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Editorial

# On the Nature of İnfinitely Small Probabilities

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In the universe it is possible to observe some events, occasions with their probabilities nearly zero. They seem like miracles, how they happen and occur in nature and in the universe. Their occurence seem like impossible but they happen and are observed. When a coin is tossed upward 100 times, then what is the probability of coin coming down head, it is  $(1/2)^{100}$ , and it is usually accepted impossible. Normally it is expected 50 times head, 50 times tail. But despite all there are infinitely many events in the universe and in the nature, their probability is nearly zero or infinitely small. If one billion people toss or throw away one billions coin upward then what can be observed?

For a long time the character of chaos has been discussed and studied. Why and how they happen. Shakespeare writes a remarkable sentence in Hamlet's play. In somewhere Polonius secretly observes Hamlet and says this, "Who knows, maybe his madness has a reason".

Maybe each one event having infinitely small zero possibility must have a reason. In my country Turkey a family has baffled scientists studying the evolution of humans. Certain members of the Ulas family walk on all fours, which had not been observed in fully-grown adults before this discovery. This unusual behaviour was first documented in a 2006 BBC documentary titled 'The Family That Walks on All Fours'. The video shows the members of the family using the palms of their hands in a "bear crawl". A scientific paper has also been published, giving details about the family.

The BBC quoted Professor Humphrey, from the London School of Economics (LSE), as saying that four sisters and one brothers

were born with the unusual trait that could yield clues to why our ancestors made the transition from four-legged to two-legged animals. Their cognitive intelligent abilities are very low, at the period of human evolution before human erectus. Normally what is the probability of this event or observation, but it happens [1].

What is the probability of siamese twins, one body with two heads, and some chaotic occurences in physics, cosmology etc. In Gabon country in Africa nuclear experts observed discovered a naturally occured nuclear reactor. Physicist Francis Perrin sat at a nuclearfuel-processing plant down in the south of France, thinking to himself: "This cannot be possible". It was 1972. On the one hand, there was a dark piece of radioactive natural uranium ore, extracted from a mine in Africa. On the other, accepted scientific data about the constant ratio of radioactive uranium in ore.

Examination of this high-grade ore from a mine in Gabon was found to contain a lower proportion of uranium-235 (U-235) — the fissile sort. Only a tiny bit less, but enough to make the researchers sit back and scratch their heads. And again what is the probability of this natural nuclear reactor, but it happens or let it be.

In medicine in the World so many random events occurences symptoms are being observed, recorded, discussed and analyzed. Briefly around us, in the nature, in the universe so many infinitely many (billions billions billion ..... billions) events happen each moment. The occurence probability of some of these events is infinitely small or nearly zero, beyond human perception intelligence. Human intelligence thinks or assumes them impossible. But infinitely many events with nearly zero probability results in remarkable observations [2].

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