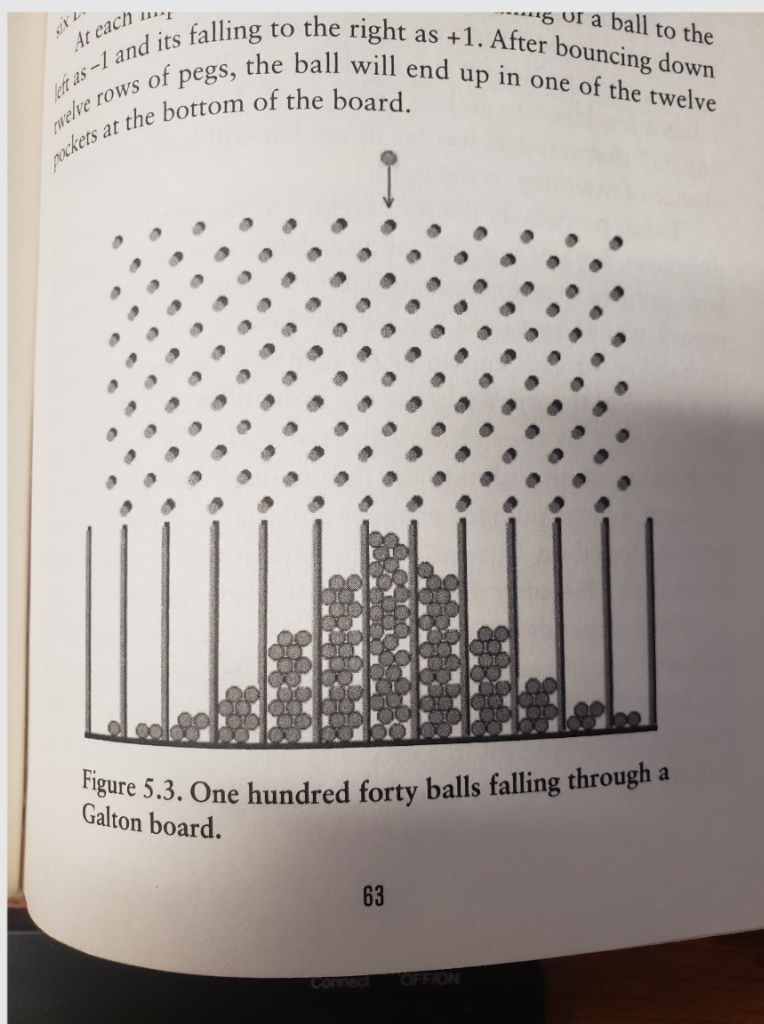


Fluke is a book on the math and myth of coincidence and was written by Joseph Mazur, emeritus professor of mathematics at Marlnoro College.

Christopher Chabris and Daniel Simon's famous invisible gorilla experiment that showed the value to perceive a visible, unexpected object while attention is focused on a task. Basketball game gorilla walks in and most people do not notice the action in the frame, because are focussed on the game.

Nineteenth-century English geneticist Sir Francis Galton constructed such a board of pegs arranged quincunically, like the dots on a die's 5 face. The point of the arrangement was to demonstrate that physical events ride on the tailwinds of chance. In the absolutely perfect Galton board, as one in which the balls always fall precisely on the absolute tops of pegs, the ball falls to the right or left as if it flipped a coin to decide. In real life, a butterfly flapping its wings over the pacific or a cow farting in an Idaho cornfield might determine that decision. Before each bounce, the outcome of the previous bounce is forgotten history; the ball no longer remembers the outcome and therefore behaves as if it had just hit the first peg. And yet the cumulative outcome seems to take into account the history of all the previous



outcomes (looks gaussian)

There is an amazing result with non-perfect coin flipping referred to as Pascal's triangle which gives a bit of insight into the chances without just p equalling q .

68 percent of area under the curve rests over one standard deviation of the mean and that about 95 percent of the area rests over two standard deviations of the mean. Another is knowing that one standard deviation is marked by the inflection points, those points on the curve where the shape of the curve changes from being concave down to concave up.

Three presidents have died on July 4, but could be attributed to that deaths can be advanced or delayed by hours or days simply by a person's will to live or die. So perhaps those early presidents (John Adams, Thomas Jefferson, and James Monroe) hung on to be around for July 4, especially Adams and Jefferson, who held out for the fiftieth anniversary of the signing of the Declaration of Independence.

Poincare's general theorem on dynamical systems predicts this. It suggests, as both Plato and Bernoulli alluded to, everything would return to its original state. Late Sir James Jeans, a renowned physicist who was knighted for his contributions to astronomy and popularization of physics, used to quip that anyone still breathing today is breathing in the dying breaths of Julius Caesar.

Sir Ronald Aylmer Fisher's blunder (How to lie with statistics). Early in Fisher's career as a statistician, he worked as an experimental agricultural station, a place that would later become renowned for the development of experimental design. He

developed what is today called the analysis of variance, established a principle of randomization, and advanced the importance of replication. Wasn't perfect and the biology genius Fisher encouraged work in eugenics.

The job of statistics is not to find causes, but rather to find suspects. Many natural relations that cannot be explained by laws or measured by observations can be linked by statistical measurements.

Carl Jung once had a patient tell him of her dream about a golden scarab. Sitting in a chair with his back to a closed window and listening to the dream, he heard a gentle tapping on the window. He turned to see a flying insect tapping the window pane from the outside, as if to get his attention. He opened the window and caught the insect as it flew in. It was indeed a scarab. Jung took this coincidence to be a model example of what he called synchronicity, the simultaneity of two events that come together in time and space by means that cannot be explained by chance.

The difficulty lies in finding the many significant hidden variables. The numbers might not look big at first, as they didn't in the case of the Francesco-Manuela meeting, but by careful examination of all the possible interacting combinations of events, those seemingly small numbers grow to be quite large-large enough to make something that seems impossible into something that is inevitable.

Joan Githers wins the jackpot 4 times odds broken down in the book and how it is not that strange that multiple winners exist.

It is better and more satisfactory to acquit a thousand guilty persons

that to put a single innocent one to death. - Maimonides

Book details why DNA fingerprinting is not that particularly good at determining if people are an exact fit for finding guilty.

US has the largest prison population in the world with just under one quarter of the whole world's prison population. Most incarcerations are for nonviolent offences. time of writing ~2.3 million federal and state prisons 37% african americans.