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Abstract

An insight into the probability that we will experience a miracle within our lives. This project considers different ways of defining a miracle, and how this impacts how we consider them in our lives. They are paradoxical, and completely subjective - although there are key concepts of probability which will guide opinion.

Keywords

Probability, Miracles, Hume

Disciplines

Philosophy | Probability

Comments

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The Probability of Miracles

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Overview

• There are many different definitions of what actually constitutes a miracle, and whether or not miracles actually exist in reality.

• For some, miracles are purely **theoretical in nature**. The concept of a miracle can be established (either objectively, or subjectively), but cannot be reflected in the real world.

• Are miracles simply occurrences that defy our current understanding of the **laws of nature**?

• Or do they have a wider definition – perhaps including **extraordinary achievements**, or events that have an **innate positive impact** upon people/society.

• This project analyzes these different ways that miracles can be described, and attempts to answer whether or not we should expect to experience a miracle in our lifetime.

• The probability of miracles… Or why I would bet my house on the fact that I will experience one, and end up homeless.

Works Cited and Current Study

• The first work dedicated to the comparison of probability and miracles, was written by Scottish philosopher, historian, and economist, David Hume. His key work "On Miracles, Evidence and Probability" concluded that miracles are, at best, very rare.

• Since then, other authors have contributed to the discussion, mainly through the debate of Hume's ideas. The 3 biggest influences on this project are listed below.

• Elliott, Andrew C. A, "What are the Chances of that? How to think about uncertainty," Oxford: Oxford University Press, 2021

• Hambourger, Robert. "Belief in Miracles and Hume's Essay." *Noûs* 14, no. 4 (1980): 587–604.

• Tucker, Aviezer. "Miracles, Historical Testimonies, and Probabilities." *History and Theory* 44, no. 3 (2005): 373–90.

Explaining the Inexplicable

• Firstly, a miracle can be described as an event that cannot be explained through our current understanding of science and nature.

• The most common example of this attribute of miracles, is religion. Let's consider the probability of Jesus walking on water.

• For Christians who believe in Jesus' miracles, the probability might be considered as 1. It happened. Nothing else to it.

• To an atheist who does not believe in Jesus' miracles, the probability might be considered as 0. It did not happen. That's all.

• But if we assume that the only people who believe in Jesus' miracles, are every single Christian in the world, then the probability of Jesus walking on water might be considered as 31.8% (as of 2010, 31.8% of the world population identified as Christian).

• Yet Jesus either walked on water, or he didn't. The probability should be 0 or 1 right?

• This brings up a number of challenges to this definition.

• 1) Should each person have an equal say in deducing whether Jesus walked on water?

• 2) The notion of the "principle of relative likelihood" states that if it is more likely that someone is either dishonest, or misjudged, then one should assume a 'miracle' to be untrue as it is the less likely outcome.

• 3) Our understanding of the laws of nature evolve, over time we gain a better understanding of the world around us. What was a miracle yesterday, might not be a miracle today. The "foresight-hindsight duality" that states that our perception of chance is warped by hindsight, becomes relevant.

• Is it fair to argue that every person in the world has an equal understanding of Jesus' 'miracle', and so should get equal say in whether it indeed happened?

• Is it possible that Peter was misjudged, or in fact lied?

• Was it a miracle two thousand years ago, but not a miracle in today's world?

• Thus, miracles might be a good way to explain something that we can't explain. As humans, we like to feel in control of the world around us, and by associating something as a miracle, it means that we can provide a quick explanation. So as long as our 'miracles' aren't explained later down the line, we have high odds of experiencing one.

Excellent and Outstanding Achievements

• A second description of what could constitute a miracle is an event in which an extraordinary achievement was accomplished.

• An interesting point of note is found within etymology.

• The Ancient Greeks had the word "kosmos" – initially meaning the order or constitution of society, but later became to include the order of nature.

• Today, we might use the term 'out of this universe' to describe an extraordinary event that nobody could have predicted.

• Universe – cosmos – kosmos.

• Secondly, the French word "merivelle" – wonderful story or legend, is where the word marvel derives from.

• Developments in language have thus played a part in how we consider probability.

• Our words that describe outstanding occurrences might mean that miracles are happening all of the time.

• Littlewood's Law states that we experience miracles once every 35 days.; assuming that 1 in every million events are miraculous, and that we witness 1 event per second for approximately 8 hours of total alertness in a day. So if I were to live until my 80th birthday, I would experience roughly 835 miracles…

• Yet how many of these miracles do we actually recognize? And is an event still a miracle even if we don't realize it? Otherwise are we constantly living through miracles?

• Perspective is arguably the most important aspect on the relationship between probability and miracles. How we view the world will have a profound effect on how we view miracles. Is living through a miracle the same thing as experiencing one?

• How we define miracles, and even the everyday events of life, will impact the experience we have.

• Scoring a hat-trick in a football/soccer game might be miraculous to the fans, but to the player it was just their skill.

• This makes it difficult to define a probability for this kind of miracle. It is totally subjective; yet still through this definition, we would likely expect to experience at least one miracle.

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Being Remarkably Positive

• The final definition of what might constitute a miracle is that of the occurrence of a remarkably positive event. Particularly regarding the outcome of said event.

• However, immediately we might reach a dilemma with the foresight-hindsight duality again. What happens when the outcome is intended?

• If a group of scientists are researching a new drug to treat breast cancer, and they create a drug that works, is it a miracle?

• Because as discussed in the case of a footballer scoring a hat-trick, the doctors' research they would argue is what created the drug. It was no miracle. It was their hard work.

• This makes it difficult to think about probabilities though. This means that we need a further refinement of what these kinds of miracles are categorized by.

• The definition of a miracle that I have provided in this context is an unintended outcome with remarkably positive, desired impacts.

• If those scientists were trying to find a treatment to relax the effects of Parkinson's Disease, and found a drug to treat cancer, that might be a miracle.

• In this sense though, miracles happen all of the time. We always read heart-warming news-stories that fill us with joy. Even in our own lives.

• A woman being told she is infertile, who conceives a child; Christian Eriksen dying on the field and being resuscitated after a cardiac arrest.

• But there are some events which we might consider miracles that do not follow this logic.

• If I were to win the lottery, I would be considered a very lucky person. But if a person who needed life-saving surgery won the lottery, it might be a miracle. Why?

• We both inherently have an equal chance of winning when we purchase a ticket.

• This is an example of a second duality that makes probability hard to comprehend. The 'randomness-meaning duality'.

• This is where we attribute greater meaning to events that provide us with a story to tell. A random young man winning the lottery isn't a feel-good story compared to the case of our other winner. Our emotions have come into play.

• But still by our definition, we would probably expect to experience one of these types of miracles for ourselves at some point in our lives.

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Summary and Conclusions

General

• Probability can be extremely subjective.

• There is no definitive answer to our question

• Miracles can exist in different forms, or indeed not exist at all depending upon our definition.

• Any belief in miracles, means that an individual is likely to experience at least one miracle in their lifetime.

The 3 Definitions

• Explaining the inexplicable allows us to consider religious miracles, or events that we don't quite understand.

• Excellent and outstanding achievements provide us with astonishment when we can't believe that something has happened, but the event has not broken the laws of nature.

• Being remarkably positive allows our emotions to play a role in how we consider miracles. Logic is less important here, what's more important is that something good has happened.

Placing the Bet

If I were to place that bet; bet my house that I will experience a miracle in my lifetime, I would either be living in dreamland with the easiest, most logical bet of my life; share my house with another person in some sort of split, as miracles can sometimes partially happen by some standards; or I'll be homeless.

So, you might say that yes, I keep my house, but I have to sleep outside in a tent in the garden. It's the only way to appease all parties. As the miracles I consider, either no-one notices, only some percentage of people believe in, do not defy the laws of nature, or simply don't make people smile.

Acknowledgments