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The Destiny of Science

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Abstract

The decline in interest for science by the general public can be explained by the human tendency to perceive logarithimically rather than linearly. Science education can address this problem to alter the destiny of science.

Introduction

Science faces a new and perhaps its greatest threat yet. The public interest in scientific progress is destined to wane. The roots of this can already be seen. Public apathy to science continues to grow.

When NASA first sent the man to the moon, millions were glued to the television. They watched as Neil Armstrong took one giant leap for mankind. Yet, according to Michael Tribbe, author of *No Requiem for the Space Age*, surveys conducted by the New York Times one year after showed that the majority of Americans could not remember his name.[1] How is it that one of the greatest achievements in science loses interest so quickly? The reason for can be explained by the mind's mathematical perception of the world.

Our Mathematical Perception

Humans have an in-built sense for recognizing proportions. We perceive the world relative to itself. It can be evidenced in how we view age. It is not the wonder of childhood that makes it seem like the longest part of life. This is because although we age linearly, we see everything else logarithmically.

This is why the first years of our lives seemed to linger for a longer duration; because, every new year we aged was a smaller fraction of all the years we've lived before that. The logarithmic perception extends far beyond age. When driving from Seattle to Spokane, adding ten miles to the trip will not be easily noticed. However, driving ten more miles to find a restaurant in the city will seem more noticeable. The human brain is particularly impacted by relativism. It does hold advantages. The logarithmic programming of our brains allows us to estimate in a manner, as Journalist Ben Thomas puts it, "that reduces relative risk rather than absolute risk."[2] This allows for quick decisions in an information heavy world.

Threats to Innovations

Although a logarithmic method of perceiving life as a whole holds merits in sorting out the constant influx of data, it makes it inevitable for the public to lose interest in science. This is because as they age discoveries also become more common.

We perceive each new discovery that is made as a smaller fraction of all the discoveries ever made before. This concept makes it impossible to heighten the public's interest in scientific progress.

The name Albert Einstein is so fondly remembered among the public, but Roger Penrose, one of the most influential physicists today, is not in the public eye. This is because Einstein was one of the first to breakout as a rockstar physicist in the 20th century. And then, Marie Curie, Jonas Salk, Niels Bohr, Francis Crick and James Watson swarmed the pedestal. Our innate logarithmic perception made any equally revolutionary future discoveries by scientists a smaller fraction of the existing set of discoveries. Although natural, this trend brings problems. Scientists depend on public approval to secure funding so an apathetic public results in less money to sustain innovation. Furthermore interest in scientific progress needs to be met with as equal excitement from the public as it is with the scientists. The imbalance leads to an innovation plateau. Today, technology is solely driven by consumers. Improvements in smartphones, internet and computing technologies, although significant, are in the end, simply improvements not innovations. Although our cars are faster and cleaner, the paradigm has not shifted as it had done in the mid-20th century.

Different Approach

The answer to this is not media coverage. The BP oil spill of 2010 was extensively covered yet did not spearhead the oil industry or drive the Green Revolution. Media outlets frequently cover gene therapy but the public has not batted an eye. The answer lies in revolutionizing the way the public views innovation. Our natural instinct to view scientific progress logarithmically needs to be transformed by the education system to be viewed additively, as to treat every discovery with a baseline amount of respect. Steps can be taken to educate, not of each innovation itself, but of the impact of each innovation to achieve this goal.

Furthermore, scientific development must seek to explore new terrain rather than simply solving the problems of today. For example, the US at the time of space launches did not have the most efficient commercial airline planes, yet NASA embarked on creating the space shuttle. Developing the space shuttle not only uncovered more engineering phenomenons but also created technologies which improved the commercial airlines. As existentialist Søren Kierkegaard puts it, “life can only be understood backwards; but it must be lived forwards.”[3]

Similarly, the problems today can only be solved when we continue to innovate. Granted, by following this path, science will take risky turns, but in the process it will uncover deeper truths of the world around us and drive us closer to our final form and destiny.

References

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