a street shop owner in your locality. He does not have a fixed earning - it is random in nature. One day he may earn a lot, the next day he could bring in a meagre sum at the end of the day. On a lucky day he may receive a big order for a ‘party’ in your locality or from a rich client generous in nature. He faces constant challenges day in

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and day out with the result that he learns to feel the pulse of the customers and brings in new items to attract more and more customers. His job is antifragile in nature and is constantly evolving. It is said that best horses lose in race even to slow horses and win against better rivals. Absence of stressors (source of stress), absence of challenges degrades the best of the best, and that's exactly what happens in government institutions.

In political systems, as Taleb explained, a centralized nation-state falls in the fragile category while decentralized city-states are antifragile. As he mentioned that "the most stable country in the world does not have a government; it is stable because it does not have [a government]". He gave the example of Switzerland; they do not have a large central government, instead, what they have is a municipal type regional entities called cantons, near-sovereign mini states united in a confederation. This is a country which is not a nation-state but essentially a collection of small

municipalities with a right to take decision for their own benefits. If Taleb is right then the recent decision put forward by Deb Roy Committee to decentralize an overly centralized huge railway structure is in the right direction.

Readers, please note that this is not a book review, neither is this a summary of the book. I just wanted to introduce this new concept to our readers. The more I toyed with the idea, the more wise I felt and I wanted to share my exuberance with my fellow readers in understanding the difference between fragile and antifragile. What I expressed in this editorial is not even the tip of the iceberg of the 500+ page book which discusses examples from more than sixty different fields starting from mythology to medicine, biological systems to mathematics, from economics to urbanism, from political to social systems and so on. Interested readers may read the book and use the antifragility nature of individual brains to understand and explore many new ideas. □

**S. C. Roy**