

What Would Happen If the Law of Averages Existed?

What is the “Law of Averages?”

The standard roulette table (in the United States) contains 38 sections of equal size which are numbered 1 through 36, 0, and 00. In this game, players call on a specific number or group of numbers and then a dealer spins the wheel. If the wheel lands on the number you bet on, then you win. Some gamblers believe the best strategy to pick which number to play is to choose a number that has not occurred for a long time. For example, if the number 18 has not been spun for a while, then the wheel is due to land on the number 18. This, however, is untrue (assuming that the wheel is fair) and is known as the “Gambler’s Fallacy.” No matter how many times the wheel previously fails to select a certain number, the probability of the wheel landing on that number will always be $1/38$. In simpler terms, the Law of Averages inaccurately predicts that short-term results will match probabilities which can be found in the long term. In reality, independent events do not have memories. Therefore, probabilities do not adjust to imbalances in the short term. In this strange world, probabilities of events would no longer be independent as they would be adjusted dynamically as a result of prior outcomes.

How would this law change the world?

Although it may seem minor, the Law of Averages, or lack thereof, has a major effect on how the world runs. The fact that this law is non-existent ensures that the world is unpredictable. Unpredictability can be nerve-wracking and stressful, but it is also what keeps every journey interesting. This law would affect many aspects of the world including weather patterns, gambling, and general human behavior.

Weather

The Law of Averages would dramatically change the weather patterns that could be found around the world. For example, in Southern California, a region of the world that often faces droughts, a long period of drought would result in an increasing probability of rain. According to Weather Spark, Los Angeles, California typically gets around 4 days of rain in the month of December. If the first 27 days of the month are completely dry, the last four days are guaranteed to be rainy. This means that the system actively corrects itself as time continues. This could also help to predict temperature patterns. For example, if a region is having a particularly warm winter, a cold winter is more likely to happen the next year. This would benefit the world because it could help people to prepare better for extreme weather situations such as blizzards and hurricanes as well as inform under-privileged areas about future weather conditions.

However, this could have some downsides as well. The predictability of weather could have a negative impact on ecosystems within the environment. An important factor in the fitness and success of populations is their ability to survive and adapt to harsh and unpredictable conditions. The true unpredictable state of nature is what helps different species to survive when environmental conditions change. If a species is used to a completely predictable environment, even a small change, such as a new species entering an ecosystem, could threaten an entire population. Chaotic weather also helps to ensure that no species within an ecosystem can become dominant over the others. Unpredictable weather patterns allow a wider variety of living things to survive as well as thrive in different ecological niches. Therefore, while the over-predictability of weather patterns could have a positive impact on many humans, it could also have a negative impact on many other living things on Earth.

Gambling

With the Law of Averages, the entire gambling industry would collapse. Because gamblers would be able to predict with overwhelming confidence how much they have to bet and what they have to bet on, increasing numbers of people would go to casinos to gamble. This is because events would actively correct themselves to adhere to known probability. So, if a slot machine pays out once in every 10,000 spins, gamblers would have greatly better odds that this specific slot machine will have a win soon if it has not hit the jackpot for over 9,000 spins. This principle only occurs over a large number of trials as formalized by the Law of Large Numbers. If this occurred, though, casinos would go bankrupt due to the fact that more money would be leaving the casino than coming in. Eventually, the entire gambling industry would collapse due to this phenomenon. The collapse of this industry could possibly benefit the lives of many individuals who struggle with gambling addictions. Gambling can cause changes to the brain by releasing dopamine which could be similar to changes caused by drugs. This may also improve mental health and the financial state of former addicts and their families. The Law of Averages, therefore, would have the ability to remedy many of the negative effects that gambling has on society.

Along with the many positive applications of this law, there are also some negatives. The gambling industry has some positive impacts on society. For example, gambling stimulates the economy by creating tax revenues for social services including infrastructure and education. Also, the end of gambling would decrease tourism in places such as Las Vegas and Monaco as gambling is a major attraction in these places. This would drastically harm the economies of these places as revenue from tourism makes up a large part of their economic activity. All in all,

if the Law of Averages existed and the gambling industry collapsed, the world would change for better and for worse.

Human Behavior

If the Law of Averages existed in reality, it would fundamentally change how humans approach risks, fairness, and decision making. If we lived in a world where probabilities self-correct, then people would likely take more risks. If a company has had several business plans fail in the past, it would be likely that the next one would succeed, which may lead that company to take the risk. In this world, failure would make success more probable rather than merely preceding it. This principle would contribute to more perseverance and determination among individuals as well as people thinking more towards the future rather than the present. Also, fairness would truly exist in this world. People would no longer have seemingly never ending streaks of good or bad luck. With that, people would have decreased stress and anxiety surrounding temporary failures.

Predictability may seem as though it would improve society and remove many stressors. While this is true, it would also remove many aspects of what makes the world special. If success becomes inevitable, it would likely feel much less meaningful. Additionally, even though persistence and determination may both increase, people would probably also become less innovative and creative. Overpredictability of the world would take away the whimsy and surprise out of life which is what gives it meaning. Although this world would be fair, it would likely be far less fulfilling.

“I want my life to be something more than long.” – Pippin the Musical