

Darwin's teaching on evolution can be summed up in one short phrase: species change by random mutation followed by natural selection. In short, this means that random mutations keep occurring when any plant or animal reproduces, but that the law of "survival of the fittest" weeds out any harmful mutations and encourages the useful ones.

In a bit more detail: random mutation means that, given time, any possible change will occur in a species; some offspring will be produced with any possible characteristic<sup>1</sup>. Natural selection then applies: if the change is advantageous in the struggle for survival, then the individual will grow to maturity, reproduce, and pass on the mutation to its offspring. Eventually the new feature will spread throughout the rest of the breeding population.

If the mutation is in any way disadvantageous, then it will disappear within a few generations or even just one.<sup>2</sup>

Now all this makes perfect sense provided you stick to considering a few selected examples. Darwin did most of his breakthrough after his tour of the South Seas and his study of the enormous variety of plants and animals he found there. His successors point to animals which can run fast to escape predators, or have developed camouflage colouring to hide themselves from predators. You may remember, if you did Biology at school, seeing a chart of how the legs of horses changed over time from five-toed to one-toed, and lengthened while they did so.

However, if we look at a few other cases, this view begins to fall apart. Across England and south-east Scotland, you can find Carrion Crows. These are pure black from beak to tail. Such is the advantage in being all black that any brown, green or grey crows have been eliminated by natural selection; and if any have been born – as the law of random mutation states they will have been – then they have not survived.



**Carrion Crow**



**Hooded Crow**

In the north and west of Scotland, you will find Hooded Crows. These live identical lives to Carrion Crows, but their bodies are light grey with black heads and wings. So disadvantageous is it to be black, that any all-black Hooded Crows have been eliminated by natural selection. So what is it that happens half way across Scotland that makes being all-black the best colour on one side, and grey and black so much better on the other?

Consider the blackbird. It is pure black with an orange bill; or at least the male is. The female is dark brown. Yet in its close relative, the song thrush, both sexes are light-brown and speckled. Why?

I could keep this up with endless examples of bird coloration. The plain truth is all bird sizes, shapes and colours are both striking and strikingly consistent, and no-one can explain why. Saying that it is because females

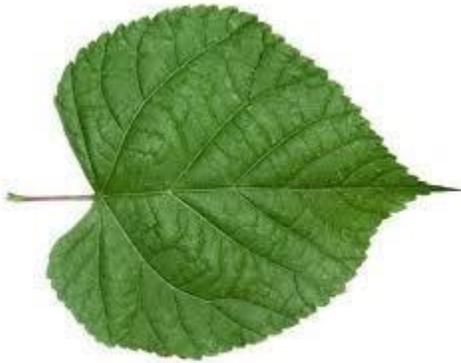
<sup>1</sup> There are a few examples of "fatal genes" – those mutations which kill the organism before it develops – but these are not common.

<sup>2</sup> Modern biology has shown a number of other factors are involved, like the mother's cell and the environment. Some biologists claim it is time for a radical rethink of the driving forces of evolution. However, no-one has suggested that random mutation followed by natural selection is *not* the main part of the process. See chapter 11 of *How Evolution Explains Everything About Life* in the New Scientist *Instant Expert* series for a discussion of this.

prefer males like that is no explanation. Why has natural selection eliminated all females with different tastes?

Nor can biologists explain why in some species the sexes are similar, but in others they are different. If you read a description of any bird species it will simply say “sexes similar” or “sexes different”, and leave it at that. Yet if we have discovered the driving force of evolution, we should be able to explain bird colours, and why sexes are the same or different.

Or consider flightless birds like the kiwi. Any of their species which can or could fly have been eliminated. Yet I defy anyone to demonstrate that there is an advantage in having wings and being flightless, as opposed to having wings and being able to fly!



Lime tree leaf



Oak tree leaf

If we look at plants the situation just the same. Take a walk through the nearest wood. A lime tree has roughly heart-shaped leaves. So advantageous are heart-shaped leaves that any lime tree with different leaves has not survived. Next to the lime tree is an oak. This has lobed leaves. So advantageous is this shape of leaf that any oak tree with a different type, say with heart-shaped leaves, has failed to survive. Next to the oak is a sycamore. This has leaves with five pointed lobes. Any

sycamore with heart-shaped leaves ... well I hope I have made myself clear. If we follow Darwin's view then every type of leaf on every tree must be better than every other type; which is a logical contradiction. Or, if they are all of equal value, then why are there no oak trees with leaves like lime, sycamore, chestnut or whatever? Or why is that shape of leaf perfectly suited for oak trees, but for no other trees?

The law of random mutation states that at some time an oak must have been produced which had leaves like a lime tree. But it has not survived. The same applies to lime trees which had leaves like an oak, or beeches with leaves like chestnuts, or any other type of tree which had leaves like another. The same law states that at some time carrion crows must have been born which were red, blue, yellow, green, brown, striped, spotted, and all other colours and patterns. Not only has no such bird survived; no-one has ever seen one. Any zoo would pay a fortune for such a bird! There has not even been a carrion crow with patches of grey on it, like a hooded crow. That at least should have survived.

The whole test of a scientific theory is if it can make predictions which cannot be made without it. The clinching proof of Einstein's theory of relativity was that he predicted that light would bend as it passed the sun; something no-one had thought of before. When it was found that light did bend as it passed the sun, his theory was taken up with enthusiasm by the scientific world.

Tell any ornithologist there is a bird which he has never seen before, and describe its entire life-cycle. Then ask him what colour it is. He will be unable to tell you. Or describe to a botanist a tree he has never seen, giving every detail about it except the leaves, and then ask him what shape the leaves are. He will not be able to tell you. There is something wrong here. If we have discovered the driving force of evolution – why plants and animals are like they are – then we should be able to make predictions based on that theory. Natural selection means that the environment shapes any plant or animal by making it easier or more difficult for it to reach maturity and breed. If we describe the environment to a biologist,

then he should be able to tell us what the plants and animals in that environment are like. Yet with something as striking and consistent as bird colours, he will be unable to do so.

In fact Darwin's theory will only make sense if there is another factor or factors at work: something which is causing uniqueness and consistency. Some factor caused the oak to have its own unique type of leaf, and having got it, to keep it. There is no logical reason for an oak not to have leaves like a lime or any other tree. Random mutation might account for oaks developing their unique leaves to start with, but it cannot explain why oaks have remained with that leaf shape ever since. In fact random mutation suggests that by now oaks should have developed all types of leaf, as all are equally viable.

So something or some factor has decided that blackbirds should be black; that oaks should have leaves of that shape, limes of another shape, in short all birds and trees have their own unique characteristics. So what is it? I suggest that science, clinging to Darwin's ideas, has prevented itself from developing any real understanding of why living things are the way they are.

In the footnote on page 1 I have referred to the book *How Evolution Explains Everything About Life*. It would be hard to imagine a more pretentious and dishonest title. Evolution, as understood today, can explain virtually nothing about life. It can explain why horses developed legs with just one toe, but nothing about the rest of the horse. E.g. Why do horses have manes? Nor can it explain why deer, which also run from predators, run successfully on two toes.

I do not know how many characteristics there are in a plant or animal, but it must run into the millions: shape, size, colour, physiology, life-history, and (in animals) behaviour and mating habits. Whole books have been written describing one animal, and not exhaustively at that. If a biologist is lucky, he will be able to explain one or two characteristics by natural selection, but the other millions he can not. Something fundamental is missing from our understanding of evolution.

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