Random Universe: A Lot of Flap?

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It has been noted by climate scientists and others that a butterfly flapping its wings in Brazil could give rise to a hurricane somewhere else on earth. This is due to the fact that small, almost imperceptible differences in initial conditions are amplified over time without bound.

It must also be true that an atomic scale event inside a neuron of the nervous system of a butterfly could also result in it flapping its wings or not. Since events on the atomic scale are subject to randomness as described by quantum theory, one must conclude that a large degree of randomness is “baked into” the nature of the material world. It would seem

to be a fools errand to expect that everything can ever be perfectly in order here.

The above raises an interesting question however. What would the world look like if there were no randomness in atomic scale events? Would it even remotely resemble the world we live in now? This question runs too deep for me to even know how to approach it. Food for thought.

—Ron Theriault
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