

"The most beautiful thing we can experience is the mysterious. It is the source of all true art and science." (Albert Einstein, What I Believe)

Curiosity is the single-most important motivation in humanity's quest for the truth because it allows us to keep questioning, to keep wondering. It is the innate desire that leads us to uncover mystery, and with it, we find ourselves constantly examining the world. Why is the sky blue? Why do leaves change color? Why is Shakespeare so difficult to understand? Yet, asking these questions is merely touching the tip of the iceberg. If one takes initiative when presented with a mystery and attempts to explain it, they can then make important and groundbreaking discoveries.

Every scientific and mathematical discovery in the history of mankind has begun in the scientist or mathematician's desire to explain a mystery that they themselves perceived. As Stephen Hawking said, no one researches physics to win prizes, or to become famous, but rather for "the joy of discovering something no one knew before". From the Greek philosophers to Carl Sagan, theories and even actual studies of science have been created by the scientists' curiosity of why and how things occurred. In these mysteries, perception is key; an action or idea one man might perceive as mundane, these scientists and mathematicians considered as perplexing.

In Isaac Newton's case, the story of his work with gravity is famous. Newton had been sitting under an apple tree when a gust of wind caused an apple to fall on the ground next to him. Most would consider this an ordinary event. No one would ever suggest that an apple falling on the ground is a divine miracle, or some kind of witchcraft. While Newton suggested neither, he took the time to question why, and how the apple fell on the ground. This is precisely what made Newton special and enabled him to become one of the most influential physicists of all time. By taking a seemingly ordinary and everyday event, like an apple falling from a tree, and creating a

mystery from it, Newton effectively allowed himself the opportunity to explain it through his Universal Law of Gravitation.

Greek culture is famous for its advancements in science and mathematics which all originated from its constant questioning of the world and its activities. One famous example would be Zeno's Paradox of the Tortoise and Achilles. Zeno, a Greek philosopher, suggested that in a race between Achilles, a Greek mythological legend, and a tortoise, given that the tortoise had a 10 meter head start, Achilles would never pass the tortoise. Basically, he argued that every time Achilles closes the original distance between himself and the tortoise, the tortoise will continually add more distance between the two so that Achilles will never catch up to it. Since one can easily run past a tortoise in reality, this paradox is obviously not true. In fact, if asked whether a tortoise could beat Achilles in a race, Achilles would be an automatic answer for most, but Zeno's ability to create an enigma from the seemingly straightforward race led to the eventual creation of infinite sums and series' to solve the paradox; two concepts of math that are still important today.

Questioning mystery can also lead to the creation of true art, be it painting, literature, music, etc. True art is product of the artists' ability to discover what they believe; art can unravel any mystery, but it is important for the audience to understand it.

When I was in preschool, I didn't truly understand what went on in the world around me, but I always found myself mesmerized by the ever changing white shapes that my teachers called "clouds". I had heard that only humans were capable of tears, and yet I had felt the clouds cry before. Their tears had drenched me plopping the sidewalk as I trudged home, slapping in vain at my glass window, slipping through the cracks along the side of my house. The mystery of what these things truly were soon became an obsession, as I began to dedicate hours of my day to stare

up at the sky and draw clouds constantly. I would never again win any awards for my nonexistent artistic ability, but my five year old hands drew clouds that were impressive enough to win the “future artist” award at my kindergarten “graduation”. While my infatuation with clouds has been satisfied, and I have given up the practice of drawing clouds long ago, the pictures of clouds I drew during those days are still my greatest artistic accomplishments, and something I still keep close today because those drawings to me, the audience, are true art. My drawings and sketches at this age were, as Stephen Sondheim said, “an attempt to bring order out of chaos”. Clouds confused me because in my head, they acted so human, and yet were clearly not living creatures. Thus, when I began drawing them, I didn’t know what exactly I was creating, but as time went on, my drawings began to look clearer and clearer, until I drew a cloud with full understanding as to what it was, upon which I lost my infatuation with clouds, along with any artistic ability I had.

Mystery is intimidating. Many choose not to trifle with mystery in fear of the lack of understanding; others, believing it to be detrimental to their thinking process, choose to forgo mystery in exchange for studies, and known fact. What they forget is that the concept of mystery is the source of all their known fact, and must be experienced for more discoveries.

Rebuttal: "To understand God's thoughts we must study statistics, for these are the measure of his purpose." (Florence Nightingale)

- Statistics rules the world; everything in the environment around us, be it the sidewalks slowly increasing in heat, the cars braking in the street, or the impact of football players against each other, can be measured through some form of statistics.
- The discoveries and theories that were created due to some mystery, could've been just as easily derived using statistics.
 - Newton's Law of Universal Gravitation that he "invented" from the falling apple event has been criticized for possible plagiarism from Robert Hooke who had figured out the possibility of the gravitational force's decrease separately from Newton using mathematics.
- "Statistics is the grammar of science" – Karl Pearson
 - Science and scientific discovery is intertwined with statistics
- The majority of mathematical discoveries were made and derived from pure mathematics and calculations; the concept of mystery had little to do with it.
 - Sir Andrew Wiles, who solved Fermat's Last Theorem was drawn not by the mystery of the proof-less theorem, but rather for the chance to use the number theory and the Iwasawa Theory to create a mathematically sound proof.
- The falling apple and Zeno's paradox were mysteries which provided motivation for the discoveries (Law of Universal Gravitation, infinite sums). However, the discoveries themselves were not possible without the use of statistics.

