

Everything in the universe is destined to die

by Mark Pavilons

We live, only to one day perish.

Seems a bit crappy, no?

And yet, everything we know here on earth and in the cosmos is destined to dwindle, decay and die out.

It seems to be the order of things. And yet I wonder about it all. It seems like a tremendous amount of effort went into creating the universe some 14 billion years ago. What a shame it would be to see it all crumble and fall apart. Granted, that may not happen for another 14 billion years.

But astronomers have already witnessed doomed, dying and dead stars, who've outlived their usefulness in the grand scheme of things.

Again, with such order, precision and synchronicity, one has to wonder why such a magical tapestry wouldn't last forever.

I imagine that's a question for the Creator to answer.

Albert Einstein said our death is not an end if we can live on in our children and the younger generation. For they are us; our bodies are only wilted leaves on the tree of life. Death is a rather simple process. For all biological life forms, our cells progressively decline.

That's just how it is.

All biological lifeforms are subject to this one universal reality. In fact, they're all geared for it. Biology is driven by a survival of the fittest strategy, a plan that produces the most successful offspring. So that means sending out as many seeds, eggs and babies as possible, so the species may survive.

Once the individual has reproduced, its only evolutionary role is to support the success of its offspring. Aging longer is just not something evolution considers. Given limited environmental resources, the offspring often do better if the older generation doesn't stay around forever, competing with younger generations for scarce resources.

Funny, eh? That right there explains all those old folks jokes and sending parents off to the home.

From an evolutionary standpoint, mortality is an inherent aspect of life that benefits the species. Organisms don't spend a lot of resources on repair and maintenance mechanisms once their reproductive years are past. This strategic allocation ensures the propagation of genes, even at the cost of individual longevity.

Natural selection primarily acts on traits that enhance survival and reproduction up to and during the reproductive age. Once an organism has successfully passed on its genes, the evolutionary pressure to maintain perfect health indefinitely significantly decreases. This explains why aging and death are common in the living world.

So then death becomes a vital part of this circle of life.

Death allows for generational turnover, which enables species to adapt more quickly to changing environments through natural selection. The removal of older, less adaptable individuals makes way for new generations with potentially beneficial genetic

variations. This continuous cycle supports the long-term survival and evolution of the species as a whole.

There are numerous examples in nature where creatures (mothers) die after giving birth or raising their young. That was their intended purpose all along.

Whether an octopus has the intelligence to understand this is unknown ? they're quite bright, you know.

Neil deGrasse Tyson said this whole process may seem unfair, almost cruel. But it's part of the design, a constant movement of energy.

Evolution, by its very nature, replaces the old with the new.

Impermanence, he said, is not a flaw, but a rule of reality itself written into the laws of physics.

Life exists as temporary pocket of order, like a candle burning before going out.

Even dead stars ? crushed into dust ? are recycled into new planets.

Immortality, he noted, would be dangerous because life is built on renewal ? new forms arrive on the ashes of the old.

So we humans have been chasing our tails, trying to find the fountain of youth, in order to live forever. But that's impossible, given the above information. If the universe was built on birth, life, decay and death, there's no way around it. We can't cheat it.

Of course, evolution can take millions of years, so what we reap today may not show up for many generations.

Will we grow shorter legs because we're using scooters to take us from place to place??Will our arms grow longer to facilitate even more selfies??And will our thumbs grow long and strong to accommodate our texting abilities?

deGrasse Tyson also pointed out that the very cells in our bodies are as old as the earth itself.

Every day, every hour, every second one of the most important events in life is going on in your body ??cells are dividing. When cells divide, they make new cells. A single cell divides to make two cells and these two cells then divide to make four cells, and so on. We call this process cell division and cell reproduction because new cells are formed when old cells divide. The ability of cells to divide is unique for living organisms.

But wait, my friends. Doesn't that mean these cells have lived continuously for billions of years??Not immortal, but hey, not bad.

So maybe some things do live forever. A tiny bit of Mark will carry on in the next iteration of skin cells or taste buds or ashes, or bits of energy floating away from my body.

Wait, there's hope. It seems that protons ??those little basic building-block of matter ??o last forever. They make up the bulk of atoms in all matter. If they don't die, then neither do we.

Is death merely another beginning? That is the question.

According to author J.K. Rowling, ?to the well-organized mind, death is but the next great adventure.?

Peter Pan had a similar take on the final journey: ?To die will be an awfully big adventure.?