

but a highly integrated, wonderfully adapted organism. The scope for error is enormous, the consequences of error disastrous. One well-known single mutation in feather development degrades the structure so that it becomes useless for flight and, in addition, no longer insulates efficiently against heat loss, so that without careful attention the bird soon dies of hypothermia. We are all of us only too aware of the human tragedies around us caused by occasional mutations not quite harmful enough to kill before birth. What sort of scale of changes could be tolerated in Darwinian evolution without causing problems? Evolutionists have sometimes faced this issue by speculating about 'hopeful monsters', gigantic evolutionary leaps, but there is not a shred of evidence that these are feasible.

Life as information

A living organism is in some ways like a complex assembly of pieces of information, which together form a living creature; make nonsense of one part and the rest suffers. As a sort of parallel, consider the sentence, "Caesar crossed the Rubicon". It conveys information; we could scarcely rearrange the word order and retain the sense, and if we make a few minor letter 'mutations' the sense disappears. "Caesar grossed the Rubicon" actually contains words that have meaning, but the sentence has become meaningless, both as a statement of an historic event and indeed as a statement of any kind. Change a few more letters and all sense goes. We could write millions of sentences of the same length using

the letters of the alphabet, but only a few would convey meaningful information, the rest would be strings of letters without sense.

Living creatures are rather like the sentences that have meaning; the same building blocks—molecules—go into all their make-up, but only a limited number of combinations are known to function and live. A bird's wing and a reptile's foreleg are homologous structures in comparative anatomy, but there are no stages intermediate between the two that are credible, imaginable and functional; no one has any facts to suggest how even feathers might have evolved. The two organs are like isolated islands with no known way to bridge the gulf between. The weakness of all models of evolution is that they must argue that there can be a continuous accumulation of mutations, none conferring any serious disadvantage, allowing the gaps to be bridged. The facts remain, however: the vast majority of mutations are harmful, and no intermediates are known.

So computer simulation seems just one of several newer approaches trying to buttress Darwinian evolution, including comparative anatomy with nucleic acids and proteins. They appear to be designed to reassure groups of evolutionists who, after 130 years of seeking, seem no nearer to finding the data they need to transform Darwinian evolution from theology to scientific theory. They are for all the world like an enthusiast about prophecy who declares that Jesus will come at a set time and, when he does not appear, asserts that he has come, as predicted, but invisibly.

Galaxy red shifts and the origin of the universe*

David Burges

THE BIBLE declares plainly that God created the stars of heaven, which, grouped together into a vast number of galaxies, compose the visible universe:

"Thus saith God the LORD, He That created the heavens, and stretched them out . . ." (Isa. 42:5);

"I, even My hands, have stretched out the heavens, and all their host have I commanded" (45:12);

". . . Which alone spreadeth out the heavens . . . Which maketh Arcturus, Orion, and Pleiades, and the chambers of the south. Which doeth great things past finding out . . ." (Job 9:8-10);

"He made the stars also" (Gen. 1:16).

The world of science does not accept the notion that these things are "past finding out", and

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the branch of science known as cosmology seeks to find explanations of both the origin and the subsequent history of the universe.

The currently accepted hypothesis is that originally all the matter of the universe was condensed into a single, extremely dense 'ball'. The explosion ('Big Bang') of this primeval ball began the outward expansion of its material, which subsequently recondensed into the galaxies and their individual stars under the influence of gravitational attraction. (The *origin* of the super-dense ball and the *cause* of the Big Bang are generally considered to be beyond the scope even of cosmologists.) The residual effects of the Big Bang are supposedly seen today in the 'background radiation' that seems to be distributed evenly throughout space, and in the expansion of the universe as the galaxies continue to fly apart.

The importance of the red shift

The cornerstone of this cosmological theory is the 'red shift' observed in light coming from the distant galaxies. Lines in the spectra of galaxies are displaced from their normal wavelengths (as observed in the laboratory) towards the red end of the spectrum (that is, to longer wavelengths), and the shift is greater for fainter and supposedly more distant galaxies. This is *interpreted* as an effect due to the expansion of the universe itself, somewhat akin to the familiar Doppler effect, which we have all heard as the fall in pitch (increase in wavelength) of the sound of a passing siren. The greater the velocity at which a galaxy is receding, the greater its red shift will be. In the 1920s the astronomer Edwin Hubble derived a 'law' relating the red shift of galaxies to their distance. The red shift is in fact normally now expressed by astronomers as the *velocity* with which a galaxy is receding, and it is taken as certain that the fainter, more distant galaxies are receding at higher velocities.

However, more than ten years of painstaking study of red shift values by W. G. Tifft of the University of Arizona has produced the surprising result that red shifts appear to be 'quantised', that is, they favour certain preferred values which

are multiples or sub-multiples of 72 kilometres per second.¹ If the red shifts were simply the result of velocities produced by the Big Bang, naturally a whole range of values would be expected. There is at present no accepted explanation of the quantisation effect, and some subsequent reviews appear to have ignored it altogether.² Yet, as the *New Scientist* reviewer points out, it might mean that there is actually very little motion of galaxies relative to one another—in other words, that the expansion of the universe is merely an illusion. Tifft himself in fact believes that the red shifts may be due to properties of the galaxies themselves. And if so, to quote Gribbin, "this throws the whole of modern cosmology out of the window!"

In our modern technological world the theories of scientists in areas such as cosmology and evolution, which attempt to explain the past, are presented with considerable confidence, based upon supposedly firm observational evidence. As a result we may be deluded into thinking that they have to be accepted, and that the Word of God must be made to fit in with them. The truth is that, as with the example above, many of these theories are little more than speculations, the products of men attempting to discover things "past finding out". It is the Word of God that, being the revelation of the Creator Himself, contains all that man is likely to know or be able to find out about the origin of the universe. To us today, as to Israel of old, God declares through His prophet:

"I am the LORD That maketh all things: That stretcheth forth the heavens alone; That spreadeth abroad the earth by Myself; That frustrateth the tokens of the liars, and maketh diviners mad; That turneth wise men backward, and maketh their knowledge foolish" (Isa. 44:24,25).

1. "Galaxy red shifts come in clumps", *New Scientist*, 20 June 1985. Review by J. Gribbin of papers by Tifft and co-workers in *Astrophysical Journal*.
2. E.g. "Astronomy goes automatic", *New Scientist*, 17 April 1986.

As the creation record in Genesis was accepted as a true record by the Divinely inspired writers of the Bible, and endorsed by none other than Jesus Christ, it must not be dismissed as a primitive Hebrew myth. Indeed, the whole of the Divine purpose for the earth and for man, as revealed in the Bible, is based upon the events of the Genesis record. Disbelief in Genesis results in a future of hopelessness for both the planet and its passengers.

John Collyer, *Creation, Evolution and Science*, 1993, p. 21