

Making the Case for a Creator

First there is the “fine-tuning problem” - the observation that the laws of the universe seem custom-tailored to favour the emergence of life. Tweak the laws of physics in just about any way and life as we know it would not exist. For example in chemistry generally two molecules combine because the resultant compound is more stable than the two constituents. Hydrogen and Oxygen combine to form water and if you want to split H₂O back into H₂ and O₂ you have to input a lot of energy. The DNA molecule - essential to life - is an exception to this rule. It is in the form of a double helix which is so finely balanced that it can easily “unzip” into two complimentary strands. Each strand then serves as a template for the production of its counterpart - the necessary elements attach themselves resulting in two identical molecules each composed of an original DNA strand as well as a newly synthesized strand.

Another example of fine tuning is the freezing of water. Other things contract and get more dense as they get colder and so does water until it reaches 4°C, but between 4° and 0° it expands which is why Ice forms on the top of water. If it froze from the bottom up life could not have evolved in our oceans the way it did. In fact it is something of a mystery why H₂O is a liquid rather than a gas. If it wasn't life would not exist.

Our sun is a medium sized star, one of perhaps 200,000 million stars in our Galaxy. It produces heat due to nuclear fusion. Essentially the simplest element of all and the most abundant in the universe is Hydrogen. In the sun hydrogen atoms are combining to produce Helium atoms releasing heat in the process. When it runs out of Hydrogen, Helium atoms will combine to form Lithium atoms and so on. Essentially a star synthesises heavier elements out of lighter ones but this process runs out of steam and cannot create heavier elements. Science tells us that the heavier elements are produced in a super-nova explosion - when a star explodes. Many elements which form the building blocks of life have been produced in such an explosion and one can legitimately say that we are made of star dust. If there is no creator we have to assume that we exist due to a lucky accident whereby the right mix of elements floating through space - the result of ancient very distant explosions - ended up forming our earth just the right distance from the sun.

Genetic mutation and natural selection result in living creatures changing, and adapting to their environment. **That evolution takes place there can be no doubt** but the assumption - and it is an assumption - that this simple mechanism can explain all life on this planet does not stand up to reason or mathematical analysis. This has not prevented the theory of evolution being accepted as “scientific truth” – to be questioned only by fools. It is portrayed as a choice between evolution and fundamental Creationism as the latter is easy to dismiss.

There is no problem with Mutation/Natural selection modifying existing structure in an organism. The problem arises when an animal, believed to have evolved from an earlier prototype, has a novel feature not present on the prototype. Evolution is simply nature's version of selective breeding and while we appear to be able to breed a dog any shape we like, could we breed a dog with (say) horns? Something which would require a new gene rather than a modification of an existing gene. Now theoretically this is possible. There is a lot of junk DNA in the genome where random mutations can accumulate and the possibility exists that a gene may be produced by chance which provides a novel feature. This is where we have to look to mathematics. It is analogous to the idea that an infinite number of monkeys randomly typing will produce the complete works of Shakespeare or more realistically a very large number of monkeys randomly typing will eventually produce something which makes sense. Intuitively, with a very long time scale - the evolutionary time scale is about 4000,000,000 years - the idea of a novel gene looks reasonable.

However Intuition is unreliable so let's try the monkey analogy with real numbers. Lets have 30 million, million monkeys. Give them a simple keyboard with only 30 keys to

increase the chances. Have them hit the keys twice a second for a million million years and ask how much Shakespeare they would produce. Surprisingly the answer is they would produce no sentence longer than “much ado about nothing” in computer terms about 14bytes of information.

30 million, million monkeys is analogous to the number of breeding females in a population so would suggest a total population of say 80 million million - a factor of 4000 more than the human population which is a pretty successful species.

Hitting 2 keys a second is equivalent to every female giving birth twice a second **and** every birth resulting in both a mutation and a viable offspring – many mutations are catastrophic and don't result in a viable offspring. The fastest reproducing bacteria takes 10 minutes and mutations are far less frequent than one per birth.

A “million million years” is a factor of 260 longer than the evolutionary time scale, and more than 70 times longer than cosmologists say the universe has existed.

I recall David Attenborough saying "the insect developed lumps on its shoulders and these evolved into wings" = the dragonfly. Sorry David but I don't think so.

Then there is the life cycle of the dragonfly where at one stage the genetic material of a small underwater predator completely re-arranges itself into an elegant flying insect. Evolution requires small changes building up over time. How can such a life cycle evolve in small stages? It defies reason. Dawkins once said “It seems impossible that some things could have evolved - *but of course they must have done*”. That is a statement of faith and is not how science works.

The mechanism of random mutation and natural selection alone is insufficient to explain life on this planet. **Evolution has been given a helping hand**. It has been **initiated**, and periodically **tweaked** by a creator. He seems to have taken an existing animal and tweaked it to produce Man - a larger brain being the most obvious modification. Uniquely in the animal world he has made mankind capable of appreciating creation and of relating to him. It appears that he has given us a built in need to connect with him. What Pascal described as a “God shaped hole in our hearts”. History shows that every human society has responded to that need although it must be said that in every society there have been people who have exploited that need in others for their own benefit. It is not unreasonable to assume that he has tried to influence our behaviour but I personally would not arrogantly assume that the religious text which guides me is the result of his only intervention. I think we should respect other religions and build bridges.

John Kennaugh

